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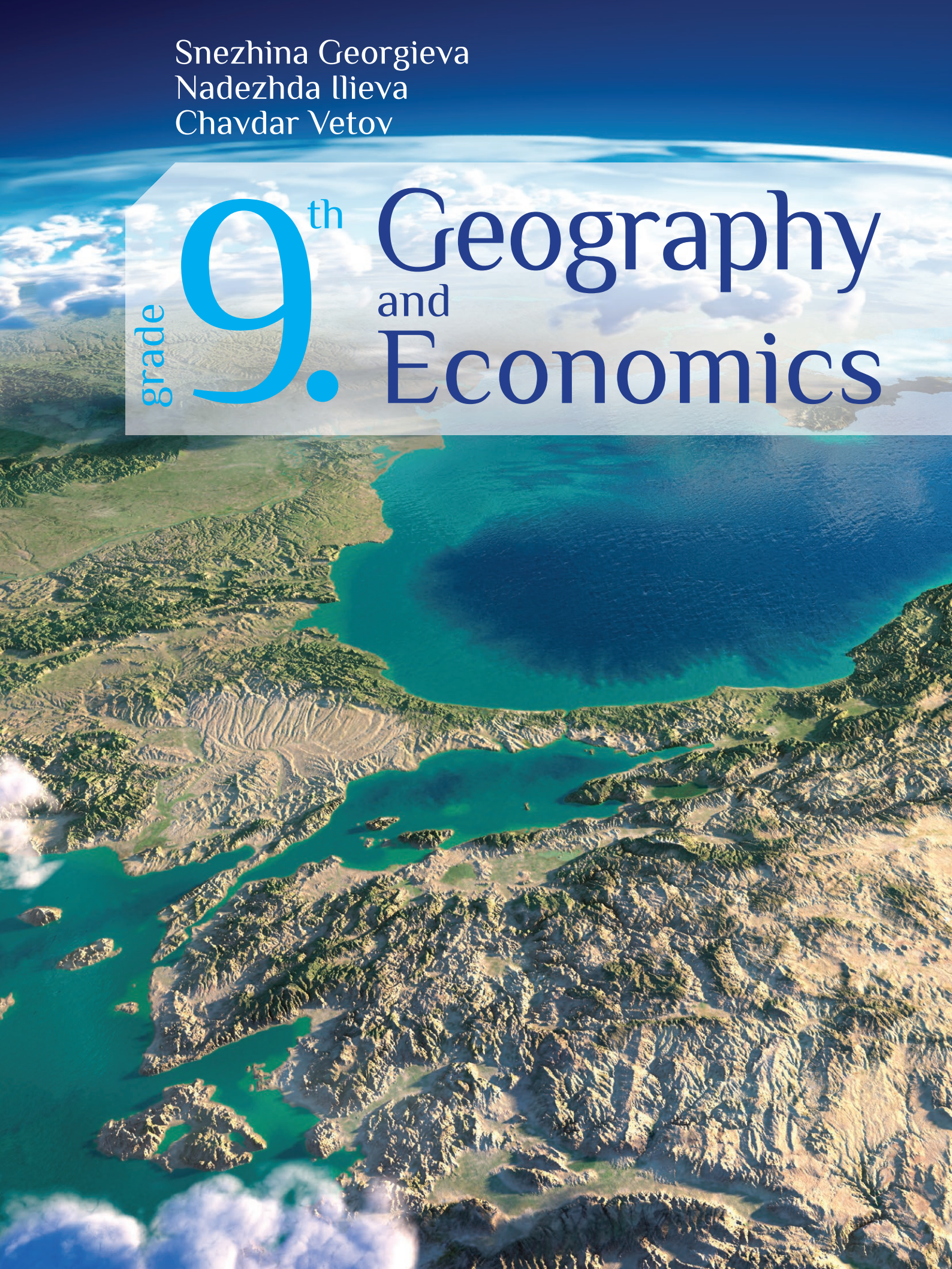
grade 9th Geography and Economics



МИНИСТЕРСТВО НА ОБРАЗОВАНИЕТО И НАУКАТА

НАЦИОНАЛНА ПРОГРАМА

„Разработване на учебни помагала и на методически ръководства, оценяване и одобряване на проекти на учебни помагала за подпомагане на обучението, организирано в чужбина, на проекти на учебници и на проекти на учебни комплекти“

МОДУЛ

„Разработване на учебни помагала за обучение по общообразователни предмети на чужд език“

9. клас География и икономика на английски език

с интегрирани уроци по история и цивилизации

Учебно помагало

Разработено от авторски екип към 105. средно училище „Атанас Далчев“, гр. София

АЗ·БУКИ

Национално издателство за образование и наука

География и икономика на английски език за 9. клас
с интегрирани уроци с история и цивилизация
Учебно помагало, разработено от авторски екип
към 105. средно училище „Атанас Далчев“, гр. София
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Автор на графичния дизайн: Гергана Благоева Стоилова, 2020 г.

Национално издателство за образование и наука „Аз-буки“
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Графично оформление корица: Гергана Евгениева Попиванова
Първо издание, 2020 г.

Формат: 210x280мм; 162 страници
e-ISBN: 978-619-7065-41-1

Уважаеми ученици,

Това учебно помагало по география и икономика на английски език с интегрирани уроци по история и цивилизации за 9. клас е създадено с труда на сърцати учители, за да помага на всички вас в нелеката задача да изучавате най-интересния учебен предмет в училище на английски език. Географията е най-динамичната наука, защото разказва за света около нас такъв, какъвто го виждаме всеки ден, но често не го разбираме.

Ако географията е най-широко отвореният прозорец към света, то английският език е най-широко отворената врата към него. Ние следваме мотото на устойчивото развитие – **„To meet the needs of the present without compromising the future generations to meet their own needs!“.** Следвайте го и вие!

Постарахме се да го създадем на достъпен английски език, за да учите по-лесно и интересно. Включили сме и QR кодове, които да ви водят към най-кратките, но и най-образователни ресурси в Youtube.

Създадохме и Youtube канал на помагалото, където са достъпни в MP4 формат кратки учебни видеа и презентации към учебното помагало, QR кодът за канала е на тази страница.

Всеки урок започва с цитат или мисъл, която води към добрите нрави на съвременното общество и да ви напомня, че вие трябва да ги следвате, спазвате и развивате. Помагалото също има своето мото. То е част от реч на Джон Фицджералд Кенеди, 35-ят президент на Съединените американски щати. Според нас, мотото на учебното помагало изразява всичко, на което трябва да ни учат географията, историята и икономиката.

„Geography has made us neighbors.
History has made us friends.
Economics has made us partners,
and necessity has made us allies.“

John F. Kennedy

От авторите

СЪДЪРЖАНИЕ

THE EARTH AS A PLANET

And yet it moves! */Galileo Galilei/*

LESSON №1

Size and shape of the planet. Special lines on the globe. Longitude and latitude

The Earth is not a perfect sphere because it is flattened at the poles and convex at the Equator. This is due to the centrifugal force created by the earth's constant spinning. Its surface is irregularly shaped because of the diversity of the relief with high mountains, numerous plateaus, long and deep valleys, plains and hollows. The difference in the radiuses* to the poles and the Equator is about 21.3 km /**Fig.1**/ and the difference in the circumference of the planet across the poles and the Equator is about 67 km. /**Fig.2**/

Fig.1

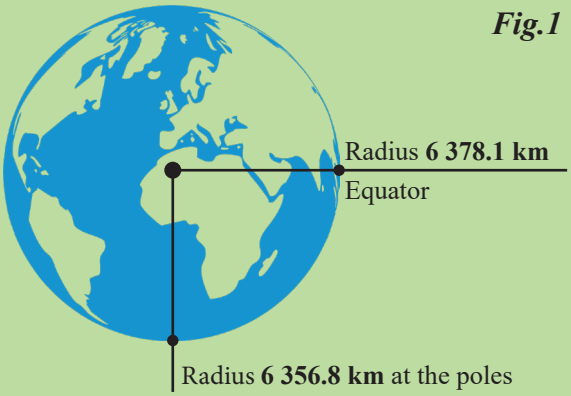


Fig.2

The Earth does not have a geometrically perfect shape; it is established as an **irregularly shaped ellipsoid**. Its shape is dynamic and it sometimes changes slowly and steadily, but it sometimes changes violently during events such as meteor strikes, volcanic eruptions or earthquakes, landslides or anthropogenically. Another term that describes the earth's shape is geoid. Geoid means sea level and it is used to measure surface elevations with a high degree of accuracy.

Fig.3

How do we locate places in the world? We use a grid system just like in Mathematics. Every point on the globe has unique coordinates that include a certain point of latitude and a certain point of longitude, measured in degrees. Lines that run across the globe from west to east are called lines of latitude or **parallels** /**Fig.3**/. The Equator is **the longest line** of latitude on Earth. It divides the world into northern and southern hemispheres. From the Equator to each pole is 90° or 90 parallels. Each degree of latitude is one parallel. Special lines of latitude are the **Tropic of Cancer** that is situated on **23°30´ North** and the **Tropic of Capricorn** on **23°30´ South** of the Equator. The Tropics were marked off because they are places within the hemisphere where it is possible to have the sun directly overhead – sunrays fall exactly of 90° at a right angle because the Earth's axis is tilted at 23°30´. Other special lines of latitude are the **Arctic Circle**. It is located on **66°30´** North and the **Antarctic Circle** on **66°30´ South** of the Equator. They are special lines where the sun can remain above or below the horizon for 24 hours, and people, who live along these imaginary lines, can experience very long nights during the winter and very long days during the summer.

Lines of longitude run up and down and are called **meridians** /**Fig.4**/. They are halves of circles from pole to pole. There are 180° or 180 meridians to the East from the Prime Meridian, as well to the West. **The Prime Meridian is 0° of longitude** and is in Greenwich, England. The Prime Meridian divides the globe into western and eastern hemispheres. The line on the opposite side of the globe to the Prime Meridian is called the International Date Line. All meridians are imaginary straight lines but the International Date Line is curved. This is because date-line is not defined by the international law and the countries which are located on the International Date Line are free to choose the date and time zone that they want to observe. If you **cross** the International Date Line **from west to east**, you will **lose** a calendar day. If you **cross** the International Date Line **from east to west**, you will **add** a calendar day.

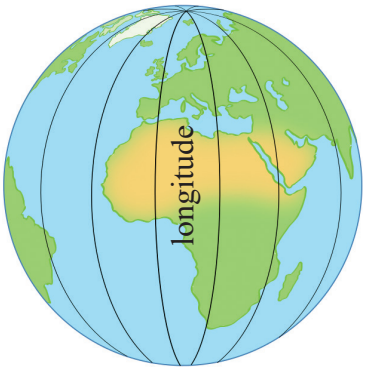


Fig.4

LITERACY TASK

Match the term with the number of its right definition 1-8:

TERMS	№	DEFINITIONS	№
geoid		Caused by human activity	1
centrifugal force		An imaginary straight line that runs through the poles and is tilted at an angle of about 23°30′	2
anthropogenically		means sea level and it is used to measure surface elevations	3
elevation		The distance of a place to the east or west of the Prime Meridian	4
latitude		The energy of an object trying to go in a straight line when it cannot, because of the earth's constant spinning	5
longitude		Height above or below a fixed reference point or sea level, **altitude**	6
Earth's axis		The distance of a place to the north or south of the Equator	7

SKILLS TASK 1

1. Why is the International Date Line curved?
2. Given that 24 hours is equivalent to the Earth rotating 360° of longitude, how many degrees of longitude are equivalent to 1 hour? How much time, in minutes, is equivalent to 1° of longitude?
3. Use your atlases to find out names of countries that are located on the Arctic Circle and on the International Date Line. Are there any countries located on the Antarctic Circle?
4. Calculate the actual length of one degree of latitude in kilometers.
5. Click on Google maps and check your location and use MapQuest to get the coordinates of a point.
6. Define the latitude and longitude of Bulgaria by using apps on your phone.

LESSON №2

Earth's rotation and revolution

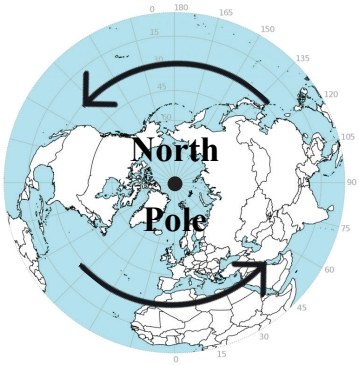


Fig.5

Earth's rotation is the spinning of the planet around its axis. A day is defined as the time it takes the Earth to rotate completely around its axis and results in 24 time zones. The direction of this movement varies with the viewer's position. If you could look down at the Earth's North Pole from space, you would notice that the direction of rotation is counterclockwise **and from the west to the east** /**Fig.5**/. Earth's surface moves at the Equator with the velocity of about 467 meters per second or over 1675 km per hour. In 1884 the world was divided into 24 time zones and each time zone is 15° wide in latitude. Time zones are modified for political, social and economic reasons and are not straight lines as the meridians.

Greenwich Mean Time or Coordinated Universal Time (GMT or UTC) is the international standard of civil time. Standard time within most time zones is an integral number of hours, maintained by very precise "atomic clocks". You can work out the time in every location on Earth, if you know how many degrees it is east or west of Greenwich. The longitude of Greenwich is **0°0′0′′. Central European Time (CET)** is an hour ahead of UTC. **Eastern European Time (EET)** is the time zone of Bulgaria **and it is two hours ahead of** UTC.

If you travel **east** of Greenwich, you will **gain** an hour for every time zone. If you travel **west** of Greenwich, you will lose an hour for every time zone.

Daylight Saving Time (DST) or **"summer time"** is the practice to set clocks forward by one hour in the spring and back in autumn. Technology software adjusts clocks automatically. The European Parliament voted in favor of removing DST permanently and the year 2021 will be the last year for European Union member states to follow DST.

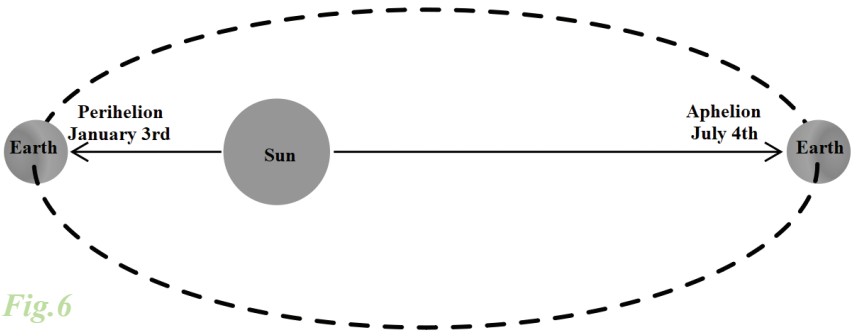


Fig.6

Revolution of the Earth is the movement of the planet around the Sun for a period of a year, causing seasons to occur. It takes the Earth a **tropical year** to orbit the Sun. Its length is approximately 365 days and 6 hours. **The civil (calendar) year** is 365 days. **The leap year is 366 days. The Earth's distance from the Sun** varies over the year. The closest position of our planet to the Sun is on January 3rd and it is called perihelion, the farthest position is on July 4th and it is called aphelion. /**Fig.6**/

On June 21st or 22ND The North Pole is inclined to the Sun by **23°30′**. This position is called summer solstice and is defined as the beginning of the **summer** and **the longest day** in the Northern Hemisphere, but contrariwise in the Southern Hemisphere. /**Fig.7A**/

On September 22nd or 23rd neither pole is tilted toward the Sun. This position is called autumnal equinox and is defined as the beginning of the **autumn** in the Northern Hemisphere, but contrariwise in the Southern Hemisphere. On the date of the autumnal equinox the length of the day and night is equal, regardless of latitude. /**Fig.7B**/

On December 21st or 22nd The South Pole is inclined to the Sun by **23°30′**. This position is called winter solstice and is defined as the beginning of the **winter** and **the shortest day** in the Northern Hemisphere, but contrariwise in the Southern Hemisphere. /**Fig.7C**/

On March 20th or 21st neither pole is tilted toward the Sun. This position is called vernal equinox and is defined as the beginning of the **spring** in the Northern Hemisphere, but contrariwise in the Southern Hemisphere. On the date of the vernal equinox the length of the day and night is equal, regardless of latitude. /**Fig.7D**/

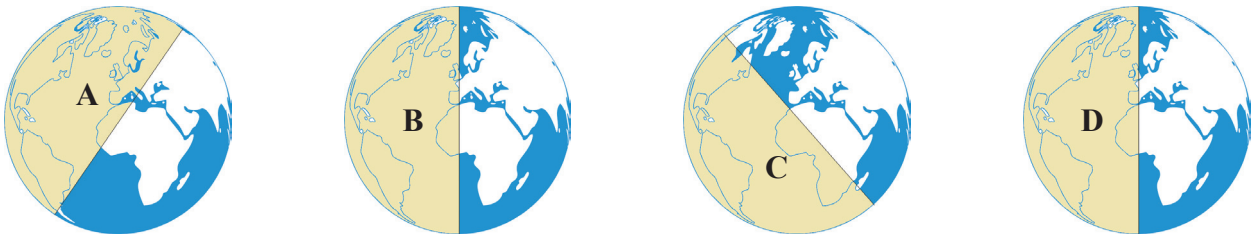


Fig.7

LITERACY TASK

Match the term with the number of its right definition 1-8:

TERMS	№	DEFINITIONS	№
counterclockwise		the movement of the planet around the Sun for a period of a year	1
UTC		the speed of an object in a given direction	2
velocity		a direction opposite to the hands of the clock	3
DST		a calendar year that includes an additional day in every four years	4
Earth's rotation		the international standard of civil time	5
Earth's revolution		the beginning of the **winter** and the **shortest day** in the Northern hemisphere	6
leap year		the beginning of the **spring** in the Northern hemisphere, the length of the day and night is equal	7
winter solstice		the practice to set clocks forward by one hour in the spring and back in autumn	8
vernal equinox		the spinning of the planet around its axis	9

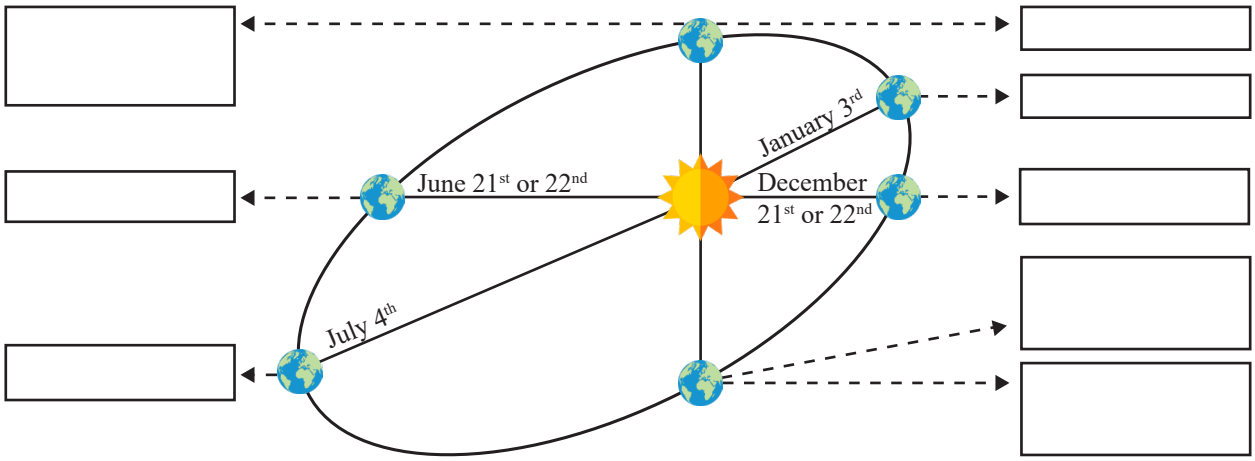
SKILLS TASK 2

1. How many days are there in a leap year? How often do leap years occur? Why do we need to have leap years? A person born on February 29th is called…?
2. What time of the year the Earth is closest to the Sun? Is the perihelion the hottest time of the year all over the globe?
3. Is it possible to say that the longest day of the year is the shortest day of the year in the same time?
4. Is it possible to say that the counterclockwise rotation of the planet is a clockwise spinning in the same time?
5. What would happen if the tilt of earth's axis was 90°? Scan the QR code.

EXTRA PRACTICE SECTION

1. Fill in the missing terms and dates on the diagram:

Summer solstice; Winter solstice; Perihelion; Aphelion; Vernal equinox; Autumnal equinox; September 22nd and 23rd; March 20th or 21st;



2. Fill in the missing words:

If you travel _____ of Greenwich, you will gain an hour for every time zone. If you travel _____ of Greenwich, you will lose an hour for every time zone. The International Date Line runs from the North Pole to the _____ Pole and marks the divide between the Western and _____ Hemisphere. When you cross the International Date Line from west to east, you _____ a day, and if you cross the line from east to west, you _____ a day.

3. Dictionary

flattened	сплеснат, сплескан
convex	изпъкнал
a circumference	обиколка
a landslide	свлачище
anthropogenically	антропогенно
latitude	географска ширина
longitude	географска дължина
altitude	надморска височина
an axis	ос
a hemisphere	полукълбо
a centrifugal force	центробежна сила
The Arctic and the Antarctic Circle	северна и южна полярна окръжност

The Tropic of Cancer	Тропик на Рака
The Tropic of Capricorn	Тропик на Козирога
The International Date Line	Линия на смяна на датата
vernal	пролетен
a velocity	скорост
a leap year	високосна година
aphelion	афелий
perihelion	перихелий
a solstice	слънцестоене
an equinox	равноденствие
a pole	полюс
a tropical year	тропична година
a civil year	Гражданска година

GENERAL KNOWLEDGE EXPLORATORIUM

1. It is 3:00 PM on Tuesday at 90° west longitude. What time is it at 90° east and what day? - to calculate time you have to divide the difference in time between the two locations by 15° to add or subtract an hour.

A/ 9:00 AM on Tuesday **B/** 3:00 AM on Monday **C/** 10:00 PM on Tuesday **D/** 3:00 AM on Wednesday

2. It is 3:00 PM on Tuesday at 135° east longitude. What time is it at 150° west and what day? – remember to subtract a day when you crossing the International Date Line

A/ 8:00 PM on Tuesday **B/** 12:00 PM on Monday **C/** 8:00 PM on Monday **D/** 8:00 AM on Monday

3. The number of time zones on earth is equal to:

A/ the number of latitude lines on the globe **B/** the number of longitude lines on the globe

C/ the velocity of the rotation in km per hour **D/** the number of hours in a day

4. Your five hour, westward flight leaves at 6:10 PM and crosses two time zones and Greenwich. At what local time do you land?

A/ 9:10 PM **B/** 4:10 PM **C/** 4:10 AM **D/** 8:10 PM

5. The angle of 23°30´ represents:

A/ the tilt of earth's axis **B/** the Tropic of Cancer **C/** the Tropic of Capricorn **D/** all answers are correct

6. Use your atlases to find out which country celebrates first the New Year's Eve and which is last?

_____ are first to celebrate New Year at 10:00 AM GMT on December 31st.

_____ is last to celebrate the New Year's Eve at 11:00 AM GMT on January 1st.

7. Do you know that there is a leap second? A leap second is added to UTC in order to synchronize clocks worldwide with the Earth's slowing rotation. The first leap second was added in 1972 because UTC was ten seconds behind atomic clocks. So far, 27 leap seconds have been added since then. The last leap second was added on December, 31st 2016. **When will next leap second be added to UTC?**

8. "HOW" question section. Read and explore for more!

How are revolution and latitude related to climate, daily life and economic activity of people?

_____

_____

_____

_____

_____

How are rotation and longitude related to climate, daily life and economic activity of people?

_____

_____

_____

_____

_____

GEOSPHERES

The planet is under pressure!

The planet Earth is made up of five spheres, the atmosphere, hydrosphere, lithosphere, pedosphere and biosphere, connected to each other in a complex web of processes. The processes comprising the global environment are interconnected.

The atmosphere consists of the gases and particles suspended in the air. The oceans, inland water bodies, groundwater, and ice sheets (cryosphere), comprise the hydrosphere. The places on Earth where organisms live are collectively known as the biosphere. Instead of focusing on the individual parts of Earth, Earth system scientists use chemistry, biology, geography and physics to study the cycles that connect these spheres with each other and with the energy from the sun, which ultimately drives almost all of these processes. Energy from the sun flows through the environment, heating the atmosphere, the oceans, and the land surface, and fueling most of the **biosphere**. The biosphere is the life zone of the Earth and includes all living organisms, including man, and all organic matter that has not yet decomposed. Differences in the amount of energy absorbed in different places set the atmosphere and oceans in motion and help determine their overall temperature and chemical structure. These motions, such as wind patterns and ocean currents redistribute energy throughout the environment. Water and chemical elements are cycled through the environment. **The term hydrosphere** describes all the regions covered by water such as oceans, rivers, lakes and also ground water in the ground. Water melts, evaporates, condenses, and freezes, and is moved from place to place in the atmosphere, the oceans, across the land surface, and through soil and rocks. **The energy cycle** is intertwined with the hydrologic cycle. Some of the energy in the sunlight reaching Earth's surface causes evaporation from surface water and soils. The atmosphere transports the resulting water vapor until it condenses in clouds, releasing the latent energy that evaporated the water. The physical and chemical characteristics of a body of water are influenced by the seasonal cycle through changes in solar radiation, precipitation, air temperature, wind patterns and snow and ice melting. **Agricultural and industrial activities** also input and remove energy, water, gases, and particles from surface waters, soil, rocks, and air.

Just like the atmosphere and the ocean, there are **movements within the pedosphere and lithosphere** that act to redistribute the energy received from the sun. Conduction, convection, and radiation processes all operate within the soil to redistribute energy within the soil profile. The rate and amount of distribution depends on soil properties such as the particle size distribution, bulk density, water content, and organic matter content.

Land plants connect the soil and atmosphere. Individual plants form this connection on time scales ranging from a few weeks to over 1000 years. However, land vegetation collectively affects the Earth system on time scales of seasons to thousands of years and longer. As land plants grow they reshape the environment around them. They shade the surface, block the wind, intercept precipitation, pump water from the ground into the air, remove nutrients from soil and some trace gases from air, hold soil against erosion, and litter the ground with leaves and twigs which eventually increase the organic content of the soil. In these ways, terrestrial vegetation plays a significant role in the energy, water, and biogeochemical cycles. The expansion and growth of forests in particular removes carbon dioxide from the atmosphere in significant amounts.

Water droplets and ice particles in clouds grow in size until they form precipitation, falling to the surface as rain, snow, sleet, or hail. **As a lithosphere**, we describe the Earth's crust and a part

of the upper shell of the Earth, which is comprised of rocks. Plate tectonics and climate conditions are activated by flows of energy, which have no connection to the four spheres. For this reason, system Earth is described as an **open** system.

The Earth is a **complex** system with closely linked elements. The five sub-systems: atmosphere, biosphere, pedosphere, hydrosphere and lithosphere illustrate elements of this system, which are differentiated from each other as material, are subject to dynamic changes and influence each other mutually.

Interactions between the components take place as evaporation and exchange of heat between air and water, exchanges of water and gases between the air and vegetation, exchanges of water and nutrients between soil and the root systems of grasses and trees, evaporation and exchange of heat and gases between air and soil, exchanges of water, chemicals, and sediments between soil and water at the sides and bottom of a water body. All of the Earth system components are exposed to the sunlight. This exposure to sunlight affects the temperatures of the various components, the photosynthesis in plants, rates of decomposition in soils, and chemical cycles.

Exchanges between air and water is s transfer of oxygen, carbon dioxide, nitrogen, water vapor (through evaporation) and other gases.

Exchanges between water and soil is the storage of water in the soil, percolation of water through soil into the water bodies or ground water carrying chemicals and particles, runoff processes.

Exchanges between soil and land cover is the use of water stored in soil by the roots of the land cover, the use of nutrients stored in soil, the heat storage for plants and microorganisms, air spaces for exchange of oxygen and carbon dioxide during respiration and photosynthesis.

Exchanges between air and land cover is the evapotranspiration process.

Exchanges between air and soil is the precipitation and evaporation processes, the heat and energy transfer exchanges of gases produced in the process of decomposition of organic material and microbial respiration.

The Earth is a system that life itself helps to control. Biological processes interact strongly with physical and chemical processes to create the planetary environment.

Components of the global environment, such as ecosystems on land and in the sea, are also connected to each other laterally through the dynamics of the Earth System - through the horizontal movement of water and materials through it, through atmospheric transport and deposition, and through the movement of plants and animals.

Achieving global sustainability demands answers to several critical questions: What will be the nature of changes in the Earth System over the next decades? What are the implications of these changes for humankind?

LITHOSPHERE

Geologists have a saying – rocks remember! */Neil Armstrong/*

LESSON №1

Internal structure of the Earth. Earthquakes and volcanoes

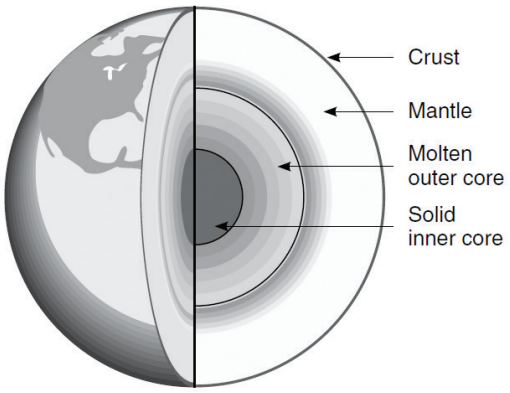


Fig.1 Source*: UAF*

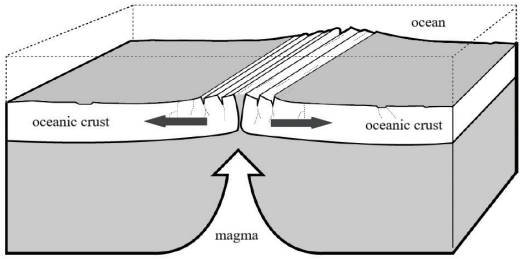


Fig.2 Mid-Ocean ridge

Fig.3 Mid-Atlantic ridge

The Earth is composed of layers both inside and out. Earth's internal structure consists of four main concentric layers – the inner core, the outer core, the mantle and the crust. /**Fig.1**/

The inner core is the earth's center, **the outer core** lies underneath the mantle and is the only liquid layer. **The mantle** is underneath the crust and it is the earth's thickest layer. **The crust** is the outermost sheath. Even though, the crust it the thinnest earth's layer, it is the only that sustains life. There are two types of crust – continental and oceanic with different properties. **The oceanic crust** is thinner and denser than the continental crust, and was formed more recently. The crust is composed of two basic types of rocks. The continental crust carries land and it is composed mainly of **granite**, the oceanic crust consists of a volcanic lava rock called **basalt**. The oceanic crust extends 5-10 km beneath the oceans and it is often called **"sima"** because of predominant minerals in it silicate and magnesium. The continental crust is as thick as 70 km and it is called **"sial"** because of the predominant minerals silicate and aluminum. The oceanic crust is formed at mid-ocean ridges where tectonic plates are torn apart by slow effusion of magma. When it cools, new oceanic crust is formed. This process is called ocean-floor spreading and it happens in all five oceans. **/Fig.2, Fig.3/**

The lithosphere is the rocky sheath of the planet and comprises the crust and a part of the upper mantle to **the asthenosphere**. The asthenosphere consists of denser rocks than the lithosphere and it acts as a sea upon which the lithosphere floats. The lithosphere is the most rigid layer of the planet but it is not stationary because it is fragmented into **plates**. The Earth has seven major plates and several minor ones. **/Fig.4/** The point where two plates meet is called plate boundary. The movement of these plates is called **plate tectonics** and causes **earthquakes and volcanoes.** They are most likely to occur either on or near the plate boundaries as one of the deadliest and most devastating natural hazards on the planet.

Earthquakes are detected by **seismometers** that plot them as a seismogram. Although, the most popular and well-known is the **Richter scale**, scientists today use 1**2-point Modified Mercalli Scale** to measure the damages caused by earthquakes. Earthquakes are natural hazards that cause risks on people. Risks are aftershocks, liquefaction and tsunamis. Liquefaction is a process when the ground shakes and the water in it can separate in a way of turning the solid ground into quicksand. **Liquefaction** can sink infrastructure or damage the roads.

Early Warning Systems works when an earthquake occurs, the first seismometer records it, then it sends a warning to people that gives enough time for the transport to be stopped or gas and electricity to be turned off. Early Warning Systems save lives.

Seismic waves of an earthquake are very useful to explore the inner structure of the planet. The speed of the movement of seismic waves is determined by the density of material they are moving through.

Volcanoes are ruptures in the Earth's crust which allow underground molted rocks as a magma, gas and ashes to reach the surface. When magma reaches the surface it is called lava. Throughout the Earth's history and today, volcanoes have erupted enormous amount of molten rocks onto the surface. There are three types of volcanoes – active, dormant and extinct. Active are those volcanoes that have erupted within the last 10 000 years. Today there are about 500 active volcanoes on Earth. Dormant volcanoes have not erupted for the last 10 000 years and the extinct volcanoes will not erupt again.

Volcanoes are mainly located where tectonic plates meet. **/Fig.4/ The Pacific Ring of Fire** that surrounds the Pacific Ocean is an area where large number of earthquakes and volcanic eruptions occur. The Ring of Fire is a home to 75% of active and dormant volcanoes, about 90% of the world's most devastating earthquakes and more than 40% of world's geothermal energy sources.

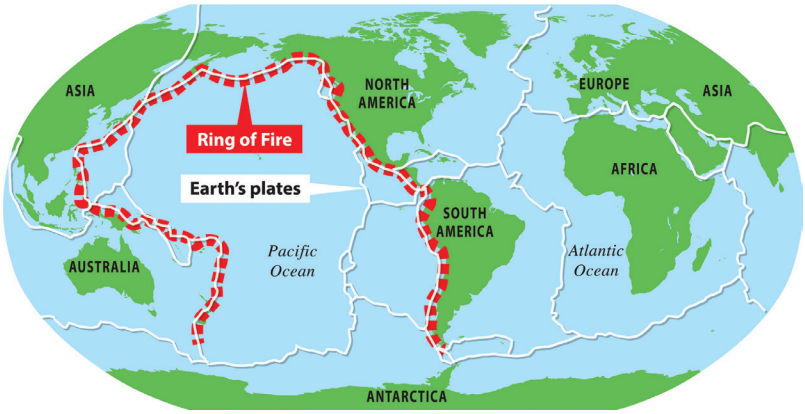


Fig.4 The Pacific Ring of Fire

LITERACY TASK

Match the term with the number of its right definition 1-6:

TERMS	№	DEFINITIONS	№
mid-ocean ridge		the ejection of a molten rock from volcano	1
effusion		the upper layer of the mantle that acts as a sea upon which the litosphere floats	2
asthenosphere		a renewable energy source which can be used to heat buildings	3
ocean-floor spreading		an underwater mountain range, formed by plate tectonics that produces continuous outflow of basalt lava	4
eruption		where tectonic plates are teared apart by effusion of magma	5
geothermal energy		a type of volcanic eruption in which lava steadily flows out of a volcano	6

LESSON №2

Types of rocks. Rock cycle

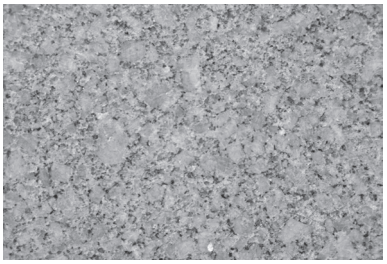


Fig.1 Granite

The Earth's crust is made of rocks. Rocks are made of different minerals and are solid chemical mixture that occurs naturally on Earth. Depending on the way a rock has been formed, there are three main types of rocks – igneous, sedimentary and metamorphic.

Igneous intrusive rock is a rock that forms when a molted rock in the form of **magma** cools below the surface. Magma cools very slowly and the minerals have time to form large and visible crystals. Examples of intrusive rocks are **granite** and **diorite**. /**Fig.1**/

Igneous extrusive rock is formed when **lava** cools on the surface. Lava cools very quickly and minerals have no time to form large crystals. That is why, igneous extrusive rocks have fine-grained structure. Examples of extrusive rocks are **basalt, gabbro** and **andesite**. Igneous rocks are used mainly as railroad ballast, building stones in the construction industry, ornamental stones and monuments. /**Fig.2**/

When a type of rock (igneous or sedimentary) is exposed continuously to high pressure and temperature below the surface, following by formation of new crystals, it becomes a **metamorphic rock**. Examples of metamorphic rocks are **gneiss, schist** and **marble**. Metamorphic rocks can be used in the construction industry, marble is used for statuary, architectural and ornamental purposes.

Fig.2 Basalt

Sedimentary rocks are result of different processes of rock destruction which mainly occur on the surface, such as weathering, erosion, deposition, burial and cementation. Examples of sedimentary rocks are **sandstone, limestone** and **coal**. Sedimentary rocks are mainly used as a component in bricks and cement, petrochemicals, glass. Coal is mainly used in power plants to produce energy and electricity.

3. Dictionary

inner core	вътрешно ядро
outer core	външно ядро
mantle	мантия
crust	земна кора
lithosphere	литосфера
asthenosphere	астеносфера
tectonic plate	тектонска плоча
mid-ocean ridge	срединен океански хребет
earthquake	земетресение
active volcano	активен вулкан
dormant volcano	спящ вулкан
extinct volcano	угаснал вулкан

igneous rock	магмена скала
intrusive rock	интрузивна скала
extrusive rock	ефузивна скала
limestone	варовик
sedimentary rock	седиментна скала
gabbro	габро
marble	мрамор
metamorphic rock	метаморфна скала
coal	въглища
weathering	изветряване
erosion	ерозия
deposition	акумулация
construction industry	сторителство

No rock stays the same forever. For millions and billions of years the rocks are formed, then broken down, melted, cooled, moved and deposited in different places. This is called **rock cycle**. Agents of these processes are plate tectonics, temperature and pressure, weathering, erosion, deposition, burial and cementation. /**Fig.3**/

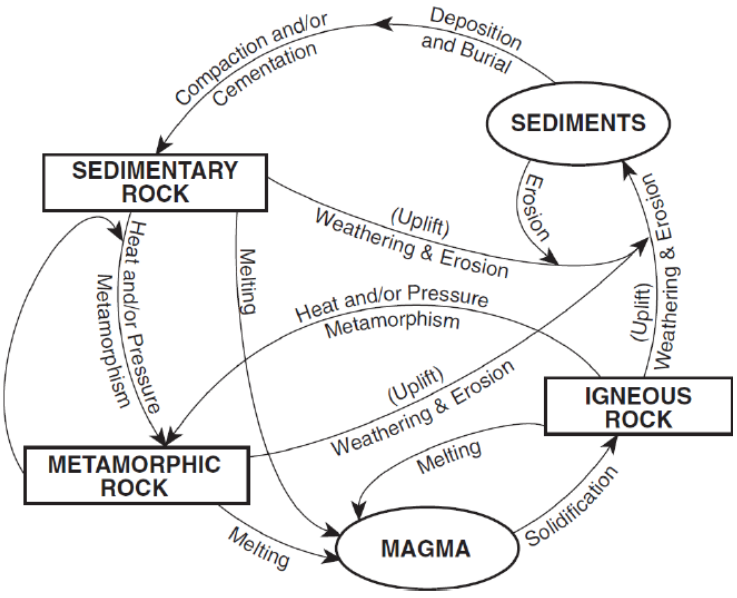


Fig.3 Rock cycle

The rock cycle is driven by two types of forces – endogenic and exogenic. Most of the rocks have passed through the stages of cycle many times, some of them have not.

The process by which water, ice and wind, changes in temperature can break down the rocks into fragments called **sediment is weathering**. The processes by which sediment move are mainly exogenic such as **erosion and gravity.** It leads to denudation which is a process of reduction of elevation in landforms. Follow the QR code to learn more about rock cycle.

Weathering includes different destructive forces that change physical and chemical characteristics of a given rock on and near the Earth's surface. There are two types of weathering – mechanical and chemical. Weathering brakes down the solid rock into loose particles that can be easily eroded. Follow the QR code to learn more about weathering.

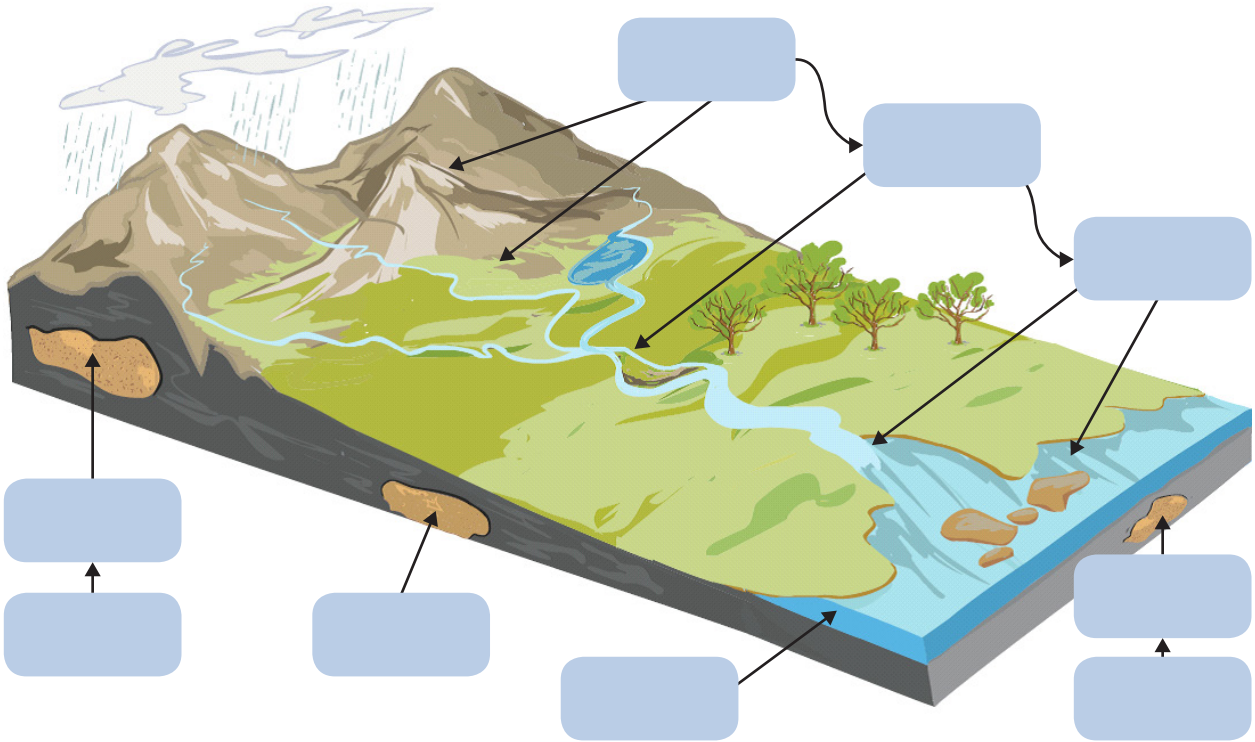
Erosion picks up or removes physically of rock particles by agents such as permanent and temporary running water – streams, rivers, rainfall, oceanic and sea water, or moving glaciers. A rock can be eroded before it has been weathered. Without weathering and erosion, the landforms throughout the world would never change with more mountains and fewer valleys. Follow the QR code to learn more about erosion.

PROJECT SECTION

1. Do a research how the devastating power of volcanic eruptions and plate tectonics is used in the movie industry to make "blockbusters". For example – the movie "2012". Suggest your classmates similar movies to watch and try to do and represent your own digital or paper movie trailer.
2. Do a research about the largest surface volcano Yellowstone and represent the consequences for the whole world to your classmates, if the volcano erupts.
3. Make a list of top 5 most powerful earthquakes and volcanic eruptions in the world and in Bulgaria.
4. Do a leaflet a flyer with the most important lifesaving rules and how to act during earthquakes.
5. Find names and information about "touristic volcanoes".
6. What is abrasion and why it is a precondition for the development of the tourism?

GENERAL KNOWLEDGE EXPLORATORIUM

1. Label the different processes and types of rocks in the rock cycle – magma, lava, granite, basalt, limestone, gneiss, weathering, erosion and gravity, and deposition;



2. Complete the dictionary in Bulgarian or English with the correct words:

lithosphere	
	астеносфера
tectonic plate	
	срединен океански хребет
earthquake	
	активен вулкан
dormant volacano	
	угаснал вулкан

sedimentary rock	
	габро
marble	
	метаморфна скала
coal	
	изветряване
erosion	
	акумулация

3. Fill in the missing words:

Igneous _____ rock is formed when _____ cools on the surface. Igneous _____ rock is a rock that forms when a molted rock in the form of _____ cools below the surface. The rock cycle is driven by two types of forces – _____ and _____. _____ is a process of reduction of elevation in landforms.

EXTRA READING SECTION

Folded and faulted mountains

Endogenic and exogenic processes together create distinctive shapes and formations on the surface known as landforms. A landform is a specific shape of the Earth's surface which has been produced by a natural force. Examples of landforms are valleys, mountains, plateaus, plains, beaches and etc.

Mountains were formed when parts of earth's crust had been pushed upwards. **Folded mountains** were created by upward pressure where two tectonic plates collide. Most of the world's highest and longest mountain ranges are fold mountains. The world's largest fold mountain range is the Alpine-Himalayan mountain range that runs throughout Europe and Asia. The main kind of folds are **anticlines, synclines and monoclines**. /**Fig.1**/ The anticline is upward bulging of rocks and the syncline is downward squeezing of rocks. The monocline is a simple fold that occurs singly rather than as a part of series of anticlines and synclines.

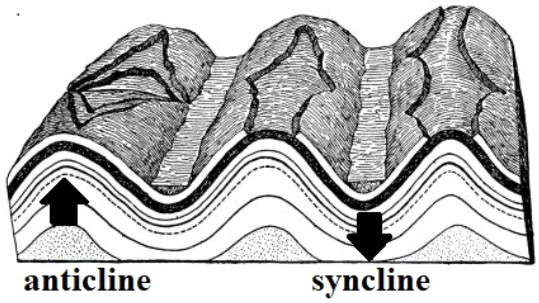


Fig.1 Folded rocks

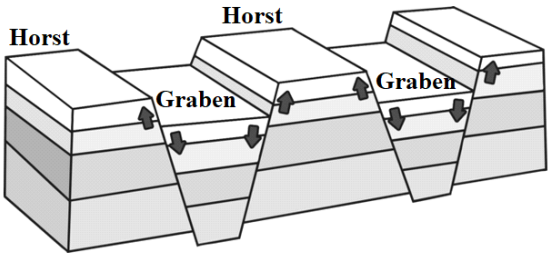


Fig.2 Fault blocks

Block mountains were formed when cracks in the Earth's crust, known as faults, force blocks of land upward. The uplifted block is known as a horst. The down-faulted block is called a graben./**Fig.2**/

EXTRA READING SECTION

Volcanoes

Volcanic eruptions make up a fifth of all natural disasters and have power to destroy cities and civilizations, to alter global climate and devastate or pull economic branches.

Mount Tambora, Indonesia, is the deadliest volcanic eruption in recent history of the world. The 1815 Tambora eruption acts as a short-term climate coolant and global temperature fell by 0.5°C. This led 1816 being known as "The year without Summer" globally and took the life of more than 200 000 people worldwide.

The 2010 volcanic eruption of Iceland's Eyjafjallajökull had a huge negative impact on aircraft. Most of the airlines and airports in Europe have been closed for two weeks.

Volcanic eruptions have also positive impact on people's life and economic activity. Around the world millions of people live on or near volcanoes. Volcanic cooled lava is rich in ores and minerals that is a main precondition for the development of economic branches such as metallurgy, engineering and the industrialization. Volcanic ash creates fertile soils which are essential for the agriculture. Volcanic areas are source of hot mineral water and geothermal energy (heat) as a renewable energy source which can be used to heat buildings and roads, it can be converted into electricity. **Volcanoes are very profitable touristic attraction** – Mount Vesuvius and Mount Etna in Italy, Kilauea in Hawaii, Mount Arenal in Costa Rica, Whakaari in New Zealand, Mount Aso and Fuji in Japan, Mount Krakatoa in Indonesia. There are 129 active volcanoes in Indonesia and 100 active volcanoes in Japan. There are no active volcanoes in Bulgaria.

ATMOSPHERE

There are things that we value but the markets cannot deliver, like the clean air.
/Eric Maskin/

LESSON №1

Composition and structure of the Atmosphere

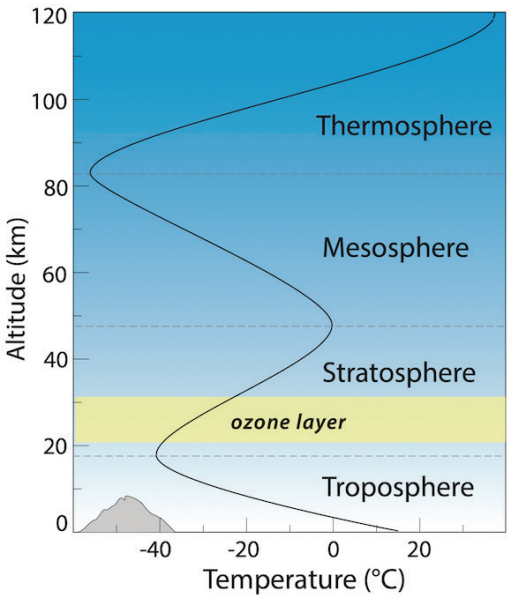


Fig.1 Atmospheric layers

Earth's atmosphere, along with the liquid water on surface, make our planet a unique place in the solar system.

The atmosphere extends more than 500 km above the planet's surface and it is subdivided into layers based on how air temperature changes with altitude, chemical and physical properties. According to the temperature profile, the atmosphere is divided into four layers – troposphere, stratosphere, mesosphere and thermosphere. /**Fig.1**/

The troposphere is the lowermost layer to the Earth with about 80% of atmospheric mass. The troposphere contains the weather of a place, air pollution, acid rains and the greenhouse effect. As altitude increases, temperature decreases. Rain, snow and clouds occur in the troposphere. **The stratosphere** extends above the troposphere and it is about 40 km thick. The temperature in it increases with the altitude because of the ozone layer as opposed to the troposphere, where gets colder with altitude. The ozone layer absorbs the ultraviolet solar radiation. About 90 % of the ozone in the atmosphere is found in the stratosphere. **The mesosphere** extends from the top of the stratosphere to about 90 km in altitude. The temperature decreases with altitude to minus - 93ºC. Gorgeous visual phenomenon "aurora" occurs in this layer. The "aurora" phenomenon occurs mainly in Arctic and Antarctic latitudes and it is a display of different color lights it the sky during the night. Most meteors burn in the mesosphere while entering the earth's atmosphere. **The thermosphere** is the outermost layer of the atmosphere. The temperature increases with altitude due to the solar activity and it may reach + 1500ºC. The thermosphere blocks a variety of harmful cosmic radiation such as X-rays, gamma rays and ultraviolet radiation. It is a place of "aurora", as well.

The air is mainly made up of nitrogen and oxygen and small amount of other gases as argon, carbon dioxide, methane, hydrogen, water vapor, etc. /**Table №1**/

Layer	Total number of molecules	Nitrogen N_2	Oxygen O_2	Other gases
Troposphere	100	79	20	1
Stratosphere	75	59	15	1
Mesosphere	50	39	10	1
Thermosphere	25	19	5	1

Table №1 – air composition

Thermal regime in the atmosphere

The supply of energy used daily by natural systems is derived almost completely from **solar radiation**. To a large extent, the temperature of the Earth's surface is determined by the amount of radiation received from the Sun. Most of the incoming radiation from the Sun is in the form of visible radiation. Visible light and near-infrared radiation make up over 90% of all solar radiation reaching Earth's atmosphere. Less than 10% of solar radiation is short-wavelength ultraviolet (UV) radiation. Solar radiation heats Earth's surface and atmosphere unequally due to variations in the intensity caused by differences in atmospheric transparency and angle of incidence which vary with time of day, latitude, and season, characteristics of the materials absorbing the energy such as color, texture, transparency, state of matter, and specific heat, duration, which varies with seasons and latitude.

There are three possible fates for incoming solar radiation in Earth's atmosphere:

1. **The albedo** is a measure of the magnitude of radiation that is reflected back into space from clouds, particles in the atmosphere, or from the land or ocean surface. The average albedo of Earth is 30% but varies with region. **Light-colored reflective surfaces** and thick cloud cover have high albedos (80-90%) because these features prevent the passage of sunlight. In contrast, dark surfaces (e.g., forests, water) or the absence of cloud cover result in low albedo values (<25%). Some forms of radiation are **absorbed by the atmosphere**. While the Earth's temperature is dependent upon the greenhouse-like action of the atmosphere, the amount of energy retained by the Earth is strongly dependent on the albedo of Earth surfaces. Just as some clouds reflect solar energy into space, so do light-colored land surfaces. Scientists use the term albedo to define the percentage of solar energy reflected back by a surface. This surface albedo effect strongly influences the absorption of sunlight. Forests, grasslands, ocean surfaces, ice caps, deserts, and cities all absorb, reflect, and radiate solar energy differently. Sunlight falling on a white glacier surface strongly reflects back into space, resulting in minimal heating of the surface and lower atmosphere. Sunlight falling on a dark soil or rock is strongly absorbed, and contributes to significant heating of the Earth's surface and lower atmosphere.

2. The infrared radiation emitted from Earth's surface is intercepted by water vapor, carbon dioxide, and other trace gases (methane, nitrous oxide) in the troposphere creating a situation that has come to be known as **the greenhouse effect**. This additional heating is called the "green house effect" and the gases that absorb and then reemit infrared gases are called "greenhouse gases". Atmospheric concentrations of water vapor will increase as the temperature of the atmosphere increases.

3. Once heated to the mean temperature, the Earth emits radiation in the form of "long-wavelength," or infrared, radiation back to space. Unlike incoming solar radiation, which is not strongly absorbed by atmospheric gases and passes through the atmosphere to the surface, outgoing infrared radiation is strongly absorbed by several different atmospheric gases, including carbon dioxide, water vapor, methane, and ozone.

Weather is a very complex phenomenon and is controlled by many factors and processes, such as the heating of the Earth's surface and atmosphere by in coming solar radiation. Incoming solar

radiation is absorbed by the Earth's surface, which in turn warms the lower atmosphere. Because warmer air is less dense than cooler air, the heated air will begin to rise through the atmosphere. The rising air creates a lowpressure area at the surface. The background, or ambient, temperature of the atmosphere decreases with altitude (Table 2-2) as the distance from the Sun-heated surface increases. The decreased atmospheric temperature with altitude causes water vapor in the rising air mass to cool to its dew point, which leads to condensation, the formation of cloud dropletsand clouds and maybe eventually precipitation.

There are different ways of heating and cooling of the atmosphere. The earth after being heated by insolation transmits the heat to the atmospheric layers near to the earth in long wave form. The air in contact with the land gets heated slowly and the upper layers in contact with the lower layers also get heated. This process is called conduction. Conduction takes place when two bodies of unequal temperature are in contact with one another, there is a flow of energy from the warmer to cooler body. The transfer of heat continues until both the bodies attain the same temperature or the contact is broken. Conduction is important in heating the lower layers of the atmosphere. The air in contact with the earth rises vertically on heating in the form of currents and further transmits the heat of the atmosphere. This process of vertical heating of the atmosphere is known as convection. The convective transfer of energy is confined only to the troposphere. The transfer of heat through horizontal movement of air is called advection. Horizontal movement of the air is relatively more important than the vertical movement. In middle latitudes, most of diurnal (day and night) variation in daily weather are caused by advection alone.

Factors that control temperature distribution the temperature of air at any place is influenced by the latitude of the place, the altitude of the place, distance from the sea, the air-mass circulation, the presence of warm and cold ocean currents, local aspects.

The latitude: The temperature of a place depends on the insolation received. It has been explained earlier that the insolation varies according to the latitude hence the temperature also varies accordingly.

The altitude: The atmosphere is indirectly heated by terrestrial radiation from below. Therefore, the places near the sea-level record higher temperature than the places situated at higher elevations. In other words, the temperature generally decreases with increasing height. The rate of decrease of temperature with height is termed as the normal lapse rate. It is 6.5°C per 1,000 m.

Distance from the sea: Another factor that influences the temperature is the location of a place with respect to the sea. Compared to land, the sea gets heated slowly and loses heat slowly. Land heats up and cools down quickly. Therefore, the variation in temperature over the sea is less compared to land. The places situated near the sea come under the moderating influence of the sea and land breezes which moderate the temperature.

Air-mass and Ocean currents: Like the land and sea breezes, the passage of air masses also affects the temperature. The places, which come under the influence of warm air-masses experience higher temperature and the places that come under the influence of cold air-masses experience low temperature.

LESSON №2

Global, regional and local atmospheric circulation

Energy from the Sun travels to the Earth and heats the surface. Different parts of the planet receive different amount of solar energy. Generally, the equator receives the most energy because the sun's rays strike the surface most directly on it. The amount of solar energy in other latitudes depends on the season according to the Earth's revolution. Changes in temperature result in air pressure changes. Atmospheric pressure differences at any latitude result in air movement from areas of **higher** to areas of **lower** pressure. It is called **wind**. **The global atmospheric circulation** /jet streams and air masses/ transports energy and heat from equator to the poles. This stops the equator becoming hotter and the poles becoming colder. / **Fig.1**/ Along the equator the hot and moisture air converges and creates low-pressure zone and it moves both north and south. When it reaches 30º of latitude, the air cools and sinks forming high-pressure zone. The air completes the cycle and moves south back to the equator as **trade winds – hot and dry constant winds**.

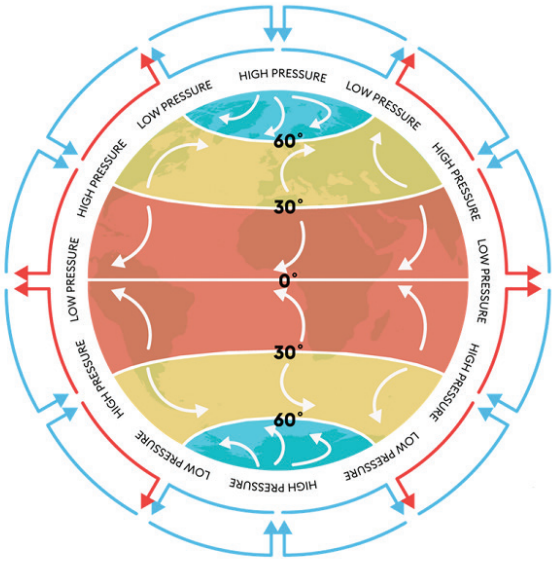


Fig.1 Global atmosphere circulation

Explore the global atmospheric circulation between 30º and 60º North and at the poles.

The regional atmospheric circulation is represented by the **monsoons.** The monsoon winds affect mainly the tropical coastlines in Africa and Asia. During summer the monsoons blow from the ocean to the land bringing moisture and causing heavy rainfall. /**Fig.2**/ During the winter monsoons blow from the land to the ocean as dry winds. Because of the monsoons the rainiest place on Earth is Mawsynram in India with 11 871 mm annual amount of rainfall.

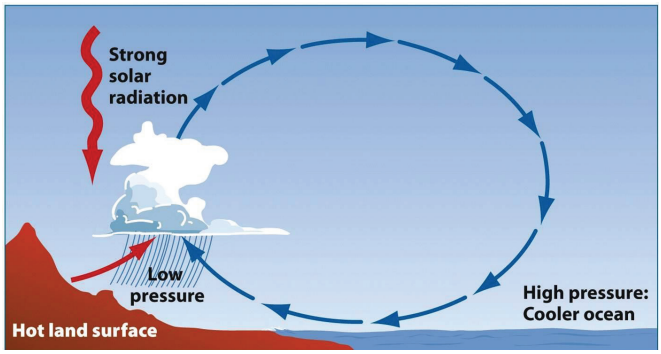


Fig.2 Summer monson

The local atmospheric circulation is represented by **breezes**. Seawater is slower to warm up and cool down than the land. So the sea is cooler than the land during the day. If it is cooler than the land, the air pressure is higher. That is why the day breeze blows from sea to land. It is called day breeze and is an onshore wind. The local night breeze blows from the land to the sea and it is called land breeze and is an offshore wind. The breeze changes the direction during the day. /**Fig.3**/

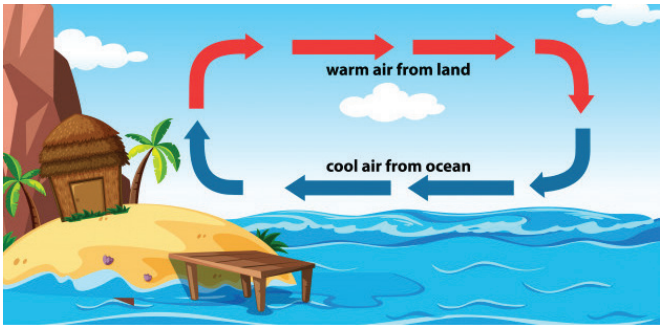


Fig.3 Sea breeze

LESSON №3

Weather and climate

Weather is the state of the atmosphere at any given time and place. Elements of weather are – temperature, precipitation, wind, moisture, cloudiness, pressure and etc. Weather factors are – latitude and solar energy, altitude, surface and relief, water basins, atmospheric circulation, etc. **Meteorology** is the study of weather. Weather is different from climate. **Climate** depends on the range of weather for a long period of time. **Climatology** is the study of climate.

Weather is a very complex natural system which is controlled by many factors and processes in the atmosphere. Variations of the weather are caused by different air masses and moving pressure systems.

An air mass is a large body of air with similar temperature and humidity that moves mostly in horizontal direction. Air masses are mainly classified according to the temperature – **equatorial, tropical, polar**. According to the humidity, air masses can be **dry continental** or **wet maritime. Fronts** are the boundaries between two different interacting air masses. **A cold front** occurs when a cooler air mass moves in on a warmer air mass. It is characterized by fall in temperature and short heavy rain with strong winds. **A warm front** occurs when warmer air mass rises up a cooler air mass. It is characterized by rise in temperature, prolonged heavy rain and light winds.

A cyclone is a low-pressure weather system which is usually formed over oceans by tropical and high latitudes air masses. It is often called a depression and it is marked on weather maps with the **letter L**. The air in it rises up and moves counterclockwise in the northern and clockwise in the southern hemisphere. Because of the different characteristic of air masses in the cyclone, there can be found cold and warm fronts. Cyclones are usually associated with bad weather. /**Fig.1**/ **A hurricane or a typhoon** is a tropical cyclone. Hurricanes are characterized by extremely strong winds, tornadoes, torrential rain, high ocean waves and storm surge. Recently, it has been suggested that the power of tropical cyclones has been increased due to the global warming. /**Fig.2**/

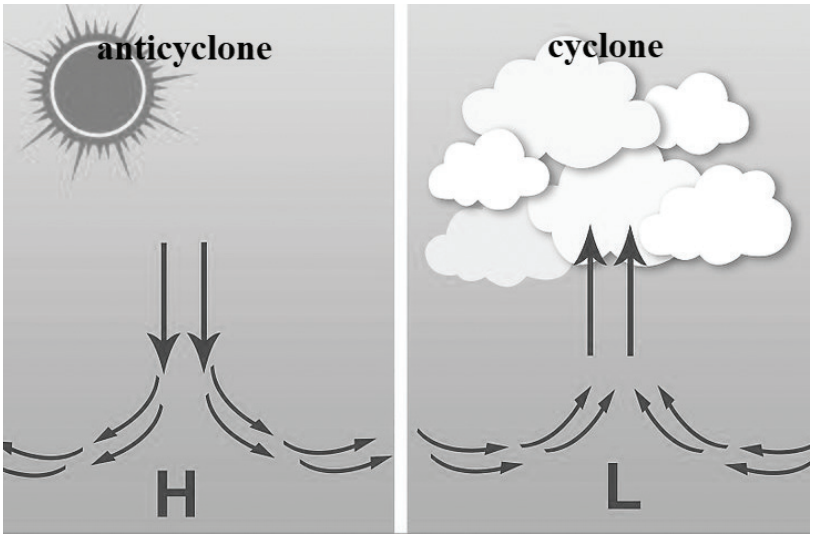


Fig.1 Cyclone and anticyclone

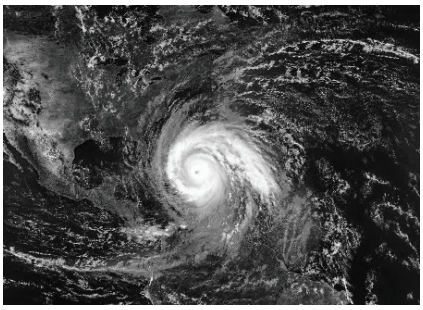


Fig.2 Tropical cyclone

An anticyclone is a high-pressure weather system which is usually formed over land from continental or tropical air masses. It is marked on weather maps with the **letter H**. The air in it descends and moves outward and clockwise from the center in the northern and counterclockwise in the southern hemisphere as opposite to the movement of the air in cyclones. Anticyclones are usually associated with sunny and very hot weather in summer and very cold weather in winter.

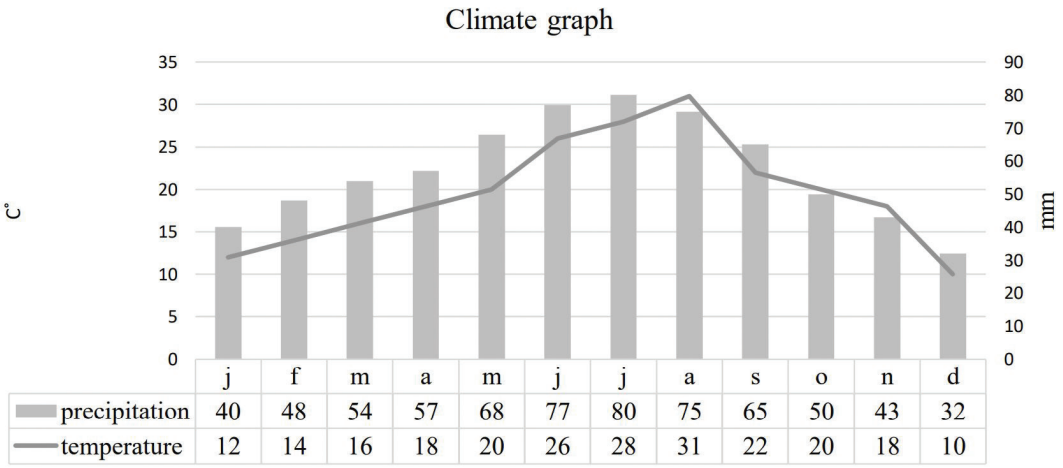
LITERACY DEVELOPMENT

Terms and definitions

term	translation	definition
a prevailing wind	Преобладаваща посока на вятъра	a wind that constantly blow in the same direction over a certain area on surface
a jet stream	въздушно течение	a fast-flowing air current that can push air masses to other areas and can influence the weather elements
trade winds	пасати	a system of prevailing dry and hot constant winds from tropics to equator, resulting in trade-winds deserts
humidity	влажност	the amount of water vapor in the air
precipitation	валежи	a liquid or solid form of water that falls from the atmosphere – rain, snow, hail, sleet, etc.
a rain gauge	дъждомер	a measuring device for the amount of liquid precipitation
an anemometer	ветромер	a measuring device for the wind velocity
a barometer	барометър	a measuring device for the air pressure

SKILLS DEVELOPMENT

Drawing and interpreting climate graph



	j	f	m	a	m	j	j	a	s	o	n	d
precipitation	40	48	54	57	68	77	80	75	65	50	43	32
temperature	12	14	16	18	20	26	28	31	22	20	18	10

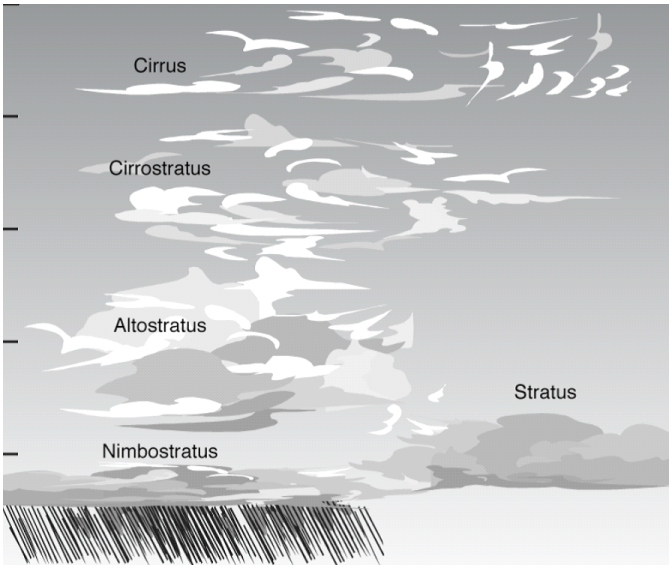
1. Look at the shape of the graph! Is the temperature line steep, gentle or flat?
2. Look for extremes! Mark the highest and the lowest temperature and precipitation in which it occurs.
3. Identify the seasons when most and least rain falls.
4. Use Excel to create your own climate with the given data in the table below.

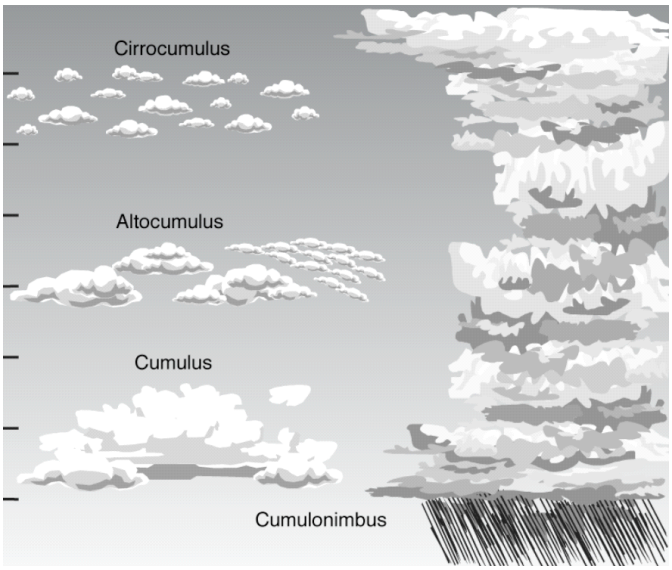
month	J	F	M	A	M	J	J	A	S	O	N	D
temperature	34	31	29	27	24	19	20	23	25	26	28	32
precipitation	67	64	40	33	31	27	34	43	50	60	72	78

Types of precipitation and clouds

The three main elements of **the water cycle** are evaporation, condensation and precipitation.

Evaporation is the process of transforming liquid water in the oceans and in the soil to water vapor, an invisible, odorless gas that enters the atmosphere. **Condensation** is the process of changing gaseous water vapor back to liquid water and in the process forming clouds.





Clouds are visible masses of condensed droplets or frozen crystals suspended in the atmosphere above the surface. Clouds are divided into two main categories: convective or **cumulus clouds** (in Latin, cumulus means piled up) and layered or **stratus clouds** (in Latin, stratus means layer). Cumulus and stratus clouds are divided into four more groups that distinguish the altitude location of the cloud. The family of low clouds (found up to 2 km) **includes stratus, nimbostratus, cumulus, and stratocumulus.**

Cumulus clouds are dense, white and puffy, resembling cotton balls. Cumulus clouds are found either as single clouds or closely packed clouds. While cumulus clouds resemble puffy white cotton balls and are associated with good weather, **stratus clouds** are dark gray, low, uniformly stratified or layered covering the entire sky and are usually associated with rain.

Precipitation is every form of liquid or solid water particles that fall from the atmosphere and reach the surface. Precipitation only comes down to the ground after it **condenses** in the atmosphere. Condensation is when water vapor turns to liquid water.

TYPE	NAME	HEIGHT
High Clouds	Cirrus, Cirrostratus, Cirrocumulus	5-13 Km
Middle clouds	Altostratus, Altocumulus, Nimbostratus	2-7 Km
Low clouds	Stratus, stratocumulus	0-2 Km
Vertical cloud	Cumulus, cumulonimbus	0-5 km

For precipitation to occur, cloud droplets or ice crystals must grow heavy enough to fall through the air. **Forms of precipitation that fall to the ground include the following:**

1. **Drizzle** is a fine sprinkle of small and rather uniform water drops that have a diameter less than 0.5 mm.
2. **Rain –** is a type of liquid precipitation and seen as drops of liquid water falling from the sky.
3. **Snow** forms when tiny ice crystals in clouds stick together to become snowflakes. If enough crystals stick together, they'll become heavy enough to fall to the ground. Snowflakes have an endless number of different shapes and patterns, all with six sides or branches.
4. **Sleet –** simultaneous precipitation of the mixture of rain and snow. It is known as true frozen rain.
5. **Hail** is a precipitation of solid ice on a warm sunny day. Round pellets of ice larger than 5 millimeters in diameter are called hailstones. Hail forms only inside cumulonimbus clouds during thunderstorms. A hailstone starts as an ice pellet inside a cold region of a cloud. A strong convective current may cause the formation of hails. Rainfall associated with the hailstones is called as hailstorm. Each time the hailstone goes through the cold region, a new layer of ice forms around the hailstone.
6. **Glaze** or freezing rain falls into a cold layer of air and freezes when it strikes objects on the ground.

GENERAL KNOWLEDGE EXPLORATORIUM

1. Which of the following determines whether precipitation will come as rain or as sleet?

a. the amount of wind
b. the size of the clouds
c. the type of clouds
d. the air temperature

2. What is it called when precipitation becomes icy only after touching the sidewalk?

a. snow
b. sleet hail
c. freezing
d. rain

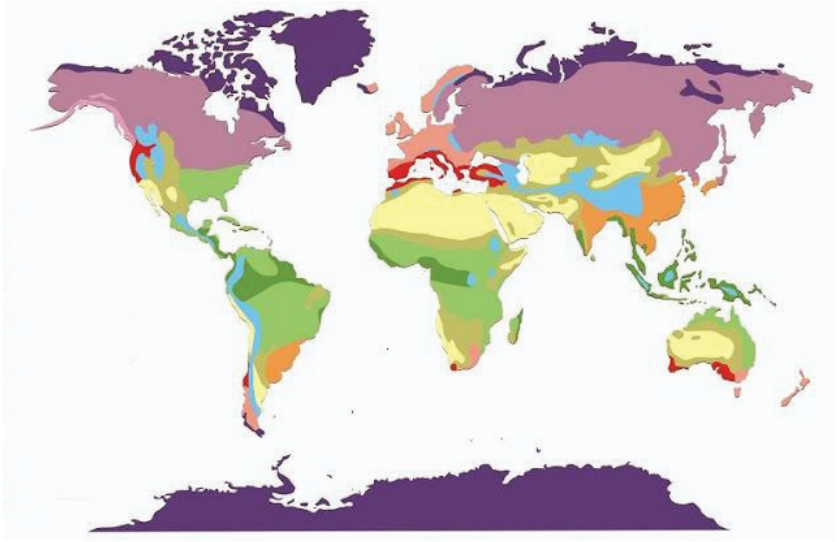
3. What makes some hailstones larger than other hailstones?

a. Larger hailstones occur when the air temperature is much colder.
b. Larger hailstones occur when the ground temperature is much colder.
c. Larger hailstones have moved more times through the cold region of a cloud.
d. Larger hailstones form in cumulonimbus clouds, but smaller hailstones do not.

4. What has to happen in order for precipitation to occur?

a. The cloud droplets have to be heavy enough to fall.
b. The cloud has to be a cumulonimbus or stratus.
c. The cloud has to have several strong updrafts.
d. The temperature of the cloud has to be at least 0°C.

Climatic belts



Climate belts are areas with distinct climates, which occur in east-west direction around the Earth, and can be classified using different climatic elements. Generally, climate zones are belt-shaped and circular around the Poles. In some areas, climate zones can be interrupted by mountains or oceans. **Climatic elements** include temperature, precipitation, humidity (wetness / dryness), wind (speed, direction), etc. Temperature is usually expressed in degrees Celsius (°C), but absolute temperature is usually expressed in Kelvin (K). Therefore, the freezing point of water (0 °C) is already 273.15 K. In some English- speaking countries usually temperature is measured on the Fahrenheit scale (°F) where the freezing point of water is 32 °F (0 °C). Depending on the climatic zone and regional influences the periodical rainfall quantities vary a lot. **The mean global rainfall** is about 860 mm/ year. The minimum in warm-dry zones is < 250 mm/year. The maximum appears in warm- humid zones. They may reach or exceed 2000 mm/year. **The humidity** of the air is often expressed as **the relative humidity**. The relative humidity depends as much on the air temperature as on the actual amount of water vapor present in the air. At higher temperatures, air can contain more water vapor, than at cold temperature. During the day (especially in the morning), as the lowest layer of air is being heated by the ground surface, evaporation increases, the vapor can be assimilated by the warm air. Winds even out the differences in air temperature and humidity between lower and higher air layers. As long as temperature is rising and the absolute humidity keeps its level, the relative humidity decreases. In the evening and during the night, the situation is reversed. Especially on a clear night with still air, as the lowest layer cools, its relative humidity increases, the point of saturation is soon reached and with further cooling the excess moisture condenses out in the form of dew.

Equatorial climate

It is mainly found between 5˚ North and South of the Equator, but extend to 10˚ north and south. It is characterized by uniformly warm to hot temperatures of about 26˚C, heavy and well distributed rainfall throughout the year with a double maximum of rainfall: March-May and October- November and April is the wettest month, humidity is very high throughout the year and relative humidity is constantly high over 80%, the mid-day sun is always near vertical and overhead twice a year at the equinoxes, Morning weather is often quite sunny and clear, but heat builds up during the day until by about 2.00pm. Cumulus clouds develop growing into towering Cumulonimbus which gives heavy rain.

Subequatorial climate

It a transitional type of climate found between the equatorial forests and the trade wind hot deserts. It is mainly found 5°-15° on both sides of equator in South America Africa, central and south India and northern Australia. Savannas border with equatorial rainforest and deserts. It is characterized by distinctive wet season from May to October (rainfall like in equatorial climate) and dry season – drought period 500-2000 mm/year, humidity varying from 10% to 90% (winter/summer).

Economic activities carried of the Subequatorial climatic zone:

1. The savanna climate supports wild life conservation because the trees and grass are good habitats for wild life. Hence, they are areas of National Parks;
2. Savanna climate is favorable for livestock farming – pastoralism;
3. This type of climate is suitable for arable farming especially growing of annual crops such as cotton, ground nuts in west Africa and millet;
4. The climate attracts human activities such as tourism and safari rallies;

Tropical desert climate

It is mainly found on the western side of Africa extending into the interiors, where the trade winds originate from over the land, blowing to the oceans. The tropical deserts are the Sahara Desert which extends from Senegal to Egypt and it is the largest single stretch of the desert, Namibia and Kalahari Deserts. The aridity of the hot deserts is mainly due to the effects of the off-shore trade winds; hence they are also called the Trade Wind Deserts. The rainfall is generally less than 250 mm per year, scarce and unreliable. The temperatures are extremely hot over 35^{o}C throughout the year. Days are unbearably hot and the nights are cold which brings about high daily temperature ranges. Humidity is low.

Economic activities are tourism, nomadic pastoralism, sand quarrying, research and experiments in solar power development, hunting, irrigation farming in Egypt, Chad and Senegal, mining of minerals for example diamonds and copper in Kalahari and petroleum in Algeria.

PROJECT SECTION – follow the QR code

Use the video for the biomes of Europe in the YouTube channel of this book to complete the table:

Climate zone	Distribution	Climatic elements	vegetation
Mediterranean			
Temperate			
Subpolar			
Polar			

READING COMPREHENSION

How do hurricanes get their names?

Deanna Conners in EARTH | HUMAN WORLD | June 1, 2020

In the early 1950s, a formal practice for storm naming was first developed for the Atlantic Ocean by the U.S. National Hurricane Center. At that time, storms were named according to a phonetic alphabet (e.g., Able, Baker, Charlie) and the names used were the same for each hurricane season; in other words, the first hurricane of a season was always named "Able," the second "Baker," and so on.

In 1953, to avoid the repetitive use of names, the system was revised so that storms would be given female names. In 1978–1979, the system was revised again to include both female and male hurricane names.

When does a storm receive a name? Tropical storms are given names when they display a rotating circulation pattern and wind speeds of 63 kilometers per hour. A tropical storm develops into a hurricane when wind speeds reach 119 kilometers per hour.

Lists of hurricane names have been developed for many of the major ocean basins around the world. Today, there are six lists of hurricane names in use for Atlantic Ocean and Eastern North Pacific storms. These lists rotate, one each year. That means the list of this year's hurricane names for each basin will come up again six years from now. There's an exception to this practice, however. The names of hurricanes that are particularly damaging are retired for legal, cultural sensitivity, and historical reasons. For example, the use of the name Katrina was retired in 2005 following the devastating impact that Hurricane Katrina had on New Orleans.

The name Dorian of the category 5 hurricane that devastated the Bahamas in early September of 2019 is certain to be retired given the extensive fatalities and economic damages that it caused along its destructive path. Dorian was in fact one of the strongest Atlantic hurricanes on record, with sustained winds 298 kilometers per hour. However, the decision to retire the name by the WMO in the spring of 2020 had to be postponed because of the coronavirus pandemic.

1. The text is about:

a. How the World Meteorological Organization removes the name of hurricanes
b. The velocity of the hurricanes
c. Atlantic Ocean and Eastern North Pacific storms
d. The development of formal practice for hurricane naming

2. The naming system of hurricanes was revised in 1953 to:

a. give names of tropical storms when they display a wind velocity of 63 kilometers per hour
b. include both female and male hurricane names
c. use repeated names for storms in Atlantic Ocean and Eastern North Pacific storms
d. be given female names only

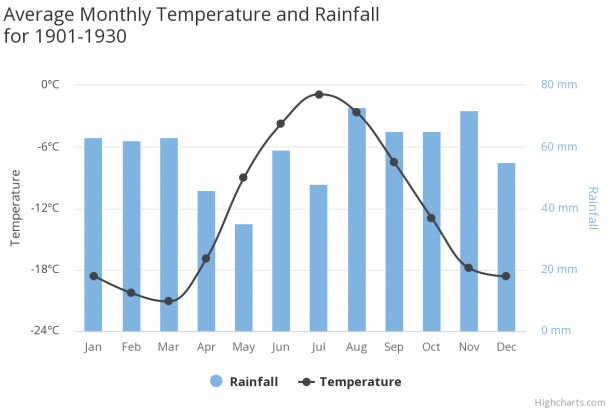
3. The rotation of hurricanes' names according to the lists happens:

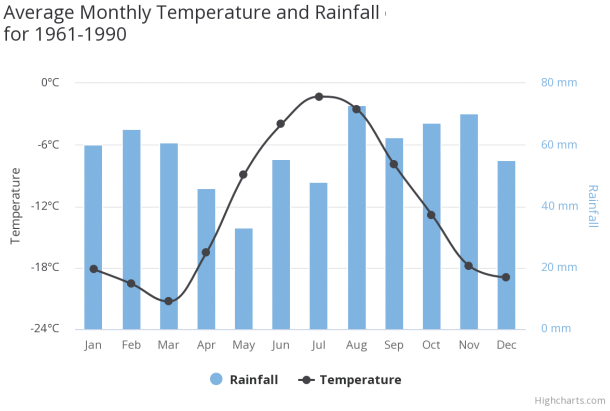
a. every six years
b. never happens
c. every year
d. only for the female names

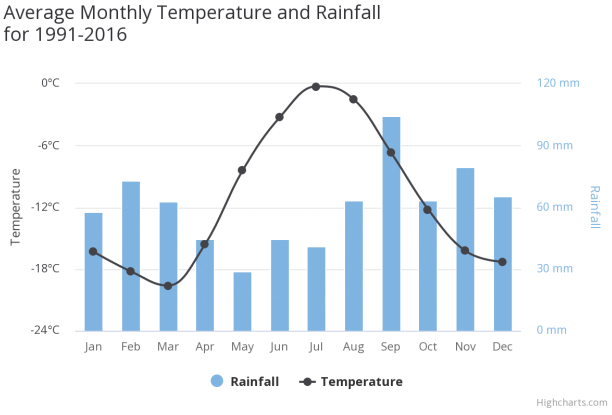
ACADEMIC IELTS TRAINING

Writing Task 1

The International English Language Testing System – IELTS is designed to assess the language ability of candidates who need to study or work where English is the language of communication. IELTS is managed by the University of Cambridge Assessment. **The Writing Task 1 in Academic IELTS test** requires you to write a summary of at least 150 words in a response to a particular graph – bar, line or pie graph, table, chart or process. This task tests your ability to select and report main features, to describe and compare data. **Task: Summarize the information of climatic graphs of the Greenland Island.**







The climatic_____(pie graph, chart, line, graphs) of Greenland_____(show, shows, illustrate, illustrates) the mean _____ (rain, rainfall, precipitation) and temperature for chosen_____(periods, years, decades, centuries). Overall, it is clearly noticeable that there has been a strong_____ (path, line, direction, tendency) of_____ (increasing, decreasing) in average monthly temperature and a _____(growth, reduction, rise, spin) in average monthly precipitation since 1901. Secondly, another noticeable feature of the three climatic graphs is that the line of temperature reaches its pick in July but _____(stay, stays, remains, get) negative and below 0˚C from 1901 to 1990. In the last decade the mean temperature in July _____(became, become, stay, stays) positive and it was 0˚C. The coldest months have never changed _____(since, for, ago, while) the three decades and they are December and January, but it is observed a definite_____(warming, heat, cooling, cold) in winter. Thirdly, the amount of precipitation is noticeably decreasing_____ (twofold, double, couple, both) from the second to the third decade. In the third decade is observed a clear maximum of precipitation in September as_____ (opposed, same, opposite, unlike) to the other two periods. The lowest amount of rainfall always falls in May.

In conclusion, three climatic graphs of the Greenland Island represent the fluctuation of temperature and precipitation_____(throughout, when, just, through) the 20th century as a proof of global warming.

HYDROSPHERE

"We live by the current, plan by tides and follow the Sun!" Sandy Gingras

LESSON №1

World Ocean

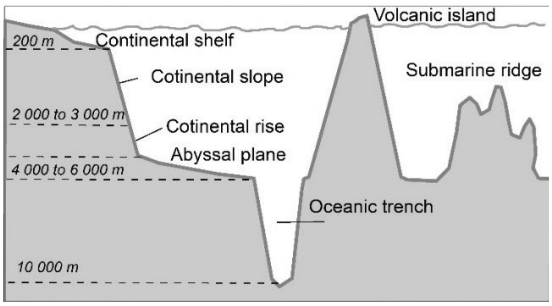


Fig.1

The hydrosphere is the water shell of the Earth. About 71% of the Earth's surface is water-covered, and the oceans hold about 97% of all Earth's water. The waters in the hydrosphere are in different physical states. Depending on where the water bodies are formed, they are divided into surface (oceans, seas, rivers, lakes, swamps, glaciers), groundwater, water in the snow cover and atmospheric moisture. In 2000, the International Hydrographic Union, in addition to the Pacific, Atlantic, Indian, and Arctic Oceans, accepted the existence of the so-called Southern Ocean. Arguments for this decision are the conditional border between the Pacific, Atlantic and Indian in their southern parts and the specifics of the waters around Antarctica. Like the topography of the land, the underwater topography of the oceans is extremely diverse /**Fig.1**/.

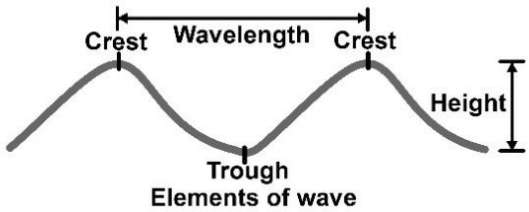


Fig.2

The water in the seas and oceans is in constant movement. These movements are changeable and come in stages or in phases. The water particles move in a certain distance and return to their original position, while in the stage movement the water particles move in a certain distance without returning to the initial position. Wind waves are the result of the direct impact of the wind on the water surface. When air moves over the water surface which is at rest, the air particles put pressure on the water. At the boundary between the water and air environment, a wavy motion occurs, which causes the rise of the water surface /**Fig.2**/. Waves can also form as a result of earthquakes and volcanic eruptions. They are known as tsunamis.

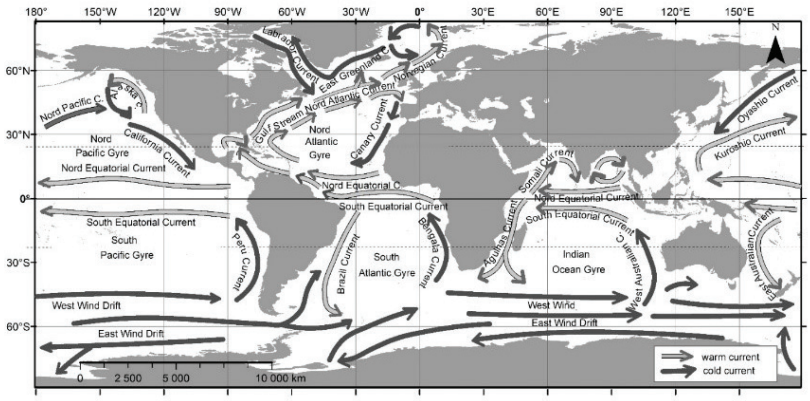


Fig.3

Ocean currents are large water currents that differ from the surrounding water in their temperature. They move in a certain direction and travel long distances. Their speed varies from a few kilometers per day to several kilometers per hour. Classification of ocean currents on basis of depth - surface and deep; on basis of temperature - cold and warm. According to the duration, ocean currents are

permanent, periodic and temporary /**Fig.3**/.

Tides are the rise and fall of the ocean water twice in 24 hours. This phenomenon is known as a tide. Tides are caused by the gravitational pull of the moon and to some extend the pull of the Sun and the Earth's surface. The moon exerts a gravitational pull on the Earth as it orbits around it and this has a great effect on the ocean waters because water is liquid and can freely move about. The moon`s attraction causes the water from other regions to pile up on the side nearest the moon which is known as an ordinary high tide. A counter-bulge occurs on the opposite side of the Earth which also results in a high tide on the other end. Between these two areas of high tides are areas of lower tides since the Moon's pull draws water from these parts. One high tide and one low tide are completed in 12 hours and 25 minutes which means that the high tide and low tide are observed twice a day /**Fig.4**/.

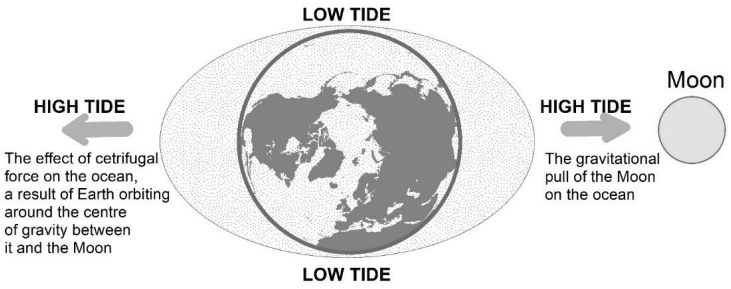


Fig.4

LITERACY TASK

Match the term with the number of its right definition 1-6:

TERMS	№	DEFINITIONS	№
salinity		the amount of heat absorbed when heating the water to one degree Celsius	1
heat capacity of water		the cycle of rising and falling of the surface of bodies of water caused by the attraction of the moon and the sun	2
heat transfer		up and down movement of the surface of the water	3
waves		continuous, directed movement of seawater	4
ocean current		the amount of salt contained in one cubic meter of water	5
tide		an irreversible process of energy transfer from hotter to less hot bodies	6

SKILLS TASK 1

1. Why the air temperature during the day and the summer is higher than that of the water?
2. Determine what are the main factors that affect the salinity of a water body?
3. What is the main reason for the salinity of the Black Sea waters on the northern Bulgarian Black Sea coast? Why is it lower than on the southern Bulgarian Black Sea coast?
4. What are the causes of wave formation in the oceans?
5. Why is the attractive influence of the Sun less powerful than the Moon's in the formation of tides?
6. How do we determine if a current is cold or warm?
7. Use Google Maps to find the location of Fundy Bay, where the highest tides on Earth are measured (18m)?

LESSON №2

Groundwater and surface water. Rivers

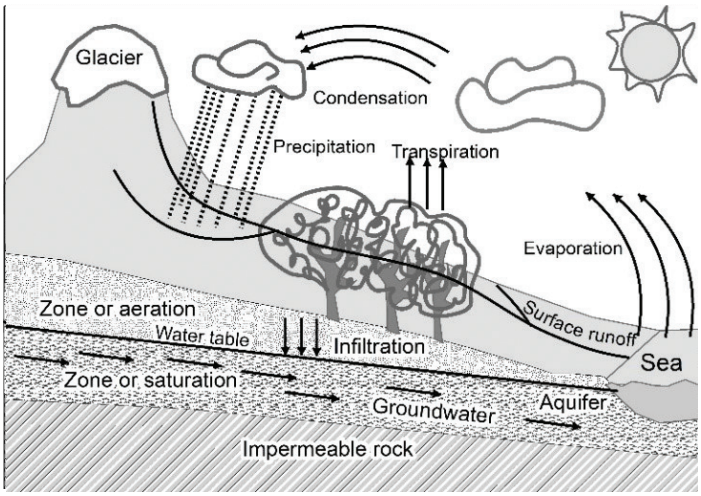


Fig.1

Groundwater and surface water are connected by the water cycle also known as the Hydrologic cycle. Rain falls on the land. This is known as precipitation. Parts of the rainwater run across the land and into the rivers and streams (surface runoff). Some of the rainwater enters the ground through infiltration. Water can only enter the ground through permeable soils and rocks i.e. the pores are all connected allowing water to pass through them. Porosity depends on the number and size of pores in soil and rock. Water will continue to soak into the ground until it reaches a layer of impermeable rock. Once water reaches the impermeable layer it keeps the pore spaces in the layers above it filled. Water that moves freely in a layer of a permeable rock is called aquifer. In this way the water which seeps into the ground passes through a zone of aeration (or unsaturated zone, some pores are filled with water and some are filled with air) and into the zone of saturation (the ground is completely saturated with water). The water in this zone is called groundwater. The dividing line between these two zones is called the water table. Springs are where water seeps directly out of the ground where an aquifer reaches the ground surface. Thermal springs are ordinary springs except that the water is warm and, in some places, hot. When two layers of impervious rock lie between and act as a reservoir, artesian basins are formed. The water in this layer, which is under pressure, gushes out spontaneously and forms an artesian well. /**Fig.1**/.

A river is part of the surface waters and is a constant water flow that goes along in a natural riverbed. Water quantity is the volume of water that passes through the cross-section of a river in one second, and the amount of water that passes through the cross-section for a certain period of time is called river runoff. The beginning of a river is the place from which it is clearly defined as the surface flow. An estuary is the place where a river flows into another river, lake or sea (ocean) basin. They are of two types - delta and estuary. Delta is the mouth of numerous sleeves, which are arranged fan-shaped, where the rate of deposition of sediment exceeds the rate of removal of sediment. The estuary is a mouth that is closely associated with the presence of high tides. During high tides, seawater penetrates into the estuary and mixes with river water. At low tide, a powerful flow is formed, which exports a large amount of accumulated alluvial material to the sea basin. The length of the river is determined by the distance between the source and the mouth. The river system consists of a main river and tributaries. The main river is the river that flows into the ocean, sea, lake. A tributary is a river that flows into another river. The area from which a river or river system collects its waters is called a catchment area. The conditional line that separates the two catchments is called the watershed. The catchment areas are divided into drainage and non-drainage. The basins of rivers that do not flow into the seas are called drains, and conversely those that flow into the oceans and seas are called drains. The

sources of nourishment are rainwater, snow water and the conversion of solid precipitation and glaciers into surface runoff as a result of melting. For the plains and hilly areas with temperate continental climate, the rain-snow feeding is typical, and in the high mountain watersheds, the rivers have snow-rain feeding. As for the alpine belts and the polar regions, snow-glacial and glacial-snow feeding is typical. River regime is the annual variation in the flow of a river. Their main characteristics are the state of high (high water - maximum runoff) and low waters (low water - minimum runoff). It is represented by a graphic image called a hydrogram. In areas with an equatorial climate, the rivers are entirely rain-fed and flooded all year round. In the subequatorial climate, the runoff regime is clearly flooded during the wet period - summer, which lasts 6-9 months and is of rainy origin. In the subtropics with a Mediterranean climate, the run-off regime is flooded in winter due to precipitation and low water in summer. The fluctuations of the monthly water volumes are large. In areas with a temperate continental climate, high water is in the spring months and is a consequence of snowmelt and precipitation. The low water phase is during the summer and autumn months and is often interrupted by single rainfall. In watersheds with temperate oceanic climates, the state of high water content is during the winter months. In the glaciers of Antarctica and Greenland, the rivers are fed entirely by glacial waters during the short summer.

LITERACY TASK

Match the term with the number of its right definition 1-8:

TERMS	№	DEFINITIONS	№
infiltration		water that flows over the land surface	1
groundwater		area of land darined by a river and its tributaries	2
mouth of the river		shows how the discharge of a river varies over a longer period of time - usually a year	3
spring		boundary between two drainage basins	4
surface runoff		the place where the river flows into a bigger basin	5
drainage basin		the place where a river begins its journey	6
watershed		water stored underground in a permeable rock	7
river regime		the process through which water enters the ground	8

SKILLS TASK 1

1. What is the opposite process of condensation?
2. Where does groundwater flow go?
3. Is it possible for a rock or soil to have high porosity but low permeability?
4. What conditions must be available for surface run-off or overland flow to occur?
5. Why is it said that the water in artesian pools gets naturally filtered?

LESSON №3

Lakes and glaciers

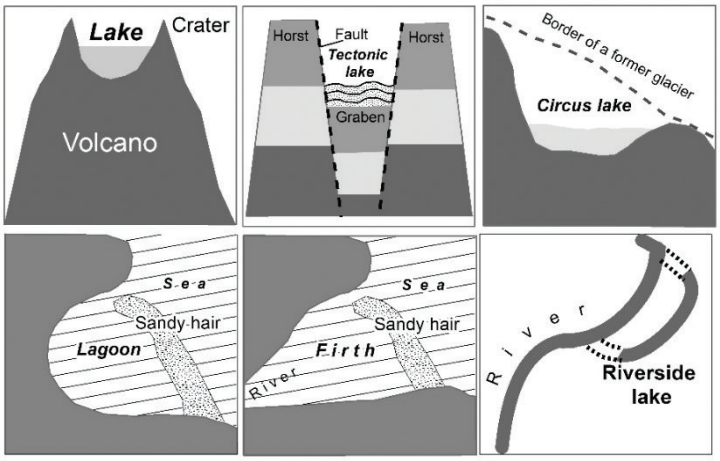


Fig.1

A lake is a depression from the Earth's surface filled with water. The lake basins are of different origin, size and shape. Depending on the way of formation, the lakes are divided into several types. Tectonic lake basins are located in graben structures or depressions. Volcanic lake basins most often occupy the craters of extinct volcanoes. Circus lakes are a consequence of excavation and accumulation in continental and mountain glaciation and occupy the circuses. Coastal lakes are formed either by blocking a sea bay (lagoon) or by blocking a mouth (liman) and contain salt water. In both types of coastal lakes are separated from the sea by a sandy strip called sandy hair. Riverside lake basins are formed in old river valleys /**Fig.1**/

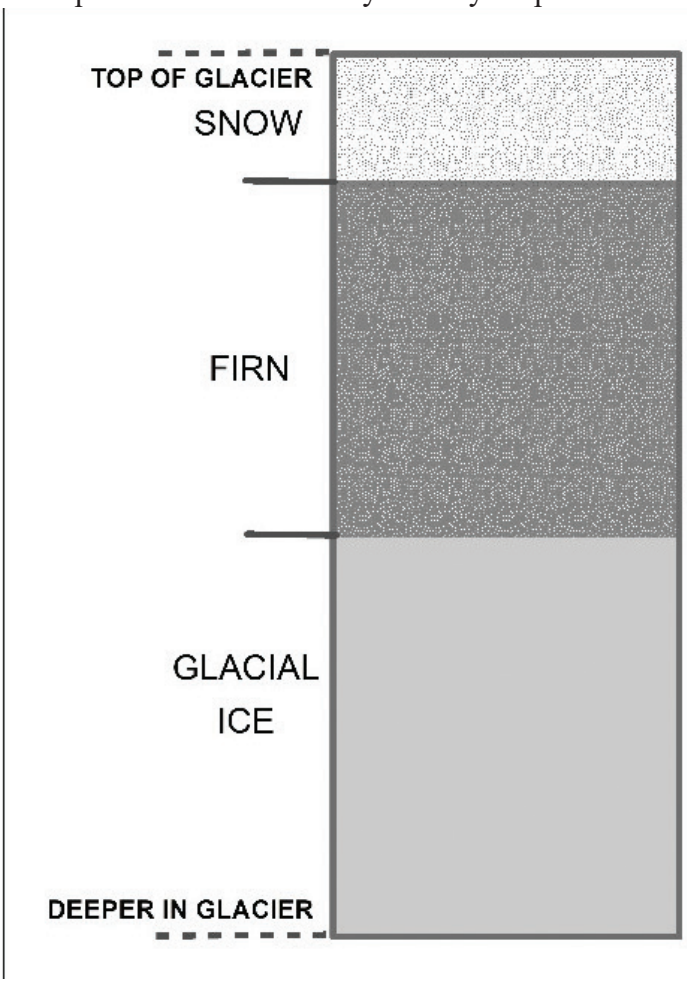


Fig.2

Glaciers are massive bodies of flowing ice. Glaciers slowly move downwards changing the shape of the topography as they go, above a certain height in cold regions where snow never melts. This is called the snow line. Glaciers are always formed above this line. Glaciers are also called slow-moving rivers of ice. Glaciers are formed in places where snow has been accumulated over time. It takes decades, or even centuries, for glaciers to form. As the snow deepens, snow's weight and pressure on top compress the lower layers into ice. The weight of the glacier plus the force of gravity will gradually cause the glaciers to move downhill. Once the glaciers flow far enough downhill that temperature gets warmer and it begins to melt. There are two types of glaciers: alpine glaciers and continental glaciers. The formation of the glacier goes through the following stages: snow above the snow line - firn - glacial ice - glacier. The transformation of snow into

ice goes through the formation of firn. The firn is dense, granular and partially recrystallized, usually this is multi-annual snow, an intermediate stage between snow and ice. The process of firn formation is accelerated at temperatures close to the melting point and by the infiltration of molten or rainwater from the upper to the lower layers of the snow cover. It is white due to the air between the ice grains. Over time, the firn gradually turns into glacial ice - thick ice of large ice grains with a gray color. From the moment of its movement on the slopes, under the force of its own weight, the ice turns into a glacier /**Fig.2**/.

LITERACY TASK

Match the term with the number of its right definition 1-7:

TERMS	№	DEFINITIONS	№
lake		poorly degradable organic mass formed by the natural death and incomplete decomposition of marsh vegetation in humid conditions with limited access to oxygen	1
swamp		the line above which the accumulation of solid precipitation is greater than their melting and evaporation	2
peat		a huge mass of ice, which moves slowly, is formed as a result of the accumulation and conversion of solid precipitation from snow to ice	3
glaciers		massive glaciers that cover entire landmasses, moving outward from the center	4
snow line		a body of fresh or salt water of considerable size, surrounded by land	5
alpine glaciers		glaciers that form high in the mountains and travel downhill like river of ice	6
continental glaciers		depression of the earth's surface filled with almost immobile yellow-brown water, peat, hygrophilous and hydrophytic vegetation	7

SKILLS TASK 2

1. Where are glaciers distributed?

   _____

2. What are the factors that affect the height at which the snow line is located?

   _____

3. What is the largest and deepest lake on Earth?

   _____

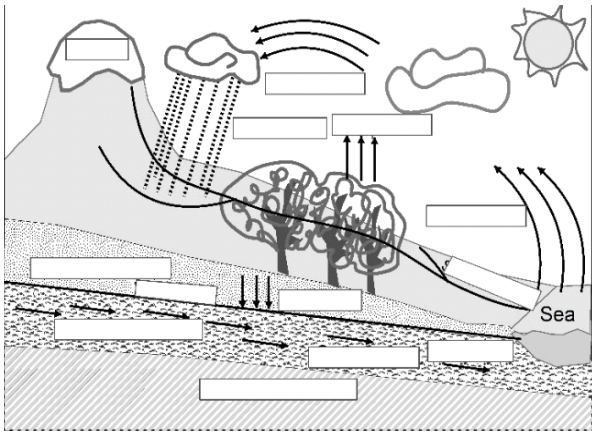
4. Use Google Earth and discover Lake Baikal, which contains approximately 20% of the fresh water in the Earth.

   _____

5. Why is the largest lake on Earth salty?

   _____

EXTRA PRACTICE SECTION



1. Fill in the missing terms on the diagram:
Glacier; Condensation; Precipitation; Transpiration; Evaporation; Surface runoff; Aquifer; Zone or aeration; Zone or saturation; Water table; Infiltration; Groundwater; Impermeable rock

2. Fill in the missing words:

The _____ includes the Earth's waters in the three aggregate states. In liquid state are the waters in the _____ and some of those in the earth's crust. In gaseous aggregate state is the _____, and solid - on _____ and ground ice. They are in constant interaction as a result of the _____. In its essence, the water cycle is determined by _____ (through which the processes of evaporation, condensation, snow, melting and freezing) and the _____ (as a result of which precipitation falls as well as the movement of surface and groundwater).

3. Dictionary

porosity	порестност
permeable	пропускливост
groundwater	подземни води
surface runoff	повърхности води
artesian basin	артезиански води
springs	извор
aquifer	водоносен хоризонт
mouth	устие
river outflow	речен отток
delta	делта
estuary	естуар
tributary	приток
catchment area	водосборен басейн

watershed	вододел
lake	езеро
swamp/marsh	блато
peat	торф
snow line	снежна линия
glacier	ледник
alpine glacier	алпийски ледник
continental glacier	континентален ледник
salinity	соленост
Heat capacity	топлоемкост
heat transfer	топлопредаване
wave	вълна
ocean current	океанско течение
high tide	прилив
low tide	отлив

GENERAL KNOWLEDGE EXPLORATORIUM

1. **Up and down movement of the surface of the water is call:**
A/ wave **B**/ tide **C**/ ocean current **D**/ river

2. Which water bodies do not belong to surface waters?
A/ river **B**/ lake **C**/ artesian basin **D**/ marsh

3. The main part of the fresh water is concentrated in:
A/ the river **B**/ the glaciers **C**/ the lakes **D**/ the groundwater

4. The oceans hold about …… % of all Earth's water:
A/ 79% **B**/ 71% **C**/ 87 % **D**/ 97 %

5. How late do the tides come on the next day?
A/ 50 minutes **B**/ 40 minutes **C**/ 30 minutes **D**/ 1 hour

6. Do you know which is the ocean current that meets the following characteristic? This is a powerful, fast, warm and surface ocean current in the North Atlantic. It is one of the most powerful currents in the world. Coming from warm climates, it moves warmer water to the North Atlantic. As it continues its journey heat from the ocean is lost to the atmosphere, warming the air above it and affects weather in the region.

7. "HOW" question section. Read and explore for more!

How tides affect human economic activity? The tides are very important in estuaries and harbours. The increased depth of water at high tide enables larger ships to enter the harbour. Tides constantly sweep the coasts, carrying away silt brought down by rivers. This helps in keeping the river channels and many harbours free of sediment. Reversible turbines in the dam allow electricity to be generated when powerful tides come in and go out. In cold countries tides prevent ports from becoming ice-bound in winter by bringing in salt-water and keeping the sea in constant motion. During a high tide, low-lying areas along the seacoast get flooded and this trapped water can be used for manufacturing salt. Fisherman depend on the regular rhythm of high and low tides for their livelihood.

How Human activities can affect runoff? As more and more people inhabit the Earth, and as more development and urbanization occur, more of the natural landscape is replaced by impervious surfaces, such as roads, houses, parking lots, and buildings that reduce infiltration of water into the ground and accelerate runoff to ditches and streams. In addition to increasing imperviousness, removal of vegetation and soil, grading the land surface, and constructing drainage networks increase runoff volumes and shorten runoff time into streams from rainfall and snowmelt. As a result, the peak discharge, volume, and frequency of floods increase in nearby streams.

EARTH AS A SYSTEM

The nation that destroys its soils, destroys itself.
/Franklin Roosevelt, 32nd President of USA/

LESSON №1

Pedosphere. Soil story

Soil is vital to life on Earth. It is "the skin" of our planet. It supports plant and tree life by providing them with nutrients, minerals and water. Soils are a habitat to millions of insects, bacteria and small animals. Soils modify the atmosphere by emitting and absorbing gases – carbon dioxide, methane, water vapor and dust. Soils play a major role in the water cycle and are the main precondition for the development of agriculture that feeds the mankind. **The pedosphere** is the outermost surface layer that is composed of soils.

Soils differ from one part of the world to another because there are five major factors that interact to create different types of soils. **Climate** controls the weathering trough temperature and moisture. Soils develop faster in warm and humid climates. **Relief or landscape** makes a difference in how much sunlight soils receive and how much water they keep. Every soil is made of **parent material** which is changed by weathering, biological and chemical processes. **Plant roots, bacteria and animals** speed the weathering of the parent material. All these factors work over **time**. Soil is dynamic because its components constantly change. Components are added or lost.

The particles that make the soils are categorized in three groups according to their size – **sand, silt and clay. Sand** includes particles from 2mm to 0,05 mm, **silt** 0,05mm – 0,002mm, and **clay** less than 0,002 mm.

Humus is the organic material that forms in soil when plant or animal matter decays. **Topsoil** has the highest concentration of organic matter and microorganisms. **Subsoil** is a variable mixture of small particles but it lacks of organic matter. **Bedrock** is a consolidated rock that forms a parent material for soil formation. /**Fig.1**/

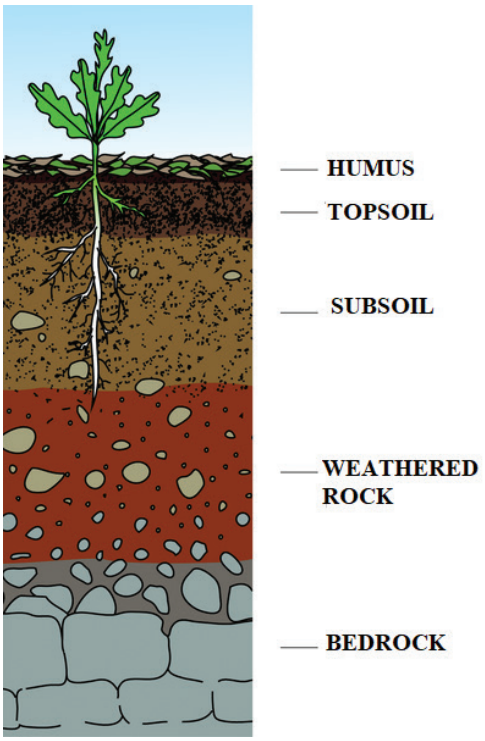


Fig.1 Soil profile

Soil color is influenced by soil mineralogy. Soils high in iron are deep orange-brown. Those soils that are rich in organic matter are dark-brown or black.

Soil fertility is the status of the soil with respect to its ability to supply elements essential for plant growth. Soil fertility can be classified as high, moderate and low. There are 17 essential plant nutrients, three of them come from air and water – nitrogen, oxygen and carbon, but 14 of them come from the soil like – phosphorus, sulfur and etc.

Half of the topsoil on the planet has been lost for the last 150 years. In addition to erosion, desertification and deforestation, soil fertility and quality is affected mainly by agriculture, including soil salinity and nutrient degradation. The degraded lands are also often less able to hold water which causes severe flooding. **It can take 3000 to 12 000 years to form soil for farming.**

LITERACY DEVELOPMENT

Terms and definitions

term	translation	definition
nutrients	хранителни вещества	substances used by an organism to survive and grow
silt	тиня, нанос	a loose sedimentary material carried by running water
soil fertility	почвено плодородие	soil productiveness
desertification	опустиняване	a process when fertile land becomes desert as a result of drought, deforestation or inappropriate agriculture
deforestation	обезлесяване	a decrease in forest areas due to human activity
salinity	соленост	the amount of salt in soils, water etc.
flooding	наводнение	an overflow of water
drought	суша, засушаване	a prolonged period of low or no rain

SKILLS DEVELOPMENT — PROJECT

Drawing and interpreting soil horizons

Like a biography, the soil profile tells a story about the life of a soil. There are many soil horizons – **O** (organic), **A** (topsoil), **B** (subsoil), **C** (parent material), **R** (bedrock) etc. Describe the main horizons of the most fertile soil in Bulgaria – **chernozem.**

O

LESSON №2

Biosphere. Eco-systems

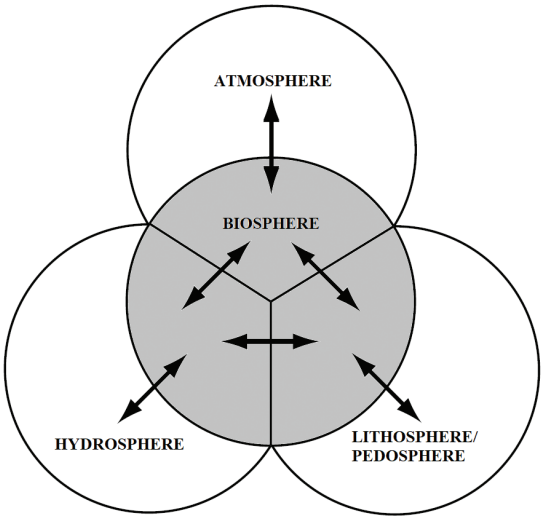


Fig.1 Biosphere

Biosphere refers to the zone of the planet in which all life forms exist. It includes lithosphere, pedosphere, atmosphere and hydrosphere which are required for sustenance of life in a right mixture. Biosphere extends in altitude to about 10 km and about 10 km below sea level. /**Fig.1**/

Biosphere has three components. They are **abiotic** (physical and inorganic) components, **biotic** (organic) components and **energy** component.

Abiotic components consist of all non-living elements which are essential for the living of all living organisms – lithosphere, pedosphere, atmosphere and hydrosphere. Mineral nutrients, gases and water are the three basic preconditions of organic life.

Biotic components are microorganisms, plants, animals and humans. Plants are mainly producers of nutrients and energy. Animals are mainly consumers and microorganisms decompose plants and animals to re-use nutrients and energy from the plants as a continuous cycle.

Energy is the third vital component of biosphere. All organisms use energy to live and convert one form of energy to another. The sun is the main source of energy. /**Fig.2**/

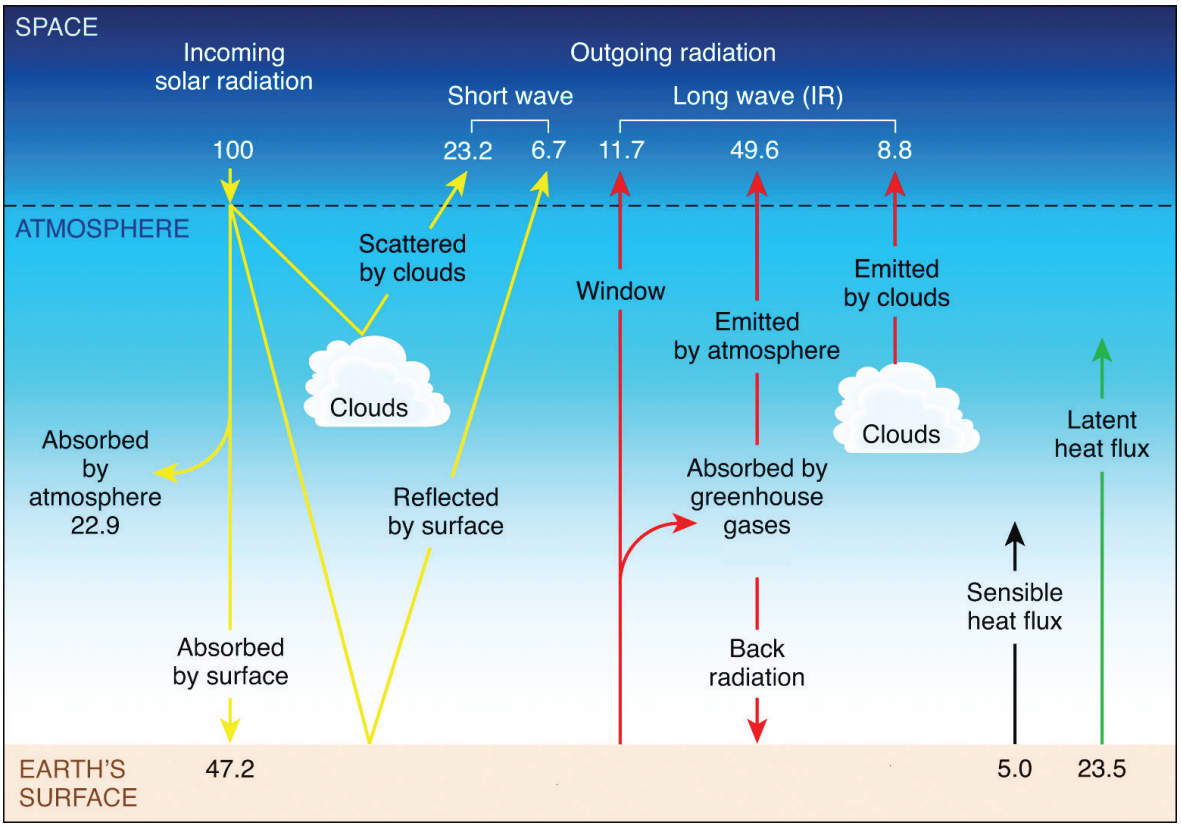


Fig.2 Energy budget describes the ratio between incoming and outgoing solar radiation

An eco-system is defined as a system of regularly interacting components of the biosphere by forming a unified whole in a certain place. Main characteristic of an eco-system are – an energy cycle, a food chain, a nutrient cycle, development and evolution.

The food chain is a transfer of energy. On the basis of food habits living organisms as consumers are divided into **herbivores** – plant eating animals, **carnivores** – flesh eating animals and **omnivores** – both plant and animal eaters.

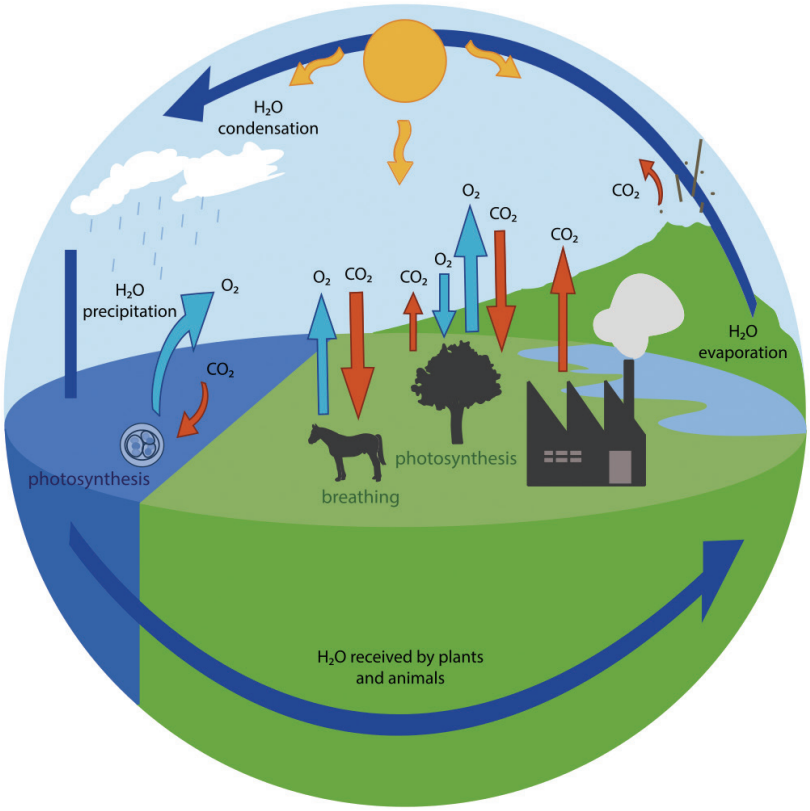


Fig.3 The nutrient cycle

The nutrient cycle is the movement and circulation of inorganic mineral substances through organic phase. It includes – the hydrological cycle, **carbon cycle**, nitrogen cycle, oxygen cycle etc. The carbon dioxide is converted to organic carbon through photosynthesis by the primary producers – plants, bacteria and algae.

The hydrological cycle is driven by the solar energy and helps in exchange of water among air, land, sea, soil, plants and animals.

The oxygen cycle is a main result of photosynthesis. Oxygen is the most common element of life organism bodies. The oxygen cycle, along with carbon cycle and nitrogen cycle plays essential role in the existence of life. /**Fig.3**/

Eco-systems can be classified on the basis of habitats or abiotic elements. They are divided into two types – **terrestrial and aquatic** eco-systems which can be subdivided into various sub-types.

Terrestrial eco-systems cover 29% of the surface area of the planet on land. Terrestrial eco-systems are major source of food and raw materials for people and societies. Land organism communities are more diversified than the aquatic eco-systems. Major sub-types can be mountain eco-system, desert eco-system, lowland eco-system etc.

Aquatic eco-systems refer to the 71% of the surface and are divided into sub-divisions of marine, fresh water and estuarine sub-types because they are mainly related to the abiotic elements of the biosphere. Most of the organisms that live in water are fish, some of them are amphibious– frogs, crocodiles etc.

Geographical distribution of eco-systems is strongly dependent on environmental factors and is affected by their relationships. Environmental factors are climate, landforms, soils and living organisms. Eco-systems vary in size and shape.

LESSON №3

Biomes

Earth's surface has many eco-systems. Scientists classify similar eco-systems as **biomes. Biome** is a geographical area of eco-systems with similar biotic and abiotic characteristics on different land or aquatic areas by geographical location. Each biome has a unique community of plants and animals that depends predominantly on climate. It describes long-term patterns of temperature and precipitation in a region.

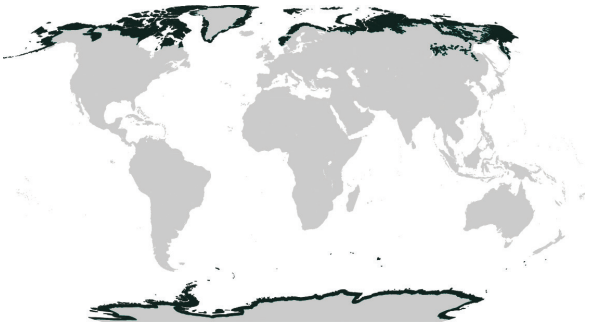


Fig.1 Tundra

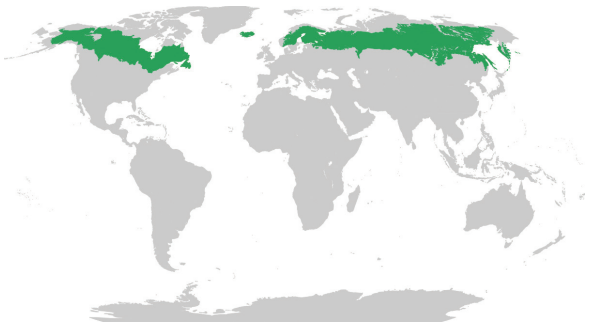


Fig.2 Taiga

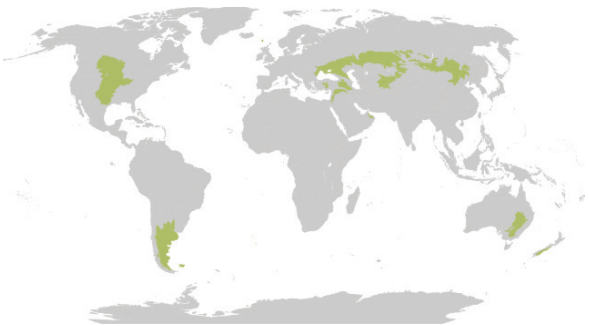


Fig.3 Steppe

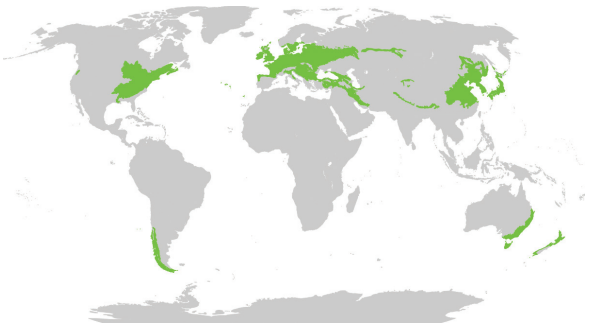


Fig.4 Temperate forest

There are seven terrestrial biomes – tundra, taiga, temperate grassland or steppe, temperate broadleaf and mixed forest, desert, tropical grassland or savanna, tropical rainforest.

Tundra is found around the Arctic circle in the Northern hemisphere, Antarctica and on the top of the highest mountains. The tundra is the coldest and the driest biome. The ground and the soil are permanently frozen and they are called **permafrost**. Vegetation includes lichens, shrubs, mosses, grasses that can survive in short summer conditions. Animals are arctic fox, polar bear, arctic hare, caribou, musk ox, snowy owl etc. /**Fig.1**/

Taiga is made up of coniferous forests and is the largest land biome by area. These forests contain evergreen needlelike trees such as firs, spruces, hemlock and pines. Taiga has low average temperatures but more precipitation than in tundra. Fauna is represented by deer, wolves, bears, elk, foxes, hares, lynxes, great number of insects and herbivores, squirrel, beavers, bison etc. There is no taiga south of the equator. /**Fig.2**/

Steppe is the temperate grassland plain area with cold winters, hot summers and moderate precipitation which is located between taiga and tropics. Grasses are dominant in this biome. It is called **prairie** in North America. Many of world's steppes are transformed into pastures and arable land. Steppes are typically underlined by **chernozems** – one of the most fertile soils in the world. /**Fig.3**/

Temperate forest comprises areas of deciduous broadleaf forests and mixed with coniferous trees forests. Temperate forest areas go through four seasonal periods with cold winter, moderate summer and moderate precipitation of rain and snow. Some Flora is represented by oaks, beeches, shrubs, maples, walnuts, birches, lichens, mosses etc. /**Fig.4**/

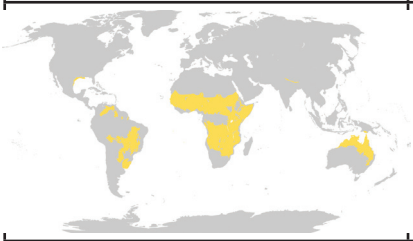
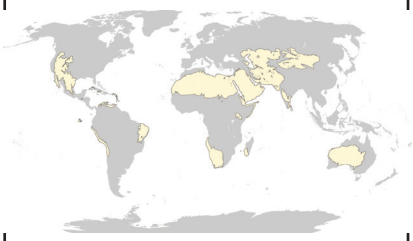
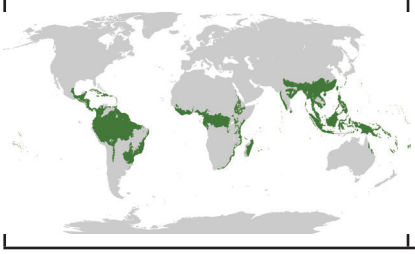
LITERACY DEVELOPMENT

Terms and definitions

term	translation	definition
abiotic	нежива природа	air, water, rocks, soils
food chain	хранителна верига	organisms interrelated in their eating habits
terrestrial	сухоземен, наземен	on land, underground
aquatic	воден	related to water
biome	природна зона	eco-systems with similar biotic and abiotic characteristics
permafrost	вечна замръзналост	ground that remains frozen for a long period
coniferous	иглолистен	mainly evergreen needlelike tree or shrub
deciduous broadleaf	широколистни листопадни	deciduous plants that lose their leaves during the cold season

SKILLS DEVELOPMENT — PROJECT

Exploring biomes

Guess the biome according to the map	Name and location	Climate	Flora	Fauna
				
				
				

LESSON №4

Natural resources

Natural resources are raw materials and natural conditions supplied by the planet. Every natural component like water, soils, air, rocks etc., can provide goods and services to people and thus becomes a natural resource.

Natural resources are classified according to their exhaustibility and renewability. **Inexhaustible natural resources** are available in unlimited quantities on the planet. Resources like solar and wind energy, air, tidal energy, rainfall, hydro-power cannot be exhausted due to human activity at global level. **Exhaustible natural resources** have finite supply globally and can be exhausted. They are divided into **renewable and non-renewable**.

Renewable resources are mainly biotic components of the environment – soil fertility, water, vegetation and wildlife. If their consumption exceeds their rate of renewal they may get totally exhausted.

Non-renewable resources are life species, fossil fuels – oil, gas and coal, ores and minerals. If they once are extracted, they cannot be regenerated.

Forests comprise about a third of land area. They perform special role to protect biodiversity, conservation of water and soils, the prevention of drought and floods, have a leading role in carbon cycle. Five countries possess more than a half of all forests resources and timberlands in the world. /**Fig.1**/

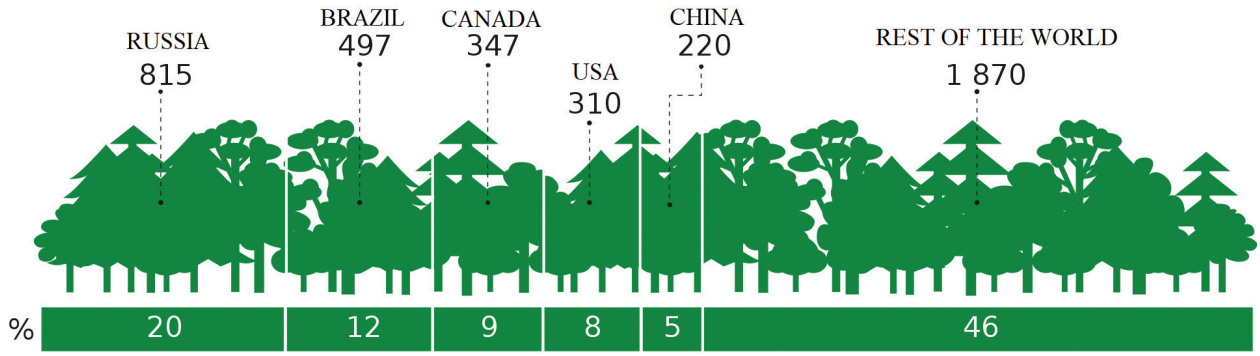


Fig.1 Top five countries by forest area in million ha (2020)

World's forest area has been decreasing rapidly for the last decades. The rate of deforestation is extremely visible in tropical rainforest areas with a loss of more than 40% if its natural cover. The main preconditions for deforestation are industrialization, agriculture, urbanization, logging and timber industry, cattle breading, fuel wood and oil wood. Half of the world's rainforest has been destroyed in 20th century. If deforestation continues at the current rate, the world's rainforests will be gone in the next 100 years. The countries with the highest losses of forests in 2018 are Brazil, DR Congo, Indonesia, Colombia and Bolivia. Deforestation is one of the main contributors to global warming. In the rainforest over a half of water amount is held among trees. Three quarters of world's fresh water is supplied by forest catchments. Deforestation leads to desertification.

Clearing forest for palm oil production is a growing problem in Indonesia, Malaysia, DR Congo, Gabon.

LESSON №5

Sustainable development. Sustainable minds

Fig.1 Sustainable development goals United Nations

Sustainable development is an essential concept of our century. It is a way of understanding the modern world and a method of solving global issues in the same time. Sustainable development has been defined in many ways but the most frequently used definition is **"Sustainable development is development of countries, societies and the world that meet the needs of the present without compromising the future generations to meet their own needs."**

The 17 Sustainable Development Goals or SDGs came into effect on January 1st 2016 after a historic meeting of **United Nations** in 2015 when 193 governments agreed to implement the goals in every of their state policies in order to achieve new sustainable world order. There are **"the 5 P's" in SDGs** – People, Planet, Prosperity, Peace and Partnership. /**Fig.1**/

All sustainable development goals and targets must consider the **three spheres of sustainability – environment, society and economy. The principles** that underlie the sustainability are – equity among generations, peace, tolerance, poverty reduction, environmental preservation and restoration, natural resources conservation, social justice. International actions in the fields of sustainable development should also address the interests and needs of all countries. But the countries must reduce and eliminate unsustainable production and consumption and promote appropriate demographic policies due to overpopulation in poor regions and countries. Governments and civil societies must hold the responsibility for a more sustainable future.

Global issues

Causes of Overpopulation

Most of humanity lives on just a few dollars a day. Whether you live in the wealthiest nations in the world or the poorest, you will see high levels of inequality. Two-thirds of the world's hungry live in just 7 countries: Bangladesh, China, the Democratic Republic of the Congo, Ethiopia, India, Indonesia and Pakistan. 98% of the world's undernourished people live in developing countries. **Human overpopulation** is among the most pressing environmental issues, silently forces global warming, environmental pollution, habitat loss and the sixth mass extinction, the consumption of finite natural resources, such as fresh water, arable land and fossil fuels, at speeds faster than their rate of regeneration. Right now, with more than 7 billion of us:

- We are driving over 50 species of plants and animals to extinction per day.
- We are destroying rain forests many times faster than they can regenerate.
- We are consuming stored solar energy (fossil fuels) at rates thousands of times faster than it is regenerating.
- We are consuming fresh water at least 10 times faster than it is being replenished.
- We are causing soil erosion several-fold faster than rates of restoration.
- We are over-fishing our oceans, radically changing the species balance in many places.

Fresh Water Scarcity

One billion people worldwide lack access to water, and a total of 2.7 billion find water scarce for at least three months of the year. Inadequate sanitation is also a problem for 2.4 billion people—they are exposed to diseases, such as cholera other water-borne illnesses. Two million people, mostly children, die each year from diarrheal diseases alone. By 2025, two-thirds of the world's population may face water shortages. Ecosystems around the world will suffer even more. 2 billion people in the world haven't access to fresh water in their houses, but in UK the average person use is 150 liters per day. The highest average water use is in USA at 650 liters per day.

Species Extinction

Human beings are currently causing the greatest mass extinction of species since the extinction of the dinosaurs 65 million years ago at rates 1000 to 10,000 times faster than normal. We are now losing 30,000 species per year, or three species per hour. 63,837 species are examined worldwide, 19,817 are threatened with extinction - nearly a third of the total.

Depletion of Natural Resources

As the human population continues to explode, finite natural resources, such as fossil fuels, fresh water, arable land, coral reefs and frontier forests, continue to plummet. Oil – The British Petrolium estimates that there is 188.8 million tons of oil left in 2019 as of 2015. If our current demand continues, this oil will only be enough to supply the world for the next 30.2 years. Natural Gas

– As of 2019, the known reserves of natural gas was estimated to last 50.6 years with the current global production.

The rate at which the world consumes fossil fuels is not standing still, it is increasing as the world's population increases, and as living standards rise in parts of the world that, until recently, had consumed very little energy. Fossil fuels will therefore run out earlier.

Globally, we currently consume the equivalent of over 11 billion tonnes of oil in fossil fuels every year. Crude oil reserves are vanishing at the rate of 4 billion tonnes a year (1) – if we carry on at this rate without any increase for our growing population or aspirations, our known oil deposits will last until 2052. There really isn't a lot of oil left.

We'll still have gas and coal left by the time oil runs out in 2052. But if we increase gas production to fill the energy gap left by oil, then those reserves will only give us an additional eight years, taking us to 2060.

It's often claimed that we have enough coal to last hundreds of years. But if we step up production to fill the gap left through depleting our oil and gas reserves, **the coal deposits we know about will run out in 2088**. And let's not even think of the carbon dioxide emissions from burning all that coal.

Each person on Earth now requires a third more land to supply his or her needs than the planet can supply.

Fish – Fishermen from a lot of coastal provinces report a decline in their catch. **Other marine species such as the tuna is close to extinction due to overfishing.**

Increased Global Warming and Climate Change

The consumption of fossil fuels in last few decades has contributed much to the degradation of our environment. **Global warming, climate change, extinction of wildlife species, depletion of ozone layer, and increase in air pollution** are few of the problems from which our environment is suffering.

Global warming is the increase of earth's average surface temperature and its oceans due to greenhouse gases released as people burn fossil fuels.

Global warming has emerged as one of the biggest environmental issue in the last two decades.

As per NASA, "the global average surface temperature rose 0.6 to 0.9 degrees Celsius (1.1 to 1.6° F) between 1906 and 2005, and the rate of temperature increase has nearly doubled in the last 50 years. Temperatures are certain to go up further.

Global warming is affecting many parts of the world. Due to global warming, the glaciers are melting which is causing the rise in the sea level.

Forest Fires: Deforestation by nature is another leading cause of global warming. Natural forest fires are usually televised on the news, showing the devastation of mountain homes and communities. While this loss is tragic, the effects of these natural occurring forest fires pose a problem for the earth's air.

Permafrost: When frozen soil, constituting about 25% of the Northern Hemisphere, increases, it keeps in the carbon and methane gases. So, while you may be thinking how it can be global warming when you're still freezing in Tibet, the **permafrost is actually leaking carbon into the earth's atmosphere.**

PROJECT SECTION

Sustainable minds – **"HOW BIG IS YOUR FOOTPRINT?"**

The Ecological Footprint - EF is the measure of how much productive land and sea is needed to provide the resources, such as energy, water and raw materials we use in our everyday life. It also calculates the emissions of oil, coal and gas we burn and it determines how much time and land is required to absorb our waste. I**t is measured in hectares per person. Global EF is 2.2 hectares per person (ha/p),** in UK is 5.4 hectares per person, for example.

1. **CHECK YOUR WATER and LITTER FOOTPRINT by counting points and transform them in ha/p**

My shower (or bath) on a typical day is:	All my garbage from today could fit into a:
• No shower/no bath (0)	• Shoebox (20)
• 1-2 minutes long/one-fourth full tub (50)	• Large pail (60)
• 3-6 minutes ling/half full tub (70)	• Garbage can (200)
• 10 or more minutes long/full tub (90)	• No garbage created today! (-50)
I flush the toilet:	I reuse items rather that throw them out (-20)
• Every time I use it (40)	I recycle all my paper, cans, glass and plastic (-20)
• Sometimes (20)	I avoid disposable items as often as possible:
When I brush my teeth, I let the water run (40)	• Yes (-10)
I washed the car or watered the lawn today (80)	• No (60)
We use water-saving toilets (6-9 liters/flush) (-20)	I use rechargeable batteries whenever I can (-30)
We use low-flow showerheads (-20)	Add one point for each lev (лева/лв.) you spend in a typical day
I use a dishwasher on a typical day (50)	Today was a **Buy Nothing Day** (0)
TOTAL SCORE:	+ **TOTAL SCORE:**

+

I change my outfit every day and put it in the laundry (80)	I am wearing clothes that have been mended or fixed (-20)
Most of my clothes are purchased new each year (120)	One-fourth of my clothes are handmade or secondhand (-20)
I give the local thrift store clothes that I no longer wear	I have __ pairs of shoes:
• Yes (0)	• 2 to 3 (20)
• No (100)	• 4 to 6 (60)
I buy hemp instead of cotton shirts when I can (-10)	• 7 or more (90)
I never wear 75% of clothes in my cupboard (75)	
TOTAL SCORE:	+ **TOTAL SCORE:**

Grand total score must be divided by 100 = _____ hectares per person

Buy Nothing day is an international day of protest against consumerism and Black Fridays culture. Buy Nothing Day has been celebrated since 1992 to raise awareness of the negative environmental, social, and political consequences of overconsumption. Buy Nothing day will be held on 27th November in 2020 and on November 26th in 2021.

Global water footprint includes 3% direct or domestic and 97% indirect or industrial water footprint.

Only 3% of the world's water is fresh water. The average annual water footprint per capita (per person) is about 1385 m³. India is the country with the largest water footprint in the world, followed by USA, Greece, Italy and Spain. In the same time, more than 1.5 billion people worldwide are facing water scarcity every day, and more than 2.7 billion people meet water shortages for domestic use. Inadequate sanitation is also a problem for more than 2.4 billion people.

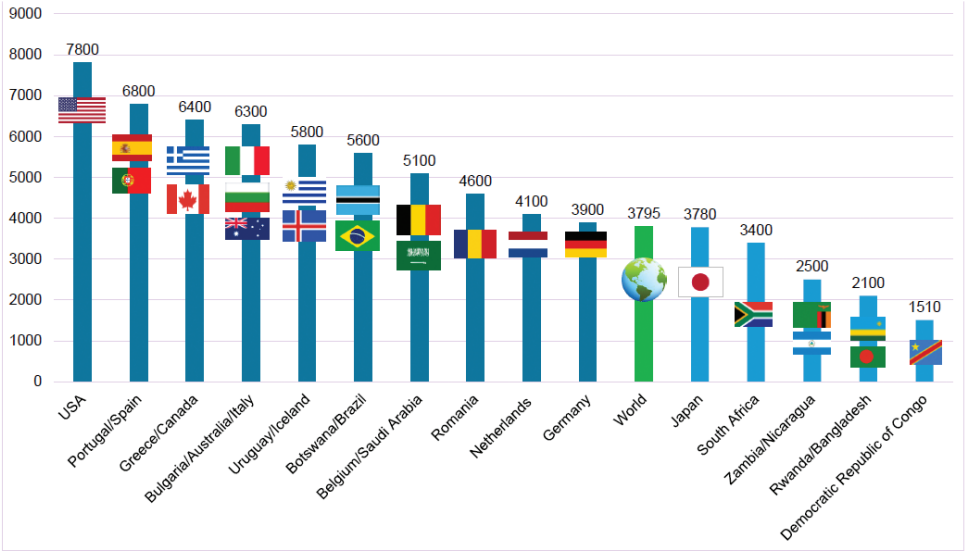


Fig.1 Water footprint m³ per day by country in 2019 - sorce: WFN

Many of water systems are extremely stressed because of overpopulation and the need of food production. Rivers and lakes are drying up or are polluted. More than a half of world's wetlands has disappeared. By 2025 two-thirds of global population may face water shortages. /**Fig.2**/

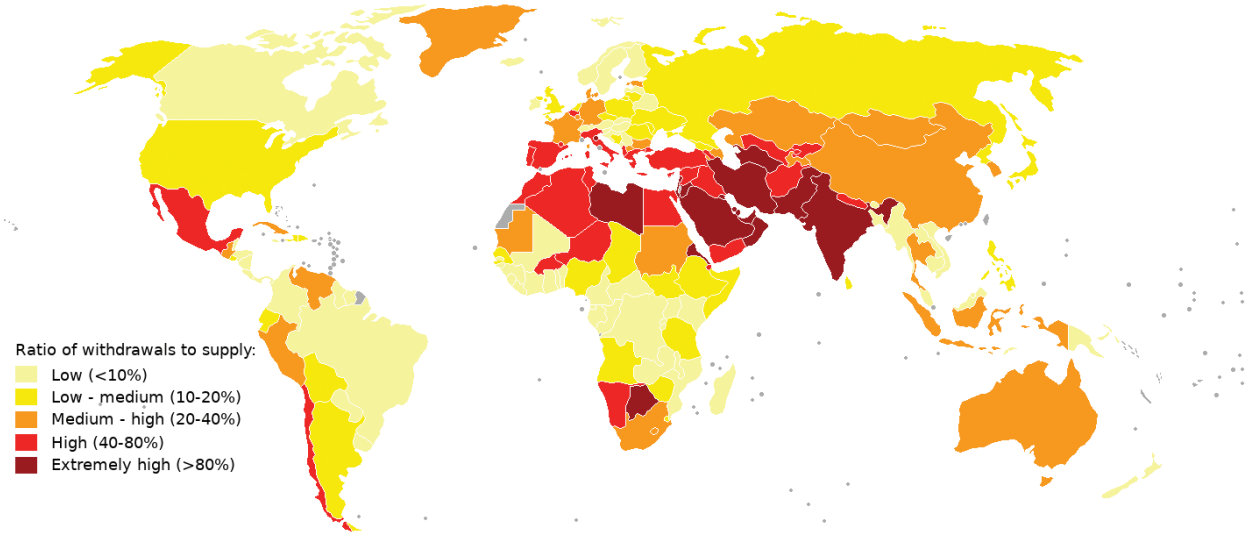


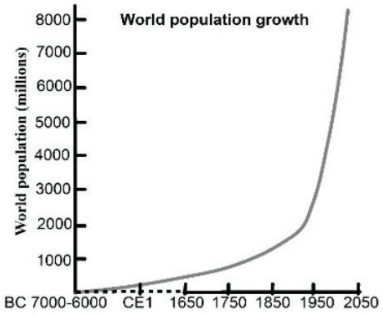
Fig.2 Water stress by country in 2019 - source: WFN

WORLD POPULATION

Given continued high rates of population increase, all environmental victories are temporary. */T. Horton/*

LESSON №1

Number of population



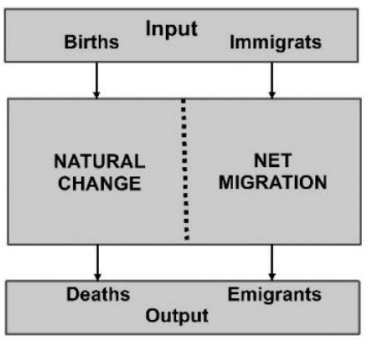


Fig.1

The number of population has been increasing exponentially since the beginning of the XIX century. Ten thousand years ago, when people first began to domestic animals and cultivate crops, world population was no more than 5 million. 2000 years ago, global population rise to about 250 million. Demographers estimate that world population reached 500 million by about 1650, by 1800 double and reached one billion and has increased 7-fold since then. In 2011 reach 7 billion. The total number of population in 2020 is 7,684,292,383 (July 2020 est. CIA World Factbook)

The world's population is unevenly distributed. It is largely determined by the physical and socio-economic environment. In fact, 80% the total population occupies less than 20% of the land surface and it is unevenly distributed. South East Asia, Europe and north-eastern North America are recognized as outstanding favorable spots for human concentration. The causes of a change in population size the natural change and the net migration. Population change in a country is affected by (a) the difference between births and deaths (natural change) and (b) the balance between immigration and emigration (net migration) /**Fig. 1**/. In cases where the birth rate exceeds the mortality rate, we have a positive natural increase, and vice versa – a negative natural increase.

Six of the world's seven continents are widely and permanently inhabited; Asia is easily the most populous continent with about 60% of the world's population (China and India together account for over 35%); Africa comes in second with over 15% of the earth's populace, Europe has about 10%, North America 8%, South America almost 6%, and Oceania less than 1%; the harsh conditions on Antarctica prevent any permanent habitation. (CIA World Factbook)

The average birth rate in the world is 18.1 births/1,000 population (2020), 7.7 deaths/1,000 population (2020). The factor affecting birth rate and fertility can be group into four categories: demographic (where infant mortality is high in such societies parents often have many children to compensate for these expected deaths; age structure); socio-cultural (religion, cultural tradition, education, the rate of literacy, the place of women in society, socio and economic status of women, marriage patterns, pensions support etc.); economic (fertility rates tend to be highest in the world`s least developed countries); population policies (pro-natalist policy – which promote large families or immigration to increase population size (France); or anti-natalist – which encourage fewer birth to reduce population growth (Chine). Apart of the challenges of the physical environment, a range of social and economic factors (poverty, poor access to healthcare and medicines, infectious diseases, changing migration patterns, insanitary condition, malnutrition, war) agents contribute to the high death rate in the developing world. The main reason for the increase in mortality in developed countries is the aging population. Migration has played a major role in shaping the global cultural map. Migration can by classified by the reasons which cause them (voluntary/involuntary); travel distance (short/

long); where they migrate (international/regional/local); time scale (temporary/permanent) In voluntary migration the individual has a free choice about whether to migrate or not. In involuntary migration people are made to move against their will and this may be due to human (war, discrimination) or environmental factors (natural disaster – flood, earthquake). The level of migration is influenced by the so-called push and pull factors relating to migration. Push factor are negative conditions at the point or origin which encourage or force people to leave an area (for example high level of unemployment). Pull factor are positive condition at the point of destination which encourage people to come to an area (for example high standard of living).

LITERACY TASK

Match the term with the number of its right definition 1-19:

TERMS	№	DEFINITIONS	№
population density		all the measures taken by a government aimed at influencing population size, growth, distribution or comparison	1
population distribution		the difference between the immigration rate and emigration rate	2
densely populated		the cumulative change in the size of population for a year after natural movement and migration ratio has been accounted for.	3
sparsely populated		someone coming into a country	4
population policy		number of emigrants per 1000 population	5
birth rate		someone leaving a country	6
death rate		number of death of children under one year of age per 1000 live births per year.	7
rate of natural change		the average number of children a women has during her lifetime.	8
immigration rate		an absolute decline in the population of an area (generally most isolated rural area) usually due to a high level of out migration	9
emigration rate		number of death per 1000 population per year	10
ratio of net migration		the difference between the birth rate and death rate	11
annual population change		the movement of people across a specific boundary, national or international, to establish a new permanent place of residence	12
infant mortality		a rapid increase in the size of a population	13
immigrant		areas with a higher population density	14
emigrant		the way that the population is spread over a given area, from a small region to the Earth as a whole	15
migration		number of births per 1000 population per year	16
total fertility rate		the average number of people per square km in a country or region	17
depopulation		region with low populated density	18
population explosion		number of immigrants per 1000 population	19

LESSON №2

Population structure

The term population structure refers to composition of a population. The most important aspects are age and sex. Other aspects of population structure that can also be studied include race, language, religion, and social/occupational group.

Age and sex structure can be illustrated by the use of population pyramids /**Fig.1**/. The structure of a population is the result of the processes of fertility, mortality and migration. Pyramids can be used to portray either absolute and relative data. Absolute data show the figures in thousands or millions while relative data shows the numbers involved in percentages. Each bar represents a five-year age-group. The male population is represented to the left of the vertical axis with females to the right. Population pyramids tell us a great deal about a population, such as birth rates, death rates, life expectancy and the level of economic development. For example, less economically developed countries typically have a youthful growing population, high death, rates, short life expectancy. This population is characterized by large families, many children, and few old people. Population growth is rapid.

Analyzing population pyramids we can predict future population trend and can be related to stages in the demographic transition model. **In Stage 1** in the demographic transition model is applied to most of the world before the Industrial revolution, both Birth rate and Death rate are high. As a result, population size remains fairly constant but have major swings with events such as wars or pandemics. People engaged in agriculture, people are illiterate and have low level technology. **In stage 2**, birth rate remain high, death rate fall due to improvement in health care and sanitation, the result is rapid population growth. Many of the least developed countries today are in stage 2. In Stage 3 birth rate gradually decrease, usually as a result of improved economic condition, an increase in women`s status, and access to contraception. Total population continues to rise rapidly. **Stage 4**, birth and death rate are both low, stabilizing the population. These countries tend to have stronger economies, higher levels of education, better healthcare, a higher proportion of working woman. Most developed countries are in Stage 4.

A possible **Stage 5** would include countries in which fertility rates have fallen significantly below replacement lever (2 children) and the elderly population is greater than the youthful population. Total population decline doe to an ageing population. Different pyramids fall into different sections of the demographic transition model.

LITERACY TASK

Match the term with the number of its right definition 1-5:

TERMS	№	DEFINITIONS	№
population structure		average age someone is expected to live to when they are born	1
life expectancy		people who receive a pension	2
retirement age		composition of a population	3
pensioner		the age at which people officially stop working	4
young population		young dependents (those under the age of 16)	5

SKILLS TASK

1. Identify some of the disadvantages and benefits in cases where the young population makes up a high relative share? _____
2. Identify some of the disadvantages in cases of aging population? _____
   _____
3. What do you mean by an ageing population? What are the reasons for the presence of an aging population? _____
   _____
4. What do you mean by youth population? What are the reasons for the presence of youth population? _____
   _____
5. What is the main factor for lower population density? _____
   _____
6. What are the reasons for the rapid increase of the world`s population? _____
   _____
7. What are the factors of a change in population size in a country? _____
   _____
8. What is the difference between voluntary and involuntary migration? _____
   _____
9. How many types of demographic policy exist? _____
   _____

3. Dictionary

population density	гъстота на населението
densely populated	гъсто население
sparsely populated	рядко население
birth rate	раждаемост
death rate	смъртност
natural growth	естествен прираст
immigration	имиграция
emigration	емиграция
life expectancy	продължителност на живота
pensioner	пенсионер

population structure	структура на населението
migration	миграция
depopulation	обезлюдяване
population explosion	демографски взрив
population policy	демографска политика
migration ratio	механичен прираст
infant mortality rate	детска смъртност
overpopulation	пренаселеност
retirement age	пенсионна възраст
young population	младо население

Structure of the population

The grouping of the population by a certain feature is called the **structure of the population.** There are 3 main groups of population structures: demographic structures (by sex, age, family and marriage); socio-economic structures (social, professional, educational, ethnic, linguistic and religious); settlement structure (the distribution of the population according to the 2 main types of settlements - towns and villages).

The distribution of the population by sex shows the **gender structure** of the population. It is expressed as the number of males to every 100 females or the number of males per one hundred females in the population. By 2020, men (50.4%) predominate over women by about 70 million. The nature of the gender structure largely depends on: the birth rate (male births usually exceed female births, but males die off more quickly in infancy, therefore in countries with high birth rates men predominate over women), life expectancy (it is higher in women, therefore in countries with an aging population women predominate over men), migration (there is usually a dominance of males in populations dominated by immigrants), natural conditions (in difficult environments, there is usually an imbalance in favor of males), military conflicts (military casualties in men are more than those in women), military towns, or in areas with a developed mining industry may have an imbalance in favor of men. In the world, men are more than women in high-birth areas: South and Southwest Asia, North Africa. Women are more than men in Europe and North America, ie. in areas with higher life expectancy and population aging.

Ethnic structure is the grouping of the population by ethnic characteristics. The population of nations of the world are more or less diverse with respect to ethnicity (ethnicity here includes national, cultural, religious, linguistic, or other attributes that are perceived as characteristic of ethnic groups). Depending on the ethnic composition of the population, the countries are divided into mono-ethnic and multinational. The countries of India, China, Russia, Nigeria, Afghanistan and others are distinguished by a great ethnic diversity of the population.

Language is one of the most important aspects of culture because it allows people within a culture to communicate with each other. Language helps establish a cultural identity. It builds a group identity and a sense of unity among those who speak the language. Geographers estimate that between 3,000 and 6,500 languages are spoken across the world today. The languages are categorized by placing them with other similar languages in language families. The peoples of the Indo-European language family are the most numerous. They are divided into 10 language groups. The most widespread among them are the Slavic, Romanesque and Germanic. Like other aspects of culture, language can be diffused in many ways. It may follow trade routes. A second way diffusion occurs is through migration. For example, colonists from Europe brought the English, Spanish, French, and Dutch languages to North and South America, Africa, Australia, and parts of Asia.

The educational and occupational structure show great differences by countries and regions. The share of people with secondary and higher education in developed countries is many times higher than in Third World countries. The highest levels of education are in Europe, Great Britain, the United States, Canada, Japan and Israel. The lowest education is in Africa and South Asia. The occupational structure is still dominated by employment in agriculture. This is especially true for developing countries in Africa, Asia and Latin

America. In highly economic developed countries and many former socialist countries, the dominant place is occupied by those employed in the service sector.

Religion consists of a belief in a supernatural power or powers that are regarded as the creators and maintainers of the universe. Traditionally, religions have been categorized as one of three types: monotheistic, with a belief in one god; polytheistic, with a belief in many gods; animistic or traditional, often with a belief in divine forces in nature. Religions spread across the world through diffusion and through converts, people who give up their former beliefs for a new religion. Three major religions of the world began in Southwest Asia and two in South Asia. The religions of Southwest Asia—Judaism, Christianity, and Islam—are monotheistic and share similar basic beliefs, and some prophets and teachers. The oldest of the Southwest Asian religions, **Judaism** is concentrated in Israel. **Christianity** is based on the teachings of Jesus Christ, whom Christians believe was the Son of God. The teachings of Jesus are recorded in the New Testament of the Bible. Christianity has three major groups: Roman Catholic, Protestant, and Eastern Orthodox. Islam is based on the teachings of the Prophet Muhammad, who began teaching around 613 A.D. Its followers are known as Muslims. **Islam** is a monotheistic religion in which followers worship God, who is called Allah in Arabic. The holy book of the Muslims is the Qur'an. Islam spread from Southwest Asia to Africa, Central, South, and Southeast Asia, and parts of the Balkans in Europe. Hinduism dates back about 5,000 years. It is an ethnic religion concentrated in India, but has followers elsewhere. **Hinduism** is usually considered polytheistic because a Hindu may believe in one god or many gods, each of whom represents an aspect of the divine spirit, Brahman. The religious requirements of a caste system shape many aspects of Hindus' lives and culture. **Buddhism** developed about 563 B.C. in India, near the Nepal border. Its founder, Siddhartha Gautama (also called the Buddha or Enlightened One), rejected the Hindu idea of caste. Buddha's teachings promote the correct way of living in order to reach an enlightened spiritual state called nirvana. Missionaries spread the Buddha's teaching from India to Southeast Asia, China, Japan, and Korea. In parts of East Asia, three belief systems are widely practiced. They are **Confucianism, Taoism, and Shinto**. Sometimes those belief systems are thought of as religions and sometimes as philosophies of life. All of them have specific ways of life and behaviors associated with them.

More than half of the world's population now live in urban areas — increasingly in highly-dense cities. However, urban settings are a relatively new phenomenon in human history. This transition has transformed the way we live, work, travel and build networks. By 2050 it's projected that more than two-thirds of the world population will live in urban areas. In recent decades, the world has been urbanizing rapidly. In 1950, only 30 per cent of the world's population lived in urban areas, a proportion that grew to 55 per cent by 2018. The global urbanization rate masks important differences in urbanization levels across geographic regions.

GENERAL KNOWLEDGE EXPLORATORIUM

1. Which religion does NOT oppose artificial birth control.

A/ Muslim **B**/ Catholic **C**/ Eastern Orthodoxy Christianity **D**/ None of the three listed

2. Which one of the following continents has highest grown of population?

A/ Africa **B**/ South America **C**/ Asia **D**/ Europe

3. Which one of the following is not an area of sparse population:

A/ polar region **B**/ Equatorial region **C**/ Australia **D**/ Southeast Asia

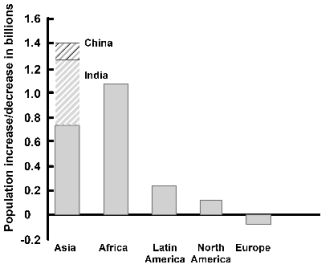
4. Which indicator is generally regarded as a prime indicator of socio-economic progress:

A/ infant mortality **B**/ net migration **C**/ population density **D**/ urbanization

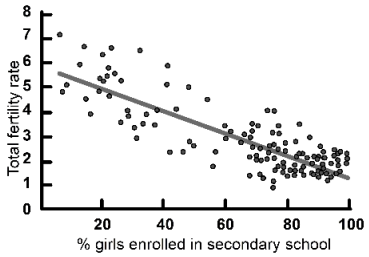
5. Which one of the following is not push factors?

A/ water shortage **B**/ educational facilities **C**/ unemployment **D**/ epidemics

6. Look at Fig. 1 of the projected population growth by continents. Identify the causes of population decline in Europe and population growth in Latin America? Look at Fig. 2. What is the comparison between female secondary education and total fertility rates?



Projected population change by region, 2005-2050



A comparison between female secondary education and total fertility rates

8. "HOW" question section. Read and explore for more! How is Europe's population changing?

The population of Europe is rapidly aging and will continue to do so along with the increase its average life expectancy (already around 85 years!) due to objective factors of high living standards and increased quality of medical services and education. The birth rate in Europe is critically low (with a total fertility rate of about 1.5). And will be ever lower in the decades to come, and we Europeans have to adapt to this demographic phenomenon and the consequences it brings! The pressure of migration on Europe is the result just as much of the drastic ageing of Europe's population as it is of the need for a young labor force, and of the late development of Africa and Asia due to the colonial age. This development is reflected in the demographic explosion and the accumulation of an overwhelmingly young population, who live in territories of poor economies, huge youth unemployment, cruel dictatorial regimes, constant military conflicts and an acute shortage of drinking water, which makes their emigration to Europe a question of their very survival. The world and Europe are changing very rapidly under the influence of technology and the means of information and communication. This puts a modern European person under very serious pressure from internal and external sources, which inevitably changes his demographic patterns of behavior. In the 21st century we will have new demographic patterns that we should not be afraid of, but we do need to see how to preserve and reproduce our European Christian identity through all this in the realities of a completely new world.

EXTRA PRACTICE SECTION:

People migrate for a number of reasons. The reasons can be divided into four groups: environmental, economic, cultural and socio-political. Within that, the reasons may also be called "push" or "pull" factors. Push factors are those that force the individual to move voluntarily, pull factors are those factors that attract the individual or group to leave their home.

1. Name the groups of push and pull factors and give your own examples.

A.	B.
Poor standards of living	A generally higher standard of living
Lack of adequate medical care	Better healthcare and medical facilities
War and a fear of political persecution	Democratic political stability
Few career and educational opportunities	Lower crime rates and more efficient police force
Unfavorable weather conditions	Better job and educational opportunities
Extreme poverty and civil wars	Better infrastructure and cultural options
Long-term unemployment	Religious freedom and guaranteed human rights

Remember: to "**emigrate**" means to leave your country or region and to settle in another, but to "**immigrate**" means to come to a country of which you are not a native, usually for permanent residence.

FACT FILE:

Bulgaria takes 106th place by number of population amongst all countries in the world, 219th place by birth rate and 3rd place by death rate. Our country is characterized by ageing and decreasing population with extremely high negative population growth rate. Bulgaria is often considered as the world's fastest shrinking country by number of population, side by side with Lesotho, Lithuania and Latvia. Our citizenry* is expected to drop from 6,9 million in 2020 to 5.4 million in 2050. / July 2020 est. by CIA World Factbook/.

2. Guess the country:

This country comprises the second largest island in Europe and is the least populated country on the continent. Almost 80% of the country is uninhabited and it is one of the most sparsely populated states in the world. The birth rate in this country is among the highest in Europe and infant mortality rate is the lowest.

3. Guess the country:

It is one of the most populous countries in the world. This state is often considered as one of the most densely populated countries all over the globe. Poverty is deep and widespread. This low-lying country is vulnerable to flooding and cyclones. The extremely high population growth of the state has been reduced by effective anti-natalist demographic policies.

EXTRA PRACTICE SECTION:

The term **"life expectancy"** refers to the number of years a person can expect to live and affects the age structure of the population. Life expectancy differs considerably by sex, age, race, and geographic location. In developing countries, life expectancy is relatively low, compared with the developed countries. The average life expectancy was 70.5 years of the global population in 2020. Developed countries are mainly characterized by high life expectancy, low birth rate, low death rate, negative population growth and ageing population.

1. Fill in the table with factors and preconditions for high life expectancy in developed countries and for low life expectancy in developing countries.

A.	B.
Low death rate	High death rate
Low infant mortality rate	High infant mortality rate
High standard of living	Low standard of living
Higher education and high literacy rate	Lower or no literacy rate

VOCABULARY SECTION:

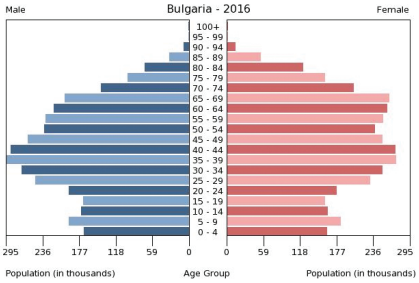
1. Match the terms 1-8 with the definitions a-h:

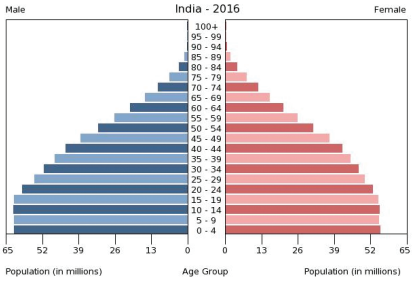
	Terms		Definitions
1	age structure of population	A	the ratio between males and females
2	low-fertility population – ageing population	B	a graph that shows the age-sex structure of a given population at a certain point in time
3	a sex composition of a population	C	older age structures more common to the developed nations
4	an age-sex pyramid	D	the number of religions given as percentages of the total population
5	religious structure of a population	E	the distribution of people among various ages.
6	a state religion	F	classifies countries and regions according to the spoken languages
7	a secular state	G	a religion officially accepted by the state
8	language structure of a population	H	a country officially neutral in matters of religion

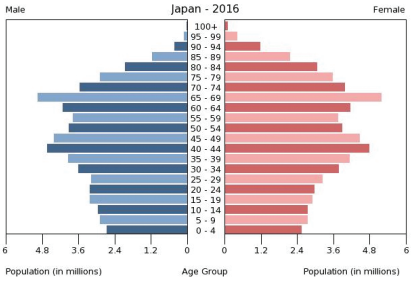
1		2		3		4		5		6		7		8	

SKILLS PRACTICE

1. Make a list of characteristics for every country below using the age-sex pyramids and the information of the units 24 and 25.







	Bulgaria	India	Japan
Continent			
Landlocked, island or coastal country			
Birth rate – high or low			
Death rate – high or low			
Population growth – positive or negative			
Life expectancy – high, medium or low			
Developed or developing country			
Predominant religion			
Language family			

2. Fill in the table with the correct fact about the religions – *Christianity, Islam, Hinduism and Judaism*:

	The largest religion by number of followers
	The oldest religion
	A state religion of Israel
	The fastest spreading religion in the world

GLOSSARY

Christianity predominantly comes along with low birth and death rate, high life expectancy and negative population growth, worsened age structure and ageing population with high median age.

Roman language group are spoken in countries with Catholicism as a predominant religion. Philippines is an exception with predominant catholic population and English as not native but an official language.

CITIES AND URBANIZATION

The city is full of people who you just see around. /Terry Pratchett/

LESSON №1

Urbanization and cities

Urbanization or urban drift is the physical growth of urban areas as a result of global change, increasing in number and size of towns and extension of urban way of life. At the start of the 20th century only about one person in ten lived in a city. In 1900 there were at least 13 cities with more than 1 million inhabitants, by 1950 the number of cities had grown to 68, in 2000 the number of cities was 250 to reach 57% urban population in 2011 for the first time in human history. /**Fig. 1**/

The first city-states were established about 5000 years ago in areas of agricultural surplus – Nile valley, Tigris-Euphrates region, Indus valley, North China, Central America.

Suburbanization – is a term used to describe the growth of areas on the fringes of major cities – suburbs in economic developed countries

Pseudo urbanization – significant urban growth with absence of adequate infrastructure to support it – housing, transportation, education, clean water, waste removal services - the slums.

Urban hierarchy includes the following settlements - **hamlet** with 1 – 100 inhabitants, **village** with 101 – 2000 inhabitants, town with 2001 – 100 000 inhabitants, **city** 100 001 – 1 000 000 inhabitants, **agglomeration** – a system of settlements which includes a central city and linked to it towns and villages with social and economic links, most of the largest cities are agglomerations and **megalopolis** – system of linked agglomerations. The largest megalopolises in the world are – **BosWash** /from Boston to Washington/, **Tokaydo** in Japan, **San-San** and **Chipitts** in USA. **The functions of the cities** are industrial, administrative, political, cultural, transportation and trade centers, educational, military and etc.

Europe	Americas	Asia	Africa
Home of urbanization; First cities appeared in the Third Millennium BC; First agglomeration in 19 century in England /London-Liverpool/; Home of suburbanization **74% urban population;**	First cities date from the 10th century; Urbanization begins in the middle of 20th century; Excessive concentration of population in cities; Suburbanization – only in USA and Canada; The formation of megalopolises begins in USA in the middle of 20th century; **81% urban population**	Pseudo urbanization; Slums; Excessive concentration of population in cities in India, East China, Japan, Philippines, Indonesia; China 46 %; India 28 %; Japan 80%; Philippines 62%; Indonesia 47% urban population; **49% urban population;**	The most backward urban drift; Most of the cities are situated in Nile valley, Mediterranean coast, Gulf of Guinea and RSA; Pseudo urbanization; Slums; The largest cities are Lagos, Cairo and Kinshasa; **41% urban population;**

Fig.1 Urbanization by continent

EXTRA FACTS

Urbanization and cities

A capital that is the..:

Coldest - Ulan Bator, Mongolia - with an annual average temperature of 2.4 degrees

Hottest - Bangkok, Thailand - with an annual average temperature of 25 degrees

Wettest - Monrovia, Liberia - with 5,207 mm of rain per annum.

Driest - Lima, Peru - with just 2.29 mm of rain per annum.

Foggiest - Canberra, Australia - with 47 fog days per annum.

Lowest elevation - Amsterdam - Netherlands, at 2 meters below sea level.

Most isolated - Wellington - New Zealand.

Most northerly - Reykjavik - Iceland.

Most polluted - Beijing, China - with 700 micro grams of PM 2.5 per cubic meter.

Most southerly - Wellington - New Zealand.

Nearest to the line of the Equator - Quito, Ecuador - situated at 00' 15' 00 degrees South.

Youngest - Juba - Republic of South Sudan, established in July 2011.

Purpose built capitals in the world are:

Abuja - Nigeria - established in 1991 - former capital Lagos.

Ankara - Turkey - established in 1923 - former capital Istanbul.

Astana - Kazakhstan - established in 1998 - former capital Alma Ati.

Beijing - China - officially established in 1949.

Belmopan - Belize - established in 1970 after the destruction of its former capital, Belize City, from a hurricane.

Brasilia - Brazil - established in 1960 - former capital Rio de Janeiro.

Canberra - Australia - newly established in 1913.

Islamabad - Pakistan - established in 1960 - former capital Karachi.

Naypyidaw - Myanmar - Established in 2005 - former capital Rangoon / Yangon.

New Delhi - India - established in 1911 - former capital Kolkata / Calcutta.

Ottawa - Canada - newly established in 1855.

Washington D.C - U.S.A. - designated in 1790, established in 1871.

Plovdiv is a member of Top 10 the most continuously inhabited cities in the world. Plovdiv's history spans 6,000 years, with traces of a Neolithic settlement dating to roughly 4000 BC, ranking it among the world's oldest cities. Archaeologists have discovered fine pottery and other objects of everyday life from as early as the Neolithic Age, showing that in the end of the 4th millennium BC. there already was an established settlement there. Plovdiv was originally a Thracian settlement before becoming a major Roman city. It later fell into Byzantine and Ottoman hands, before becoming part of Bulgaria.

VOCABULARY SECTION:

1.Match the terms 1-6 with the definitions a-f:

	Terms		Definitions
1	urbanization	A	a system of settlements which includes a central city and linked to it towns and villages with social and economic links
2	suburbanization	B	a significant urban growth with an absence of adequate infrastructure to support it
3	pseudo-urbanization	C	an urban system of linked agglomerations
4	agglomeration	D	the physical growth of urban areas as a result of global change, increasing in number and size of towns and extension of urban way of life
5	megalopolis BosWash, Chipitts, San-San, Tokaido, others	E	can serve as a massive hub and melting pot for a variety of industry, government, transport and trade, religion, philosophy, education, etc.
6	multifunctional organization of cities	F	the growth of areas on the fringes of major cities – suburbs in economic developed countries

1		2		3		4		5		6	

EXTRA PRACTICE SECTION:

Urbanization in the world has existed since prehistoric times but recorded the greatest increase after the Industrial revolution of the 19th century. **North America** was identified as the most urbanized continent in the world with the extent of urbanization in the continent being 82%. **South America** and the Caribbean comes in at second place in the list of most urbanized continents in the world with 80% of the continent's population living in urban areas. **Europe** is the third most urbanized continent in the world where 74% of its population resides in urban centers. **Africa** is the least urbanized continent in the world, where 41% of the population resides in the urban centers. Urbanization in **Asia** accounts 49% urban population, Australia and Oceania with 71% urban residents.

1. Fill in the table with the number of correct statements about the urbanization for every continent.

EUROPE	NORTH AMERICA	SOUTH AMERICA	ASIA	AFRICA

1. - 74% urban population; **2**. - 82% urban population; **3**. - 80% urban population; **4**. - 49% urban population; **5**. - 41% urban population; **6**. - the most populated city in Europe is Istanbul, followed by Moscow, Paris, and London; **7**. - New York City is the largest by population, followed by Mexico City, Los Angeles, and Chicago; **8**. - Most urbanized countries are Uruguay, Chile and Venezuela; **9**. - Most urbanized countries are Japan, South Korea and Malaysia; **10**. - The most backward urban drift or Urban Sprawl; **11**. - Home of urbanization; **12**. - The formation of megalopolises begins in USA in the middle of 20th century; **13**. - The largest city in the southern hemisphere is Sao Paolo; **14**. - The largest cities in the world are Tokyo, Delhi and Shanghai; **15**. - The largest cities are Lagos, Cairo and Kinshasa; **16**. - First agglomeration in 19th century in England /London-Liverpool/; **17**. - Excessive concentration of population in cities; **18**. - Urbanization begins in the middle of 20th century; **19**. - the fastest annual rates of urban expansion in the end of 20th century and the beginning of 21st century; **20**. - Most of the cities are situated in Nile valley, Mediterranean coast, Gulf of Guinea and RSA; **21**. - Home of suburbanization /after II World War /; **22.** - Suburbanization – only in USA and Canada; **23**. - Excessive concentration of population in cities; **24**. - Pseudo urbanization and slums; urban sprawl; **25**. - Pseudo urbanization and slums.

SKILLS PRACTICE

1. Fill in the table with the capitals according to the countries and facts:

A capital that is world's…	name	country	fact
coldest capital		**Mongolia**	with an annual average temperature of 2.4 degrees
hottest capital		**Thailand**	with an annual average temperature of 25 degrees
with the lowest elevation		**Netherlands**	at 2 meters below sea level
with the highest elevation		**Bolivia**	at 3640 m above the sea level
most northerly capital		**Iceland**	situated at 64°08'08" degrees North
most southerly capital		**New Zealand**	situated at 41°17'12" degrees South
nearest to the line of the equator		**Ecuador**	situated at 00' 15' 00 degrees South
youngest capital		**Republic of South Sudan**	established in July 2011

2. The largest agglomeration in the Northern Hemisphere is:

A/ New York **B**/ Mexico City **C**/ Sao Paolo **D**/ Tokyo

3. The largest agglomeration in the Southern Hemisphere is:

A/ Melbourne **B**/ Sidney **C**/ Sao Paolo **D**/ Buenos Aires

LESSON №2

History lesson. TOWNS AND VILLAGES

In the early modern times the population of Europe was mainly agricultural. After the Great discoveries the trade in the Mediterranean region descended and the time of the Atlantic towns began. These towns were mainly populated by artisans and lmerchants and governed by **municipal charters**. The documents contained the main privileges, common laws and rights of the citizens. The craftsmen were united in associations named **guilds**. Their aim was to defend the professional rights and privileges of the members.

Because of the feudal disorders, the towns were encircled by walls, but often towns continued to grow up outside the laws. The cathedral and other administrative buildings, the clock tower and the market were in the centre of the town. Later with the end of the feudal disorders and centralisation of the states, the defensive walls of the towns became unnecessary and they were gradually destroyed. The towns continued to grow up with no limits. The state`s capitals acquired high importance with the evolution of the centralisation. The kings resided in the capitals where the supreme court, the high aristocracy, the Parliament and other government structures were situated. For example, when the Russian ruler Peter I started to reform the old backward Russia, he established the new city of Saint Petersburg, situated on the Neva river near the Baltic sea - this region was important for trading with West Europe. He transfered the capital of Russia from Moscow to St. Petersburg. As Moscow symbolised the old order, Peter I wanted to show the new direction of his policy – the policy of modernisation.

Since the towns were independent from the local feudals, many people said „The town air makes a man "free" - this means that in the towns each man was subordinated to the common laws of the city, not to the local feudals, the feudal privileges didn`t work in towns. The markets were undoubtedly the city centers. They attracted peasants from nearby regions. The livelihood of the citizens depended on the rural production. Unlike merchants peasants rarely travelled. The reasons were: they were subordinated to the local landlords; the roads often were impassable and dangerous. The suitable period for travelling was summer, but at that time peasants were occupied with agricultural activities.

The towns were transformed into the centers of civilisation, the universities emerged in the town centers, they shaped the face of the towns. The invention of the printing press led to the emergence of the small urban educated class.

The trade was of great importance for the towns. Commercial activities were a source of prosperity in the towns. Many citizens were merchants. Some North German and Scandinavian cities formed a commercial organisation named The Hanseatic League - whose aim was to support their own trade acitivity.

In the meantime, the changes in the villages passed slowly. The peasantry didn`t succeed in obtaining the rights and privileges as citizens in the towns. The peasantry wasn't educated; they were subordinated to the landlords.

During the industrialisation the cities grew up enormously not only in terms of territory, but also in terms of population. The emergence of the factories led to the establishment of the suburbs, they were built in the outskirts of the cities and were densely populated. The process of relocation of people from the villages to the cities began. During the Medieval times the towns were between 10,000 – 50,000. Big cities like Paris was around 150,000 in 15th century. London, in the beginning of 17th century was around 220,000.

In Early modern times (as well as in Medieval times) the population of Europe was predominantly related to agriculture. About 90 % of the population lived in rural areas in villages. The land and stock breeding were the main source of income. But it was uncertain to a high degree – the endless feudal wars, natural disasters, epidemics and high feudal taxes were a serious obstacle to the evolution of the agriculture. The land was cultivated in a way that one part from the arable land was left fallow and the other two were cultivated with various cultures. They were alternated during the following years. In this way of cultivating the land, the soil was not exhausted. The technological progress in Europe during 16th – 19th centuries caused an advancement in agriculture.

During the Middle ages and Early modern times Europe was devastated by plague pandemic (The Black Death). The pestilence came from the Asia and Mediterranean region and embraced the whole of Europe. In most cases, the infected people died. The plague was especially devastating in the towns. Many people were concentrated there in small territory. The sanitation was a low level, there wasn't urban sewage system, huge parts of the waste was on the street. In some cases, over 80 percent of the population of any town died from the epidemic. The population deminished by millions. Hundreds of towns and villages were depopulated. This led to shortage of workers, subsequently the wages rose up. During the epidemics the production as well as the consumption fell. Many grain producing areas were deserted. The landlords were compelled to rise the wages of the peasents. Many arable lands were abandoned. They were transformed for animal husbandry - which was more profitable.

Picture 1: A plague doctor and his typical apparel during the 17th Century. Source: Wikipedia

ANSWER THE QUESTIONS:

How did the citizens defend their rights during Early modern times?

_____

What do you know about the architecture and structure of European towns after Medieval times?

_____

Which are the main characteristics of rural life, villages and peasantry in the Early modern times?

_____

What was the impact of the plague epidemic on the development of Europe?

_____

POLITICAL ORGANISATION OF SOCIETY

Politics is more difficult than physics. */Albert Einstein/*

LESSON №1

World political map

The development of the contemporary political map passes through four major stages – Antiquity, Middle Ages, from the Age of Exploration to mid of 20th century, late 20th century to early 21st century.

There are four essential characteristics of a state – territory and boundaries, sovereignty, population and the separation of the powers, the division of the legislative, executive and judicial functions of the government. **Political systems** around the world are divided into two main types – democracy and totalitarianism. **Totalitarian political system** - This is a country which is ruled by only one political party and the government owns property such as businesses and farms. It provides its people's healthcare, education and welfare. People are forced to do what the government tells them and may also be prevented from leaving the country – China, North Korea, all countries in Eastern Europe till 1990, Congo, Vietnam, Cuba etc., nicknamed as – "People's Republic", "Democratic Republic" or both.

The world's oldest continuous Democracy is Iceland and it has had a legislative assembly since 930 AD. Iceland was the country that had the world's first republican government. Iceland is the country that holds the oldest Parliament in the world. The Parliament is referred to as Althing.

Countries can be classified into federal and unitary according to **their governing system. Forms of state government are republics and monarchies**. The republics by type are parliamentary and presidential, whereas the monarchies are constitutional and absolute.

In a constitutional monarchy the monarch is subject to a constitution. The monarch serves as a ceremonial figurehead symbol of national unity and state continuity.

European constitutional monarchies - Andorra, Belgium, Denmark, Luxembourg, Netherlands, Norway, Spain, Monaco, Great Britain and Sweden are fully democratic states in which the monarch has a limited or largely ceremonial role.

Asian constitutional monarchies - Bhutan, Cambodia, Japan, Thailand, Jordan, Malaysia have constitutional monarchies where the monarch has a limited or ceremonial role. Bhutan, Japan, and Thailand are countries that were never colonized by European powers, but have changed from traditional absolute monarchies into constitutional ones during the twentieth century.

In an absolute monarchy, the monarch rules as an autocrat, with absolute power over the state and government.

Islamic monarchies of Bahrain, Brunei, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates generally retain far more powers than their European counterparts. Brunei, Oman, Qatar, and Saudi Arabia remain absolute monarchies; Bahrain, Kuwait and United Arab Emirates are classified as mixed, meaning there are representative bodies of some kind, but the monarch retains most of his powers.

The Vatican City State is the smallest independent state in the world in terms of inhabitants and size. The Vatican City State is governed as an absolute monarchy.

The geographical location of a country can be physical, political, economic and etc.

Countries that have no direct ocean access are **landlocked**. Approximately one-fifth of the world's countries are landlocked. **Countries** are divided into two major categories by the United Nations, which are **developed** countries and **developing** countries.

There are about 260 countries in the world today. Some of them aren't recognized by UN and others are self-proclaimed.

LITERACY DEVELOPMENT

Terms and definitions

legislature	законодателна власт	a branch of government that is charged with making and enacting laws
executive	изпълнителна власт	a branch of government that is responsible for enforcing the laws
judiciary	съдебна власт	a branch of government that is endowed with the authority to interpret and apply the law
constitutional monarchy	конституционна монархия	a form of state government in which a monarch shares power with a constitutionally organized government
absolute monarchy	абсолютна монархия	a form of state government in which one ruler has supreme authority
Parliamentary republic - Bulgaria, Italy, Serbia, Germany, India, Greece, Hungary, Iceland	парламентарна република	a form of state government in which the legislature selects the government a Prime Minister or Chancellor along with the cabinet ministers - according to party strength as expressed in elections. The President expresses only representative functions.
Presidential republic – USA, Mexico, Brazil, Kazakhstan, Belarus	президентска република	a form of state government where the executive branch exists separately from a legislature. Most of these republics have no Prime Minister and the President is the Head of State and the Head of Government.
Semi-presidential republic – France, Russia, Egypt, Romania	полупрезидентска република	a form of state government that features both a Prime Minister and a President. How the powers between president and prime minister are divided can vary greatly between countries.

SKILLS DEVELOPMENT

VOCABULARY SECTION

1. Match the terms 1-8 with the definitions a-h:

	Terms		Definitions
1	democracy	**A**	a country that has no direct ocean access
2	totalitarianism	**B**	divided up power between a central national government and local state governments
3	separation of powers	**C**	a state governed as one single unit in which the central government is supreme
4	republic	**D**	the division of the legislative, executive and judicial functions of the government
5	monarchy	**E**	government by the people, rule of the majority, separation of powers
6	federal state	**F**	government that regulates and controls every aspect of the public and private sectors
7	unitary state	**G**	a country where the head of state is a monarch - emperor, king, queen, sultan, emir etc.
8	landlocked country	**H**	a country where power is held by the people or the representatives

1		**2**		**3**		**4**		**5**		**6**		**7**		**8**	

2. Name the groups as Democracy and Totalitarianism and give your own examples for main characteristics of each.

A.	B.
Elections are free, competitive and fair	Rule by a single party
Political and economic liberty	Total control of the military
Government policies reflect the will of the people	Control of the economy
protects the civil rights and freedom of individual	Do not tolerate dissenting or alternative views
Rule of law	control all means of communication
Independent judiciary	There are no free elections

3. Indicate the group of countries - constitutional monarchies:

A/ France, Great Britain and Norway
B/ Russia, Belgium and Spain
C/ Japan, Morocco and Spain
D/ Italy, Portugal and Malta

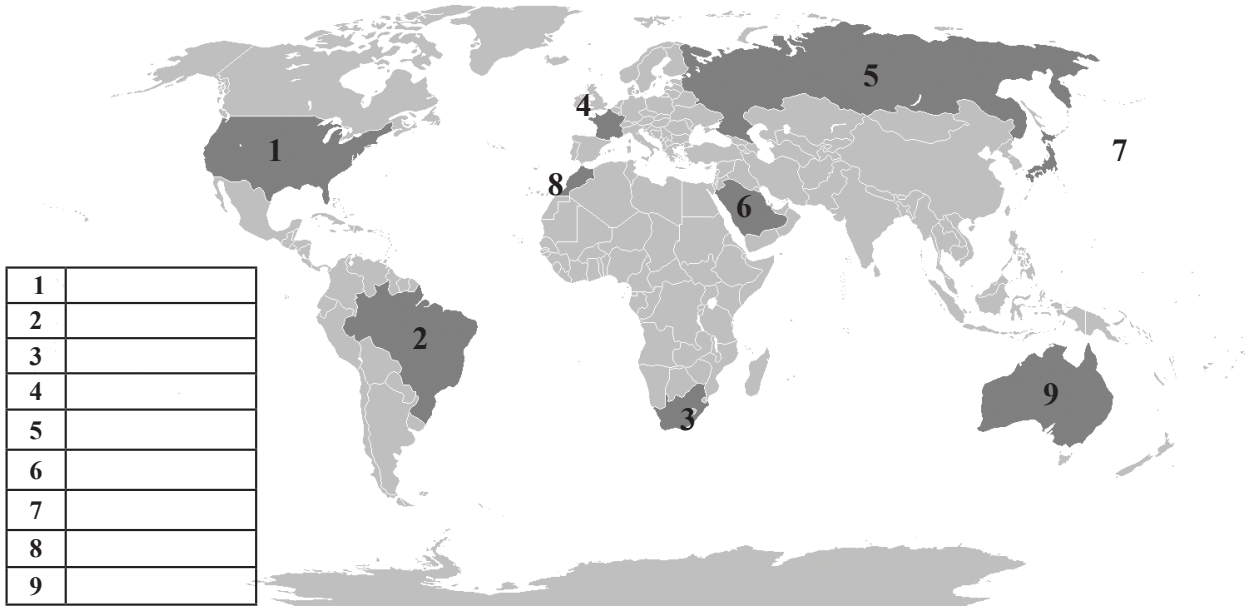
4. Indicate the group of countries - presidential republics:

A/ Romania, Colombia and Brazil
B/ Canada, Turkey and Russia
C/ USA, Thailand and Spain
D/ Netherlands, Portugal and Morocco

5. Indicate the group of federal states:

A/ China, France and Egypt
B/ Italy, Norway and Portugal
C/ India, Canada and Germany
D/ Brazil, Bulgaria and Iran

6. Name the country according to its number and fill in the table below. Numbers 1 to 5 are republics, whereas numbers 6-9 are monarchies.

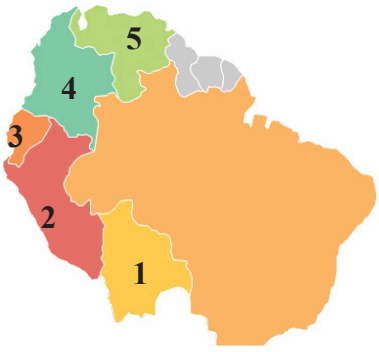


1	
2	
3	
4	
5	
6	
7	
8	
9	

7. Name the independent states of Former Yugoslavia and write the stage of changes in the political map of world:

1_____ 2_____
3_____ 4_____
5_____ stage_____

8. Name the independent states of South America, former colonies of Spain till the end of Spanish colonial era in 19th century and the stage of changes in the political map of world:



1_____ 2_____
3_____ 4_____
5_____ stage_____

LESSON №2

State and political organisation of the society. (Early modern times 15th – 18th century)

Fig.1: Cleric, Knight and Workman, representing the three estates. Source: Wikipedia

Fig. 2: King Charles I. Source: Wikipedia

During the Medieval time in Europe, the main state model was the **monarchy** headed by a king or emperor in Western Europe; Tsar or Emperor in Eastern Europe. According to this model, the ruler was put on the throne by the God`s will and he was supported by the aristocracy (nobles) and the clergy. The Medieval and Early modern society was divided in three main categories – **The three estates.**

The first estate was represented by the clergy (those who prayed) – this group consisted of priests, bishops, archbishops. The second estate was represented by the nobles (aristocracy - those who fought), many of them were soldiers (knights). They were often above the law and they controlled the local peasants and waged wars. The third estate was represented by the bourgeoisie, the peasantry and others (those who paid taxes and worked). They were without privileges, they were obligated to pay high taxes and they were subordinated to the clergy and the nobles. The First and the Second estates were privileged – they didn`t pay high taxes and they governed the state.

In the Early modern times, a new social class named „**bourgeoisie** (part from the Third estate), gradually emerged in Europe. It consisted mainly of the citizens – such as craftsmen, merchants, scholars, doctors, lawyers.

The other important change in this period was the struggle of the kings against the uncontrolled power of the local landlords. The aristocracy had the right to judge and to punish the peasants, to collect taxes, to issue the laws, to hold the army of volunteers. In other words, in Europe there were hundreds of small independent feudal territories. But the kings didn`t like this feudal particularism. This phenomenon weakened the state, because of this the monarchs led policy to subdue the nobles to the central power.

The restricted (Parliamentary) monarchy. During the Medieval times the English barons (nobles) obtained the so-called Magna carta. This document guaranteed them some rights and independence of the king. Later, in England the parliament had a prominent role in the state`s government. This institution consisted of people from the whole kingdom – small aristocracy (gentry) and high

aristocracy, citizens, rich peasants. The Parliament voted the budget of the state and had the right to impose some limits of the king`s power. But the attempts of the king Charles I to concentrate the whole power in his hands led to civil war – the Parliamentarians against the king and some high nobles. The defeat of the king led to establishment of the parliamentary monarchy in England - the ruler shared the power with the Parliament.

In France the king succeeded to concentrate the power in his own personality – it was named **the Absolute monarchy.** He issued common laws for all the regions of France, the feudal armies were eliminated, instead of them the state army was established – directly controlled by the king. The common taxes were imposed. The local governors were appointed by the king, only the king could dismiss them. In this way the local aristocracy lost the former importance. In contrast with England, in France the parliament (named Estates - General) didn`t have such an important power. It was only a consultative body. During the reign of king Louis XIV France was the most powerful, centralized country.

Fig.3: Louis XIV - the"Sun King" of France
Source: Wikipedia

The powerful Russian tsardom emerged in Eastern Europe. The tsar concentrated the whole power - he controlled the boyars (the nobles), and the peasants, they were subordinated to the local landlord and had to pay him taxes. In Russia the parliament institution didn`t exist.

In the Ottoman empire, the sultan was the head of the state. He was presented as an unlimited ruler and military landlord. He was the supreme judge and his power was unrestricted. The state was governed according to the rules of the dominant religion – Islam.

ANSWER THE QUESTIONS:

Explain the differences between Absolute and Parliamentary monarchy.

What kind of relationships were there between the kings and feudals during the Early modern times?

Which are the main characteristics of bourgeoisie?

Did Russian and Ottoman empire have Parliament in Early modern times?

Which are the three estates?

LESSON №3

World and Regional political and Economic organisations

In the Middle Ages a lot of feudal rulers made military unions to lead wars one against another. In the Early modern times the relationships between the rulers changed. The centralised states appeared. The problems between modern states were resolved not only by war, but also by negotiations – this enhanced the importance of diplomacy. At that time the road network, communications and the level of international trade rose up. The political relationships between the states were getting stronger. The progress of industry was the reason to extend the economical relationships. These changes led to establishment of various unions and organisations. In the modern history of Europe, they were numerous, but in this lesson we are going to pay attention to some of them.

The French Revolution and the regime of Napoleon caused serious changes in the continent (of Europe). The ideas of democracy, freedom, abolition of feudalism as well the idea that each nation has to create its own state spread among the European peoples. Some of the European monarchs thought that these ideas would lead to disintegration of the old regime, which means abolition of the monarchies and privileges of the aristocracy. Because of that the monarchs of the Russian empire, Prussia and Habsburg empire established the „Holy Alliance". Its aim was to defend the old regime against the revolutionary changes. This alliance existed throughout 19th century and resulted in policy of resistance to all the attempts for the democratisation of the society.

At the beginning of 20th century immense contradictions existed between the European countries. They were related to the impact on the other parts of the world and the redistribution of the colonies. United Germany and Austro – Hungarian empire wanted to extend their influence out of Europe. The Great colonial empires like England and France considered it as a threat to them, to their colonial empires. Because of that, these states united in alliances to defend their interests.

In 1882 Austro – Hungary, Germany and Italy established agreement named the „**Triple Alliance**". In 1904 England and France created „**Entente Cordiale**". Later Russia joined this agreement. Each of these unions defended its own imperial interests. In 1914 the colonial contradictions between the „Triple Alliance" and the „Entente Cordiale" were the reason for a new war. This was the First world war. The Entente had enormous resources from the colonies, so they won a victory.

To this moment the First World War was the most devastating war in history. As a result, politicians and diplomats tried to create a new supernational organisation whose aim was to resolve serious international problems by diplomacy, not war, and to maintain peace. This organisation was named „**League of Nations**". Because of numerous contradictions, the activity of the organisation was inefficient. The League couldn`t resolve the main international problems in Europe, the problems between European states caused the outbreak of the Second World War.

After the end of the First World War, Germany and Italy were not satisfied with the peace treaties concluded in Paris. Totalitarian regimes were established in both countries. They gradually created powerful armies. Japan joined them – this Asian empire wanted to impose hegemony on a big part of Asia and the region of the Pacific Ocean. The ambitions to create a new world order led to the rapprochement of Germany, Italy and Japan. They created alliances to support each other. During the Second World War (September, 1940) they created the **Tripartite pact** with a defensive aim. Their union was also named the **Axis powers** – this name came from their capitals Rome, Berlin, Tokyo.

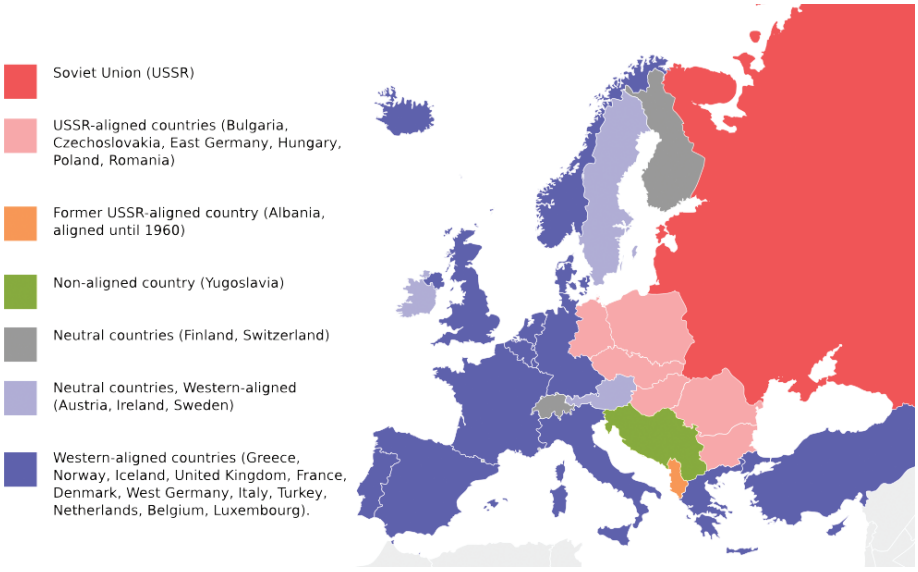
The enemies of the Tripartite pact created a union named **Allies**, initially it consisted of the United Kingdom and France, later the USSR and the USA joined it. The main goal of the coalition was the defeat of the Axis powers.

After the victory over Germany, Italy and Japan in 1945, between the former allies started contradictions. The main reason was the lack of trust between them. The state system in the USSR was communism, in the West countries and the USA –it was democracy. The period of contradictions between the communist states and states with democracy regimes was named the **Cold war**. To oppose the possible communist aggression, the USA and other West European countries created the international military alliance named **NATO** (North Atlantic Treaty Organisation).

After the war, the Soviet Union imposed the communist government over the states in Eastern Europe – Eastern Germany, Poland, Czechoslovakia, Hungary, Romania, Albania, Bulgaria and partially Yugoslavia. To resist a possible aggression coming from NATO, the USSR united all these states (except Yugoslavia) in the **Warsaw pact** for mutual defence.

For better collaboration in the economical sphere, the communist states (also named Communist block and Eastern block) created **COMECON** – Council for mutual economic assistance. The leader in this organisation was the Soviet Union, it had enormous natural resources and mighty industrial potential.

After the Second World War, many politicians supported the idea to create the European community, which would prevent Europe from upcoming conflicts, this idea provided the basis for the future European Union. The united countries had to support each other in their later development. In 1952 Belgium, France, Italy, Luxembourg, the Netherlands and West Germany founded the **European Coal and Steel community.** These natural resources (coal and steel) were the reason for the international contradictions before the last war started. The ruling of these resources from another multinational organisation and the creation of the common market had to solve the problems. During the following decades some additional agreements were signed to create the present structure of the European union. The main characteristic of the EU is the free movement between the countries in the EU; democratic governments, respect of the human rights and etc. Bulgaria joined the EU in 2007.



International organizations

European Union (EU), international organization comprising **27 European countries** and governing common economic, social, and security policies. The Union currently counts 27 EU countries. The United Kingdom withdrew from the European Union on 31 January 2020. Originally confined to western Europe, the EU undertook an expansion into central and eastern Europe in the early 21st century.

The EU was created by the Maastricht Treaty, which entered into force on November 1, 1993. The treaty was designed to enhance European political and economic integration by creating a single currency (the euro), a unified foreign and security policy, and common citizenship rights and by advancing cooperation in the areas of immigration, asylum, and judicial affairs. The EU was awarded the Nobel Prize for Peace in 2012, in recognition of the organization's efforts to promote peace and democracy in Europe.

The Common Assembly, renamed the European Parliament in 1962, originally consisted of delegates from national parliaments. Beginning in 1979, members were elected directly to five-year terms. The size of members' delegations varies depending on population.

The Commission (officially known as the European Commission) consists of a permanent civil service directed by commissioners. The Commission is headed by a president, who is selected by the heads of state or heads of government of the organization's members. The Commission has shared its agenda-setting role with the European Council (not to be confused with the Council of Europe, an organization that is not an EU body).

The European Court of Justice (ECJ) interprets community law, settles conflict between the organization's institutions, and determines whether members have fulfilled their treaty obligations.

In 1994, the North American Free Trade Agreement (NAFTA) came into effect, creating one of the world's largest free trade zones and laying the foundations for strong economic growth and rising prosperity for Canada, the United States, and Mexico. **Since then, NAFTA has demonstrated how free trade increases wealth and competitiveness, delivering real benefits to families, farmers, workers, manufacturers, and consumers.**

NAFTA lifted tariffs on the majority of goods produced by the signatory nations. It also calls for the gradual elimination, over a period of 15 years, of most remaining barriers to cross-border investment and to the movement of goods and services among the three countries.

The Association of Southeast Asian Nations (ASEAN) was formed in 1967 by Indonesia, Malaysia, the Philippines, Singapore, and Thailand to promote political and economic cooperation and regional stability. ASEAN commands far greater influence on Asia-Pacific trade, political, and security issues than its members could achieve individually. **ASEAN is the fourth-largest exporting region in the world,** trailing only the European Union, North America, and China/ Hong Kong. It accounts for 7 percent of global exports. Vietnam specializes in textiles and apparel, while Singapore and Malaysia are leading exporters of electronics. Thailand has joined the ranks of leading vehicle and automotive-parts exporters.

The Organization of the Petroleum Exporting Countries (OPEC) is a permanent intergovernmental organization of oil-exporting developing nations that coordinates and unifies the petroleum policies of its Member Countries. OPEC seeks to ensure the stabilization of oil prices in international oil markets.

The Arab League is an organization that consists of independent Arab States on the territory of northern and north-eastern part of Africa and southwest Asia.

Egypt, Iraq, Jordan, Lebanon, Syria and Saudi Arabia initiated the league's formation in Cairo, on March 22, 1945. Like similar organizations in the world whose goal is to look after their members' economic, political, cultural, national and religious interests, the Arab League has been active in helping the Arab world grow economically and culturally, while finding solutions to resolve conflicts both within the league and outside of it.

The Asia-Pacific Economic Cooperation (APEC) is a regional economic forum established in 1989 to leverage the growing interdependence of the Asia-Pacific. APEC's 21 members aim to create greater prosperity for the people of the region by promoting balanced, inclusive, sustainable, innovative and secure growth and by accelerating regional economic integration.

World Trade Organization WTO. It is an organization for trade opening. It is a forum for governments to negotiate trade agreements. It is a place for them to settle trade disputes. It operates a system of trade rules. Essentially, the WTO is a place where member governments try to sort out the trade problems they face with each other. There are 162 members since 30 November 2015.

NATO is an alliance of countries from Europe and North America. It provides a unique link between these two continents for consultation and cooperation in the field of defense and security, and the conduct of multinational crisis-management operations. The North Atlantic Treaty Organization was created in 1949 by the United States, Canada, and several Western European nations to provide collective security against the Soviet Union.

The United Nations is an international organization founded in 1945. It is currently made up of 193 Member States. The mission and work of the United Nations are guided by the purposes and principles contained in its founding Charter.

The UN also provides a forum for its members to express their views in t**he General Assembly, the Security Council, the Economic and Social Council, and other bodies and committees**. By enabling dialogue between its members, and by hosting negotiations, the Organization has become a mechanism for governments to find areas of agreement and solve problems together.

Each of the 193 Member States of the United Nations is a member of the General Assembly. States are admitted to membership in the UN by a decision of the General Assembly upon the recommendation of the Security Council.

The main organs of the UN are the General Assembly, the Security Council, the Economic and Social Council, the International Court of Justice, and the UN Secretariat.

SKILLS PRACTICE

1. Explain the similarities and differences between "republic" and "monarchy" /as forms of State Government/. Give examples!

_____

_____

_____

_____

2. Which of the countries listed below is NOT member-state of The European union:

A/ Sweden **B/** Norway **C/** Denmark **D/** Romania

3. Indicate the group of constitutional monarchies:

A/ France, Great Britain and Norway **B/** Russia, Belgium and Spain
C/ Japan, Morocco and Spain **D/** Italy, Portugal and Malta

4. Explain "Parliamentary Republic" as a form of State Government and give more examples/countries/:

_____

_____

_____

_____

5. Which of the following is a good example of a dictatorship?

A/ Great Britain **B/** Germany **C/** North Korea **D/** Canada

6. What type of government elects representatives to make all government decisions?

A/ Republic **B/** Direct democracy **C/** Dictatorship **D/** Monarchy

7. What type of government has a king or queen, emir or sultan who holds all the power?

A/ Absolute Monarchy **B/** Dictatorship **C/** Direct democracy **D/** Presidential Republic

8. This type of democracy is rarely used because it is difficult for the citizen of a government to vote on every issue.

A/ presidential democracy **B/** parliamentary democracy
C/ direct democracy **D/** representative democracy

9. Which of the following governments is ruled by a single person?

A/ autocracy **B/ democracy** **C/ theocracy** **D/ oligarchia**

10. Fill in the missing words:

_____ is an international organization comprising 2_____ European countries and governing common economic, _____, and security policies. Originally confined to Western Europe, the_____ _____ undertook an expansion into central and _____ Europe in the early 21st century. The _____ was awarded the Nobel Prize for Peace in 2012, in recognition of the organization's efforts to promote peace and democracy in Europe. The_____ _____ was created by the _____ _____ Treaty, which entered into force on November 1, 1993. Bulgaria has been a member-state since _____.

11. Guess the international organizations and give more information about them – full name, member-states, functions /if it is possible/:

_____ _____ _____ _____

_____ _____ _____ _____

_____ _____ _____ _____

_____ _____ _____ _____

_____ _____ _____ _____

_____ _____ _____ _____

12. Give at least three countries as an example of….:

- Constitutional Monarchy _____
- Presidential Republic _____
- Parliamentary Republic _____
- Absolute Monarchy _____
- Totalitarian state _____

NATIONAL AND WORLD ECONOMY

Education is the best economic policy there is. */Tony Blair/*

LESSON №1

Structure of world economy

The economies of the world's nations are so tightly linked that the actions of a nation affect all others. **Modern economy** is divided into three main sectors – primary, secondary and tertiary. The quaternary sector has been added in 21st century.

The primary sector includes extraction of raw materials – fossil fuels, ores and minerals, building materials; hunting and gathering, fishing, agriculture, forestry, mining and quarrying. Primary activities strongly depend on the environment. In less developed countries the primary sector comprises the biggest part of national economy.

The secondary sector processes raw materials of the primary sector into finished or semi-finished goods. The sector includes all branches of industrial production such as electrical industry, metallurgy, chemical industry, construction, food and beverage industry, textile and clothing industry etc. In developing countries, the secondary sector comprises the biggest part on national economy.

The tertiary sector or service industry provides services rather than producing goods. The sector includes tourism services, transport, communications, banking and insurance, postal services, trade etc.

The quaternary sector includes modern technologies in research and development and provides information to other industries or supports them. It is often called the IT sector.

The most common way of measuring the economic development of a country in terms of extraction, production and consumption of goods and services is the **Gross Domestic Product (GDP)**. **GDP** measures in terms of money, the total market value of production in a country for a given year. It includes the money spent on by costumers for food, clothes, fuel, housing, leisure etc., the investments and the government expenditure to build infrastructure or to provide services as education and healthcare and net exports of goods and services to other countries. **The Gross Domestic Product per capita** is the divided GDP by midyear number of population.

The GDP structure by economic sectors represents the level of economic development of a country. If the primary sector exceeds the other sectors in GDP, the country is underdeveloped. The United Nations use a classification of countries according to their level of economic development and the structure of GDP. This classification is as follows:

Underdeveloped countries are characterized by low levels of income, industrialization and literacy. They are the least involved in the global economy with exports dominated by raw materials.

Developing countries are characterized by a very heterogeneous group of nations that have seen various levels of improvement in the welfare of their populations. They include some of the former socialist economies, North African and many Latin American countries.

Newly industrializing countries are characterized by fast processes of industrialization and integration to the global economy where manufactured goods account for more than 25% of the GDP and more than 50% of exports. There are however strong disparities within this group as Latin American (Mexico, Brazil and Argentina) growth is little compared with the growth taking place in East and Southeast Asia, especially China.

Advanced countries are characterized by a high level of economic development. These nations are at the forefront of the global economy.

Rent countries are these which derive the majority of their income from oil exports are labeled as rent economies, such as Saudi Arabia. Incomes are artificially high and subject to the fluctuations of oil prices. Several nations such as Algeria, Nigeria, Venezuela and Iraq are significant oil exporters, but they have a more diversified economy.

Country/ year	Primary sector in GDP	Secondary sector in GDP	Tertiary sector in GDP
World	6%	30%	64%
China	8%	40%	52%
Russia	5%	33%	62%
USA	1%	19%	80%
Japan	1%	30%	69%
Angola	10%	62%	28%
North Korea	23%	47%	30%
Germany	1%	31%	68%
Mali	80%	20%	
Bulgaria	4%	28%	68%

Table 2. GDP by economic sectors in 2017.
Source: CIA World Factbook

country	Number of population	GDP per capita $
World	7 700 000 000	17 500 $
China	1 400 000 000	18 200 $
Russia	140 000 000	27 400 $
USA	332 000 000	59 800 $
Japan	125 000 000	42 900 $
Angola	32 000 000	6 800 $
North Korea	25 000 000	1 700 $
Germany	80 000 000	51 000 $
Mali	20 000 000	2 200 $
Bulgaria	6 960 000	22 000 $

Table 3. GDP per capita in 2017.
Source: CIA World Factbook

LESSON №2

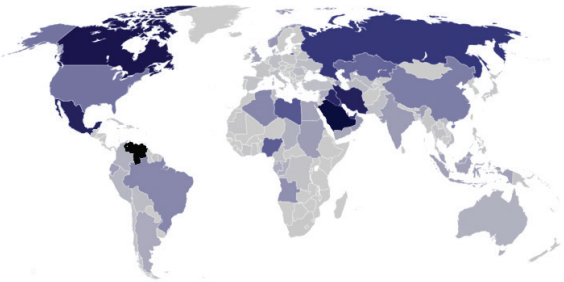
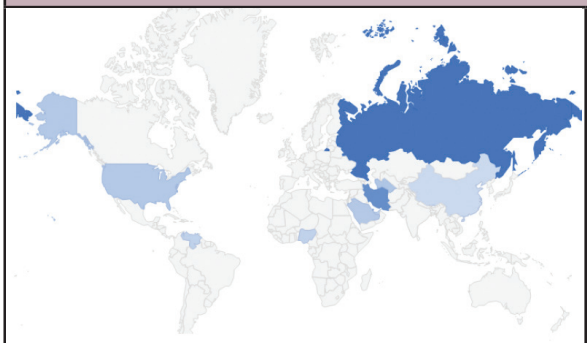
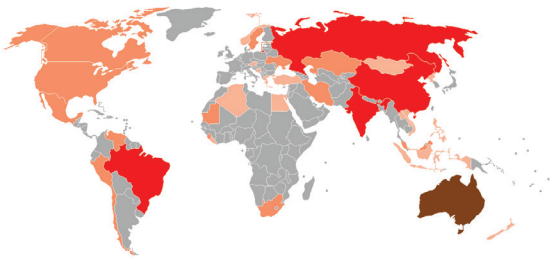
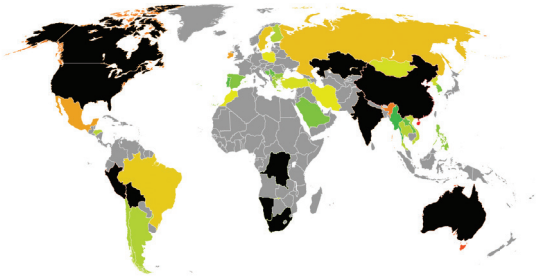
Types of economic systems

	Market economy	Planned economy	Mixed economy
Feature	All the resources in a market economy are privately owned by people and firms. Every business will aim to make as much profit as possible, profit is the main motive. Firms will only produce those goods which consumers want and are willing to pay for. Price is determined through the price mechanism.	Government decides how all scarce resources has to be used. Government decides what is to be produced, how much to be produced and how much should be charged for goods and services. The economy only has Public Sector.	Mixed economy is a combination of market economy as well as government planning. It has both private sector and public sector. Some businesses are owned by private individuals while some businesses are owned by the government. India, Indonesia are examples of mixed economies.
Advantages	Market economies responds quickly to people's wants. Factors of production which are profitable will only be employed. There is wide variety of goods and services in the market. New and better methods of production are encouraged thus leading to lower cost of goods and services.	There is no competition between firms thus resulting in less wastage. Government ensures that everybody is employed. Less gap between poor and rich.	The state can intervene in areas of the economy through the passing of laws to protect citizens from unfair trading practices. Both the government and the private sector can cooperate in offering certain services; e.g. transportation, health care.
Disadvantag-es	Market economies encourage consumption of harmful goods Prices are determined by the demand and supply of goods. Social cost may not be considered while producing goods and services. It may lead to unemployment because machines will be more productive than men.	No incentives for businesses to produce. Production of goods is decided by government thus there is no consumer sovereignty. Businesses usually are less efficient because of lack of profit motive.	Too much government regulation may dampen the free enterprise spirit. Some state-owned industries are allowed to operate inefficiently, thus wasting resources.

LESSON №3

Primary sector. Raw materials and fossil fuels extraction practice

1. Fill in the table with information about geographical distribution and the application in production of all raw materials and fossil fuels shown below on the maps:

Raw materials and fossil fuels	Top 10 countries	Applications in production
Petroleum		
		
Natural gas		
		
Iron ore		
		
Zinc ore		
		

LESSON №4

Primary sector. Agriculture

Agriculture is the cultivation of soil, growing crops and raising livestock. It includes the preparation of plant and animal products for people to use and their distribution to markets. Agriculture provides most of the world's food and fabrics. Agriculture is primarily food products, but also provides many products for medicine, industry and technology.

Agricultural factors are divided into two main groups – **natural** (climate, altitude, longitude, relief, soil, vegetation water) and s**ocio-economic** (population growth, labor force, markets, transportation, technology, agricultural policies, etc.).

Crop farming includes all common types of crop plants for human consumption. Crop farming is subdivided into major groups – cereals or grains, oil crops, fruit and vegetable crops, industrial crops, fiber crops, sugar crops, etc. **Grain crops** are wheat, maize, rice, barley, oats, rye and sorghum. **Oil crops** are soybean, sunflower, oil seed rape, palm, flax, olive, etc. **Fiber crops** are cotton, flax, hemp and jute. **Sugar crops** are sugar cane and sugar beet.

Top 5 producers of wheat	Top 5 producers of maze	Top 5 producers of rice	Top 5 producers of rye
China, India, Russia, USA, Canada	USA, Russia, China, Ukraine, Brazil	China, Indonesia, India, Bangladesh, Vietnam	Germany, Russia, Poland, Belarus, Denmark
Top 5 producers of olive	Top 5 producers of flax	Top 5 producers of soybean	Top 5 producers of cotton
Spain, Greece, Italy, Turkey, Morocco	Canada, Kazakhstan. China, Russia, USA	USA, Argentina, Brazil, China, India	India, USA, China, Pakistan, Brazil

There are some **potential ecological impacts** of industrial crop production - soil erosion; decrease in bee populations; emergence of pesticide-resistant weeds; aquatic dead zones; depletion of phosphorus; depletion of groundwater, etc.

3. Dictionary

raw materials	суровини
fossil fuels	изкопаеми горива
iron ore	желязна руда
zinc ore	цинкова руда
GDP	брутен вътрешен продукт
agriculture	земеделие
crop farming	растиниевъдство
grain crops	зърнени култури
industrial crops	технически култури
wheat	пшеница
maze	царевица

rice	ориз
barley	ечемик
oats	овес
rye and sorghum	ръж и сорго
flax	ленено семе
soybean	соя
oil seed rape	рапица
hemp	коноп
jute	юта
sugar cane	захарна тръстика
sugar beet	захарно цвекло

Livestock

Farming of crops and livestock cannot be considered independently of one another nor should they be considered in isolation. Established links between livestock numbers, cultivation levels and human populations suggest that greater attention should be paid to quantifying and mapping these associations.

More than 1 billion people are involved in livestock value chains globally, with more than half of these dependent on livestock for their livelihoods. Meat, milk and eggs make up five of the world's top 10 highest-value agricultural commodities, and the livestock sector contributes 40% to global agricultural gross domestic product. While this share varies from 15% to 80% across emerging and developing economies, it is rising fast in many countries and will need support from a range of technical, policy and institutional enablers.

In many of the poorest countries, livestock farming is one of the important industries to develop for not only economic growth but also poverty reduction and environmental protection. About one billion people in rural areas are still dependent on livestock for their livelihood in developing countries; 75 percent of the world's poor live in rural areas. The livestock industry contributes about 1.2 percent of the global GDP—as much as 5 percent for some countries—and is growing by about 2.5 percent per annum. Low income and lower-middle income countries are relatively heavily dependent on the livestock industry.

The developed world has fewer and fewer farmers, but they are keeping more and more animals. Instead of producing for the local market, they supply distant supermarkets. This same shift is now transforming livestock production in the developing world.

Livestock directly or indirectly produce nearly one-third of the world's greenhouse gas emissions. But farmers and scientists say that with the right type of management, livestock do not have to be a burden on the climate.

Much of the world's livestock, and much of its meat, milk and eggs, are raised by non-industrial producers. Many of them manage their animals on land that is unsuited for crops, optimizing the use of local resources. But the existence of these producers is under increasing threat.

Overall, **the global demand for meat is growing,** but at different rates in different regions. In Europe and the United States, the biggest meat producers in the 20th century, consumption is growing slowly, or is even stagnating. On the other hand, the booming economies in Asia and elsewhere, will see around 80 percent of the growth in the meat sector by 2022. The biggest growth will be in China and India because of huge demand from their new middle classes. Industrial livestock production in Europe and the USA began when feed, energy and land were inexpensive. Nowadays, all three are scarce and costs have gone up. As a result, total meat **production is growing less quickly than before**. The market is growing only for pigs and poultry. By 2022, almost half the additional meat consumed will come from poultry.

Beef production, on the other hand, is scarcely growing. The USA remains the world's largest beef producer. In other traditional producing regions including Brazil, Canada and Europe, production is stagnating or falling. Production has risen in many countries in Africa, but significantly only in populous South Africa, Egypt, Nigeria, Morocco and Ethiopia.

Sheep industry provides employment to many millions of people all over the world, and especially in the undeveloped and developing countries. Sheep farming has been also significant in the development and economic growth in different developed countries as the Australian Union. Among the Asian countries the largest sheep population exist in China, India, Iran, Pakistan and

Turkey. In the African continent the largest sheep population exist in Sudan, Nigeria, Ethiopia and Algeria. In the European continent the largest sheep population exist in United Kingdom, Russian Federation, Spain, Greece, Romania and France. Sheep meat is one of the world four major meat categories along with beef, pig meat and poultry meat. The export trade of sheep meat traditionally was dominated by New Zealand and Australia, which are also the second and the third world largest producers. The leader country in sheep meat production in the world is China. The greater exporters of sheep cheeses in the world are Italy and France, while the greater importers are USA, Germany, Luxembourg and Austria.

Industrial poultry production is the fastest growing and most quickly changing segment of a highly globalized livestock industry. By the end of 2020, 124 million tons of poultry will be produced globally – an increase of 25 percent in just 10 years. China's production increase is the largest, a 37 percent increase compared to 2010, but Brazil with 28 percent is close behind. Below-average growth is the USA 16 percent and the EU 4 percent. The most dramatic change in demand for poultry meat, however, will take place in South Asia, where it is expected to rise more than sevenfold by 2050.

Driven by growing demand and market opportunities, and supported by technological change, the distribution of production is no longer determined by the agro-ecological potential of a given location but by a variety of interacting factors. As well as local supply of feed and demand for livestock products, driving factors include transport costs, disease concerns, environmental regulations and a whole set of other policy factors. As countries industrialize, they follow a pattern in relocating livestock production. Livestock production has traditionally been based on locally available feed resources, particularly those that have no other use or are of limited value, such as natural pasture and crop residues. In pre-industrialized contexts, the distribution of ruminant livestock can be explained by the availability of such resources, while the distribution of pigs and poultry closely matches that of humans, because of these animals' role as waste converters.

Livestock systems occupy about 30 percent of the planet's ice-free terrestrial surface area. The livestock sector is increasingly organized in long market chains that employ at least 1.3 billion people globally and directly support the livelihoods of 600 million poor smallholder farmers in the developing world.

Livestock systems have both positive and negative effects on the natural resource base, public health, social equity and economic growth. Currently, livestock is one of the fastest growing agricultural subsectors in developing countries. This growth is driven by the rapidly increasing demand for livestock products, this demand being driven by population growth, urbanization and increasing incomes in developing countries.

In addition to their food security, human health, economic and environmental roles, livestock have important social and cultural roles. In many parts of Africa, social relationships are partly defined in relation to livestock, and the size of a household's livestock holding may confer considerable social importance on it.

LESSON №5

Secondary sector. Energy production

The secondary sector plays a significant role in shaping every state economy. It is first or second largest contributor to GDP. Secondary industries are those that take the raw materials produced by the primary industries and process them into manufactured goods and products.

Our world depends on different sources of energy to supply electricity, fuel, and heat needed to live day to day and for the industry. The ratio of which we use these energy sources is important to think about, as each source comes with **environmental and sustainability issues.**

The secondary sector is divided into two main branches – heavy industry (energetics, machine building, metallurgy (ferrous and non-ferrous), chemical industry, construction) and **light industry** (textile industry, food and beverage industry, etc.).

Industrial factors are divided into two main groups – **natural** (climate, relief, raw materials, water) and **socio-economic** (population growth, labor force, energy production, markets and trade, transportation, technology, etc.).

Any country cannot be industrialized if there isn't a strong energy producing sector. Around the world, there are about 62,500 power plants operating today. That includes everything from coal-fired plants to hydroelectric dams to wind farms. 83% of the world's air pollution comes from the production and use of electricity. Refrigerators account for 7% of the nation's total energy use. Enough sunlight reaches the earth's surface each minute to satisfy the world's energy demands—for an entire year. The amount of energy produced by the sun in a two week's period equals the combined stored energy of all the coal, oil, and natural gas reserves known to man. Fossil fuels are called **conventional** energy sources. /**Fig.1**/

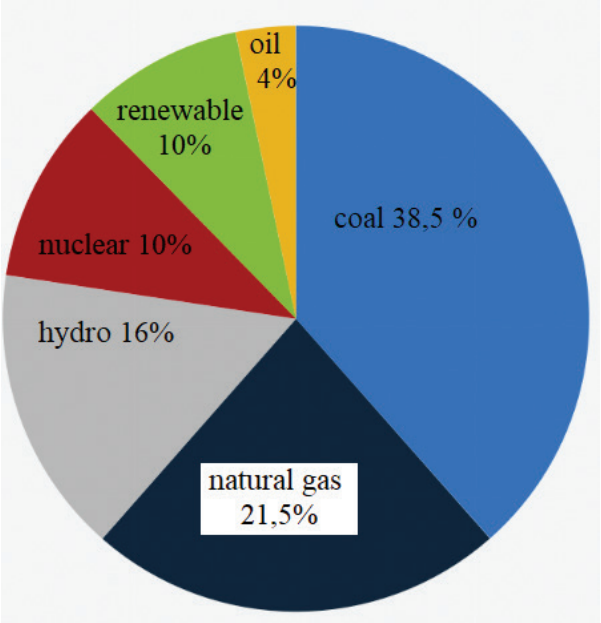


Fig.1 Energy sources in 2017

There are many types of power stations – nuclear power plants, hydroelectric power plants, coal-fired power plants, diesel-fired power plants, geothermal power plants, wind power plants, tidal power plants, solar power plants.

Alternative or non-conventional energy sources are tidal and solar energy, wind and water energy, geothermal energy, biomass and waste energy. Alternative energy sources are part of sustainable development. /**Fig.2**/

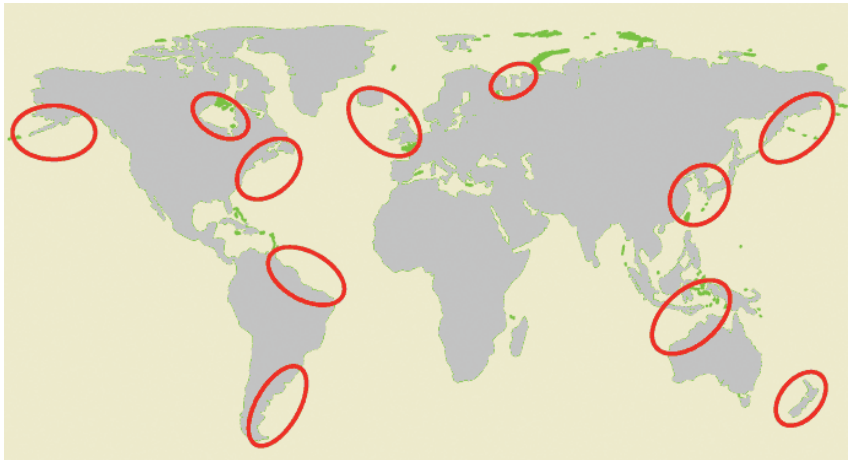


Fig.2 Areas of tidal power plants in the world

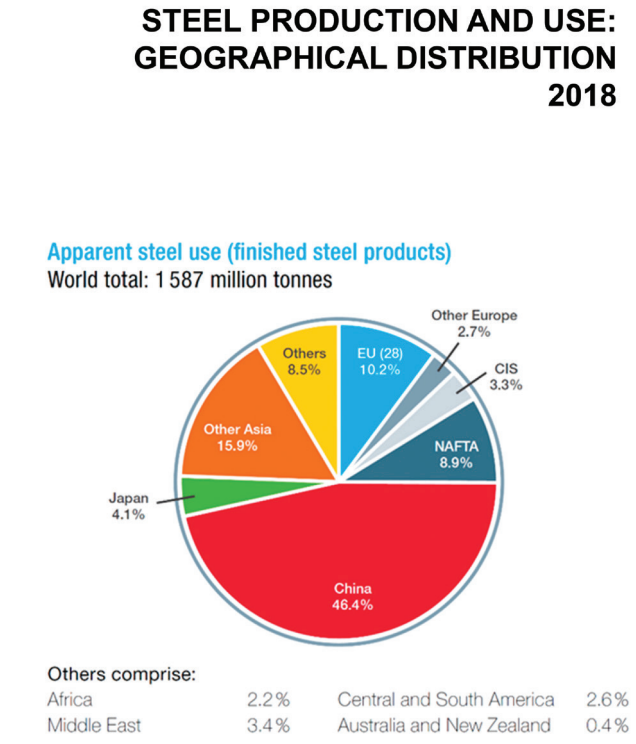


Fig.1 World Steel Association info

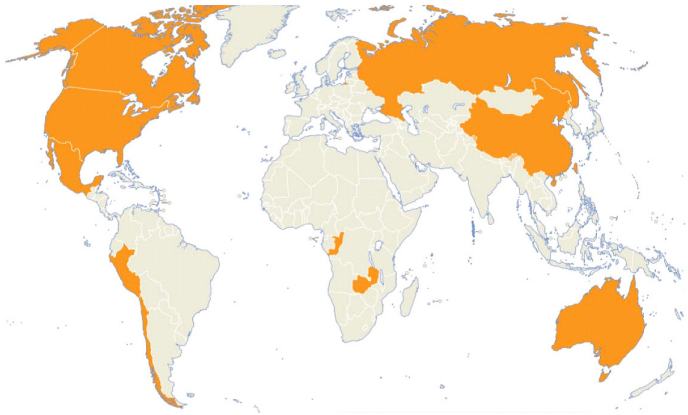


Fig.2 World copper production

Iron and steel have both played an important role in the development of human civilization over several millennia and have found uses in agriculture, construction, the generation and distribution of power, the manufacturing of machinery and equipment, in the household and in medicine. Their production is called **ferrous metallurgy**. Together with coal and cotton, iron and steel were the principal materials upon which the industrial revolution was based. The globalization of the world economy has had a profound effect on the steel industry and continues to do so. The industry is undergoing intensive structural changes but the steel industry remains at the heart of global development. /**Fig.1**/

The iron and steel industry is highly intensive in both materials and energy. The processing of ferrous metals sector is one that **requires very large investments in technology and equipment. Steel** is a key sector for Europe's economy and competitiveness. As China accounts for nearly half of global steel production, its activities are a key driver of global trends. Driven by population and GDP growth, global steel demand will likely continue to increase, especially because of economic expansion in India, the ASEAN countries and Africa, even as demand in China gradually declines. On the other hand, out of all the **non-ferrous metals**, only a few, aluminum, copper, lead, magnesium, nickel, tin, titanium and zinc, are produced in moderately large quantities by the **non-ferrous metallurgy. The Latin America region** (Chile, Brazil, Peru, Argentina, and potentially Bolivia) have a key strategic advantage in copper, silver, lithium, aluminum, nickel and zinc. Africa, with its reserves in platinum, manganese, bauxite, and chromium, should also serve as a market for these resources, Indonesia has opportunities with bauxite and nickel. For example, with respect to bauxite, developing countries (without China) represent only 30% of bauxite production, but represent 63% of global reserves. Developing countries' share **of aluminum production** and capacity with China and Middle Eastern countries - 70 %; without them and only including Brazil, India, and South Africa, 6.5 %.

The world's automotive industry

The world's automobile industry is one of the biggest industrial sectors in the world. The automobile industry is a major innovator, investing billions in research, development and production. The auto industry plays a key role in the technology level of other industries and of society. Automakers have invested hugely in reaching these air quality improvements and in developing diverse automobiles that run on alternative fuels including those from sustainable sources or that use hybrid technology using both gasoline or diesel engines and electric power. **The global automotive industry** has been enjoying strong growth and profitability in recent decades, 22.3% of the world's cars are produced in the EU.

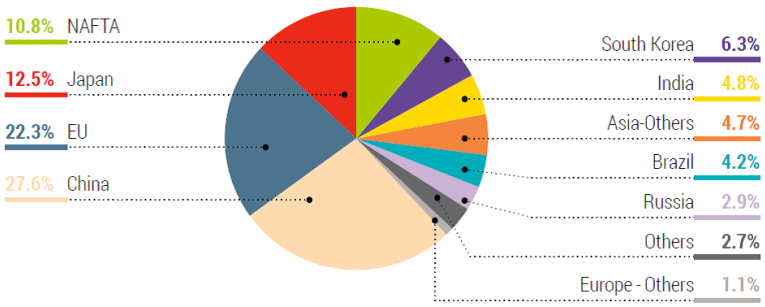


Fig.1 Passenger car prodution Source: ACEA

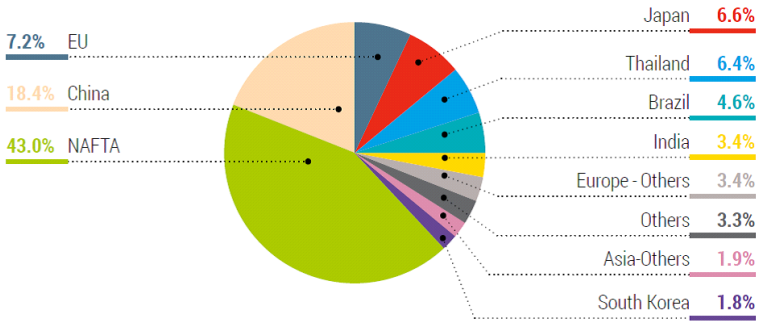


Fig.2 Commercial car prodution Source: ACEA

Electrical and electronic engineering industries

Electrical and electronic industries include electrical devices, radio equipment and telecommunications industries. Examples are mobile phones, the mobile network infrastructure, TV sets, power supply units, wireless routers, maritime radars, sensors, etc. The technologies of the Electrical and Electronic Industry are networked with other fields of technology to a higher degree than that of any other industrial sector in the world. Other industrial sectors benefit significantly from the innovations of the Electrical and Electronic Industry.

Electrical goods here include electrical motors and generators, domestic appliances, wiring, lighting and others, **electronics** consist of computers and peripherals, electronic components and boards, communication equipment and consumer electronics.

In 2019, Asia Pacific held 55% of the market share, North America came in second (17%), while Africa held the smaller share (around 3%). China, Hong Kong, and the U.S. are at the front of the pack in producing electronics on a global level. Southeast Asia, led by the Philippines, Malaysia, Indonesia and Thailand, along with Vietnam, is set to remain a vibrant electronics hub, combining both established and rising new countries. Poland ranks as the only country outside Asia Pacific in the TOP 10 countries.

Chemical industry

Industrial chemistry deals with commercial production of chemicals and related products from natural raw materials and their derivatives. It enables humanity to experience the benefits of chemistry when we apply it in the exploitation of materials and energy. When we apply chemistry in the transformation of materials and energy to make useable products, this results in growth and improvement in areas such as food production, health and hygiene, shelter and clothing.

Chemical industry is divided into two main branches – **petrochemical** /organic/ and **inorganic.** Petrochemicals are chemicals derived from petroleum products. Examples of petrochemicals are plastics, rubbers, fibers, paints, solvents, and detergents. **Petrochemicals,** which turn oil and gas into all sorts of daily products – such as plastics, fertilizers, packaging, clothing, digital devices, medical equipment, detergents, etc. In addition to products critical to our daily lives, petrochemicals are also found in many parts of the modern energy system, including solar panels, wind turbine blades, batteries, thermal insulation for buildings, and electric vehicle parts. **Petrochemicals** are rapidly becoming the largest driver of global oil consumption. They are set to account for more than a third of the growth in oil demand to 2030.

China is the largest chemicals producer in the world, contributing 35.8% of global chemical sales in 2018. With 16.9%, the EU chemical industry ranks second in total sales, with the United States contributing 14%. Nearly three quarters of global chemical sales were attributable to BRIC, the EU and the USA in 2018. Six countries out of the top 10 biggest producers are Asian (China, Japan, South Korea, India, Taiwan, and Saudi Arabia), two of the top 10 are European producers (EU + Russia), two of the top 10 country sales are American producers (the USA and Brazil), according to the ICCA report, March 2019.

Inorganic chemicals are those, that are not carbon based. Typically, they are of mineral origin. The chemicals produced by this industry are intermediate products, that are used as inputs in industrial and manufacturing processes. Inorganic chemicals include acids, aluminum sulfate, industrial gases (oxygen, nitrogen, argon, hydrogen), sodium bicarbonate, sodium chlorate, sodium sulfate, and sulfur.

Pharmaceuticals are central to human health and welfare, and chemistry is central to pharmaceuticals. over the past century, advances in chemistry have led to groundbreaking medicines and medical treatments that have eradicated once deadly diseases.

Cosmetic additives are functional chemicals used in personal care products such as cosmetics, deodorants, perfume, skin care, sun care, and toiletries. Included are such chemical products as antimicrobials, antiperspirant and deodorant salts.

Food additives are used to impart flavor and/or color and other properties (e.g., nutrient value, texture) in finished food products, as well as facilitate food and beverage processing. Included are acidulants (e.g., citric acid), antimicrobials, antioxidants, emulsifiers, enzymes, flavor enhancers, leavening agents, stabilizers and thickeners, artificial sweeteners, and fat replacers, among others. Within the food and beverage industry, this segment serves markets such as baked goods, confections, frozen foods, dairy products, soft drinks and beer, and other food and beverage processing.

Food and beverage industry

The food and beverage industry is one of the main sub branches of light industry and it includes all companies involved in producing, processing, packaging, transporting, and distributing edible goods - from the farm (or factory) to the table. The food and beverage industry is one of the world's largest industries with regards to both revenue and employment. The industry is one of the major contributors to growth of all economies and has historically witnessed consistent growth. The food and beverage industry strongly depends on natural conditions for agriculture, new technologies and trade. It includes: producing – primary food production of crops and animals from agriculture and fishing, processing and packaging – secondary food processing of food into a whole variety of different food products, distributing and retailing – including transportation, marketing and selling to the consumer.

The food industry is the largest industry in the world, which are the complex, collective of so many businesses that contribute the supply of the food energy for world population. The global food processing and beverage industry is dominated by a cluster of multinational corporations. The Asia Pacific was the largest region in the global food and beverages market, accounting for 42% of the market in 2019. North America was the second largest region accounting for 22% of the global food and beverages market. Africa was the smallest region in the global food and beverages market.

Textile industry

Textile industry is the second of the main sub branches of light industry. Textiles can be classified in several ways, including by their component fibers, the quality, and their value. The five main component fibers which textiles can be produced from are silk, wool, linen, cotton, and inorganic fibers. The industry today has been industrialized on such a scale that it is almost unrecognizable from its origins. Its development depends on raw materials, climate, energy resources, water availability, availability of markets, etc.

The textile industry of the European Union comprises Germany, Spain, France, Italy, and Portugal at the forefront with a value of more than 1/5th of the global textile industry, India is the third-largest textile manufacturing industry, China is the world's leading producer and exporter of both raw textiles and garments. International trade in textiles and clothing has showed more dynamic growth in the last decade in terms of trends in the global production of textile and clothing products. Developing countries, especially those from the Asian region, are the world’s leading textile exporters, which is one of the key levers of their rapid economic growth.

The leading producers of **cotton** cloth in the world are China, India, Russia, USA, Japan, Italy, Germany, Hong Kong, Egypt, France and Romania.

The **wool** is produced mainly by USA, Japan, UK, Germany, China, France and Italy. The major consumers are also the countries of Europe, USA and Canada. Japan keeps the second position in the production of wool yarn and fabrics in the world.

China is currently the largest producer of **linen**. However, the production of high-quality linen products remains an important part of the cultures of Ireland, Italy, and Belgium remain significant linen producers.

LESSON №6

History lesson. Sub – economy

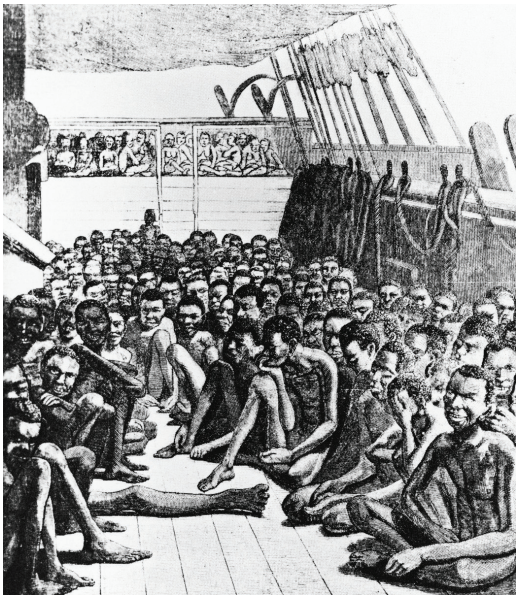


Fig.1 Slave ship.
Source: Wikipedia

The end of the Middle ages and the beginning of Early modern times is a period of serious economical changes in Europe. The bourgeoisie in the towns grew up and gained wealth. The development of towns was a reason for the accumulation of material production. This process was related to the European expansion and colonisation of new territories. The natural resources from the colonies influxed Europe. The advancement of navigation, technological progress and new colonies were the main reasons for the increasing seatrade between the continents. Some European towns were transformed into huge trade centers – Amsterdam, some English and French towns and other settlements near the Atlantic coast.

The creation of the factories in West and Central Europe resulted in larger production, it meant the Europeans needed more markets – in Asia, Africa and South and North America. The development of the factories and seatrade was related to the need of money. This provoked the spread of banks around Western Europe.

Slave trade. The need of cheap work labour and the lack of resistence among the African tribes against the white colonisators was the reason for the activisation of the slavetrade. People from Africa were taken in slavery. Slave trade enriched a great number of European merchants. Slavery was practised mainly in America, not in Europe.

At that time (16 – 18th century) the idea of **capitalism** was conceived, this philosophy was related to the possession of the means of production – factories, machines, markets, ships and others. The main point was that the owner of the means of production was able to create products, sell the production and earn money. In this way, the financial profit of selling the prodiction was reinvested in a new process of production or trade. In contrast to the Medieval times, when all the profits were spent on non-productive actions like luxury items, hunting, everyday expenses, castles, waging wars and others.

Protectionism was an economic policy whose aim was to defend the local production and trade. According to protectionism, the import had to be restricted by the state government, using different tariffs and quotas. The restriction of the foreign products meant an opportunity for the local products (to gain popularity). This policy was used by the European governments from the 16th to 20th century.

According to **mercantilism**, the state persued a policy of accumulation of huge amounts of precious metals – gold and silver, thus strengthening the state`s finances. The other aim of mercantilism was to support the sale of the local production to other countries, which meant an increase in money for the selling country. The owners of factories took raw materials from the colonies at a low price, produced various goods and sold them to other countries at a higher price.

Industrial revolution – this is a process of replacing the manual labour of the artisans with the use of machines in factories. This change (the spread of machines) led to augmentation of the

production - especially after the invention of the steam engine in the 18th century. The Industrial revolution began in England, later it spread in other western countries. The main reasons for the industrial revolution were: the independent Englsih society – the aristocracy and burgoisie had enough and equal possibilities to work and create production, the state supported them as well; cheap raw materials and natural resources from the colonies as well as cheap work labour. Do not forget the civil education

SKILLS TASK 1

What was the meaning of the colonisation for the economic development of Europe?

Explain the main characteristics of the idea of capitalism.

What was the result of the creation of factories for the European economy?

What do you know about the industrial revolition?

VOCABULARY SECTION:

1. Match the terms 1-5 with the definitions a-e:

	TERMS		DEFINITIONS
1	Industrial revolution	**A**	Trade with people who were taken mainly from Africa. They were sold in America and were forced to work in the plantations of white landlords.
2	mercantilism	**B**	The owners of the factories and other means of production reinvested the profits in the business.
3	capitalism	**C**	The steam machines replaced the craftsmen. This led to augmentation of the production.
4	slave trade	**D**	During the Age of discovery,the Atlantic Ocean, not the Mediterranean Sea, was the main trade road. The emergence of the burgoasie led to the economical development of Europe.
5	economical changes in Europe	**E**	The accumulation of huge amounts of precious metals, which would consolidate the state`s finances. The other aim was to support the export to foreign countries.

2. Choose the correct phrase and fill the gaps using the phrases below: (precious metals and other resources; the slave trade; America to the white landlords; colonial empires)

During the 16th century Spain and Portugal were..... According to the idea of colonialism, the Europeans extracted ..... from the conquered territories and sent them to their own countries. The new landlords in America needed cheap labour and this provoked the spread of ..... People were taken from Africa, put on European ships and were sold in .....

3. Read text A and text B. The information in text A is true, but is text B true or false? Compare them. Underline true or false in text B.

A. In Medieval times, the nobles collected taxes and waged wars. They didn`t work, they produced nothing. At the beginning of Early modern times they gradually weakened their authority. On the contrary, merchants and craftsmen who didn't have aristocratic origin, succeeded in getting rich due to permanent work.

B. The main occupation of the aristocracy was to produce new factories and support capitalistic relations. **TRUE / FALSE**

A. The main reasons for the Industrial Revolution in England were the free capitals in society, free labour, high level of education, religious tolerance in society, the abolition of feudal privileges. The bourgeoisie put the fundaments of the industrial revolution.

B. Thanks to the good social climate and free capitals in England, the bourgeoisie started the process of the replacement of hand made production with machine production – this was the Industrial revolution. **TRUE / FALSE**

A. The navigation act aimed to support the self-sufficient economy in England. This kind of acts were issued by the English Parliament. They noticed that the trade between England and the colonies had to be conducted only with English vessels only. This had to preserve the local economy. The acts of the Parliament affected the interests of Dutch Republic since they had an enormous merchant fleet. This led to The Anglo-Dutch wars in 17th century.

B. The commercial rivalry, connected to colonial trade in the Atlantic Ocean, was the reason for the navigation acts. The English Parliament forbode the use of foreign fleets for trade supplies. So the French interests were undermined. The Dutch republic supported the act. **TRUE /FALSE**

A. In Medieval times, the economy in kind was in use. It means that people exchanged products for goods. They used money only on rare occasions. Later, in the Early modern times, new financial relationships emerged. Money was imposed as the main instrument for trade. This important economical change was provoked by the developing of the burgoasie in towns.

B. The destruction of the economy in kind was an important condition for establishing the new economical relationships in Europe – the epoch of capitalism began. **TRUE / FALSE**

4. Reading comprehension

During the Industrial Revolution a lot of workers in the big, industrial, urban centers were afraid that the spread of the machines would lead to unemployment. Many of them were artisans with high skills in the field of weaving. But machine production – cheaper, with medium and high quality, was a threat to their livelihood. They were enemies of the machines and they were named luddites – this nickname was related to the activity of the Ned Ludd, a young apprentice who was an enemy of the machines and damaged some of them. Many of the luddites attacked and destroyed the machines in the factories. This started in Nottingham and spread to other industrial centers. The government used the army and some of the luddites were killed. In present day luddites are a synonym of people who hate technology.

LESSON №7

Economic monsters

Three major poles, North America, Western Europe and East Asia, dominate the global economy. For North America, this involves Latin American nations, closely linked to the American economy. Africa, Eastern Europe and Russia (with many of the former Soviet Republics) are within the sphere of influence of Western Europe. JAKOTA (Japan, Korean and Taiwan) represents the main pole of Pacific Asia, including China and the other newly industrializing economies of the region (Singapore, Malaysia, Thailand). Several regions, such as Oceania, South Asia and the Middle East are not within a specific area of influence, but contribute significantly to global trade (petroleum for the Middle East, minerals and food for Australia).

The uneven distribution of income is present at the global level where the **gross domestic product (GDP)** of the top ten economies adds up to 65 percent of the world's economy, and the top 15 economies add up to 75 percent. The remaining 172 countries constitute only 25 percent of the world's economy.

The USA economy is the largest economy in the world in terms of GDP. The **USA economy is approximately 22.44 percent of the gross world product.** The agricultural production of corn and soybean.

USA keeps roughly 1/3 of total corn production in the world. USA is leading the production of soybean in the recent years. Also USA possesses the largest area of arable land in the world.

China has transformed itself from a centrally planned closed economy in the 1970's to a manufacturing and exporting hub over the years. China is the world's largest producer of agricultural products.

China is the world's largest manufacturer, the largest exporter of goods in the world, the fastest growing consumer market, the second largest importer of goods after the United States, the world's largest producer, and importer of rice and Africa's largest trading partner.

Despite its small size, **Japan** is a major economic power in the modern world, it currently has the **3rd largest economy** in the entire world on trailing behind only the USA and The People's Republic of China. Japan does not have much suitable land for agriculture but the land that they do use has a very high yield and most of it stays in country. The main power behind Japan's economy is its manufacturing industry. They are world renown for being at the forefront in certain industries technologically.

The world's economies have developed ever-closer links since 1950, in trade, investment and production. Known as globalization, this process is not new, but its pace and scope has accelerated in recent years, to embrace more industries and more countries.

The world distribution of wealth and income is highly unequal. The richest 10% of households in the world have as much yearly income as the bottom 90%.

Wealth - total assets rather than yearly income – is even more unequal. The rich are concentrated in the USA, Europe and Japan, with the richest 1% alone owning 40% of the world's wealth.

Poverty, on the other hand, is widespread across the developing countries - which have five-sixths of the world's population.

LESSON №8

Tertiary sector. The three "T" – trade, transport, tourism

The development of agriculture and industry in a state economy leads to the development of services such as transport, trade, tourism and etc. The tertiary sector is also called service sector. Tertiary sector includes profit and non-profit economic branches. The profit branches are transport, trade, tourism, banking and insurance. The non-profit branches are health care and education.

Main factors for the development of the sector are divided into two main groups – **natural** (climate, relief, water) and **socio-economic** (primary and secondary sectors economic growth, population growth, labor force, standard of living, markets and trade, technology, etc.).

Transport is the movement of people and goods from a place to another. Transport helps in increase in the demand of goods. Today markets have become international only because of transport. Transport enables consumers to enjoy the benefits of goods that are not produced locally. It is divided into railway, road, water and air transport. **Railway transport** is the cheapest but not the fastest mean of transportation. It is the least affected by the weather and its services are more certain, uniform and regular compared to other modes of transport. It is the best suited for carrying heavy and bulky goods over long distances. **Air transport** is the fastest and the most expensive transport in the world but unlike railways and roads there is no need to build land railways and roads.

Trade is the heart of globalization. It includes **import** and **export** of goods and services. The leading exporting countries are China, USA, Germany and Japan. The leading importing countries are the same countries but in different order – USA, China, Germany and Japan. If a country imports more than it exports, that indicates its people can afford to consume more and have higher standard of living. About 80 % of global trade is by sea.

Tourism is the travel for recreational, leisure, family or business purposes, usually of a limited duration. Tourism is commonly associated with trans-national travel, but may also refer to travel to another location within the same country. Tourism brings in large amounts of income into a local economy in the form of payment for goods and services needed by tourists, accounting for 30% of the world's trade of services. The major component of Gross Domestic Product (GDP) is consumption, which is driven by demand for goods and services. One effect of tourism on GDP is that tourism affects the economy through the provision of employment. The main effect of tourism on GDP is the fact that tourism boosts the demand for goods and services. Such an increase in the consumption level increases the activity on the market and consequently, increases the GDP level. The direct contribution of tourism to the world economy is more than $ 2.2 trillion to world gross domestic product (GDP) and 101 million jobs. Tourism's contribution equates to 9.5% of total economy GDP, 1 in 11 of the world's total jobs, 4.4% of total investment and 5.4% of world exports. The most visited countries in the world are France, USA, China, Spain, Italy, United Kingdom, Turkey, Germany, Malaysia and Mexico.

REGIONS

To argue against globalization is like arguing against the low of gravity.
/Kofi Annan/

LESSON №1

History lesson. Continents and regions

Each of the continents has its own natural specifics. The population varies in terms of culture, political regimes, cultural heritage, meaning of life and religion. For example, in present days Europe is dominated by liberal and democratic states and social systems. Most of the countries are united in the European union.

The historical heritage of **Europe** is related to the existence of some prominent cultures. In the Ancient times these were the Greek and Roman civilisations. The Greeks populated the south parts of the Balkan peninsula. They were sailors and traders and travelled all over the Mediterranean Sea. They reached the coasts of North Africa, Western Asia, Italy as well as small parts of the Spanish coast. The Greeks lived in independent cities, named polis, which were self-governed communities. During their journeys they found new cities, on the coast of the Mediterranean, named colonies. The Greeks were founders of democracy and they left remarkable architectural heritage.

The genesis of the Roman empire was related to the ancient city of Rome. This civilisation embraced territories of three continents – Europe, Asia and Africa – different people with their religions and cultures were subordinated to Rome. The fall of the Roman empire marked a new epoch in the history of the continent – the Middle ages. The whole population of Europe was christianized for a few centuries. New states were established. It was the period of Chivalry and feudalism. In 15th century, Europe entered upon a new stage – centralised states, capitalism, industrial revolutions and creation of national states. This transformed the European states into world powers with influence over the societies on the other continents.

Asia is the biggest continent in the world, with a thousand- year-old history and cultures – some of them are the cultures of Mesopotamia, India, China and others. **South** and **North America** were populated by different Indian tribes. Powerful empires existed there – the Aztec empire and Inca empire. In 15 and 16 centuries they were devastated by the conquistadors.

The northeastern part of **Africa** was the birthplace of the ancient Egypt civilisation. Europe, Asia, North America, South America and Africa were continents with different ancient civilisations – with their own cultures, religions (polytheistic and monotheistic) and different state regimes – ancient democracy, republic, feudalism and absolute monarchy, modern authoritarian regimes and others.

The relationships between some of these cultures dated from the ancient times. Greeks, Phoenicians, Romans and other people sailed across the Mediterranean Sea and communicated with different local cultures. Later, in IVth century, the eastern borders of the Roman empire were invaded by numerous barbarians coming from Asia – Germanic and Huns tribes. They invaded and devastated the Empire. These new tribes populated the continent and the process ended in VIth century - it was named the Migration period. The events mentioned changed the ethnic map of Europe forever. Centuries later, the communication between Europe and Asia continued with the Crusades. From XIth to XIVth century a lot of European knights travelled to Asia to lead liberation wars of the Holy places of Christianity from the rule of the Muslims. In Asia the knights established their own

countries which didn`t exist for a long time. This military campaigns contributed to the mutual understanding between Muslims and Christians. Centuries later, the Age of Exploration was the main reason for European infiltration in the other parts of the world. The Europeans realized the existence of new continents (the two Americas) after the expeditions of Christopher Columbus, Amerigo Vespucci and other explorers. In the XVIth century, Fernando Magellan, a Portuguese explorer, sailed around the world for the first time.

In the next centuries thousands of Europeans travelled to North and South America. They were the armoured conquerors with firearms and they destroyed the empires of Incs and Aztecs. Thousands of Indians were killed. Europeans from Spain, Portugal, the Netherlands, England and France settled in these territories and created towns, fortified villages and plantations. The European traders imported many slaves from Africa to use them as cheap labour. Christianity was imposed over the local people. New states were established in the continent. The ethnical and cultural map of the two Americas were seriously changed.

The technological progress of the Europeans led to their infiltration all over the world. They colonised the whole African continent. In the 19th century these territories were divided between England, France, Belgium, Spain, Italy and Portugal. The only independent state was the Ethiopian empire, but this state was occupied by the Fascist Italy of Benito Mussolini, in 1936.

An important consequence of the European expeditions was the spread of Christianity all over the world. In North America, English and Dutch colonisers spread the Protestant Christianity. The French, Spanish and Portuguese colonisers imposed the Catholic religion on the local people. The European missioners preached Christianity in Africa and Asia as well, for example, the territories of present Vietnam were French colonies, and the French clergy baptized the local people.

Other worldwide monotheistic religion is Islam. Its origin is related to the teaching of Mohamed in western Arabia in the sixth century. The local Arab tribes accepted this religion, later they created a huge Arab empire and started invading the territories of Asia, North Africa and the Iberian Peninsula. Millions of people accepted Islam. During the Ottoman invasion in Europe, some parts of the Balkan peninsula were islamised as well. In present days Christianity and Islam are the most popular monotheistic religions of the world.

Each of the world continents has its remarkable cultural heritage and nature. The organisation that fought battles to preserve that common culture and natural landmarks is UNESCO – United Nations Educational, Scientific and Cultural Organisation. After the Second World War representatives of thirty-seven countries created an organisation in defence of „Intellectual and moral solidarity of mankind".

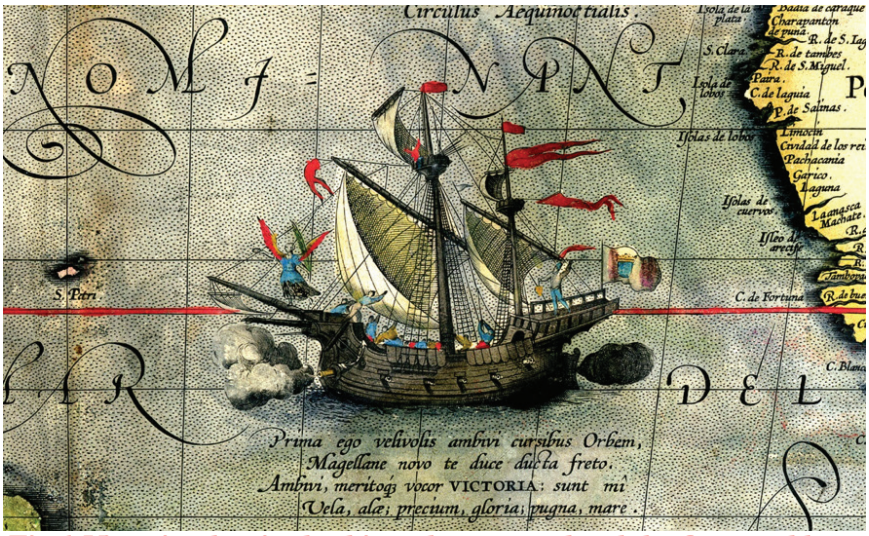


Fig.1 Victoria, the single ship to have completed the first world circumnavigation.
Source: Wikipedia

EUROPE

Europe - extra readings

Europe ranks second among all the continents in respect of its area. The Ural Mountains and the Caspian and Black Seas naturally separate Europe. The continent borders the North Sea to its north, the Mediterranean Sea and Black Sea to its south, the Caspian Sea and Asia to its east and the North Atlantic Ocean to its west. The Ural mountain is the dividing line between Europe and Asia. /**Fig.1**/

Fig.1

The **relief** is diverse. The Great European Plain stretches from the coast of the Bay of Biscay in the west to the eastern border of Europe in the east. Relatively flat, this plain is a very desirable agricultural land. The plateau of Central and West Europe includes Meseta plateau in Iberia, Central Plateau in France, Bavaria in Germany and Bohemia Plateau in Czech and Slovakia. To the northwest are the Scandinavian mountains. The Scottish Highlands are noted for their wool products and Highland cattle. The Mountainous Lands of South Europe include the Alps Mountain, Pyrenees on the border of France and Spain, the Dinaric and Pindus mountain in the south-east of the Balkan Peninsula, the Balkan mountain, the Carpathian mountain covering West Ukraine and the central east of Romania, the Transylvania mountain in South Romania, the Caucasus mountain, to the east of the Black Sea. Both the Jura mountain and the Vosges mountain determine the border of France and pass through Italy towards south. The Mount Blank, (4,807 metres) situated on the border of South-East France and Italy, is the highest peak. The Hungary Plain is located in the river valley of the Danube within the Carpathian and the Dinaric Mountains, the Lombarde Plain in between the Alps and the Apennines, and the Danubian plain between the Balkan and the Transylvania mountains.

Europe has a variety of **minerals**. A band of coal deposits stretches from the United Kingdom across Belgium and the Netherlands until it reaches France, Germany, and Poland. Near many of these coal deposits are the iron ore deposits. Having both of these resources makes it possible to produce steel. The Ruhr Valley in Germany, the Alsace-Lorraine region of France, the eastern part of Ukraine and parts of the United Kingdom are heavily industrialized because these minerals are found there and good transportation exists. Other coal deposits are found in Belgium, France, Spain, the Czech Republic, Poland, Slovakia, and Russia. The burning of coal has produced high levels

of air pollution. Acid rain has been a major concern in the northern countries. Oil and natural gas were found beneath the North Sea floor in 1959. Energy companies began to tap gas fields between the United Kingdom and the Netherlands. In 1971, new technologies made it possible to construct oil rigs in the North Sea despite its deep, stormy waters. Five European countries have rights to these resources, including Norway, the United Kingdom, Denmark, the Netherlands, and Germany. Chief among the mineral deposits in Europe is iron ore, which can be found in Sweden, France, and Ukraine. Other minerals exist in smaller quantities, including copper, lead, bauxite, manganese, nickel, gold, silver, clay, gypsum, dolomite, and salt. Extraction activities have supported the continent's industrialization. The access to vast areas of the Atlantic Ocean and a number of major seas, lakes, and rivers has raised catching fish to a high level as an important natural resource in Europe.

The difference in **climate** is found to occur in different places of Europe due to the distance from the sea, the influence of warm currents, the location of the Arctic circle, the mountains, etc. The subpolar and polar climate zones are located in the northern parts of the continent (Norway, Finland and Russia) being situated in the north of the Arctic circle. Most of Western Europe has a moderate ocean type climate. In the temperate climate are those located along the coast of the Atlantic Ocean. With warm summers and cool winters, the region enjoys a milder climate, with smaller temperature variations from day to night as well as from winter to summer, than do most regions at such a northern latitude. The Gulf Stream is the most important current for Western Europe's climate and is responsible for producing a temperate climate for a northern latitude location. The prevailing winds, which blow west to east, pick up warmth from this current and carry it over Europe. No large mountain ranges block the winds, so they are felt far inland. They also carry moisture, giving the region adequate rainfall. The Continental Climate of East Europe is far from the sea. Colder air sweeps down from the Arctic north or from eastern Siberia and provides colder winters in this eastern region. The intensity of cold during winter is very high. It rains a little and in the east the rainfall gradually decreases. These places have cold, snowy winters and either warm or hot summers. The Mediterranean Climatic Region includes South Europe. Summers are hot and dry, while winters are moderate and wet. This climate type allows for the cultivation of food products such as olives, citrus fruit, figs, apricots, and grapes. Evergreen scrub oaks and other drought-resistant shrubs are common in the Mediterranean region. Two major rivers — the Danube and the Rhine — have served as watery highways for centuries. The Rhine flows from inland Europe north to the North Sea. The Danube cuts through the heart of Europe from west to east and links Central Europe to the Black Sea. Many other European rivers flow from the interior to the sea and are large enough for ships to traverse. Forest covers more than 40 percent of the continent's land area, with the majority on the Russian side. Forests exist primarily in the less populous Nordic and Baltic countries and in Central Europe.

Europe didn't become a center of world economics with high standards of living by accident. Europe's **historical pattern** of development varies from historic empires to diverse nation-states to a multicountry union. In southern Europe, the Greeks provided ideas, philosophy, and promoted the concept of democracy. From about 150 BCE to 475 CE, the Romans brought many ideas together and controlled a large portion of Europe and North Africa. The Roman Empire introduced a common infrastructure to Europe. The Vikings of Scandinavia (Norway, Sweden, and Denmark; 900–1200 CE) developed trade routes throughout the north. They were the early developers of the northern world from Russia to Iceland and even to North America. The present-day Scandinavian countries were established after the main Viking period. The Renaissance of the late fifteenth century prompted activity in Europe that changed the world. The powerful impact European colonialism has had on the world is still felt today. In 1492, Columbus and his three ships crossed the Atlantic to land on the

shores of the Americas. This event symbolized the beginning of the era of European colonialism, which only diminished after World War II. Colonialism included the development of colonies outside the home country, usually for the expansion of imperial power and material gain. Africa was divided up, "Latin" America was created, and Asia became a target of resources and trade. The few powerful countries along the Atlantic coast of Europe began the drive to dominate their world. Most of the current political geographic boundaries were drawn up or shaped through colonial conflict or agreement. The post-Renaissance era introduced a number of agricultural changes that impacted European food production. Before this time, most agricultural methods were primitive and labor intensive, but new technologies were introduced that greatly enhanced agricultural production. These innovations supported the expanding port cities that created urban markets for agricultural surpluses. Colonial ships returned from the colonies with new crops such as the potato that revolutionized crop production. This era's progress in agricultural advancements is often referred to as the agrarian revolution. The agrarian revolution led to the industrial developments such as the steam tractor and steel implements that further advanced agricultural production worldwide. The Industrial Revolution, initiated in northern England in the late 1700s, introduced an industrial period that changed the way in which humans created products. The shift to coal as a source of energy, the use of the steam engine for power, the smelting of iron, and the concept of mass production changed the pattern of production of goods. Industrialization with cheap labor and adequate raw materials brought enormous wealth to the industrial leaders and their home countries. With the mass production of goods and advancement in technology, there was a major shift in human labor. Fewer people were needed on the farms, and more workers were needed in factories. There was a large rural-to-urban shift in the human population. The rural-to-urban shift that began with the Industrial Revolution in Europe continues today in developing countries.

During the twentieth century, there were three **major divisions** in Europe. First, World War I, which was supposed to be the war to end all wars, divided Europe and the industrialized world. Second, World War II pitted the Axis powers led by Germany and Italy against the Allied powers led by Great Britain and France with the United States entering later. Third, after World War II, the confrontation between communism and capitalism developed into the Cold War. The Iron Curtain, separated Communist Eastern Europe, which was dominated by the government of the Soviet Union, from the capitalist democracies of Western Europe. Most of the non-communist countries in Europe joined a joint military alliance called the North Atlantic Treaty Organization (NATO). The countries guided by the Soviet Union formed the military alliance known as the Warsaw Pact. Germany was divided by the allies after the war, and remained so for decades, with West Germany being a democratic state and East Germany being communist. In 1980s under the leadership of Mikhail Gorbachev, the Soviet Union began economic and political reforms. In 1989, communism in the countries of Eastern Europe began to fall. Even the Berlin Wall in Germany was torn down. This led to the fall of communism and the break-up of the Soviet Union itself in 1991. The former Soviet Union broke up in 1991 giving rise to 15 independent Republican States. Similarly former Czechoslovakia formed two states - Czech and Slovakia after the break up and Yugoslavia fell apart into Bosnia and Herzegovina, Croatia, Nord Macedonia, Montenegro, Serbia, Kosovo and Slovenia. Germany was reunited and Europe's integration grew deeper.

The economic forces of **globalization** motivated the states of Europe to work together rather than compete with each other. Unified, the countries could be a major economic power in the world. Separated and independent, they may not be able to compete at the same level as other globally recognized trading blocks. It was not easy to become unified after a century of centrifugal forces keeping them apart. Centripetal forces unifying the realm are the common Christian religion and the Indo-European language groups.

When the **Soviet Union collapsed in 1991**, a new era started in Europe, and the power of unification emerged. Despite the numerous problems, since World War II, great efforts have been made to achieve the European unification. The EU was the structure representing a common economic system with a coherent governance, and it was designed as an economic trading block that could compete with the United States and Japan. To compete in a global economy, the states of Europe must cooperate and coordinate their industrial activities as well support their high standard of living.

The number of **population** in Europe is about 740 million. Population densities are very high The most densely populated part of Europe is situated in the west and forms a belt that stretches more or less continuously from southeastern Britain, through northern France, Belgium, the Netherlands, Germany as well. In these densely populated areas, individual cities can merge into one another, forming conurbations. The largest of them is situated in the German industrial region known as the Ruhr. A large part of Europeans live in cities. Population densities in Eastern Europe are lower, but even they are above the world average ones.

Birth rates are low, and the average life expectancy is very high. As a result of these two factors, Europe's population is relatively elderly, with a large number of people over the age of 60. As a core economic global power, Europe is like a magnet for people from poorer peripheral countries and even peripheral regions within Europe that are looking for opportunities and advantages. Europe experienced an increase in immigration. Europe's wealth and relative political stability attracted large numbers of migrants to its shores, a lot of them came from former colonies. As a result, most of the countries, particularly in western Europe, include large numbers of people from ethnic minorities. In France, for example, north Africans from Algeria and other former colonies settled in cities such as Marseilles and Paris. There has been growing tension between the native European cultural groups and immigrants from developing countries who often speak languages other than European or their religions are other than Christianity.

The countries of Eastern Europe are in a deep **demographic crisis**. They are characterized by low birth rates, increasing mortality due to the ageing of the population and lower life expectancy compared to Western Europe. As a result, they have a high negative natural increase and, in combination with the high emigration caused by the deep economic crisis, are characterized by rapid population decline.

Europe has historically been considered a **Christian realm**. The three main branches of Christianity in Europe are Roman Catholic, Protestant, and Eastern Orthodox. Rome has been the geographical base for the Roman Catholic Church since the Roman Empire. The Roman Catholic Church split when Constantinople, which is called Istanbul nowadays, gained preeminence. The Eastern Orthodox Church was the primary religious organization in the Slavic lands of Eastern Europe and Russia. The reformation, that took place in the fourteenth century, was led by people such as Martin Luther and brought the Protestant Reformation as well the break with the Roman Catholic Church. Protestant churches have dominated northern Europe so far. Three main Indo-European language groups predominated in Europe. Though there are additional language groups, the three dominant coincided with the three main religious divisions. In the east, where the Eastern Orthodox Church had a major role, the Slavic language group prevailed. In the north, along with Protestant Christianity, the Germanic language group was dominant. In southern Europe, where Roman Catholicism was dominant, the Romance languages were more commonly spoken.

Europe has been traditionally divided into regions based on location according to the four points of the compass: Eastern Europe, Southern Europe, Western Europe, and Northern Europe. These regions are purely geographical regions that may share similar physical geography or cultural properties based on physical geographical demands. For historical as well political purposes, Europe

is divided into the two regions- Western Europe and Eastern Europe. In this case, Western Europe includes the regions of northern Europe, southern Europe, Central Europe. Eastern Europe includes the former communist countries, which are much poorer.

Western Europe was a leader in developing industry. Today, three of Europe's top manufacturing countries are: France, Germany, and the Netherlands. High-tech and service industries are also very important. Electronics is the main product of the Netherlands. Germany also produces electronics, as well as scientific instruments. France has one of the world's fastest passenger trains, the TGV (train à grande vitesse, or high-speed train), and a space program. France also relies heavily on nuclear energy. Nuclear plants produce nearly 75 percent of its electricity. Switzerland specializes in the service industry of banking. One reason is that Switzerland refuses to fight in wars, so people believe that money is safer there. Because of its varied scenery, mild climate, and historic sites, Western Europe is popular with tourists. Tourism is a major part of the French, Swiss, and Austrian economies. Western Europe exports luxury goods to the world. For example, some German cars and Swiss watches are considered status symbols. France is famous for its high-fashion clothing and gourmet foods. The Netherlands exports high-quality flower bulbs, such as colorful tulips. When Germany reunified, the new nation faced difficulties because the West had a much higher standard of living. East Germany's factories were outdated compared with those in the West, and a lot of them shut down. Germany has been working steadily to faster growth in the former East Germany. Dairy farming and livestock provide most of the agricultural income in Belgium, France, the Netherlands, and Switzerland. These countries produce and export dairy products. Today, farmers in the region grow grains, sugar beets, livestock feed, and root crops such as potatoes. In addition, France is the largest producer of agricultural products in Western Europe. Its major crops include wheat, grapes, and vegetables. Germany and France are the two dominant states. Together with Belgium, the Netherlands, and Luxembourg, they represent the Benelux countries. Switzerland and Austria border the Alpine region. Liechtenstein is situated on the border between Switzerland and Austria. These countries are located in the core economic region of Europe, have stable democratic governments and a high standard of living by world comparisons. Western Europe is the powerhouse of global economics. The Rhine River is a pathway for industrial activity from southern Germany to Europe's busiest port of Rotterdam in the Netherlands. Western France has the political capital of the EU along the Rhine at Strasbourg. To the south is France's second-largest city, Lyon, which is a major industrial center for modern technology. Germany had the historical Ruhr industrial complex along the Rhine that supported the high-tech industries in southern Germany, in the cities of Stuttgart, Mannheim, and Munich. Germany is the most populous country in Europe. Germany has also the largest economy as well the largest GDP overall as a country. Belgium has its major business centers in Brussels and Antwerp. Switzerland is famous with its banking and financial markets. Luxembourg has one of the highest GDP per capita in Europe. Austria is famous with its high level of cultural activities in Vienna and Salzburg. All these countries complement each other in creating one of the dominant economic core areas in the world. The cultural differences between the Germans and the French start with the differences in language and religious affiliation. Germany was divided after World War II into East Germany and West Germany, separated by the so-called Iron Curtain. East Germany was under a Communist government, and West Germany was a capitalist democracy. They were reunited in 1990 when the Iron Curtain and the Berlin Wall came down. The two countries merged under one government. The Benelux countries are some of the most densely populated countries. They have managed to work together toward a common economic objective in spite of their cultural differences. The capital and largest city in Belgium is Brussels, with the other urban areas being the ports of Antwerp and Ghent. Belgium is split into three large geographic areas. The dominant language in the northern

region of Flanders is Dutch (Flemish), and the people are known as Flemings. In the southern region of Wallonia, most people speak French and are known as Walloons. German is the third official language and is spoken along the eastern border. When the Industrial Revolution diffused across the English Channel and arrived in Europe, Belgium was one of the early countries to adapt to the technological developments. Belgium remains heavily industrialized and is a major exporter of products, including finished diamonds, food products, nonferrous metals, technology, petroleum products, and plastics. In general, Belgium imports the raw materials to manufacture these goods for export. Belgium also has a significant services sector. The service sector, including real estate, hotels, restaurants, and entertainment, thrives in part because Brussels is the headquarters of the North Atlantic Treaty Organization (NATO) and components of the EU. Many countries and organizations maintain offices in Brussels to have easy access to these headquarters; therefore, Brussels is the temporary home to many diplomats and foreign business people. The European country of the Netherlands also includes the colonies of the Netherlands Antilles in the Caribbean. The Netherlands, sometimes called Holland, is actually the name of two provinces (North Holland and South Holland) in the northwest part of the country. The largest city is Amsterdam. The Hague is the seat of government and is home to the United Nations International Court of Justice. Rotterdam is located at the mouth of the Rhine River and is one of the busiest ports on the continent. The country is famous for its Zuider Zee, which is the large inland region below sea level that has been drained of water and surrounded with an extensive dike protecting it from the North Sea. Reclaiming land from the sea in areas called polders has provided this densely populated country with more land area for its people to expand their activities. The major industries include food processing, chemicals, petroleum refining, and electrical machinery. The Netherlands is a top exporter of agricultural products, which contribute substantially to its economy. Dutch agricultural exports consist of fresh-cut plants, flowers, and bulbs as well as tomatoes, peppers, and cucumbers. The main languages spoken in the small landlocked country of Luxemburg are French, German, and Luxembourgish. Luxembourg's one major city is Luxembourg City. Luxemburg has an enviable economic situation with a stable and prosperous economy, low unemployment, and low inflation. Thanks to rich iron-ore deposits, this country was able to develop a very robust steel industry, which was the cornerstone of the nation's prosperity until the 1970s. As steel declined, Luxemburg remade itself as an important world financial center. Luxembourg leads Europe as the center for private banking and insurance industries and is second only to the United States in terms of being an investment fund center. Switzerland, officially known as the Swiss Confederation, is divided into twenty-six cantons (states). Because of its location and close ties with neighboring countries, four languages are spoken in Switzerland: German, French, Italian, and Romansh. Typically, one language predominates in any given canton. Switzerland is well known for its political neutrality. Swiss banking practices and policies are known throughout the world, and Swiss banks have benefited greatly from the country's politically neutral status. Banking is one of the country's top employers and sources of income. The Swiss people enjoy a high standard of living. Austria has a well-developed social market economy and a high standard of living. For more than six hundred years, beginning just before the dawn of the fourteenth century, Austria was tightly associated with its ruling dynasty, the Habsburgs. The Hapsburgs came to power in a new way with the formation of the Austrian Empire in 1804. Austria is a German-speaking country, and nearly the entire population self-identifies as ethnic Austrian. Austria is predominantly Roman Catholic and was home to many monasteries in the Middle Ages, influencing a strong Austrian literary tradition. Austria's best-known cities are its capital of Vienna and Salzburg and Innsbruck.

Southern Europe includes three large peninsulas that extend into the Mediterranean Sea and the Atlantic Ocean. The Iberian Peninsula consists of Spain and Portugal. The Pyrenees mountain range

separates the Iberian Peninsula from France. The Italian Peninsula is the shape of a boot with the Apennine Mountains running down its center. Italy also includes the islands of Sicily and Sardinia. Greece, the most southern country on the Balkan Peninsula, includes hundreds of surrounding islands and the large island of Crete. Cyprus is also included in southern Europe. There are five ministates in this region. The small island of Malta is located to the south of Sicily and is an independent country. Monaco, San Marino, Andorra, and the Vatican City are also independent states located within the region. The main languages of Iberia and Italy are based on the Romance language group, and Greek is an independent branch of the Indo European language family. The most dominant religious affiliation in the south is Roman Catholicism, except in Greece, where the Eastern (Greek) Orthodox Church is prominent. In general, the Mediterranean nations are less industrial than those of Northern and Western Europe. The region faces economic challenges. For example, Italy's northern region is much more developed than its southern half. The southern regions of Italy, including the island of Sicily, are more rural with fewer industries. Northern Italy has the metropolitan city of Milan as an anchor for its global industrial and financial sector in the Lombardy region, which includes the city of Turin and the port of Genoa. This northern region of Italy has the economic muscle to be one of Europe's leading manufacturing centers. The so-called Ancona Line can be drawn across the middle of Italy from Ancona on the east coast to Rome on the west coast to separate the industrial north with the more agrarian south. The government tried to promote growth in the south but made bad choices. It started industries that did not benefit the local people. Another problem is that the entire Mediterranean region is poor in energy resources and relies heavily on imported petroleum. This makes the region vulnerable because trade problems or wars could halt oil supplies and prevent industries from functioning. A similar situation exists in Spain. The urbanized Catalonia region around Barcelona in the northeast has high-tech industries and a high standard of living. Southern Spain has large rural areas with economies heavily based on agricultural production. Because of its diversity, Spain is not categorized as a nation-state. Spain is the most diverse nation in southern Europe with a number of distinct ethnic groups. The Basques in the north along the French border would like to separate and create their own nation state. The region of Galicia in northwest Spain is an autonomous region and was once a kingdom into itself. There are many other autonomous communities in Spain, each with its own distinct heritage and culture. Farther east in the Mediterranean is the island state of Cyprus, which is divided by Greek and Turkish ethnic groups. The southern part of the island is dominated by Greek heritage and culture, and the northern part of the island is dominated by Turkish culture and traditions. Islam is the main religion of the Turkish north. Portugal and Greece are not as industrialized and do not have the same economic opportunities. Historically, southern Europe, Portugal, and Greece in particular each have had a much lower gross domestic product (GDP) per capita than northern or Central Europe. Their economies have been much more aligned with the economic periphery than with the industrial core region of Europe. Greece has had serious economic difficulty in the past few years. Today, farmers in the region grow olives, grapes, citrus, as major agricultural crops. The sunny Mediterranean beaches also attract thousands of people, making tourism a major industry in the region. The people of southern Europe are diverse and hold too many different traditions but are tied together by the sea and the land, which create similar lifestyles and economic activities.

Northern Europe, a region that includes the Nordic countries, the United Kingdom, and Ireland. The Nordic countries are Denmark, Finland, Iceland, Norway, and Sweden. The languages of the three Scandinavian countries are from the Germanic language group. Finnish is from the Uralic language family. Protestant Christianity has prevailed in northern Europe since about 1000 CE. Norway, Sweden, and Finland are quite large in area but are not densely populated compared with other European nations. Human rights, education, and social concerns are high priorities of the

governments of northern Europe, and the quality of these elements rank highly by global comparisons. Standards of living are among the highest in Europe. Northern Europe's economy benefits from its many natural resources. Sweden, has used its natural iron ore supply to develop its manufacturing sector. Sweden was the production base of Saab and Volvo vehicles as well as other high-tech products;. Sweden exports timber. Iceland relies heavily on its fishing industry and the manufacture of fish products. Norway earns a large portion of its income from North Sea oil. Sweden and the United Kingdom have many types of manufacturing in common. For example, both nations have strong motor vehicle and aerospace industries. Both also produce paper products, food products, and pharmaceuticals. Technology is swiftly changing the economy of Northern Europe. For example, the production of computer software and hardware has been a major part of Ireland's economy since the 1970s. The section of Scotland between Glasgow and Edinburgh is called Silicon Glen because it has so many high-tech companies which use silicon computer chips. Silicon Glen produces high percent of Europe's personal computers and Europe's notebook computers.

Eastern Europe's location between Asia and the rest of Europe which has shaped its history. The Soviet Union controlled Eastern Europe for four decades. Because of its fertile plains, Eastern Europe has traditionally been a farming region. Under communism, the government owned all factories and ordered them what to produce. This system was inefficient because industries had little motive to please customers or to cut costs. Often, there were shortages of goods. Eastern European nations traded with the Soviet Union and each other, so they didn't keep up with the technology of other nations. As a result, they had difficulty selling goods to nations outside Eastern Europe. After 1989, most of Eastern Europe began to move toward a market economy, in which industries make the goods consumers want to buy. Many factories in Eastern Europe became privately owned instead of state owned. The changes caused problems, such as inflation, the closing of factories, and unemployment. Since then, however, many factories have cut their costs and improved production. As a result, the Czech Republic, Hungary, and Poland have all grown economically. Some Eastern European nations have had trouble making economic progress—for many different reasons. Albania's economic growth is slowed by old equipment, a lack of raw materials, and a shortage of educated workers. Few of Romania's citizens have money to invest in business. In addition, the Romanian government still owns some industries. Foreigners don't want to invest their money in those industries. The civil wars of the 1990s damaged Yugoslavia and its former republics of Bosnia and Herzegovina and Croatia. Equipment and buildings were destroyed; workers were killed or left the country. In general, it will take years for Eastern Europe to overcome the damage caused by decades of Communist control. The region also has broad fertile plains that were originally covered with masses of grass. Today, farmers grow grains such as wheat, rye, and barley on these plains. Other major crops include potatoes and sugar beets.

SKILLS TASK 1

a. Which countries does the Eastern European region cover?
b. Where was Europe's economic core formed?
c. What are the main problems of regional development in Italy?
d. What are the main crops grown in the Mediterranean?
e. Which countries were formed after the break-up of Yugoslavia?

Russian Federation – extra readings

Russia has gone through all kinds of catastrophes and peaks, while changing its borders, but throughout its history in all spheres - socio-economic, political, cultural, etc., its imperial vision of its own position on the world map is reflected. This is somewhat logical because Russia is a land of superlatives. Located on two continents, the world's largest country by far, it covers nearly twice the territory of Canada, the second largest country. It extends across the whole of northern Asia and the eastern third of Europe, spanning 11 time zones and incorporating a great range of environments and landforms, from deserts to semiarid steppes to deep forests and Arctic tundra. Russia contains Europe's longest river, the Volga, and its largest lake, Ladoga. Russia is also home to the world's deepest lake, Baikal, and the country recorded the world's lowest temperature outside the North and South poles. Russia is extremely rich in all kinds of natural resources - from oil and gas through ores of ferrous and nonferrous metals to gold, silver and diamonds. /Fig.1/.

The territory of Russia covers a lot of different regions.

The Kola-Karelia region is located in European Russia, between the Finnish border and the White Sea. Karelia is in the southern part of the area and is a plateau formed by the activities of the continental glacier, diversified with low ridges and lowland areas filled with lakes and swamps. The Kola Peninsula has a similar relief, but a low mountain range rises in its northern part. Agricultural land occupies less than 3 percent of the total area. Timber working and processing are widespread, as well the extraction of iron ore, copper, titanium and metallurgy.

The Russian Plain

Western Russia occupies part of one of the largest plains in the world - the Eastern European Plain. Within Russia, it stretches from the Arctic Ocean to the Caucasus Mountains and the Caspian Sea as well from the western state border to the Ural Mountains. Such a huge territory has differences in relief. In the north of Moscow the parallel features characteristics of predominant lowland glacial deposition, and morainic ridges. The most popular are the Valdai Hills and the Smolensk Upland, which stand out above low, poorly drained hollows interspersed with lakes and marshes. In the south of Moscow, there is a west-east alternation of rolling plateaus and extensive plains.

Ural Mountains

The Ural Mountains constitute the major portion of the Ural orogenic belt, which stretches 3,500 km from the Aral Sea to the northernmost tip of Novaya Zemlya and divides Europe from Asia. Represents A belt of low mountains (900 and 1,500 meters) and plateaus (350 to 460 meters) proper along the eastern edge of the Russian Plain. The highest peak, Mount Narodnaya, reaches 1,895 meters, but several low passes cut through the system, particularly in the central section between Perm and Yekaterinburg, which carry the main routes from Europe to Siberia.

West Siberian Plain

It is Russia's most extensive region (one-seventh of Russia's total area). West Siberian Plain stretches about 1,900 km from the Urals to the Yenisey river and 2,400 km from the Arctic Ocean to the foothills of the Altai Mountains. Big floodplains and some of the world's largest swamps are characteristic features, particularly of the plain's northern half. Slightly higher and drier territory is located south of latitude 55 ° N, where the bulk of the region's population is concentrated.

The Central Siberian Plateau

It occupies most of the area between the Yenisey and Lena rivers. The plateau structure of The Central Siberian Plateau is divided into separate parts with a height of 300 to 700 metres.

The present Russian territory, to the south and east, represnts about one-fourth of the country's total area and is dominated by a complex series of high mountain systems. The area around Lake Baikal is one of massive block faulting where major faults separate high plateaus and mountain ranges from deep valleys and basins. The scale of relief in this area is indicated by the fact that the floor of the lake at its deepest part is more than 1,160 meters below sea level (the total depth of the lake is 1,620 meters), while the mountains rising from its western shore reach heights of 2,560 meters above sea level, a vertical difference of about 3,700 meters.

The large lowland plains that dominate the Russian landscape include some of the world's longest rivers. Five main drainage basins may be distinguished: the Arctic, Pacific, Baltic, Black Sea, and Caspian. The most extensive of them is the Arctic, which lies mostly in Siberia but also includes the northern part of the Russian Plain. The greatest part of this basin is drained by three giant rivers: the Ob, Yenisey, and Lena. Their catchments cover a total area of 8 million square km. The Siberian rivers provide transport arteries from the interior parts to the Arctic sea route, although these are blocked by ice for long periods every year. The rest of Siberia is drained into the Pacific. In the north numerous small rivers descend abruptly from the mountains, but the bulk of southeastern Siberia is drained by the large Amur system. European Russia, in the south of the Arctic basin, is drained from the Dnieper and Don rivers to the Black Sea and the Caspian Sea by the longest river in Europe - the Volga (3530 km). Separated only by short overland portages and supplemented by several canals, the rivers of the Russian Plain have been important transport arteries for a long time.

Several basic factors determine Russia's variable climates. The country's big size and compact shape, the great bulk of the land is a great distance from the pools, which produce a dominance of continental regimes. The country's northerly latitude ensures that these are cold continental regimes - more than half of the federation is north of latitude 60 ° N. Only southwestern Russia (the North Caucasus region and the lower Don and Volga basins), small sections of southern Siberia, and the maritime region of southeastern Siberia are below latitude 50 ° N. The great mountain barriers to the south and east prevent the ingress of ameliorating influences from the Indian and Pacific oceans, but the absence of relief barriers in the western and northern sides leaves the country open to Atlantic and Arctic influences. In fact there are only two seasons, winter and summer; spring and autumn are brief periods of rapid change from one extreme to another. The main characteristics of precipitation in Russia are the modest to low total amounts and the pronounced summer maximum. Across the European plains and western Siberia, total precipitation declines from northwest to southeast. In these regions, except in a few places close to the Baltic, precipitation is generally below 600 mm. Snow is a pronounced feature for the entire country, and its depth and duration have important effects on agriculture. The duration of snow cover areas with both latitude and altitude, ranging from 40 to 200 days across the Russian Plain and from 120 to 250 days in Siberia.

The distribution of soils, flora and fauna in most of Russia is determined by the latitude and the fact that the country occupies a compact part of northern Asia and Europe. Wide belts are formed and they change from north to south - Arctic desert, tundra, taiga, mixed and deciduous forest, wooded steppe, and steppe. An exception is the mountainous region to the east and south, where the dominant factor is altitude and the belts change in height.

Arctic desert is completely bare land with little or no vegetation. Considerable areas are ice-covered.

It is distributed on the larger islands of the Arctic Ocean - Franz Josef Land, great part of the Novaya Zemlya and Severnaya Zemlya archipelagoes.

The tundra belt is situated in the south - a treeless, marshy plain. Occupying a narrow coastal belt in the extreme north of the European Plain, the tundra widens to a maximum of about 500 km in Siberia. Tundra soils are extremely poor, highly moist and acidic, due to the widespread permafrost (almost year-round freezing of the topsoil). Vegetation ranges from mosses and lichens through low shrubs and some herbaceous species to dwarf Arctic birch.

In the south of the tundra lies the large taiga (boreal forest) zone. It occupies the Russian and West Siberian plains north of latitude 56 ° –58 ° N together with most of the territory situated in the east of the Yenisey River. In the western part, where the climate is less harsh and humid, spruce is widespread, together with shrubs and terrains. Only small areas have been cleared for agriculture, mainly in the European part. The eastern taiga remains the world's largest timber reserve with a predominant larch tree species. The ubiquitous podzolic soils in this area are not suitable for intensive agriculture.

In the south, as temperatures rise, an area of mixed forests of mostly oak and spruce appears. This area is the widest along the western border of Russia and it narrows to the Urals. As the soils here are already brown forest, much of the natural vegetation has been removed and the land is used for agriculture.

To the south, deciduous forests gradually give way to the steppes, whose natural grass vegetation is almost entirely replaced by agricultural species. In Russia, the steppes are widespread - north of the Caucasus and downstream of the Volga. These areas are good for agriculture, because here are the most fertile soils - chernozem soils.

Russia's population is diverse-represented by more than 120 ethnic groups, speaking more than 100 languages. Ethnic Russians are the most numerous with 81%. Among the other ethnic groups, the most numerous are Tatars, Ukrainians, Chuvash, Bashkir, Chechens, and Armenians. Since the early 1990s, when the disintegration of the vast USSR began, ethnicity has seen numerous conflicts (e.g., in Chechnya and Dagestan). Many national minorities have demanded more autonomy as well, in a few cases, even complete independence.

There are some local anomalies in the geography of Russia's population. They were caused by the actions of the leaders of the communist USSR. For example, during World War II, they decided to deport the Tatar ethnic group from the Crimean Peninsula. As a result, about 80,000 households were forcibly displaced to the east in Kazakhstan and Uzbekistan. There they were forbidden to make any migrations. It was after 1990 that the deportation order was declared null and void and about 260,000 people returned to their birthplaces. The did not offer any compensation for the property that was confiscated 45 years ago. The same happened with the Koreans, who found themselves within the USSR, and were deported to Kazakhstan.

The population is very unevenly distributed across the large territory of Russia. Four-fifths live west of the Urals, while the rest of them inhabit Western Siberia. To the east the settlements are concentrated in the southern part. The main reason for that are the harsh climatic conditions.

Urbanization is significant in Russia, as well in the rest of Europe. The depopulation of rural areas is a clear trend in the European part - in the last decades of the 20th century, the rural population decreased by one-fourth. In Russia, there are several areas with a strong concentration of cities forming metropolises: St. Petersburg (the northernmost metropolis), Moscow-Nizhny Novgorod (located in the central industrial zone). To the east of the Urals, the cities are located around mining and industrial centers.

Undoubtedly, today Russia is a world economic power. The country has achieved this, although

it is the only country that experienced two severe economic upheavals in the last 100 years. The first was in 1917 when the communists established their regime - the land and the means of production became state-owned and Russia, at a very rapid pace, turned from an agricultural state into an industrial one. The second economic transformation took place in the 1990s, when the USSR disintegrated and the Russian Federation embarked on a path of privatization of land and industry, which 30 years later has not been fully accomplished. Thus, the current state of the Russian economy is a legacy of the planned state and inefficient communist economy. In the 1990s, communist leaders realized that all the previous huge industrial production facilities were morally and physically obsolete, and that the state did not have the financial resources to renovate them. In order to avoid a total collapse, it is decided that the factories and plants will pass into private hands. All modern instruments are being created to guarantee the transition - banks, stock exchanges, etc. But the economy is recovering at a very slow pace, and the state remains the owner of many companies in the field of oil and gas, metallurgical and mining industries.

Agriculture accounts about 5% of Russia's Gross Domestic Product. As agriculture is directly dependent on agro-climatic conditions, it develops mainly in the European part, the lower Volga and north of the Caucasus. Wheat is the main cereal, followed by barley, rye, and oats. More than one-third of the sown area is devoted to fodder crops — sown grasses, clovers, root crops, and, in the southern districts, corn (maize). In general, the old collective farms and state farms continued to function in post-Soviet Russia, although they have often been renamed to cooperatives or labor-management firms.

Russia contains the world's largest forest reserves, and its lumbering, pulp, paper, and woodworking industries are particularly important. The country has more than one-fifth of the world's total forests — an area nearly as large as the continental United States. However, logging continued to endanger the last intact forest landscapes of northern European Russia. Russian forests have very slow growth rates because of the cold, continental climate, and the country has lost about one-third of its original forest area.

The fact that after the collapse of the USSR, almost all the energy resources and minerals are still part of the Russian Federation, is crucial to the development of Russian industry. In this way, the industry is provided with raw materials and does not depend on imports, which leads to a relatively lower cost of industrial production.

Russia has huge reserves of coal. They are located in Eastern Siberia and the Far East and are difficult to exploit. Therefore, deposits are being developed only in the southern regions and transported to the industrial centers in the west by Trans-Siberian Railway.

Russia is among the world's leading producers of oil, extracting about one-fifth of the global total. It is also responsible for more than one-fourth of the world's total natural gas output. The great number of oil and natural gas comes from the huge fields situated in the northern part of the West Siberia region. Another significant source of reserves is the Volga-Ural zone.

In terms of the industrial sectors of machine building, chemical industry, light industry, Russia has a wide range of production in accordance with its raw material base. The nature of the massive production is tailored to its consumers. In the communist era, Russian production was intended only to the other communist countries in Europe and to domestic consumption in the large USSR. After the collapse of the communist camp in Europe in 1990, Russian industrial production was realized in the domestic market as well in the former USSR republics - Russian goods were of poor quality and inefficient compared to "Western". Outside this market, Russia manages to sell only its raw materials - oil, natural gas, iron ore, wood, some products of the chemical industry. This economic isolation forced Russia to counterbalance the European Union, which was expanding to the east,

by creating the Eurasian Economic Union, which included Armenia, Belarus, Kazakhstan, and Kyrgyzstan. This strengthens Russia's leading role in the Eurasian region and ensures the prosperity of the industry by providing guaranteed markets. But Russian leaders believe the economy has much greater potential and could play a leading role globally. In 2009, Russia initiated the creation of the BRICS trade and economic union between China, Russia, Brazil, India and South Africa.

Despite its broad prospects, Russia faces a number of challenges. Aging population, environmental problems, inherited by the communist era, high level of corruption, high level of crime, cumbersome pace of modernization and restructuring of the economy according to the new requirements for environmental friendliness and efficiency, etc.

SKILLS TASK 1

1. To which water basins is the territory of Russia drained?
2. Where are the most fertile soils of Russia?
3. In which region do most of Russia's population live?
4. Which sectors of the economy are export-oriented?

Germany – extra readings

Germany is a country **located** in Western and Central Europe along the Baltic and North Seas. It also shares borders with nine different countries (from n. clockwise) Denmark, Poland, Czech Republic, Austria, Switzerland, France, Luxembourg, Belgium, Netherlands. Its capital and largest city is Berlin, but other large cities include Hamburg, Munich, Cologne, and Frankfurt. Germany is a federal republic. The legislature is a bicameral parliament consisting of the Bundestag, based on popular representation, and the Bundesrat, which represents Germany's 16 states, or Lander. The president serves as head of state, while the chancellor serves as the head of government. /**Fig.1**/.

As it stretches from the Alps to the Baltic and North Seas, Germany encompasses a wide variety of landscapes: mountains, forests, hills, plains, rivers, and seacoasts. Germany is divided **into three regions:** the northern lowlands, the central highlands, and the southern alpine region. The North German Lowland is a part of the Great European Plain that sweeps across Europe from the Pyrenees

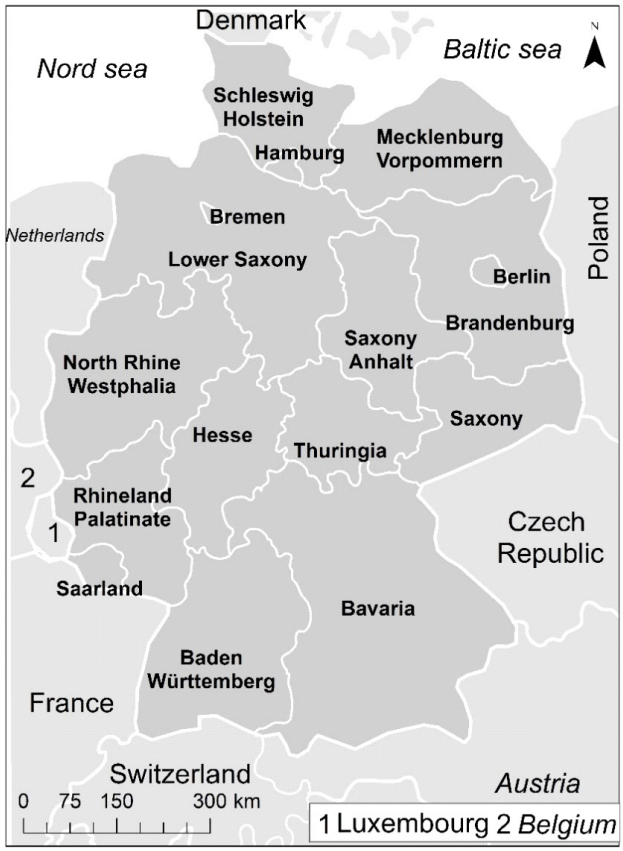


Fig.1

in France to the Ural Mountains in Russia. The northern lowlands extend from east to west from the Baltic to the North Sea and southward to Wittenberg. The northern lowlands are mostly flat plains with marshes and lakes. The land is fertile and has been used for grazing and agriculture. The Central German Uplands are Germany's portion of the Central European Uplands; they extend from the Massif Central in France to Poland and the Czech Republic. Germany's uplands are generally moderate in height and seldom reach elevations above 1,100 meters. The central German highlands are mountainous and forested. The Harz Mountains straddle the center of Germany and once formed the border between East and West Germany, while the Erzgebirge Mountains form the boundary with the Czech Republic. To the west is the Ruhr Valley, which contains Germany's mineral wealth and is the center of its coal and steel industries. Between the Central German Uplands and the Alpine Foreland and the Alps lies the geographical region of Southern Germany, which includes most of Baden-Württemberg, much of northern Bavaria, and portions of Hesse and Rhineland-Palatinate. The Main River run through the northern portion of this region. The southern boundaries of the region of Southern Germany are formed by extensions of the Jura Mountains of France and Switzerland. One of these Jura ranges forms the Black Forest. Another Jura range forms the Swabian Alb and its continuation, the Franconian Alb. Germany's portion of the Alps accounts for a very small part of the country's area and consists only of a narrow frings of mountains that run along the country's border with Switzerland and Austria from Lake Constance in the west to Salzburg, Austria, in the east.

Germany's **climate** is moderate and is generally without sustained periods of cold or heat. Northwestern and coastal Germany have a maritime climate caused by warm westerly winds from the North Sea; the climate is characterized by warm summers and mild cloudy winters. Farther inland, the climate is continental, marked by greater diurnal and seasonal variations in temperature, with warmer summers and colder winters. In addition to the maritime and continental climates that predominate over most of the country, the Alpine regions in the extreme south and, to a lesser degree, some areas of the Central German Uplands have the so-called mountain climate. This climate is characterized by lower temperatures because of higher altitudes and greater precipitation caused by air becoming moisture-laden as it lifts over higher terrain.

Rivers play a significant role in the economic life of Germany. The Rhine, which carries more traffic than any other European river, flows northward from Switzerland, straddles between France and Germany, and empties to the North Sea. The Elbe River begins in the Czech Republic, flows through Hamburg, and empties in the North Sea. The Weser River begins in central Germany, flows through Bremen and Bremerhaven before emptying into the North Sea. The Oder and Neisse rivers form the boundary with Poland before emptying into the Baltic Sea. A network of canals called the Mittelland Canal connects the Elbe, Weser, and the Ems.

Today Germany is the European Union's most **populous** nation (83 million). But Germany as a unified nation is much newer than most of its European neighbors. Germany was created in 1871 under the leadership of chancellor Otto von Bismarck after Prussia had conquered most of German-speaking Europe. Prior to that, "Germany" has been a loose association of 39 German states known as the German League. Bismarck established the beginnings of a welfare state by creating workers' compensation laws and a pension system for retired workers. After unification, the German economic productivity rose, outstripping that of its neighbors. In foreign policy, Bismarck sought to assure other European powers that Germany had no territorial or colonial ambitions on and sought to live peacefully. When Emperor William II ascended to the throne, he sought to take Germany on a different course. After dismissing Bismarck, ending his decades of service as a chancellor, Germany embarked upon an aggressive foreign policy. The German Empire reached

its zenith under Kaiser Wilhelm II just prior to the start of World War I in 1914. By unwisely giving full support to Austria in its dispute with Serbia in 1914, World War I erupted, whose devastating results were unforeseen. William II abdicated and fled to Holland in 1918. After the "War to end all wars" Germany attempted to become a democratic republic. The Treaty of Versailles, which ended World War I, imposed harsh penalties to Germany. The treaty stripped Germany of territory as well as its colonies, imposed occupation in the Rhineland, abolished its navy, imposed restrictions on its army, and imposed enormous reparations, which severely devalued its currency. Economic stability returned in 1925 but was shattered in 1929 with the coming of the Great Depression, bringing Germany to a dark chapter in its history. In 1933, 37 percent of the voters elected the National Socialist Party into the Reichstag. Adolf Hitler, become the chancellor of Germany. In 1936, Hitler began the territorial aggrandizement of Germany by reoccupying the Rhineland. In 1939, Germany invaded Poland, setting off World War II, ended with Germany's defeat and occupation by the United States, Britain, France, and the Soviet Union. In 1949, two German states arose. The Federal Republic of Germany was composed of American, British, and French sectors in the west, and the German Democratic Republic consisted of the Soviet sector in the east. The city of Berlin remained occupied by the four Allied countries until 1994. West Germany was a capitalist democratic state whose economy recovered in the immediate postwar years. Bonn served as the capital of West Germany until a decision could be reached regarding reunification. East Germany, with its capital in East Berlin, was the bulwark of communism that had shut its borders with the West by the 1960s. Berlin remained the source of Cold War tensions between the Soviet Union and the West.

The West German economy recovered from World War II rapidly due to a number of factors. In June 1948, a new currency was introduced. Every person was given 40 deutsche marks, providing opportunities for both spending and investment. Stores quickly filled with merchandise. The United States decided to help rebuild Europe. It hoped to create profitable new markets for American exports and to prevent the expansion of Communism. Between 1947 and 1952, the Marshall Plan provided foreign aid to the countries of Western Europe, including West Germany. West Germany received more that $13 billion in capital goods, as well as management expertise, and this drew a highly skilled and relatively cheap labor force back to work. Further, the new government of West Germany financed the reconstruction of infrastructure and kept taxes low to encourage business development. Low taxes, high interest rates, and low wage increases for workers encouraged investment. The government was also a major employer. The government invested heavily in infrastructure such as expressways, higher education, research, and economic planning. West German growth was based on trade, and a number of organizations were developed to increase economic cooperation: In 1950, the European Coal and Steel Community (ECSC) with France, Belgium, the Netherlands, Luxembourg, and Italy. In 1957, the same six countries formed the European Atomic Energy Commission (Euratom) to develop nuclear power generation. The same year they also organized the European Economic Community (EEC or Common Market) to introduce a series of improvements to form a free trade area. In 1967, the ECSC, Euratom, and the EEC were amalgamated into the European Community (EC).

East Germany did not follow the same economic path that West Germany did: it had developed a command economy. Collectivization of farmland, machinery, and livestock began in 1952. Economic development plans put emphasis on heavy industry, rather than consumer goods. Emphasis also was placed on quantity over quality. In the 1950s, there was a constant labor shortage. Many skilled young men migrated to West Germany, where they provided much-needed labor and helped boost that country's economy. Most of the out-migration was through Berlin,

so East Germany built the Berlin Wall in 1961 to stop this flow. Although more interest was placed in research and technology, East Germany remained a few years behind West Germany in electronics and other consumer goods. The East German economy suffered due to its dependence on oil imports from the Soviet Union. There were also limited opportunities for foreign trade.

By the 1980s, there was pressure for political reform and German unification was growing. In 1989 the Berlin Wall fell and in 1990 the Four Power Control ended. The territory of the former East Germany accounts for almost one-third of united Germany's territory and one-fifth of its population. As a result, Germany began to unify itself and on December 2, 1990, it held the first all-German elections since 1933. In 1989, with reforms in the Soviet Union and growing popular discontent, the Iron Curtain came down with the dismantling of the Berlin Wall and the opening of borders. By 1990, east and west were reunified within the Federal Republic of Germany. Since then, the costs of reunification have been enormous in bringing eastern Germany to Western standards, engendering discontent.

The removal of barriers to movement between East and West Germany in 1989 created a flood of migrants from the East that numbered in the hundreds of thousands. Initially, the transition from a command ruled society to a capitalist economy led to the closure of unprofitable factories in East Germany. Unemployment became a major problem. The West German mark was introduced as the currency of East Germany. In the West, jobs could not be created fast enough and unemployment rose. States of former East Germany still lag economically behind those of West Germany. Even though hundreds of billions of dollars were invested in the former East Germany after the unification, more improvements were necessary. The biggest economic and social obstacle is the high unemployment rate among "easterners" and the lower levels of investment being made in the eastern part of the now unified country.

Since the 1990s, Germany has continued to regain its political, economic, and social stability and today it is known for having a high standard of living and a strong economy. Today, Germany is a vibrant country and an active EU member. Germany is Europe's largest economy, with strong exports of manufactured goods. To increase national income, Germany has promoted manufacturing as a major component of its economy.

Typical of modern industrialized countries, Germany has fewer than 3 percent of its workforce engaged in extractive industries. The North Sea has been a traditional fishing ground with herring being the most important catch. However, over-fishing has resulted in a decline in the fishing industry, and Germany now relies on imported fish to meet its needs. Similarly, the forests of Germany provide about half of the country's wood products. Most of the remainder is imported from Scandinavia.

Agriculture in the north is dominated by the growing of grains and fodder beets to feed cattle, pigs, and sheep. Wheat and corn are grown along the southern edge of the North German Plain, and grapes (for wine) and vegetables are grown in the Central Uplands. Germany produces significant surpluses of butter, wine, wheat, and meat products. Increased mechanization has resulted in a significant decline in farm labor. The workforce in agriculture, is less than 3 percent. Coal and iron mining were the basis for the development of modern industry in Germany. Today, much of Germany's iron ore needs are met by imports from France and other countries. Postindustrial economies such as Germany's sometimes find it less expensive to import various products of primary industries from developing nations, rather than investing in their local resources. The main reason is the huge difference in the cost of labor, hence, this exemplifies the fact that production versus economic value of agricultural products and minerals becomes unnecessary. Simply stated, it is less expensive to import the items than to produce them at home.

Germany is a large producer of iron and steel in the world. Production of these is located in the Rhur Valley. After the unification, most of the steel plants in East Germany were closed because they were too inefficient and did not meet environmental laws. The prodution of machinery remains important, particularly motor vehicles by companies such as Audi, Ford, BMW, Daimler-Benz, Opel, and Volkswagen. The last three firms have opened new plants in the former East Germany. Oil is processed in Cologne and Frankfurt. This oil is the basis for the chemical industry in the Ruhr. There are also oil refineries in Hamburg. Both Hamburg and Bremen have prospered since the unification, as their outlying areas have been increased. New rail and highway connections have been constructed in eastern Germany. Oil piped from Russia is refined at Schwedt on the Oder River and related chemical industries have developed. The chemical industry in Leipzig has declined due to tighter pollution controls. Electrical engineering firms such as Siemens, AEG, Telefunken, and Osram are based in Berlin. Germany is also well known for optical and precision instrument companies such as Zeiss. Textiles remain important in the northern Rhine region and southern Germany, but most of the factories in the former East Germany have closed. High-tech industries have developed in the south of Germany in Stuttgart, Munich, and Frankfurt.

Most of Germany's workforce is employed in the field of services. Frankfurt is the international air-transport hub for the country and home of Lufthansa Airlines, one of the world's largest state-owned airline companies. Frankfurt is also the home of the Federal Bank and the stock exchange, making the city the country's financial center. Germany has hundreds of private banks and credit unions providing financial services. Government services include public utilities, the post office, telecommunications, and railway, canal, highway, and urban rapid transit services. One of the particularly significant service industry is tourism. For decades, Germany has been a popular destination for tourists from all over the world. Some tourists come to enjoy the country's rich cultural heritage. Others are attracted by quaint villages, clean cities, the majestic Alps with their great number of ski resorts, or simply to admire the beautiful countryside. Its geographic location contributes significantly to expand tourism, because it is almost impossible to cross Europe north of the Alps without passing through Germany. The major export items include machinery, vehicles, chemicals, metals and manufactured goods, foodstuffs, and textiles. Most exports are in automobiles, machinery, metals, and chemical goods. The German tradition of excellent education continues. Education is free for students at all levels, including the university, though some universities are now starting to charge low tuition fees.

SKILLS TASK 1

1. What are the main reasons for Germany to import coal and iron ore?
2. Why do you think East Germany has a lower population density?
3. What are the peculiarities of the state system of Germany?
4. Which sector of the German economy has the least employment?

LATIN AMERICA

The Latin America – extra readings

Fig.1

Fig.2

The area known as **Latin America** includes Central America, South America and the islands of the Caribbean Sea which are bordered by three oceans (the Atlantic Ocean, the Pacific Ocean and the Southern Ocean), the Gulf of Mexico, and the Caribbean Sea. The Caribbean Islands consist of three major groups: the Bahamas, the Greater Antilles, and the Lesser Antilles. The region is called "Latin America" because of the two main languages spoken there (Spanish and Portuguese) which have their origins in Latin.

Latin America has an enormous extent from north to south. The mountains of Latin America form one of the biggest ranges of the world. The Andes of the South American continent are part of mountain ranges that run through the western part of North, Central, and South America. These ranges are called the Rockies in the United States, the Sierra Madre in Mexico, and the Andes in South America. Extending 7,250 km along the entire length of South America, the Andes are the world's longest mountain range. A lot of peaks rise to over 6,000 m. There are many active volcanoes throughout the region. The highest mountain peak in the Andes is Aconcagua. The Altiplano "high plain" in Peru and Bolivia is located at a height of 3500 m. The predominant vegetation consists of grass and shrubs. Other ranges in Latin America include the Guiana Highlands in the northeastern part of South America. The Brazilian Highlands are located along the eastern coast of Brazil. Colombia and Venezuela include vast plains, which are grassy, deforestated areas used for livestock grazing and farming. Similar are the pampas in Argentina and Uruguay – areas of grassland and rich soil. The main products of the pampas are cattle and wheat. Parts of northern Mexico

are classified as desert, as well as parts of the coast of Peru. The Atacama Desert is in northern Chile. It is considered as the driest desert region in the world. The deserts of the region are made up of shrubs growing in gravel or sand. In the far, southeastern part of South America is situated a huge, dry area, called Patagonia. This region is sparsely populated. Northern Patagonia is a semidesert with some scrubby vegetation. The southern part is colder, drier, and bleaker, with very little plant life. The coastal plains of Central America are located east and west of Sierra Madre, in South America. They are situated on the northeastern coast of Brazil, on the Atlantic Ocean, as well as on the coast of the Pacific Ocean in Peru and Chile in the west.

Latin America is among the world's leaders in the **mining** of raw materials. Many of these minerals are mined and then exported to other parts of the world, where they are processed into valuable goods. The region is rich in natural resources - gold, silver, iron, copper, bauxite aluminum ore, tin, lead, and nickel. Oil, coal, natural gas, uranium, and hydroelectric power are abundant in Latin America as well. Venezuela and Mexico have the major oil reserves. Brazil is rich in hydroelectric power because of its rivers including the Amazon and waterfalls, as well oil and natural gas. In addition, mines in the region produce precious gems, titanium, and tungsten.

Three factors determine the **diversity of nature** in Latin America. First, Latin America spans over a large distance on each side of the equator. Second, there are big changes in the elevation because of the massive mountains in the region. Third, the warm currents of the Atlantic Ocean and the cold currents of the Pacific Ocean affect the climate. The Andes have a major effect on the weather of South America. Warm, wet winds from the Atlantic rise up to the eastern slopes. As they rise, they cool the air and the water in them falls as rain. On the dry, western slopes, the weather conditions are completely different. Here the winds pass with the cold Humboldt Current as they blow in off the sea. This helps them to cool the air and form a foggy bank.

The **climate** of Latin America varies from the hot and humid Amazon River basin to the dry and desert-like conditions of northern Mexico and southern Chile. Rain forests, deserts, and the savanna are all found in the region. Rain forests are abundant in Central America, the Caribbean, and South America. Savannas can be found in South America. Rain forests are dense forests made up of different species of trees. They form a unique ecosystem—a community of plants and animals living in balance. The climate in these areas is hot and rainy. The largest forest is the Amazon rain forest. The biggest part of this rain forest is located in Brazil. Rain forests are rich in exotic plants and creatures. Scientists have counted more than 2,500 types of trees in the Amazon rain forest. The most common animals are the anaconda, one of the largest snakes in the world, the jaguar, and the piranha - sharp-toothed, meat-eating fish. The mid-latitude, moderate climate zones in the region are located to the south of the equator, approximately from Rio de Janeiro in Brazil to the south. Humid, subtropical areas have rainy winters and hot, humid summers. Parts of Paraguay, Uruguay, southern Brazil, southern Bolivia, and northern Argentina including Buenos Aires are located in areas with humid, subtropical climates. The vegetation is of great diversity. Mediterranean climate zones experience hot, dry summers and cool, moist winters. Part of Chile along the west coast is in this zone. The western coastal climate zones are characterized by cool, rainy winters and mild, rainy summers. A region with similar climate is situated along the southwestern coast of South America. Parts of southern Chile and Argentina have the same climate. Forests are the typical vegetation. Highland climate zones vary from moderate to cold, depending on height. Other factors influence highland climates, such as wind, sunlight, and landscape.

Latin America is home to 23% of the world's forests and 31% of its fresh water. The countries in Central America and the Caribbean do not have the extensive **river systems** that can be found in South America. In North America, the Rio Grande, which forms part of the border between the

United States and Mexico, is longer than any other river in Mexico, Central America, or the Caribbean. South America has three major river systems: the Amazon, Orinoco, and the Paraná. The Amazon River basin covers the largest watershed in the world. It is also the world's second longest river. The Amazon River is the heart of the Amazon rain forest, which is the world's largest tropical rain forest and makes up about half of the total rainforests in the world. It covers about 40% of South America. The Amazon Rainforest is particularly important for the health of the planet as it provides about 20% of the world's oxygen and absorbs an equal amount of carbon dioxide. Nowhere else on Earth can be found the same kind of diversity of animal life as in the Amazon Rainforest. There are more than 2 million species of insects, a large variety of animals that include many different primates, and thousands of native birds such as macaws, parrots and toucans. The Paraná River basin supplies water to the large plains found in the southern part of South America, known as the Pampas. The Pampas have rich, fertile soil and predictable rainfall patterns. The Orinoco River springs from the highlands of northern Brazil and empties into the Atlantic Ocean in Venezuela. There is a vast grassland region known as savanna.

A lot of important early **civilizations** developed in this area, including the Olmecs, Zapotecs, Teotihuacanos, Mayas, Aztecs and the Inca. These cultures developed complex societies, achieved high levels of technological advancement, developed complex architecture, and shared many cultural aspects. In the early 1500s, Spanish soldiers under the command of Francisco Pizarro invaded the South American empire. The **Spanish conquest** has a deep effect on the history and culture of South America. The Spanish settlers forced the natives to work in the mines as well on farms and ranches. The Spanish landlords got the rights on the labour of the natives from officials in Spain, who passed laws to protect the Indians. But in spite of the laws, many of the settlers abused the natives or forced them to work to death. Within a hundred of years of the Spanish arrival in South America, about 90 percent of the native population died, mainly from diseases brought by Europeans, such as smallpox and measles, because the native peoples had no natural immunity against them. The Spanish imposed their own language and religion on the conquered peoples.

Inspired by the American Revolution (1776) and the French Revolution (1789), the countries of South America gained their **independence** from Spain in the first half of the 19th century. Two great leaders of independence movements in the region in the first half of the 19th century were Simón Bolívar and José de San Martín. Mexico declared its independence from Spain in 1821. Since then, Central America had been governed by Mexico. However, in 1823 the whole region declared its independence from Mexico and took the name of the United Provinces of Central America. In the late 1830s, the United Provinces became separate nations- El Salvador, Nicaragua, Costa Rica, Guatemala, and Honduras. Bolívar helped to liberate the countries of Colombia, Venezuela, Ecuador, and Bolivia. José de San Martín did the same with the countries of Argentina, Chile, and Peru. Argentina and Chile were the first to gain independence because they were the farthest ones from Lima, the center of Spanish control. However, once the independence was gained, it contributed to the failure of several countries to unify or work together to achieve common objectives. The continent tended to be populated around its edges, covered with mountains and rain forests limiting interaction. This led to underdevelopment and political instability. During the 1900s, the nations of Latin America experienced major political and social changes. Slowly, the control by the European nations began to decline, but they were replaced by the United States as that nation started to influence the area more and more. The growth of industries, railroads and the expansion of trade began to produce new fortunes to a small group of the population. However, the living conditions of the vast majority of Latin Americans, especially those living in the rural areas, weren't improved. Oligarchy government by a small group of people and military rule have

characterized the governments of many of the countries of South America since they won their independence from Spain.

The authoritarian rule delayed the development of democracy in Latin America. Military rules, underdeveloped economies, and class divide still exist in the region today. The gap between the rich and the poor is enormous. By that time, a lot of the nations in Latin America were controlled by military dictators, and it was these governments that demanded reforms. In many cases, the military rule was used to put down these rebellions. This trend continued into the next century. Although communism continued to have an existence in Cuba, by the 1990s a lot of the military dictatorships that had been in power were replaced by people elected through a democratic voting process. The transition was not an easy one as the nations of Latin America struggle to replace the authoritarian governments with ones elected by the people and rely on the democratic voting process to make decisions. Today Latin American countries are working to put an end to corruption within their governments and bring economic stability.

Latin America is home to about **525 million people** who live in 33 different countries. The language, history, and culture of Central and South America have been shaped by colonization. Until 1492, when Christopher Columbus first landed in the Bahamas, the continent was inhabited by native peoples. Native Indians, who can trace their history back to people living in Central and South America before the Europeans arrived, make up just 2 percent of the continent's population. Today, native Indians make up a very small minority, except in Guatemala, where Mayan people still inhabit the highlands in large numbers, and in the Andean ranges of Bolivia, where descendants of the Incas live. After that time, the European settlers arrived from Spain and Portugal, and huge numbers of Africans were imported as slaves, especially to the Caribbean and Brazil. The Caribbean also became home to English, French, and Dutch settlers. In most countries, the largest group of people is of mixed European and native Indian descent, known as **mestizo**. Mestizos are people with a mix of both indigenous and European ancestry. Today, mestizos make up a large portion of the population of South America. Many people from Europe have settled in South America. During the 19th and early 20th centuries, poverty in Italy drove laborers to Argentina for the wheat harvest; many of whom never went home. Workers also left Spain for Argentina and Uruguay. A German religious group, the Mennonites, moved to Paraguay from Canada to find freedom of worship, and the Welsh set up a community in Argentina to escape the English rule and preserve their language. As a result, the population of the continent today is a combination of these different ethnic groups. Spanish is the main **language** spoken throughout most of the continent, together with Portuguese in Brazil. English and French are more common in the Caribbean, while Dutch can still be heard in Suriname. While Catholicism, the official **religion** of both Spain and Portugal at the time of colonization, dominates the continent, there are other spiritual beliefs that have had an influence on other social activities.

In the 20th century, **population growth** in the continent was rapid, particularly in Brazil and the northern countries. In most countries, birth rates are now beginning to fall. However, since a big part of the population is young, along with the improvements in the field of health care, which allow more children to survive into adulthood, the population is still growing. Nearly three-quarters of the continent's population lives in cities.

Throughout Latin America, people are moving from rural areas into the cities. They leave farms and villages in search of jobs and a better life. Argentina, Chile, and Uruguay are the most highly **urbanized** countries in South America. In these countries, more than 85 percent of the people live in cities. Many people in rural areas struggle to make a living and feed their families by subsistence farming. With a great deal of effort, they can barely grow enough food to keep themselves and their

families alive. Both push and pull factors are at work in moving peasants and farmers off the land and drawing them to the cities. Push factors are factors that "push" people to leave rural areas. They include poor medical care, poor education, low-paying jobs, and ownership of the land by a few rich people. Pull factors are factors that "pull" people toward cities. They include higher-paying jobs, better schools, and better medical care. Six cities in South America rank among the largest ones in population. These include São Paulo and Rio de Janeiro in Brazil, Buenos Aires in Argentina, Lima in Peru, Bogotá in Colombia, and Santiago in Chile. But the city with the biggest population in Latin America is Mexico City. Its population varies from approximately 18- 20 million people living in the city to about 30 million for the entire metropolitan area. Similar problems afflict cities in the region. Slums spread over larger and larger urban areas. Often unemployment and crime is on the increase. In addition to social problems, there are many environmental problems. These include high levels of air pollution by cars and factories.

The countries of Spanish-speaking South America have higher literacy rates than do the countries of Central America and the Caribbean, or Mexico and Brazil. In Argentina, Chile, and Uruguay, for example, **literacy** rates are higher than 90 percent. Moreover, the literacy rates of the men and women are almost the same in those three countries; in fact, in Uruguay, the literacy rate of women is slightly higher. Most of the countries of South America support colleges, universities, and technical schools that train students for careers. As measured by the number of students in schools, copies of daily newspapers and books published per capita, most of the countries of the region show high rates of education and literacy.

Three of the most important issues concerning Latin America today are resources, democracy, and the **income gap** between the rich and the poor. Central America forms a land bridge between North and South America. It also divides two oceans. This geographic fact has made the region attractive to the United States and other major world powers and has helped to keep the area fragmented and politically unstable. There are about 2,000 factories along Mexico's border with the US. They are called maquiladoras. Here, huge numbers of cars, computers, shoes, and other manufactured goods are assembled from parts, ready to be exported. Most of the factories are owned by foreign companies that are attracted to Mexico because of the cheap labour costs. The maquiladoras are an important source of income for Mexico and help to prevent its economy of being too dependent on oil. In Central America, as well, **the main source of income** is the commercial farming practiced on large plantations. These farms produce 10 percent of the world's coffee and 10 percent of the world's bananas. Central America's mines and forests also provide resources for export. Most economies in South American countries are based upon agriculture, mining and extraction of resources such as oil and minerals. However, the income gap between the rich and the poor reflects the region's poverty and failures to develop economic independence.

Economic development of the entire region holds out the hope to improve the lives of millions of people. One of the advantages in the region is that it produces a great variety of products. This is because of its unique combination of resources, landforms, climate, and vegetation. In the north, Guyana, Suriname, and French Guiana grow crops for export on large farms. Colombia and Venezuela both have huge oil reserves that are probably their greatest economic asset. In the west, Peru has an important fishing industry. Ecuador exports huge quantities of shrimp. Bolivia has deposits of tin, zinc, and copper. In the south, Argentina produces great quantities of grain and livestock on its vast pampas. Uruguay is a prosperous agricultural country that has major farming and grazing areas in its part of the pampas. Paraguay exports products such as soybeans, cotton, and animal hides. In Argentina and Uruguay, cattle breeding for beef export is the main source of income. Vast herds of cattle graze the pampas, many feeding on alfalfa plants, which produce a leaner meat. Sheep are grazed in the cooler area of Patagonia, and both Argentina and Uruguay are among the world's top wool-producing nations.

Tourism is a growing industry in Latin America. It is especially important in Mexico and the

Caribbean. But despite the money it brings to the economies of the region, tourism is a mixed blessing. Every year millions of tourists visit the resorts of Latin America, spending money and helping to create jobs. New hotels, restaurants, boutiques, and other businesses have sprung up on the islands of the Caribbean and in Mexico to serve the tourist trade. Luxurious cruise ships anchor in the ports of the region. They carry travelers who spend money on souvenirs and trips around the islands. Resorts offer many activities that provide jobs for the local residents. All these activities bring money to the region and employ local people. In this way, tourism can play a part in reducing the income gap between the rich and the poor. Working in hotels, restaurants, and resorts raises the incomes and gives the local people a stake in their society. Despite the income and jobs that tourism brings to various places in Latin America, it causes problems as well. As resorts are built in previously unspoiled settings, congestion occurs and pollution increases.

SKILLS TASK 1

1. Why is the nature of Latin America so diverse?
2. What are the reasons for the emergence of slums near cities?
3. Explain the advantages and disadvantages of the tourism industry in Latin America?

Brazil – extra readings

Brazil **is the largest country** in South America which covers almost half of the continent. From the 16th to 19th century it was ruled by the Portuguese, who named it after the Brazilian tree, that is called "Brasa".

Geography played an important role in the colonization of South America by Spain and Portugal. The two European powers reached an agreement to divide South America. In the resulting Treaty of Tordesillas (1494), Portugal gained control over the land that became present-day Brazil. The territory of Brazil was originally home to native peoples divided into hundreds of tribes and language groups. Various estimates place the number of native peoples between one million and five million when the first colonists arrived in the early 1500s. The first Portuguese colonists hoped to find gold or silver but they were disappointed when they could find neither of them. Then they cleared out huge areas of forest where they created sugar plantations. Brazil soon became a source of wealth for Portugal because the demand of sugar was so great. The patterns of settlement were along the coast, where cities such as Rio de Janeiro were established, rather than in the interior where rain forests made farming difficult. Eventually, the colonists cleared more land in the west for sugar plantations. In the process, the Portuguese conquered the native tribes and forced them to work on the plantations. When the natives died from diseases brought by the colonists, the Portuguese brought African slaves to Brazil by force to replace them. Today millions of Brazilians are of mixed European, African, and native ancestry.

Fig.1

Fig.2

Brazil was a Portuguese colony from 1500 to 1822. After Napoleon's defeat in 1815, a lot of people in Brazil demanded independence from Portugal. However, the Portuguese government wanted Brazil to remain a colony. But the Brazilians kept fighting for **independence**. Finally, thousands of them signed petitions asking Dom Pedro, the son of the Portugal's king, to rule Brazil as an independent country. He agreed, and in September, 1822, he declared Brazil's independence from Portugal.

The country consists of **deserts** in the northeast, **rain forests** in the north and west, and rolling **grasslands** in the south. Because the climate is so varied, it is possible to grow almost any crop. In the south, the forces of the Paraná and Paraguay rivers have been harnessed to form one of the world's largest hydroelectric projects, the Itaipú Dam. The Amazon River has its source in the Andes Mountains of Peru and flows 6,439 km across South America until it empties into the Atlantic Ocean. For more than half of its length, the **Amazon** flows through Brazil. It is the country's most important waterway, and large boats can travel as far as the modern city of Manaus, about 1,600 km away from the sea. Every year the river floods and deposits fertile silt on the land. Brazil's eastern coastline stretches 7,400 km along the Atlantic Ocean. The most popular beach in Rio de Janeiro is Copacabana, which offers a breathtaking view of the Sugar Loaf Mountain. The cerrado or savannas are areas with flat terrain and moderate rainfall suitable for farming. Much of this land is undeveloped. However, the government of Brazil is encouraging settlers to move into the interior and develop the land.

When the first Europeans arrived in 1500, millions of native people lived in what is now Brazil. But today, only about 200,000 live in the depths of the Amazon rain forest. Thousands of the native peoples died from diseases brought by the European colonists. Brazil has become home to many immigrants from other nations. The population of Brazil is **a mixture of peoples**. Large numbers of people from Portugal, Germany, Italy, and Spain have settled there, as have immigrants from Lebanon and Syria. Many Brazilians have African ancestors who were brought over in the 17th century to work as slaves on the sugar plantations. Brazil also has the largest Japanese population outside Japan. At the beginning of the 20th century many Japanese sailed to Brazil to escape crop failures at home. The Portuguese brought their language and their Catholic religion with them to Brazil. As a result, every town and village has its own patron saint to protect it. Today, Brazil has the largest Catholic population in the world. In addition, Protestants make up almost 20 percent of the population.

About 80 percent of Brazilians live in cities, most of which have developed near the coast. Over the years, many people have moved to the cities from the countryside in search of work and a better standard of living. For many years the cities grew rapidly, although this has now slowed down. More than 20 million people live in or around the city of São Paulo. Housing shortages in Brazil mean that about 25 million people live in sprawling shantytowns called favelas that surround the cities. Most of the homes are built by the families themselves, sometimes from waste materials, but more often from wood, bricks, and cement bought from hardware stores. Services such as running water and sanitation are poor. The city of Brasília was built in the late 1950s as part of a government program to encourage people to move into the interior of the country. It became **Brazil's capital** in 1960, taking over from Rio de Janeiro. The architect Oscar Niemeyer designed the buildings for the new capital of Brasília, which was constructed in inland Brazil at the beginning of 1957. A partial reason for locating the capital 600 miles inland was to draw people into these remote areas. The move of the government to the new capital city in 1960 signaled the opening of the country's west. An Economic Giant Awakens Brazil is a growing economic power. Much of this power is based on its vast area, its abundance of natural resources, and its people. The city is laid out in the shape of an airplane, with the business district in the center, residential areas in the wings, and the

government in the cockpit. Brasília is the political capital of Brazil, and São Paulo is its economic heart and largest city, but Rio de Janeiro is the cultural center.

There has also been **a move into the interior.** About 80 percent of the people live within 200 miles of the sea. But the government is encouraging this settlement to develop its many resources. Commercial agriculture is an important part of the economy in the western interior. That is because of the cerrado — the fertile grasslands. Many Brazilians are willing to move to the interior to improve their economic situation.

Brazil is the world's **major producer** and exporter of coffee, which is grown on huge plantations, mostly in the states of Paraná and São Paulo. However, coffee is only one of the country's main crops; soybeans, sugarcane, and cotton are also produced on a large scale. Brazil is one of the world's main producers of oranges, bananas, and cocoa beans as well. About one-quarter of Brazilians work in agriculture. Many people work in the fields for little pay, while a few rich landowners benefit from huge profits.

Natural resources have helped make Brazil an **industrial power.** It has deposits of iron and bauxite, as well as other minerals used in manufacturing. In addition, tin and manganese reserves are abundant. It also has supplies of gold, silver, titanium, chromite, tungsten, and quartz. More than a thousand rivers, including the Amazon, flow through Brazil. Power plants located along these rivers produce electricity. In addition, Brazil's large reserves of oil and natural gas contribute to its industrial might. Brazil is one of the most industrialized of South American countries, with one of the largest steel plants in the region. It is a leading maker of automobiles. In the 1960s and 1970s the country enjoyed a period of massive industrial growth. Then the boom ended, Brazil went bust, and the country became the world's greatest debtor. Paying back the loans is now the government's biggest problem. In the 1970s, the rising cost of oil forced Brazil to look for an alternative fuel. Researchers came up with ethanol, a fuel made from fermented sugarcane. Ethanol is cheaper than ordinary gasoline and produces less carbon monoxide, which is much better for the environment. Today, about one-third of Brazil's cars run on this "green fuel." But Brazil has a great supply of natural resources, including gold and iron ore, and mining is one of the country's most important industries. Brazil is both a rich and poor country. Some landowners and business people are extremely wealthy, but most of the rural population is very poor. Although there has been a democratic government since 1985, corruption is still a problem in Brazilian politics.

Brazil produces most of its own food and manufactured goods, but needs money to pay off its enormous debts. The country's major **exports**, some of which are shown here, include coffee, minerals, and airplanes, as well as large numbers of Brazilian cars, which are sold in Argentina. Most of Brazil's manufacturing takes place in a rough triangle formed by the industrial cities of Rio de Janeiro, São Paulo, and Belo Horizonte.

For four days and nights before Lent each year February or March, it is carnival time in Brazil. People come from all over the world to join the celebration in Rio de Janeiro, where there are street parties, balls, and a contest for the best costume. Day and night the streets are crammed with people in wonderful costumes moving to the rhythm of music. A parade of brightly colored floats, organized by neighborhood samba schools, is the highlight of the carnival.

SKILLS TASK 1

1. What are the reasons for the rapid decline in the local population?
2. Think about the reasons why the heir to the throne of Portugal had to head Brazil after the declaration of independence of Brazil? Why do we say that Brazil is both a rich and a poor country?

ASIA

Asia- extra readings

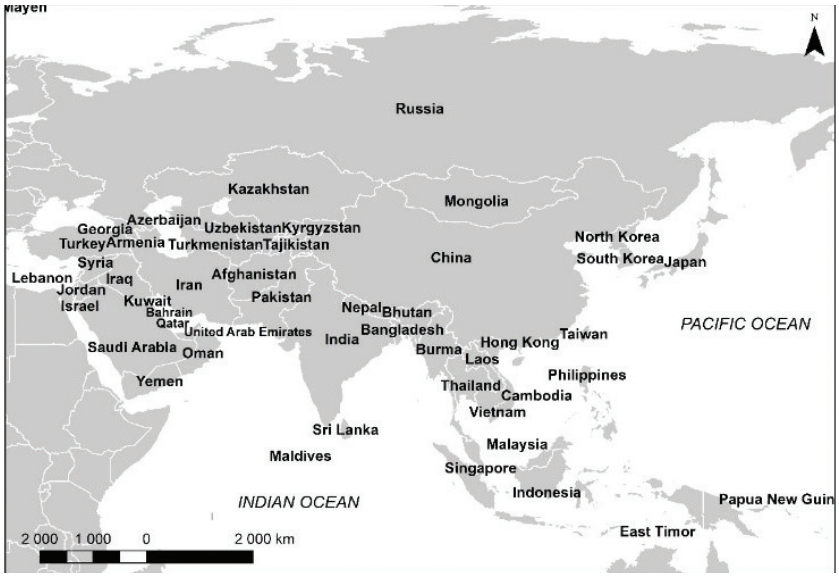


Fig.1

Asia is the world's largest and most mountainous continent. Asia can be divided into five divisions according to its physical structures. 1.The low plains of North Asia. 2. The highlands and the mountains of Central Asia, including the Himalayan Mountains in the south. The Mount Everest (8,884 metres) is the highest peak. 3. The low plains of South Asia the rivers of Tigris and Euphrates basin of Iraq, Indus-Ganges-Brahmaputra basin of Pakistan, India and Bangladesh and Hwang Ho-Yangtze-Sikiang basin of China. The alluvial soil has made this plain very fertile. 4. The Plateau of South Asi: The Arab, Deccan and Indo-China plateau of the southern part of Asia. Most of the area of the wide Arab Plateau is barren and sandy. The West Ghat Mountain is situated to the west of the Deccan plateau, East Ghat Mountain in the east and Vindhya range in the north. 5. The Volcanic Islands: the east coast of Asia, there are rocky islands of Aleutian, Kurile, Japan, Riukieu, the Philippines and Borneo. Most of these islands are adorned with volcanoes. /**Fig.1**/.

Asia, being a large continent, has diverse physical features. The barriers to the free flow of air current have created different climates in different areas. According to the prevailing climate, the continent can be divided into seven climatic zones. 1. Equatorial Climatic Zone: The equatorial type of climate is found in Singapore, the Malaysia Peninsula and Indonesia within 5° North and 5° South latitudes. The variation of temperature between winter and summer is less. 2. The Monsoon Climatic Zone: The countries in the Tropical zone and the eastern part of Asia are included in this climatic zone. The countries included are South and East China, the Philippines, Vietnam, Laos, Cambodia, Thailand, Myanmar, Bangladesh, India, Sri Lanka and Pakistan. Heavy rains occur during summer and the rains make the summer cooler. 3. The Desert Climatic Zone: The prominence of dryness in this type of climate is the major characteristics. Less growth of vegetation is found here due to no rainfall or less rainfall and the prevalence of drought. This type of climate is divided into two: a) Hot Desert Climatic Region: This climate includes the Thar Desert of Pakistan and India, the United Arab Emirates, Qatar, Oman, Yemen, Saudi Arabia, Jordan and South-West Iran. Here the climate is extreme. Extremely hot during the day and very cold during the night. (b) Cold Desert Climatic Region: This type of climate includes Mongolia of Central Asia, Sinkiang of China, Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan, Turkmenistan,

Afghanistan, and Iran. These regions experience less rainfall being far away from the ocean. The air of this region is dry due to less amount of rainfall. The climate of this region is cold due to height. 4. The Mediterranean Climatic Zone: This climatic zone includes Turkey, Syria, Lebanon, Palestine, Israel, and North Iraq of West Asia. Here rain falls in winter and the summer goes dry. 5. The Continental Climatic Zone: The climate of West Siberia is extreme. Winter is very cold here and there is heavy snowfall. Summer is hot but short. There is scarcely any rainfall.

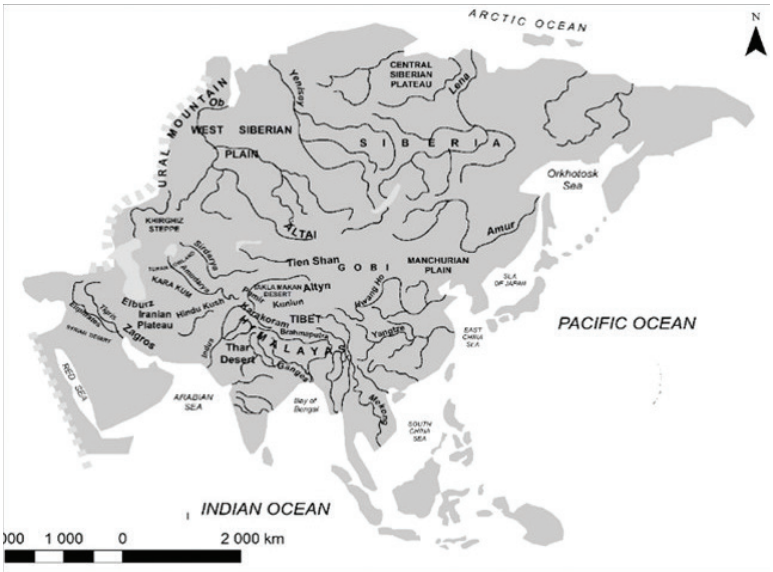


Fig.2

6. The Cold Temperate Climatic Zone: This climate is found in East Siberia. Winter is extreme here. Extreme cold wind flows from the Arctic in winter. There is snowfall instead of rainfall. The eastern part is colder and drier than the western part. 7. The Tundra Climatic Zone: This climate is found in the north of Siberia. Winter is very long here and the cold is very extreme. The snow in the north of Tundra does not melt even in summer.

The first peoples settled in fertile river valleys where they could grow crops. They built irrigation systems to channel water from rivers to the crops. Today, rivers are still important to the people of southern and eastern Asia. In addition to irrigation, rivers are used for fishing and for drinking, and are dammed to produce hydroelectric power. Rivers often provide a country's main means of transportation, and some are the focus around which civilizations have developed. According to the flow, the four great river systems of Asia are as follows: (a) Rivers flowing to the North Sea: The Obb (with tributary Irtish and the Yenisey (with tributary Angara) springing from the Altai Mountains and Lena from lake Baikal flows to the North Sea. The mouth of the rivers remains frozen most of the time of the year. (b) Rivers flowing to the Pacific Ocean: The Amur river springing from the Yablonovy Mountain has flowed to the Okhotsk Sea in the east. This river remains frozen for six months of the year. The Hwang Ho has its river – head in the Kunlun Mountains and flows into the Yellow Sea. The Yangtzekiang springing from the Tibet Plateau flows into the East China Sea. Yangtze is the longest river in Asia. The Mekong river and the Menam both spring from the Tibet Plateau, have flown into the South China Sea and the Bay of Thailand respectively. (c) Rivers flowing to the Indian Ocean: The Salwin river of Myanmar having its springs in the Tibet Plateau has flown into the Bay of Martaban. The Irrawaddy springs from the Naga Mountains and flows through Myanmar falls into the Bay of Martaban. The Brahmaputra originates from lake Manash in Tibet and mingles with the Ganges flowing through Tibet. The Indus springs from the Himalayas and flows to the Arabian Sea through Kashmir and Pakistan. The Tigris and the Euphrates has its river head in the highlands of Armenia in East Turkey. The combined course of these two rivers is known as Shat-el-Arab and flows into the Bay of Persia. (d) Rivers flowing into the lakes: The Amudarya and Sirdarya springing from the Pamir plateau and Tien Shan mountain respectively flow into the Aral Lake, while the Ural river, coming up from the Ural mountains flows to the Caspian Sea, the Tarim river to Lapnor Lake from the Karakoram Mountains, the Helmond river from the Hindu Kush

mountains to the Hamun and the Jordan river from the highlands of Lebanon to the Dead Sea. Besides, many small rivers from the different parts of the continent of Asia have flowed to different directions.

Of all the continents, Asia has the largest population (4601 billion people) with the greatest variety of cultures. Cities and writing, the development of which are closely connected, first appeared in Asia. More than 5,000 years ago the earliest cities, such as Babylon, emerged in the valley of the Tigris and Euphrates rivers, an area known as Mesopotamia. Today, Asia contains over 60 percent of the world's population, much of which is concentrated in the southern and eastern regions of the continent. Seven of the world's 10 most populated countries are located here, with China and India heading the list. In mainland China, a strictly enforced government policy to restrict family size to just one child has slowed the rate of population growth, but elsewhere in the continent it is still very high. Most of the population is concentrated in the fertile river valleys and coastal lowlands of south and east Asia. Aside from the island city-state of Singapore, Bangladesh is the most densely populated country in Asia with over 1,000 per sq km. Large areas of the Middle East and central Asia are empty wilderness, unsettled by people because of their extreme dryness or cold temperatures. Asia was the birthplace of all the main world religions, including Hinduism, Buddhism, Judaism, Christianity, and Islam. Religious beliefs still have a strong influence on the people of the region today. A large proportion of Asia's population still lives in the countryside as farmers, but the number living in cities is rising steeply. The largest cities in Asia now have population of more than 10 million.

Although some Asian countries, such as Japan and China, have been independent for a long time, others have only recently emerged from colonization. At the start of the 20th century, much of the Middle East, the whole Indian Subcontinent, and large areas of Southeast Asia were controlled by European powers. Nationalist movements grew up across Asia and the countries regained their independence. Many countries here have had very fast economic growth. Some countries, like India, gained their independence through largely peaceful protest, while fierce fighting occurred in others, such as Indonesia. The Soviet Union, or USSR, was the world's largest nation. However, in 1991, the USSR split up into 15 republics, which set up their own governments. Nine of the republics are in Europe and the other five are in Asia. They are no longer part of a large, centralized economy, and are struggling to compete in a world market. Half the world's population depends on rice as a principal source of food, so a rice shortage can cause terrible famine. This plant, native to Southeast Asia, has been cultivated in the region for at least 7,000 years. In recent decades, new varieties of rice have been developed to help feed Asia's growing population. These new strains of rice are part of the "Green Revolution," which applies scientific knowledge to plant breeding and uses technology to increase productivity. Before oil was discovered, many desert countries in the Middle East were very poor. Oil has transformed their fortunes. More than two-thirds of the world's known reserves of crude oil and a third of all the natural gas lie here. Countries have become wealthy through the export of oil and natural gas throughout the world. New cities have sprung up, such as Dubai, and foreign workers have arrived in great numbers. Following in the footsteps of Japan, a number of Southeast Asian countries tried to make the most of their cheap and plentiful supply of workers to rapidly boost their economies. These "Little Tigers" achieved great success in the final decades of the 20th century. However, they are now having to deal with the side effects of rapid industrialization – pollution, unemployment, poverty in rural areas, and new cheaper competition that has begun to emerge elsewhere. Women's lives differ hugely over such a large continent, influenced by each nation's culture, religion, and politics. Yet Islamic women in Southeast Asian countries such as Indonesia often work outside the home. In other areas, such as communist China and North

Korea, and the former communist republics of the USSR, women make up a large proportion of the workforce and carry out most household chores.

The Middle East is made up of Israel, Jordan, Lebanon, Syria, Turkey, Iraq, Iran, Saudi Arabia, Yemen, Oman, United Arab Emirates, Qatar, Kuwait. The physical landscape of the Middle East is defined by great differences. The region has some of the world's highest mountains to the east and the world's driest areas in the deserts covering much of the region. The region also boasts a number of bodies of water, both fresh and salt water. The Tigris and Euphrates rivers come together in the area once known as Mesopotamia to create one of the most fertile river valleys in the world. In the south is the world's largest peninsula, the Arabian Peninsula, which covers more than a million square miles. To the north, the Anatolia Plateau spans over much of the rugged landscape of modern-day Turkey. Despite the many seas and rivers in the area, the Middle East are regions of mostly arid and semiarid climate zones. Much of the region is covered by desert scrub. Almost 350 million people live in the Middle East today, Arabs make up the largest ethnic group in the region. The term refers to people who originally inhabited the Arabian Peninsula, but today the term connects the people who speak the Arabic language. A number of other ethnic groups make up the region. In Israel there are the Palestinians and Jews, in Iran the Persians, the Kurds spread throughout Iraq, Iran, Syria and Turkey. Many of these countries-states had monarchies and theocracies both supported by their relligious beliefs. Different groups fought for control of the region. The Ottoman Empire, centered in present day Turkey, held political control from the early 1500s until after World War I. Following the empire's collapse, portions of the region gained independence, however much of the region was placed under the colonial control of a few European countries. By the 1970s, many of the countries were able to gain their independence. These new governments varied in style from monarchies to dictatorships. Many would continue to see periods of unrest and war that has extended into the present day. Since the 1990s many, but not all, countries have slowly moved towards democracy. This push towards a democratic system of government has been driven by the peoples' desire for more participation and freedom in the political life of the countries. The Middle East sits on the largest oil reserve in the world. It is estimated that the countries of the Middle East control approximately half of the entire oil reserves in the world. Along with the abundance of oil, large natural gas reserves give the region a wealth of natural resources that are seen nowhere else in the world. World demand for oil has been growing year after year. Crude oil is refined down into many different products. As demand for these products has gone up, the countries who control the oil have become very wealthy. The oil wealth of many Middle Eastern countries has impacted the people in positive ways. In general, the money from oil production has improved the lives of many of the people. Life expectancy has increased and the infant mortality rate has fallen. Both factors can be attributed to countries using their wealth to improve the health care of the region. Oil has not improved life for all people in the region and has not ended poverty in the Middle East.

Central Asia is a region in the Asian continent that extends from the mountains of western China to the shores of the Caspian Sea. Pakistan and Iran create the southern border of the region, and the vast expanse of Russia is to the north. The entire region, aside from Afghanistan, used to be part of the Soviet Union. There is a great variety of people living in central Asia. The original inhabitants include the Kazakhs, Turkmens, and Uzbeks, related to the Turks, and the Tajiks and Afghans, related to the Iranians. Central Asia was located on what was known as the Silk Road between Europe and the Far East and has long been a crossroad for people, ideas, and trade. Central Asia has an extremely varied geography, including high mountain passes through vast mountain ranges, such as the Tian Shan, Hindu Kush, and the Pamirs. The region is also

home to the vast Kara Kum and Kyzyl Kum Deserts, which dominate the interior with extensive spans of sand and desolation. Under the sand and prairie grasses lie some of the most extensive untapped reserves of gas and oil on the planet. Multinational corporations have vigorously stepped up their activity in the region. The political systems are adjusting from the old Soviet Union's socialist policies to new democratic systems that are subject to high levels of authoritarian rule and corruption in business and politics. The five countries of Kazakhstan, Uzbekistan, Turkmenistan, Tajikistan, and Kyrgyzstan were part of the former Soviet Union until its breakup in 1991. Today, with Afghanistan, they are independent countries that make up the region called Central Asia. Most of the groups of Central Asia were nomadic peoples who rode horses and herded livestock on the region's vast steppes. This way of life continued until the 1920s, when the Soviet Union forced many of the groups to abandon their lifestyle and settle on collective farms and in cities. Industrialization and collective farms brought huge changes to a region once occupied mainly by nomads. More than six million Russians and Ukrainians were resettled into Central Asia during the Soviet rule. The northern states of central Asia are placed on huge reserves of oil and gas. Kazakhstan is slowly exploiting one of the world's biggest oil fields under the Caspian Sea, while Turkmenistan is beginning to make use of a vast reservoir of natural gas trapped beneath its land. Exploitation of these riches is hampered by lack of investment and a poorly skilled workforce. Throughout central Asia, Islam is the main religion. It arrived in the region in the early 8th century. While central Asia was part of the Soviet Union, Islam was suppressed. Throughout this time, however, people continued to worship in secret. With the end of communism, Islam has gained strength in every country.

South Asia includes India, Nepal, Bangladesh, Bhutan, Pakistan, Sri Lanka and the Maldives. Farther north along the Himalayan range, the region of Kashmir is divided between India, Pakistan, and China. This "subcontinent" is surrounded by the Arabian Sea to the west, the Indian Ocean to the south, and the Bay of Bengal to the east and the Himalayas to the north. India, with over one billion people alone, is the second most populated country in the world, with predictions of it soon surpassing China within a decade or two. The balancing of natural capital and population growth is and will remain a primary issue in the region's future. South Asia is highly populated, with about one-and-a-half billion people representing a wide range of ethnic and cultural groups. The diverse population has been brought together into political units that have roots in the region's colonial past, primarily under Great Britain. British colonialism had a significant impact on the region; its long-term effects include political divisions and conflicts in places such as Kashmir and Sri Lanka. India has 22 official languages, with 1,000 additional languages and 22,000 dialects-more than any other country in the world. Most of their highly educated citizens speak English as a second language. Over 41% speak Hindi.

Followers of five of the world's major religions live in the Indian Subcontinent – Hindus, Muslims, Buddhists, Sikhs, and Christians. The majority of people are Hindu and their holiest city is Varanasi, in northern India. The city stands on the banks of the Ganges, the sacred river of the Hindus. Millions of pilgrims come to Varanasi each year to bathe in the river. This is believed to wash away their sins. Pakistan and Bangladesh are mainly Muslim. In addition, Sikhism is a major religion in the Punjab region, which is located on India's northern border with Pakistan. South Asia provides an excellent example of colonial role in establishing most of the current political borders in the world. From the sixteenth century onward, ships from colonial Europe began to arrive in South Asia to conduct trade. The British East India Company was chartered in 1600 to trade in Asia and India. They traded in spices, silk, cotton, and other goods. Later, to take advantage of conflicts and bitter rivalries between kingdoms, European

powers began to establish colonies. Britain controlled South Asia from 1857 to 1947. Upon the British withdrawal from India, Britain realized the immense cultural differences between the Muslims and Hindus and created political boundaries based on those differences. West Pakistan was carved out of western India; East Pakistan was carved from eastern India. However, the new borders separating Hindu and Muslim majorities ran through population groups, and some of the population now found itself to be on the wrong side of the border. The West Pakistan-India partition grew into a tragic civil war, as Hindus and Muslims struggled to migrate to their country of choice. More than one million people died in the civil war, a war that is still referred to in today's political dialogue between Pakistan and India. The Sikhs, who are indigenous to the Punjab region in the middle, also suffered greatly. Some people decided not to migrate, which explains why India has the largest Muslim population of any non-Muslim state. Another civil war would erupt in 1973 between West Pakistan and East Pakistan. When the states were first created in 1947, they operated under the same government despite having no common border and being over nine hundred miles apart and populated by people with no ethnic similarities. The civil war lasted about three months and resulted in the creation of the sovereign countries of Pakistan and Bangladesh (formerly East Pakistan). The name Bangladesh is based on the Bengali ethnicity of most of the people who live there. Both Pakistan and Bangladesh are among the top ten most populous countries in the world. During the Cold War, the South Asian countries were in the shadow of the superpowers and had to engage in diplomacy to balance their relationships with the Soviet Union and the United States. Current globalizing forces are compelling South Asian countries to establish a trade network and institute economic policies among themselves. South Asia is not one of the three main economic core areas of the world; however, it is emerging to compete in the world marketplace. Some would call India a part of the semi-periphery, which means it is not actually in the core or in the periphery but displays qualities of both. All the same, India remains the dominant country of South Asia. Communist China is an emerging economic power and has used Tibet as a buffer state with its rival, India. Since the collapse of the Soviet Union, Russia has been working to reestablish itself in the global economy. Like India, Russia portrays qualities of the semi-periphery. The United States has had a major impact on the affairs of the South Asian region, even though it is physically located on the other side of the world. The United States has been at war in neighboring Afghanistan since 2001 and has also been a major economic trading partner with the countries of South Asia. Complicating the situation, the United States has developed an extensive trade relationship with neighboring China. Economic advancements and global trade have catapulted the countries of South Asia onto the world stage. The region experienced rapid population growth during the latter half of the twentieth century. As death rates declined and family size remained high, the population swiftly increased. India, for example, grew from fewer than four hundred million in 1950 to more than one billion at the turn of the century. However, without continued attention to how the societies address family planning and birth control, South Asia will likely face serious resource shortages in the future. The population of South Asia is relatively young. In Pakistan about 35 percent of the population is under the age of fifteen, while about 30 percent of India's almost 1.2 billion people are under the age of fifteen. Many of these young people live in rural areas, as most of the people of South Asia, work in agriculture and live a subsistence lifestyle. Most people in the Subcontinent live in closely- knit villages and make a living from farming. In India alone, more than 70 percent of the population lives in some 500,000 villages scattered across the country. Some consist of small clusters of houses, others have thousands of inhabitants. Most families have lived in the same village for many years, passing on their knowledge and skills from one generation to the

next. As the population increases, the cities are swelling to accompany the growth in the urban population and the large influx of migrants arriving from rural areas. Rural-to-urban shift is extremely high in South Asia and will continue to fuel the expansion of the urban centers into some of the largest cities on the planet.

East Asia is dominated by the vast country of China. It also includes the Mongolia, North and South Korea, Taiwan and Japan. Japan has emerged as the economic dragon of East Asia. Japanese people have a high standard of living, and the country has been an industrial and financial engine for the Pacific Rim. Up and coming economic tigers like Singapore, Hong Kong, Taiwan, and South Korea have also experienced strong economic growth and are strong competitors in the global economy. Balancing out the advances of the economic tigers and Japan is the extensive labor base of the Chinese people, which has led the Chinese economy to its position as a major player in the global economy. Left behind in the region is North Korea, which has isolated itself behind an authoritarian dictatorship since World War II. East Asia is anchored by Communist China, a large country that dominates the physical region. High mountains on its western borders have isolated China. The peripheral regions of Tibet, Western China, Mongolia, and Manchuria act as buffer states that protect the core Han Chinese heartland in China Proper, where most of the population lives. To boost foreign trade and increase its manufacturing sector, China has established special economic zones (SEZs) along its coast in hopes of attracting international businesses. Urbanization and industrialization have prompted a major rural-to-urban shift in the population. The world-class port and strategic geographic location of Hong Kong have played a large role in its development as an economic tiger. High-tech manufacturing with banking and financial services have catapulted the small area into a major market center for Asia. In 1998, Hong Kong was united with China, opening the door for massive trade and development with China and Shenzhen. Next door, to the west of Hong Kong, is the former Portuguese colony of Macau, which has also been returned to Chinese control. The island of Taiwan, off the eastern coast of China, has an independent government that has been separated from mainland China shortly after World War II. It has developed into an economic tiger with high-tech manufacturing and high incomes. The island has a separate government from mainland China and has a capitalist economy. There has been some historic tension between Taiwan and Beijing ever since the Nationalists moved here in 1948. Economic trade between Taiwan and mainland China has brought the two sides closer together. Japan's mountainous archipelago has provided isolation and protection for the Japanese people to maintain their unique culture and heritage. The islands were created by tectonic plate action, which continues to cause earthquakes in the region. Japan is made up of a number of large islands. Japan was a colonial power that colonized much of the Asian Pacific region. Its defeat in World War II devastated the country and liberated all its colonies. Since 1945, Japan has been developing one of the strongest economies in the world through manufacturing. Japan is a highly industrialized country. Japan has a homogeneous society in which about 99 percent of the population is Japanese. Family size is low and the population has begun to decline in numbers, causing an economic concern about the lack of entry-level workers. Korea is split between an authoritarian-controlled North Korea and a capitalist South Korea. North Korea is a Communist dictatorship with a low standard of living a weak economy and absolutely no civil rights. South Korea is a capitalist democracy with a high standard of living and a free-market economy. South Korea has developed into one of the economic tigers of Asia. South Korea has a strong manufacturing sector that produces high-tech electronics and information technology. A number of countries that were former enemies in World War II are now trading partners (e.g., China and Japan), as economic trade bridges

cultural gaps with common goods and services. However, cultural and political differences between these countries remain. East Asia is home to one-fifth of the human population. The region's location on the Pacific Rim provides access for interaction with the global economy. The location of Japan, South Korea, Taiwan, just off the coast of mainland China, creates an industrial environment that has awakened the human entrepreneurial spirit of the region.

The region between China, India, Australia, and the Pacific Ocean is known as Southeast Asia. The political borders were created through a combination of factors, including natural features, traditional tribal distinctions, colonial claims, and political agreements. The region also has the fourth-most populous country in the world, Indonesia. Southeast Asia is a region of peninsulas and islands. The only landlocked country is the rural and remote country of Laos, which borders China, Vietnam, and Thailand. Southeast Asia consists of two main geographic regions: the mainland portion that borders China and the insular region that consists of islands or portions of them between Asia and Australia. Southeast Asia was influenced heavily by European colonialism. The only area of the region that was not colonized by the Europeans was Thailand, which was called Siam during the colonial era. It remained an independent kingdom throughout the colonial period and was a buffer state between French and British colonizers. The Japanese colonial empire controlled much of Southeast Asia before World War II. Some of the countries and regions of Southeast Asia became known by their colonial connection. Indonesia was once referred to as the Dutch East Indies, which was influential in the labeling of the Caribbean as the West Indies. French Indochina is a term legitimized for historical references to the former French claims in Southeast Asia. Independence from the European powers and freedom from Japanese imperialism by the end of World War II provided a new identification for the different countries of the region. Cultural and economic relationships between many former colonies and their European counterparts still exist. Economic activities vary in Southeast Asia, with Singapore being an economic power and Brunei being an oil-rich emirate. Thailand is becoming a major manufacturing center and the Philippines have been a destination for outsourced information jobs. Landlocked Laos and isolated Burma (Myanmar) have weak economies. Vietnam and Cambodia are recovering from political isolation. 6. Indonesia has the fourth-largest population in the world. Half of its people live on the island of Java. The Indonesian island of Bali has a Hindu majority and is a notable tourist destination. The island of Timor is divided between the Indonesian western half and the independent eastern half of East Timor, which is a former Portuguese colony.

This mainland region consists of the countries of Vietnam, Laos, Cambodia, Thailand, and Myanmar (Burma). The area has been influenced historically by India and China. France and Britain colonized the mainland region of Southeast Asia. Burma was a British colony and the rest was under French colonial rule. The Japanese took control of the region briefly before World War II ended in 1945. Siam was the only area that had not been colonized. Siam became the country of Thailand. Vietnam was divided by a Communist north and a capitalist south during the Cold War. Vietnam is emerging from decades of isolation to provide the global economy with a large low-cost labor pool that has been attracting foreign investments by multinational corporations. The rural and landlocked country of Laos has strong Buddhist traditions and an agrarian society. Cambodia was impacted by the Vietnam War and then by the devastation of Pol Pot's Khmer Rouge radical experiment in agrarian socialism, which killed as many as 2.5 million people. Recovery has been slow, but the textile industry and tourism have contributed to economic growth. The Buddhist country of Thailand has been experiencing major economic development in recent decades and has established itself as a major economic power in the

region. The modern capital city of Bangkok is a major center of manufacturing and cultural activities. The countries of mainland Southeast Asia are largely mountainous. About half the region is covered with forests. Most people live in the river valleys that cut through the fertile countryside. Myanmar is isolated, poor, and underdeveloped. In comparison, Thailand, Malaysia, and, above all, the island of Singapore are rich countries with modern industrial economies. Vietnam, Cambodia, and Laos had to recover from years of war. The region has a monsoon climate, with a dry season from November to March and a wet season from May to October. Since ancient times, people have settled in the valleys of the great rivers, such as the Irrawaddy, Mekong, and Salween, because the land there is suitable for growing rice. All the major cities in the region are situated on a river. In the valleys, farmers cultivate every corner of the land, often constructing terraces on the hillsides to grow rice and other crops. They use the river waters to irrigate water their crops. The rivers transport water and sediments from the interior to the coasts, often creating large deltas with rich soils that are major agricultural areas. The delta of the Mekong River in Vietnam is one of the world's great rice-growing areas, producing much of the surplus that has made Vietnam the world's second largest rice exporter. Multiple crops of rice and food products can be grown in the fertile river valleys and deltas. The agricultural abundance is important to support the ever-increasing populations of the region. Farmers in the delta also grow fruit and catch many breeds of fish. In contrast to the crowded river valleys, the uplands are sparsely populated and largely covered by forests. Here the hill peoples live in villages, farming small parts of land and gathering fruit and other food in the forest. This traditional way of life is now threatened by the region's growing population as well by logging companies, which are cutting down the forest.

Maritime Southeast Asia is a belt with thousands of islands strung out across a large expanse of ocean. There are four countries, sandwiched between mainland Southeast Asia and Australia: the eastern part of Malaysia, Brunei, Indonesia, and the Philippines. This is one of the world's most volcanic regions, and the monsoon climate makes some areas the wettest places on Earth. The large number of ethnic groups is dominated by Indonesians, Malays, and Filipinos, coinciding with the countries of Indonesia, Malaysia, and the Philippines. More than 250 languages are spoken on the islands of Indonesia. The country is also home to the largest Muslim population in the world. All major religions can be found here. East Timor and the Philippines are the only two predominantly Christian countries in Asia. Most of the people in Malaysia follow Islam. Hinduism is present in the Indonesian island of Bali as well in other different locations in the region. The old colonial powers may no longer control them politically but may affect them economically. These Asian countries are working to develop their own economies and use their own labor and resources to gain national wealth and increase the standard of living for their people.

SKILLS TASK 1

1. Which country has the largest number of Muslims?
2. What is the reason for the existence of North and South Korea?
3. What are the characteristics of the economic development of the so-called Asian tigers??
4. What are the five autonomous regions in China? Where are they located?

China – extra readings

Located in Southeastern Asia along the coastline of the Pacific Ocean, China is the world's third largest country, after Russia and Canada. China includes twenty-two provinces, as well as the island province of Hainan in the south. The island, now called Taiwan, is considered by China to be its twenty-third province but as a matter of fact it has its own government. Mainland China consists of five autonomous regions, which are characteristic of large ethnic minority populations; four municipalities; and two special administrative regions (SARs) that achieved considerable autonomy. Hong Kong attained this status on July 1, 1997 when it ceased being a British Crown Colony. Macao, once a colony of Portugal, reverted to Chinese sovereignty on December 20, 1999 and became the country's second SAR. The directly controlled municipalities are Beijing, Tianjin, Shanghai, and Chongqing /**Fig.1**/.

Fig.1

Fig.2

One-third of China's land area is made up of **mountains**. China has the highest summit in the world: Mount Everest 8,848 m, as well as the third lowest depression in the world: Turpan Depression (-154 m). Northeastern China is dominated by flat plains and coastlines while Southern China is mountainous with a rocky coastline. China is also home to two deserts – the Taklamakan and the Gobi Desert /**Fig.2**/. China is located in several **climate** zones. Mainly, it has equatorial, tropical, subtropical and moderate climates. Monsoon winds influence the climate – moist in summer and dry in winter. Although most of the country lies in the temperate belt, its climatic patterns are complex. Precipitation varies regionally. The mean annual precipitation is 645 mm. In some regions of the southwest and in the coastal areas of the southeast, the mean annual precipitation exceeds 2 000 mm and surpasses 1 000 mm to the south of the middle and lower reaches of the Yangtze river. It is between 400 and 900 mm in the northern plains, northeast and central China. It is less than 400 mm in parts of northeast China and most of the hinterland in the northwest. And it is less than 25 mm in the Tarim river basin in the northwest and the Qaidam river basin in the west, of which one-third is a desert. Precipitation is greater in the summer months, from April-May to July-August in the south and from June to September in the north. China is rich in **mineral resources**: coal, natural gas, metals and is the world's third country in mineral reserves.

Three great **rivers** run vaguely west to east to divide the nation into three east-west zones, the Huang He (Yellow River); the Chang Jiang (Yangzi River) and the Yu Jiang (Pearl River). The Yangtze River is the longest river in Asia, and the third-longest in the world. As China's "main street," this artery courses over 6300 km through several of China's most economically

developed regions. As much as 40% of the country's total grain production, 70% of the rice output, and more than 40% of China's population are associated with its vast basin that includes more than 3,000 tributaries.

With a **population** of 1,393 billion, (2018 г.) China has more people than any other country on Earth. The population is not spread out evenly in China, with the majority (70%) of the population living towards the eastern coast, while the extensive deserts and mountains covering half of the area has only about 12% of the population. The density varies widely from the 'average' of 153 people per km2, from over 3,000 people per km2 in Shanghai to 2 people per km2 over the vast empty lands of Tibet. The one - child policy instituted in 1978 has halted the rapid increase of population growth and it is stabilizing. China's One-Child Policy is one of the most famous examples of a policy to reduce the rapid population growth. The following measures have been taken: couples were encouraged to have only one child in return for financial and welfare benefits; men could not get married until they were 22 and women 20; couples received a 10% salary/wage bonus for having one child only, along with free education, family benefits and priority access to housing; couples who did not conform with these requirements lost benefits and received fines; women who became pregnant for the second time, were forced to have abortions, some had forced sterilization etc.

The Chinese language is the origin of the only surviving pictographic writing system. **Mandarin** is the official Chinese and is taught in schools all over China. But there are many dialects. Some regions speak Mandarin with a dialect; some regions have their own distinct languages. Cantonese, for example, is spoken in Guangdong, Guangxi, Hong Kong, and Macau. Some people around Shanghai, Zhejiang and Jiangsu speak Wu dialect. **The largest group**, the Han, constitutes almost 94% of the whole population. The title nation, the Hans, mainly populate the territory of the Yangtze, the Huang He, the Pearl River watershed, and the

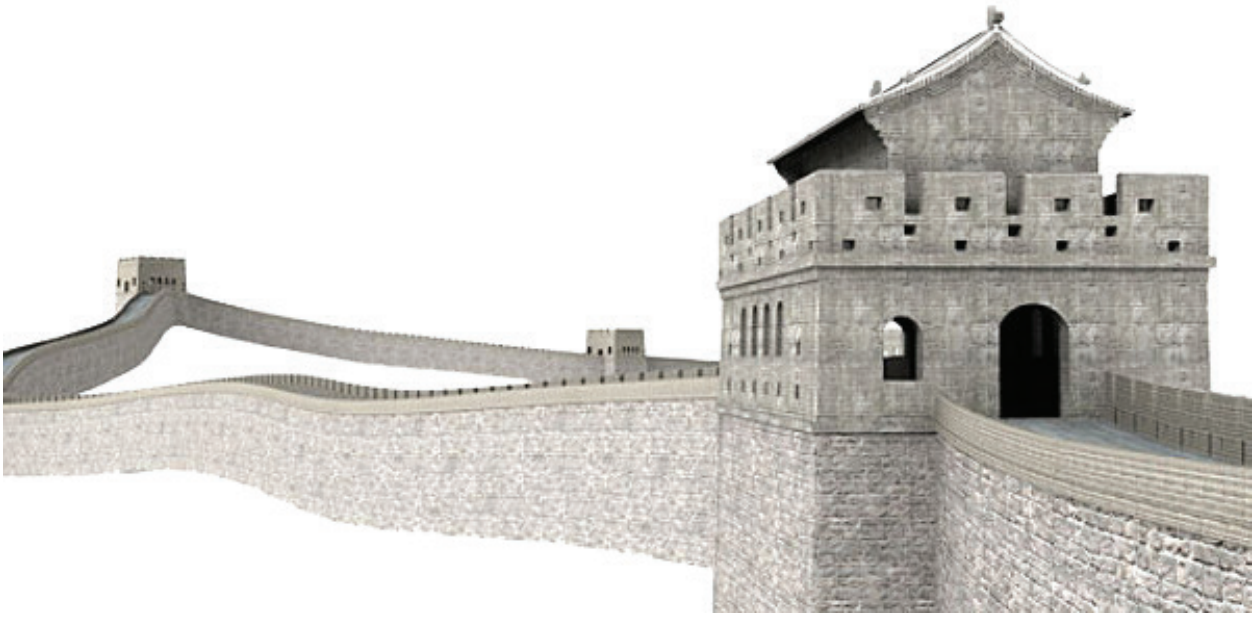


Fig.3

territory of Northeastern China. Officially, China has 56 ethnic groups. Most minority groups have their own distinctive culture. Some also have their own language and writing system. Some of the largest minority groups include Zhuang Tai in the south, Manchu in the northeast, Mongolian in the northcentral region, Uyghur in Western China, and Tibetan in Tibet, although many other minority groups exist. In Western China, where the percentage of Han Chinese is quite low, most of the population is Uyghur, a group that tends to be Muslim. There are also Kazakhs, Kyrgyz, and Tajiks from Central Asia, who are also predominantly Muslim. Minority groups like the Uyghurs have often experienced discrimination by the Chinese government, which has taken measures to marginalize minority groups to keep them in check. The largest diasporas living all over the world are the ones in Canada and the neighboring United States of America. As a Communist country, there is no official **religion** in China, nor is it supported by the Chinese government.

China is a multi-confessional country. The Chinese people practice Buddhism, Taoism, Islam, Catholicism, Protestantism and Confucianism. One of the most widespread religions in China is Buddhism. Buddhis made their way to China from India by the caravan routes of the Great Silk Road in the II century BC. Today, Buddhism is practiced in Tibet and Inner Mongolia, as well as in some other parts of China. The other widespread religion in China is Taoism. The history of Taoism dates back from nearly 1,700 years. This religion is an autochthonous one and basically it is professed in the rural areas of central and eastern China. Taoism is a traditional Chinese religious teaching on "the way of things" - Tao, combining elements of religion and philosophy. This teaching was formed on the basis of religions and philosophies of several ancient Chinese philosophical doctrines. The teaching of the world makes the basis of modern Taoism in China. Confucianism has long been considered the dominant religion in China. Its fundamental principles were developed by the world-famous Chinese philosopher Confucius in the V century BC. The basis of the doctrine was the conservation of ancient traditions and the following commands of Heaven, which represented the emperor. After the revolution and proclamation of the PRC in China, Confucianism lost its importance and today, it is professed only by a small part of the Chinese population.

Islam is also widely professed in China, especially in the Xinjiang Uygur Autonomous Region, where the Muslims account for 95% of the population. Besides, this religion is practiced by the inhabitants of Ningxia Hui Autonomous Region, and some regions of Gansu and Qinghai provinces. Islam made its way to China in the VIII century BC from the territory of Central Asia. China is home to a large number of Christians, Catholics and Protestants. The history of Christianity in China begins in the XIX century, when the country having come out of isolation, attracted numerous missionaries from Europe. In addition to the world religions and Taoism, China professes Legalism, Judaism, Hinduism, Shintoism, Moism, as well as many pagan cults.

Since 1980 the pace of **urbanization** rapidly accelerated. In 1990 this process accounted to 20% and was expected to reach 60% by 2019. This vast movement of people is the biggest mass migration in human history: 300 million people have moved from rural areas to cities in the last 30 years. In many cases, the migrant workers set up huge shanty towns on the fringes of cities in the hope of finding work. China has over 100 cities of over 1 million people and 10 cities with an urban area population of over 10 million. Beijing (Peking), the capital of the People's Republic, is also the cultural, economic, and communication centre of the country. Shanghai is the main industrial city; Hong Kong is the leading commercial centre and port. The standard of living often varies greatly depending on whether you are in a rural or urban

setting. While the cities continue to develop at near alarming rates to provide the highest quality of life, the rural villages and their way of life remain largely untouched by modern influence.

China is the home of one of the world's oldest civilizations. Ancient China was a land of inventions. The Chinese invented the paper, the magnetic compass, the printing, the porcelain, silk, and the gunpowder, among with other things. The Chinese history is divided into dynasties, each of which marks the period when a line of emperors ruled. The first empire was the Qin dynasty and began in 221 B.C. The last emperor was overthrown in 1912, and China became a republic. The Chinese Communist Party CCP was established in 1921. In 1926, the political and philosophical differences between the two parties led to a civil war which concluded in 1949 with the CCP victorious communist leader Mao Zedong coming into power and establishing the People's Republic of China. China is an authoritarian state ruled by a very powerful central government. The private ownership of land and businesses was abolished. China's economy suffered from periods of great upheaval and social change, in particular the Great Leap Forward between 1958-1960 and the Cultural Revolution between 1966 and 1976. It is estimated that the Great Leap Forward caused 45 million deaths. Mao Zedong died in 1976, ending the Cultural Revolution and starting a period of liberalisation and opening of the Chinese economy. Mao was replaced by Deng Xiaoping who focused on the economic development of the country and worked to build ties with the outside, capitalist world, foreign investment was encouraged for the first time and initially Special Economic Zones were established in Shenzhen and Zhuhai. The new leader, realized that if China were to compete in the world market, its economy would have to be modernized. For most of the population, the standard of living has improved dramatically but the political control remains tight. In 1992, China announced that it would transition to a socialist market economy, a hybrid of a Communist-planned economy and a market economy. Since the early 1990s, China has increased its global outreach and participation in international organizations. China has been the world's fastest growing economy for the last 30 years (10% or more per year). A huge workforce and lots of natural resources have driven the economic change. Many experts predict that the 21st century will be the "Chinese century." China is known as „the factory of the world“ and is the world leader in gross value of industrial output; mining and ore processing, iron, steel, aluminum, and other metals, coal; machine building; armaments; textiles and apparel; petroleum; cement; chemicals; fertilizer; consumer products including footwear, toys, and electronics); food processing; transport equipment, including automobiles, railcars and locomotives, ships, aircraft; telecommunication equipment, commercial space launch vehicles, satellites, chemicals. The main part of the agricultural production are cereals rice, maize, wheat, barley, sorghum followed by beans, sweet potatoes, tobacco, peanuts, tea, apples, cotton, pork, mutton, eggs; fish, shrimp. In 2006, the president of China called for an expansion of the economy to focus on more innovative activities. The government allowed additional funding for more research in the areas of genetics and gene therapy, computer software development, semiconductors, and alternative energy technologies. Transportation is also improving fast. Today, China has a new wave of intercity high-speed trains and city metros. Beijing Capital International Airport is the second busiest airport in the world and busiest in Asia. China has some large sea ports too, such as Shanghai greatest cargo tonnage since 2005, Hong Kong and Shenzhen.

The economic collapse of the Soviet Union in the early 1990s coincided with the opening of China to trading with the West. Open trade and interaction with the global community have allowed

China to catch up with the rest of the world in terms of information and communication technology. Computer and Internet use in China has opened up many sectors to new job opportunities. China's primary trading partners include Japan, the U.S.A, South Korea, Germany, Singapore, Malaysia, Russia and the Netherlands. China imports goods such as industrial supplies and high-technology equipment mainly from Japan and the United States. Regionally, almost half of China's imports come from East and Southeast Asia, and about one-fourth of China's exports go to the same destinations. About 80 % of China's exports are manufactured goods - textiles and electronic equipment, and include toys, cameras, air conditioners, televisions, refrigerators, mobile phones, shoes, clothes, food products, sea food, body jewellery, kitchen wares, etc.

To attract business and tap into the global market economy, China established Special economic zones (SEZs) along the coast at strategic port cities. SEZs encourage multinational corporations to move their overseas operations to China and take advantage of the lower labor and production costs. China benefits from the new business opportunities and the creation of jobs for its citizens. SEZs attracted international corporations which wanted to manufacture goods cheaply, while China's population of 1.3 billion people provided an enormous labor pool and consumer market. The coastal cities and the SEZs had become core industrial centers, attracting an enormous number of migrants—most of them poor agricultural worker looking for work in the factories.

As successful as China's growth experience has been, an "unbalanced" growth strategy has fostered increasing income disparities. Regional disparities now show up in two ways: in widening income gaps between the coastal and inland provinces, and respectively income gaps both between and within urban and rural areas. These disparities are the result of the consequence of unusually high and sustained growth in urban areas and along the coast. Still, China's per capita income is below the world average. Rural areas have not received the consideration or resources equal to the coastal cities, so conditions remain poor for most rural people. Half of China's population earns the equivalent of a few dollars per day. Regardless of the changes, there are still heavy restrictions on the Internet, the press, freedom of assembly, reproductive rights, and freedom of religion. There has been more openness in China's economic reforms and in travel, but other strict rules of the state remain. There is no minimum wage law for factory workers, who work long hours and do not receive benefits or sick leave. There are fewer safety requirements or government regulations for security. China is trying to have the best of both worlds: the efficiency of an authoritarian government and an efficient market-driven capitalist economy. Sustaining the largest standing army in the world, China is geared to become a global superpower.

SKILLS TASK 1

1. What are the causes of the introduction of one-child policy?
2. What are SEZs? Where would we find them in China? Why?
3. Which region of China has the highest population density? Why do they live here rather than in other areas of China?
4. What are the five autonomous regions based on in China? Where are they located?
5. Why so many foreign firms are moving to China?

AFRICA

Africa – extra readings

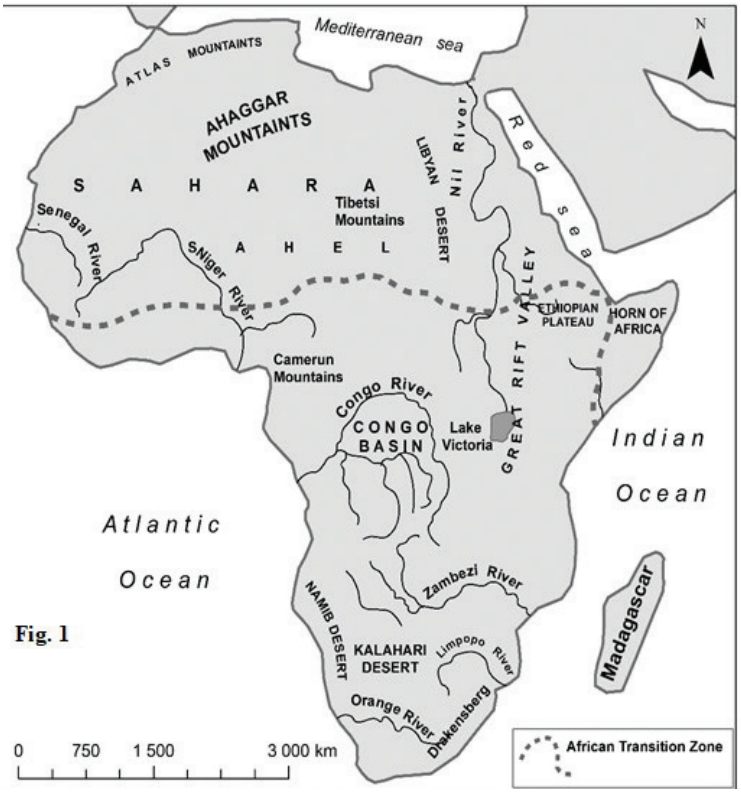


Fig. 1

Fig.1

Africa is a large landmass, second in size after Asia. The continent is a land of diverse physical features including high mountain peaks, great valleys, large deserts, long rivers and tropical rain forests. Africa has three huge deserts. The vast Sahara is the world's largest desert and dominates the northern third of the continent. The Namib and Kalahari deserts cover huge areas of southwestern Africa. The Sahel is a narrow band of dry grassland that runs from east to west along the southern edge of the Sahara. People use the Sahel for farming and herding. Since the 1960s, the desert has spread into the Sahel. This shift of the desert is called desertification. Desertification is an expansion of dry conditions into moist areas that are next to deserts. Several human activities increase the pace of desertification – overgrazing of vegetation by livestock, farming, erosion, increasing population, that more arable land etc. Major mountain ranges include the Atlas in the north. Africa contains mainly volcanic mountains. Mount Kenya and Mount Kilimanjaro, Africa's highest mountains, are both volcanoes. Volcanic activity is also produced in the Ethiopian Highlands, the Tibesti Mountains in the Sahara, and Mount Cameroon in West Africa. To the east is the Great Rift Valley, which contains several huge lakes. The highest mountains in southern Africa are the Drakensberg. Lake Victoria is Africa's largest lake and the second largest freshwater lake in the world. The Nile River flows out of the northern end of the lake. Some of the world's longest rivers drain the continent, including the Nile, Niger, Congo, and Zambezi. The world's second largest rain forest, after the Amazon, lies in central Africa, while farther, in the south, a series of grassy plateaus (areas of flat highland) give way to narrow coastal plains. The rain forest in Central Africa receives the most precipitation, as rain falls throughout the year. However, the rest of Africa has one or two rainy seasons. Africa's tropical savanna stretches through the middle of the continent. It covers nearly half of the total surface area of Africa. Rainy seasons in this area can last up to six months. The closer an area is to the equator, the longer the rainy season is. The closer an area is to the desert, the longer the dry season is. Africa's west coast also receives a large amount of rain. The region around Liberia, experiences an average annual rainfall of more than 3000 mm. In contrast,

many parts of Africa barely get 500 mm of rain over the course of a year. In the Sahara and other deserts, rain is about 20 mm. Mediterranean climate exists on the northern and southern tips of the continent. Rain falls usually only in the winter—December and January in North Africa and June and July in Southern Africa. /**Fig.1**/

Africans share a long, storied history. The region is home to some of the oldest groups of people that can still exist. Scientists have found bones dating back to the earliest of times. Because of this evidence, many people have called Africa the birthplace of the human race. For centuries great African empires as well as small kingdoms and city-states have risen and fallen in the region. Vast trade networks connect Sub-Saharan Africa with Europe and Asia. Around 5,000 years ago, Egyptian civilizations developed and grew along the banks of the Nile River. The history of ancient Egypt would span 2,600 years and around 30 dynasties. North Africa lies close to Southwest Asia and across the Mediterranean Sea to Europe. As a result, it has been invaded and occupied by many people and empires from outside Africa. Greeks and Romans from Europe and Phoenicians and Ottoman Turks from Southwest Asia all invaded North Africa. However, Islam remains the major cultural and religious influence in North Africa. During the 15th century, Portuguese ships, looking for trade routes to Asia, arrived in Africa. Soon other European countries established coastal trading stations there. In the 19th century, Europe's industrialized nations became interested in Africa's raw materials. Those European nations wanted to colonize and control parts of Africa to obtain those resources. Europeans did not want to fight against Africa. To prevent European wars against Africa, 14 European countries convened the Berlin Conference in 1884–1885 to lay down rules for dividing Africa. No African ruler was invited to attend this conference, even though it concerned Africa's land and people. By 1914, only Liberia and Ethiopia remained free of European control. European nations divided Africa regardless of its ethnic or linguistic belonging. They set boundaries that combined peoples who were traditional enemies and divided others who were not. Europe's division of Africa is often cited as one of the root causes of the politically violent ethnic conflicts in Africa in the 20th century. European colonial control of Africa began to end in the early 20th century, but most African countries gained their independence in the 1960s. The Europeans did longterm damage to Africa, affecting its cultural and ethnic boundaries, and ruining its economy. When the European colonial powers were forced to leave Africa, the newly independent African countries did not have stable governments in place. For the next 40 years, many of the newly established African nations and their peoples suffered through dictatorships and civil wars. Many of these conflicts had lasting consequences for the continent's economy and the people's well-being. Because of the way these colonial borders were drawn, many African governments had difficulty getting different ethnic groups to cooperate in building stable democracies. In 1993, Eritrea gained independence from Ethiopia after a civil war that lasted 20 years. South Sudan seceded from the Republic of Sudan in 2011 /**Fig.2**/.

The vacuum left by retreating the colonial powers at times has been filled by authoritarian dictators or by leaders who assumed control of the government and then proceeded to pillage and plunder the state for personal gain. Often the new leaders are connected to the old colonial power and their former colonial countries frequently wanted to keep ties with their colonies to continue to exploit their resources for economic profits. Many of these leaders stayed in power because of military backing or authoritarian rule funded by the profits from selling minerals or resources to their former colonial masters. It is important to note that the objective of colonialism was to connect a colony with the mother country, not to connect African countries to each other. As a result, little cooperation occurs between African countries.

Each individual country interacts more with its European colonial counterpart with regard to trade,

Fig.2

economics, and culture. European colonialism has isolated African countries from their neighboring countries and does not contribute to unity within or among African regions. Colonial powers often built new port cities to extract goods and resources from their colonies and transportation systems from the new ports to the interior in order to collect the resources and bring them to the port. However, the colonial powers did not build a network of transportation systems that connected the region as a whole. Colonial powers were intent on continuing dependence on the mother country so their colonies could be controlled.

The year 2011 brought important changes to some parts of this region. North Africa, experienced protests. Political leaders that had been in power for long periods were removed from their positions. Democratic reforms were demanded by citizens seeking more individual freedom, desiring improved living conditions and a better future for themselves as well their families. Protests emerged in North Africa at the beginning of 2011. Tunisia was the first country whose president for more than twenty-three years was forced to flee to Saudi Arabia. In Egypt, millions of protesters demonstrated in the streets against political corruption and the lack of reforms. Eventually this brought about the ouster of President Hosni Mubarak, who had been in power for almost thirty years. Demonstrations and protests against governments continued in Morocco and Algeria. Libya's protests erupted into an armed revolution in an attempt to topple Muammar Gadhafi's forty-two years of authoritarian control of the government, oil revenues, and the people. The armed Libyan revolution removed Gadhafi and his family from power. The revolution in Libya was aided by NATO air strikes and the implementation of a no-fly zone over the country.

Africa is a home to 1,330 million people - equivalent to 16.7% of the total world population. The population density is 45 per km^2. The most densely populated areas are along the northern and western coasts, especially in the fertile valleys of the Nile, Niger, Congo, and Senegal rivers. One of the most serious problems facing Africa is the rapid growth of its population, as birth rates in many African countries are extremely high. The average fertility rate for great part of Africa is about 5; in Mali and Niger, the rate is higher than 7. Families are often large, and about half the population is young, below the age of 15. Although most Africans live in the countryside, a growing number can be found in towns and cities as well. Many people moved to country areas because of poverty and lack of work; others moved to escape civil wars, droughts, and famine.

The African Transition Zone creates a boundary dividing the Islamic influence to the north, from the Christian influence to the south. The two religions often clash in the areas where they

meet. It is also a transitional boundary between the dry and arid types of climates and the tropical climates of Equatorial Africa. The African Transition Zone can be volatile, with the potential for ethnic, cultural, or political conflicts. Northern Africa is predominantly Islamic, but south of the Sahara people confess a variety of religions, including Christianity and traditional animist beliefs.

The Arab invasions of the 7th and 8th centuries had a long-lasting effect. The Arabs soon outnumbered the local Berber people who rebelled against their rule. They quickly established their own language, Arabic, and their own religion, Islam, throughout the region. Despite the later arrival of European colonists, north Africa today, in its language, culture, religion, and architecture, remains firmly part of the Arab world. Two other groups are also important: there are about 8 million people of European descent, who live mainly in southern Africa, as well as a large number of Indians, who live along the eastern coast as well in South Africa. There are more than 600 ethnic or tribal groups in Africa.

In each country there are cultural and ethnic groups with their own history, language, and religion. More than two thousand separate and distinct languages are spoken all over Africa. Forty of them are spoken by more than a million people. Many local languages are not written down and have no historical record or dictionary. Local languages without a written history are usually the first to be lost as globalization affects the realm. Nigeria, with more than 200 million people, is the most populous country in Africa. More than five hundred separate languages are spoken in that country. Three of the six dominant languages in Sub-Saharan Africa—spoken by at least ten million people or more—are used in Nigeria. Colonial activity changed in the way in which the African countries operated economically, socially, and politically. Language is one aspect of culture that indicates a colonial relationship. Many African countries today speak European languages as their official language. In Nigeria English is spoken as well as other local languages. The official languages of most parts of West Africa are either French or English, but Guinea-Bissau's official language is Portuguese. Millions of people moved from the countryside to the cities in search of work. This led to severe housing shortages in the city centers as well to the rise of overcrowded shantytowns on the outskirts. The rural immigrants are often not of the same ethnic group as those in power, which sets up the basis for discriminatory policies that disadvantage the great number of minority groups that are not affiliated with the government. However, Africa remains the least urbanized region. Only about 43.8 % of the population is urban.

Only about 62 percent of Africans have access to safe water. Often people must travel a long distance to collect it and millions are forced to drink water that is contaminated by dangerous bacteria. African countries are threatened by a variety of diseases. Inadequate sanitation and lack of a clean water supply can lead to cholera, an infection that is often fatal if not treated. However, HIV, creates the most severe problems. The most critical is acquired immune deficiency syndrome (AIDS), which spread throughout Africa in the 1980s and 1990s. AIDS became a pandemic and had a devastating effect on the continent. Though AIDS education is increasing, some governments hide the scope of the disease. Many doctors in Africa say that more AIDS cases exist than are reported. Controlling AIDS and other diseases is essential if Africans are to improve their quality of life and live a normal lifespan.

Africa has about forty urban areas with more than one million people. In the central business districts (CBDs) there are modern high-rise business offices well connected to the global economy. Outside the CBD there are slums with no services and miserable, unsanitary conditions. The informal sector of the economy- which is not regulated, controlled, or taxed has become the primary system of doing business in most of the cities. This sector comprises trading, street markets, and any other business without financial records for cash transactions. The lack of

government regulation and control prevents taxes from being assessed or collected, which in turn diminishes the support for public services or infrastructure. The formal sector of the economy that the government can regulate, control, and tax is forced to foot the bill to operate the government and support public services such as education, security, and transportation. In spite of the misery and unhealthy conditions of the slums, where millions of people already live, more migrants from the countryside continue to shift to the city in search of jobs and opportunities. African cities are growing rapidly, many of them without organized planning.

African countries are at the end of the statistics for development prospects. Most African countries have little manufacturing of their own. Their economies are based on providing raw materials—oil, minerals, or agricultural products to the world's industrialized countries. European colonizers exploited Africa's resources and people during the last few centuries. Millions of Africans were sold as slaves, others died in Africa because of harsh working conditions while obtaining raw materials for foreign interests. This history of exploitation has limited Africa's economic growth and fostered political instability. Without political stability, consistent economic growth is difficult. Today, most African countries are worse off economically than they were in the 1960s, just after many of them gained independence from European colonizers. Furthermore, the economic infrastructure needed for a substantial growth is not in place. Roads, airports, railroads, and ports are not adequate to help African nations further in their economic growth. In addition, most Africans don't have access to computers or other aspects of high technology. When the colonial nations pulled out of Africa, they often left the newly independent nations without money for transportation, education, and businesses. To build their economies, African countries borrowed heavily. By 1997, the total public debt of sub-Saharan African governments was about 227 billion dollars and was strangling them. As a result, many Western leaders have urged their countries to forgive Africa's debts so that it has more money to build its economies. Another way that Africa seeks to improve its economy is through regional cooperation. The Economic Community of West African States (ECOWAS) and the Southern African Development Community (SADC) are both striving to promote trade. For example, ECOWAS is working toward removing duties and creating a common currency. Efforts of SADC include working to improve the transportation and communication infrastructures. African Union was created to help African states compete in the international marketplace. The economy of many African nations is based on the export of raw materials. Furthermore, several of Africa's countries rely on just one or two principal commodities for much of their earnings. These are called "one-commodity" countries. A commodity is an agricultural or mining product that can be sold. The value of a commodity varies from day to day based on the worldwide supply and demand. That makes the economies of the producing nations, especially "one-commodity" countries, unstable. Economists believe African nations must diversify, or create a variety in their economies and promote manufacturing to achieve economic growth and stability. Africa is a peripheral world region with neocolonial economic patterns. Peripheral regions usually supply raw materials, food, and cheap labor to the core industrial countries. Most of the African people earn the US equivalent of only $1–3 per day. There is no single major core economic area in Africa. This realm has many core cities and the rest is periphery. Computers, medical equipment, and other high-tech goods are all imported.

A key to developing Africa's economies is improving its education system to provide people with a high level of skills. African nations must also find ways to prevent their educated citizens from leaving the continent. An illiterate population that doesn't go to school may become a large barrier to the economic development of Africa. In some countries, such as Angola and Somalia, civil wars destroyed the school systems. However, some African countries are making progress.

For example, in Algeria, 94 percent of the country's school-age population receive formal education. Mauritius has also made huge gains. Currently, 83 percent of Mauritians over the age of 15 are literate. Another priority is slowing down the departure of African professionals to Western countries.

The story of Africa's natural resources is a story of plenty as well of scarcity. Africa has a huge amount of the world's minerals. But many African countries lack the industrial base and money to develop them. Libya, Nigeria, and Algeria are among the world's leading petroleum producers. Other countries, such as Angola and Gabon, have huge untapped oil reserves. Africa's minerals make it one of the world's richest continents. African countries have large amounts of gold, platinum, chromium, cobalt, copper, phosphates, diamonds, and many other minerals. For example, South Africa is the world's largest producer of chromium. Chromium is an element used in manufacturing stainless steel. South Africa also produces nearly 80 percent of the world's platinum and nearly 30 percent of the world's gold. Much of the world's gold, diamonds, uranium, and copper come from this region, and have transformed the local economies. Botswana is the most dependent upon its minerals. Almost 80 percent of the country's export earnings come from diamonds. South Africa is the world's leading producer of gold, and Namibia has one of the world's largest uranium mines. South Africa, Zimbabwe, Botswana, and Mozambique all have large coal reserves. Another important resource, cobalt, is used in high-quality steel to produce aircrafts and industrial engines. It comes from the Democratic Republic of Congo and Zambia. Ores and minerals represent more than half of the total value of Africa's exports. However, Africa's great mineral wealth does not mean economic prosperity for most of its population. In the 19th and 20th centuries, European colonial rulers developed Africa's natural resources for export to Europe, to manufacture goods there. As a result, many African countries don't have the possibility to develop the infrastructure and industries that could turn these resources into valuable products.

Agriculture is the single most important economic activity in Africa. About 2/3 of Africans earn their living from farming. In addition, farm products represent nearly one-third of the continent's exports. After oil, coffee is the most profitable commodity in Africa. Even though few Africans drink coffee, the continent grows 20 percent of the world's supply. Lumber is another important commodity. Nigeria leads African nations in lumber exports. However, logging is depleting Africa's forests. Other major commodities include sugar, palm oil, and cocoa. Côte d'Ivoire is the world's largest exporter of cocoa beans, the main ingredient in chocolate. Largely as a result of European colonization in the 19th and 20th centuries, cotton growing and processing are important industries in Egypt and Sudan. Production was begun in these areas by the British to provide cotton for their textile mills. Cotton is grown on large, highly mechanized farms that lie along the fertile banks of the Nile River. In Nord Africa, the climate is warm and wet in winter and hot and dry in summer, making it more suitable for citrus fruits, dates, olives, tomatoes. Flowers are grown as well. The natural resources of the area are very imbalanced. Due to unstable governments and the effects the colonization period had on the region's economy and society, many people rely on some type of agriculture to provide for their needs. Farming is the main economic activity in Sub-Saharan Africa. Somewhere around two-thirds of the workforce are involved in some aspect of agriculture. Even though farming methods and crop production have changed, many still use traditional methods when farming. Most people in the region still use subsistence farming to provide for the needs of the family. Once their crops meet their families needs, anything else is taken to a local market to be sold or traded for items the family cannot produce on their own. These families live on small plots of land spread all throughout the African countryside. A small portion of the workforce has begun to work on commercial farms. These large scale farms grow cash crops, or crops sold for profit. Most of these farms are owned by large, foreign companies.

They grow peanuts, cacao, and coffee. This method of farming came about due to the colonial economic system that was put into place during the time of European control. Both commercial and subsistence farming can be risky. The region lacks good farmland and one unfavorable growing season or a drop in the demand of a product can have a disastrous affect on the family or the economy of the area.

Most African countries rely on exporting raw materials, such as coffee, cocoa, or oil. In recent years, the prices of these products have fallen. In contrast, the cost of importing machinery and other manufactured goods has risen. Thus the amount that African countries can earn from their exports is often less than what they have to spend on imports. These factors, along with the growing population and the effects of drought and war, mean that the economies of many African countries are in difficulty.

Africa has great potential for the development of tourism. If Africa can manage its resources and provide a safe environment for travelers, tourism will have a strong impact on Africa's economic growth and will play a significant role in its future. Given the region's slim share of the tourist market and the expected dynamic growth of the sector worldwide, Africa can expect to substantially increase its share of global tourist activity. Sub-Saharan Africa has a strong supply-side potential to attract tourists. Beach resorts, coastal waters of the Indian Ocean boast some of the finest beaches in the world, with plenty of opportunities for sailing, diving, or other water sports. Other well-known coastal tourist destinations include the Seychelles. Possible areas with tourist potential are the wildlife parks and game preserves. Cultural locations with a rich heritage of historical significance are growing in their attractiveness to and accessibility for world travelers. Tourist business, however, is broader than just the touristic place. Considerations need to be taken for transportation to and from the country and the final destination. Hotels and guest accommodation such as food services, restaurants, and the availability of other types of consumer goods, need to be considered. The attractiveness and competitiveness of each tourist destination will depend on the site's quality and accessibility. A serious financial investment is needed to bring Africa up to par with the global marketplace. Africa has huge potential for growth in its tourism market. There are many positive and negative aspects of tourism, and a trade-off is usually needed. Heavy tourism traffic might have a negative impact on the environment. Tourism demands higher levels of security and public health at all levels. Money spent on tourist development is money not spent on schools or clinics. On the other hand, without the tourism income, there are no jobs. To be successful, Africa will need to balance out the economic need for tourism with its willingness to comply with the requirements of the tourist industry.

SKILLS TASK 1

1. Where is the Sahel region? What are the main environmental problems in the Sahel?

   _____

2. What is the largest cultural and religious influence in North Africa?

   _____

3. At what stage of the demographic transition is the population in sub-Saharan Africa?

   _____

4. How does the colonial past affect contemporary ethnic conflicts in the African region?

   _____

5. What is the main sector of the economy of the African region?

   _____

The Republic of South Africa – extra readings

The South African Republic is a country located in the southernmost part of the continent of Africa with 2798 km of coastline along the Atlantic and Indian Oceans. People have occupied the area for thousands of years. Some of the earliest black Africans began migrating to the area from Central Africa about 2,000 years ago. This group was made up of many smaller groups of black Africans which varied by ancestry and language. In the mid 1600s Europeans needed a place to stop along the big trade routes to the east. South Africa was just the place. Here they could stop to restock on freshwater, food and goods they needed. Soon the tip of Africa became the first white colony in South Africa. Dutch colonists, known as Boers or Afrikaners, began to flood in. Over time the colony grew, attracting settlers from other parts of Europe. Dutch remained the language of the colonists and later they would begin to adapt many words from the other settlers as well as black African languages to mix into a new language called Afrikaans. Soon the discovery of gold and diamonds attracted more colonists to the area. It caused Britain's involvement in South Africa. Both the Boers and British saw the wealth that could be gained and began fighting over land. The Boer Wars (1880–1881 and 1899–1902) were fought between the Dutch-based Boers and Britain to control South Africa's mineral resources. As the colonial period came to an end, South Africa became an independent country in 1910. The new country's government wasted no time and enacted a constitution giving whites complete control over the national government. Separation became a way of life for the people living in South Africa. For decades it continued as a social division until 1948 when the ruling whites enacted a government policy making apartheid official. Although blacks made up 75 percent of the population, they received only a small percentage of the land. Segregation first developed as an informal separation of the racial groups but evolved into the legally institutionalized policy of apartheid, which separated people into black, white, and colored (mixed race) racial categories. A fourth category was developed for people from Indian or Asian backgrounds. Apartheid penetrated into every aspect of South African culture. In the larger scale of society, access and separation were based on race. Each racial group had its own beaches, buses, hospitals, schools, universities, and so on. The right to vote was only granted to people of European descent. Public transport was segregated and signs declaring "For Whites only" appeared all over public parks and beaches. Whites lived very well under the policy of apartheid. White schools were the best in the country. Whites had access to the best jobs, the best health care and the best living conditions. They controlled the government as well. Asians and redskins were second class to the Whites. Schools and other public services were limited. Their political rights, such as voting, were limited as well. However, no group had it as difficult as the black South Africans. People were forced to leave their homes and were transported to their respective new homelands based on their racial or ethnic background. They were forced to move into the "homelands." These areas were made up of some of the worst rural areas that South Africa had to offer. There were few jobs. Schools were very bad and there was little or no access to health care. Black South Africans were also limited on where and how they could move throughout the country. Free movement was not allowed, however, those who worked in the cities could travel from their 'homelands' to work. In other areas of the country, poor townships or slums were the places where many Blacks lived. They were allowed in the cities during the daytime, but at night they were required to return to the slums. The policy of apartheid has hurt the economy of South Africa. Because of apartheid, foreign nations imposed economic sanctions that prevented their countries from

Fig.1

conducting business with or investing in South Africa. In addition, the policy led to poor education of the blacks, creating an uneducated mass of young people. /**Fig.1**/.

Apartheid did not go unchallenged; many groups fought for decades trying to gain equality for Blacks in South Africa. The most prominent group to protest was the African National Congress (ANC). Founded in 1912, the ANC began fighting against the unfair treatment by Whites which tended to become an official government policy. By the early 1950s the struggle for equality and fair treatment was drawing the attention of the world. Black South Africans protested against the laws and unfair treatment. The white government responded by arresting many of the protestors and black leaders. In 1952, an ANC lawyer named Nelson Mandela took over the fight for equality. Mandela and the ANC started a campaign to end the unfair treatment under apartheid. Soon many black leaders, including Mandela, were sent to prison. As the world took notice, the United Nations condemned the policies of South Africa and, with the support of many countries, cut off the trade to South Africa. By the 1980s, a lot of countries around the world pressured South Africa to end apartheid. In 1989, F. W. de Klerk became the president, and he wanted to change South Africa. As a result, South Africa experienced a peaceful revolution, and the government ended its apartheid laws. Elections that involved members of all races in South Africa took place in 1994. Mandela, who was released from prison, won the elections and became president. In 1996, the government passed a new, democratic constitution that guarantees the rights of all citizens.

The government has passed the Employment Equity Act which identified the groups who had been unfairly denied jobs in the past. Groups like blacks, redskins, Asians, women and the disabled are now given equal opportunity under the law. There are still not enough jobs for all the people. The growth in the economy has been slow. This led to an increase in poverty. Education is a kind of solution to the problem of poverty. Under apartheid, the people of ancestry rather than European had limited educational opportunities. Schools were poor and didn't have the resources or qualified teachers to offer a good education. Once apartheid ended, the educational system began to change. Students of all racial groups now attend the same school. More South Africans than ever are finishing high school and more are attending college. As more and more people of non European origin receive an education, the opportunities for better jobs and a higher quality of life will continue to increase. Other areas of society are improving as well. More and more cities are becoming less segregated. Even though the cities are accessible to all people, many of them cannot afford to live in the nicer areas of the city. A lot of them still live in the poor townships and slums surrounding the cities. The government has been making an attempt to find a solution to this problem. Over the years the South African government has provided many homes. The government is also working to improve the township and slum areas. Streets and other areas of infrastructure are being updated and installed. There are also new schools, police stations, and health clinics that have been built in these areas.

South Africa has the strongest and most advanced economy in Africa. South Africa is the major exporter of food, thanks to its warm, dry climate and fertile soil. Citrus fruits, apples, and grapes are grown and then exported around the world. South Africa is also known for its fine wines. Mining and agriculture have provided great opportunities for employment—

opportunities that attract migrants from neighboring countries who have experienced either political unrest or poor economic conditions. These immigrants add to the cultural dynamics of that ethnically diverse country. South Africa's manufacturing sector is not well developed. The country depends on Europe, East Asia, and the United States, the three main core economic areas of the world, to provide postindustrial goods. Most of the population may work in the mines, in agricultural activities, or in the service sector to earn a wage. These people represent the poorer working-class majority of the population. The landowners, mining corporation executives, and social elite that control the service sector or are employed in the fields of banking or the commodity markets have higher incomes and represent a wealthier higher class. Apartheid supported this class division. The current free and open legal system has to bring a remarkable change to the socioeconomic structure of the population.

South Africa has great cities with huge industrial complexes, such as Johannesburg and Cape Town. South Africa has three capital cities, with the administration in Pretoria, the courts of law in Bloemfontein, and the parliament in Cape Town. However, the financial and industrial heart of South Africa is Johannesburg, known as "the golden city." Gold mines deep beneath the surface have created enormous wealth, encouraging the development of a sprawling industrial area manufacturing cars, textiles, and high-tech as well as heavy engineering products. Johannesburg, is one of Southern Africa's largest cities and it offers its residents a variety of opportunities and experiences. About 100 years ago, Johannesburg was as a small mining town and grew because of nearby gold reserves. Today, the center of Johannesburg looks like most modern big cities. However, as a result of apartheid, Johannesburg developed into two different cities. The spacious suburbs that were once exclusively white lie to the north. In the south are poor black townships. Some Southern Africans have a modern lifestyle as doctors, lawyers, and businessmen. On the other hand, a lot of blacks still do menial work and have unskilled jobs because of the apartheid's legacy. They still live in the former black-only homelands and shantytowns. Over the last 100 years, the Witwatersrand gold field around Johannesburg has produced almost half of the world's gold, and accounts more than 30 percent of the world's total output every year.

SKILLS TASK 1

1. Which term describes the policy used to separate blacks and whites in South Africa?
2. How is the ethnic diversity of South Africa formed?
3. What models of demographic behavior can be observed as you follow Afrikaner?
4. What are the implications for the educational structure of South Africa's population after apartheid?
5. What are the main sectors which South Africa's economy is based on?

NORTH AMERICA

North America – extra readings

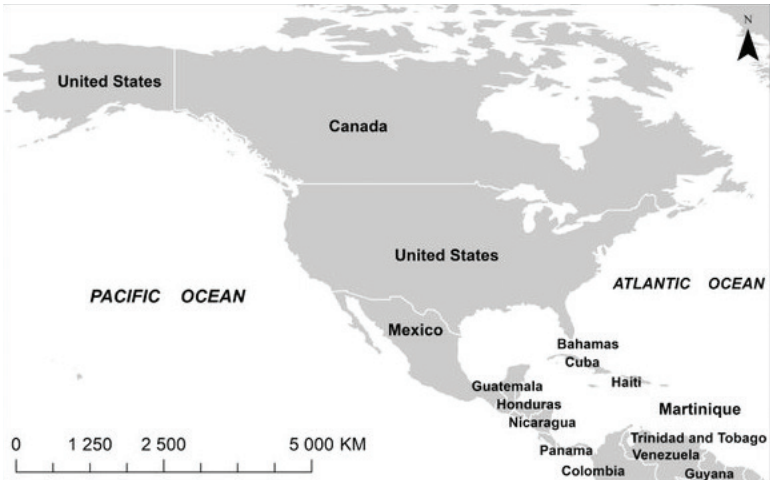


Fig.1

The North American Region covers a vast area of the North American continent. Stretching from the Arctic Ocean and Alaska to the north, to the Gulf of Mexico to the south, this region includes the second and third largest countries in the world - the United States and Canada, respectively. Depending on the dominant landforms, the following physiographic areas stand out in the North American region. In the west, from Alaska in the north to Mexico in the south, the mountainous terrain dominates, consisting of mountain ranges parallel to the Pacific coast, separated by high plateaus (Columbia plateau, Colorado Plateau) and deep valleys. The highest and most prominent mountain range in this area is the Rocky Mountain. But the highest point in the North American region is in Alaska - Denali Peak (6194 m), which in the language of the local native Athabascan people means "the high one". This name was not officially recognized until 2015 by decree of President Barack Obama. Previously, the summit was called McKinley (named after the 25th US President William McKinley). In this mountainous physiographic area, significant deposits are exploited, mainly of copper and less of lead, zinc, silver and gold. Along the east coast, the Appalachian mountain are clearly expressed in the relief. This area is known for its rich coal deposits. The mountain ridges here have a lower average altitude compared to the mountains along the west coast and are more rounded. Lower altitude, rounded terrain and proximity to the Atlantic Ocean are a prerequisite for the huge variety of tree species - coniferous in the northern cooler parts and deciduous in the southern regions. /**Fig.1**/

The interior of the North American region is dominated by the flat terrain with two well-formed areas. Interior Lowlands spans a strip descending from the Beaufort sea to the north and reaching the Appalachian mountains to the south. Many oil and gas fields are exploited in this area. The area enclosed between Rocky Mountain and Interior Lowlands is called the Great Plains. It is a zone of a vast high plateau of semiarid grassland. This was the natural area of distribution of the "symbol" of the Great Plains - the American bison. The Great Plains region contains substantial energy resources, mainly oil and gas. To the north of the Interior Lowlands stretches the Canadian Shield. This area stretches from the Labrador Peninsula in the east to the Arctic Archipelago in the northwest. The modern relief of this zone was formed in the last 110,000 years, when the territory was covered by a 3,000 m thick ice cap. As a result of this recent glaciation, thousands of small glacial lakes and long hills of glacial sediments have formed in the area. In this area some of the oldest geological formations are

discovered on the surface where deposits of gold, silver, copper, zinc, nickel, iron, uranium and diamonds are exploited. A specific low mountain area called the Pacific mountain system has been formed along the west coast of the North American continent. It is a series of submeridionally located mountain ranges formed as a result of the collision of the Pacific Plate and the North American Plate. The mountains are separated by deep faults, which are the cause of frequent earthquakes in this area. In past geological times there has been a significant volcanic activity here. It was in 1980 when the last significant volcanic activity in which Mount St. Helens (south of Seattle) erupted.

Fig.2

The North America region has a variety of climate, from the dry, bitter cold of the Arctic to the steamy heat of the tropics. Subarctic and tundra climates prevail in northern Canada and northern Alaska, where temperatures exceed 0 degrees for only a few weeks a year. In the far south there are low-lying areas which are always hot and rainy. The middle part of the continent is influenced by different variations of the temperate climate, characterized by harsh winters, warm summers and moderate rainfall. In the deep interior of the continent there are areas that remain on the sides of the main roads of humid air masses and there the climatic conditions are desert and semi-arid.

Across northern Canada and on the many islands in the Arctic Ocean lies a vast marshy plain called the tundra. Too cold for trees, this community contains only a few plant species, mainly lichens and mosses and some species of low grasses. Shallow permafrost inhibits infiltration of meltwater and rainfall into the ground. This, coupled with the flatness of the tundra landscape, contributes to wet, boggy conditions throughout much of the short growing season - biting flies, mosquitoes, and gnats are innumerable.

One of the greatest sweeps of forest in the world, the boreal forest (or taiga) extends in a vast and virtually unbroken sheet of green eastward from the Aleutian Islands through Alaska and northern Canada to the island of Newfoundland. The boreal forest is essentially the domain of conifers - spruce and various species of pine. Extremely humid conditions along the Pacific coast reflected in the development of the tallest and thickest coniferous trees in North America - the segway. Coniferous vegetation is also characteristic of the Rocky Mountain. In the conditions of moderately cold climate (Great Lakes – St. Lawrence, the upper Mississippi) extensive deciduous forests of maple, beech, oak, elm, ash, and birch are developed. The warm and humid air masses coming from the southeast are the reason for the evolution of typical subtropical vegetation in a narrow strip south of the Appalachians. In the middle parts of the North American region, where the climate becomes drier and more continental (Great Plains), the natural vegetation is represented only by herbaceous species.

Due to the relatively high prevalence of humid climates, the North American region has huge water resources. The main area that feeds the great North American rivers is the Rocky Mountains. The northeastern slopes of the mountain range give rise to rivers draining the Canadian Shield and Interior Lowlands toward the Arctic Ocean. Due to the specifics of the lowland relief, the rivers pass through lakes. The Mississippi River forms the largest catchment area in the North American region. The lakes are formed in Interior Lowlands, whose geology and relief contribute to the formation of some of the largest lakes in the region (Great bear lake, Great slave lake, Lake Winnipeg). The Great Lakes form a huge lake cascade of 5 consecutively connected lakes.

Today's appearance and character of the population of the North American region began to take shape after the arrival of the colonizers from Europe in the late 16th and early 17th centuries, whose presence is associated with the arrival in America of people from Africa. Until then, the region was very sparsely populated with local Indians, who in almost about 200 years disappeared almost completely. The process of colonization of North America is accompanied by a constant competition for supremacy between the strongest European nations. Thus, by the middle of the 18th century, almost the entire territory of the continent was divided between England, France and Spain. This still affects the appearance of cities, language, ethnic composition and the religion of the population.

The population is unevenly distributed throughout the region, which is directly related to the qualitative characteristics of the climate. There are huge areas where the population is almost completely absent - the Canadian shield, tundra, boreal forest zone. There is a large population concentration in the coastal areas, the lower reaches of the great rivers and the Great Lakes. In the arid regions of the southwest, the population is also very sparse.

The irresponsible exploitation of natural resources in the past has led to large-scale destruction of the natural environment in the North American region. The most typical examples are the deforestation of the Appalachians, the destruction of forests to a large extent by giant segway in the coastal areas of the Pacific. The open method of coal mining and ore mining leads to uncontrolled pollution of waters and soils in huge areas. These environmental problems are the cause to the decline and even extinction of populations of some iconic animal species in the North American region.

SKILLS TASK 1

1. How far south does the North American region extend?
2. What effect do the Rocky Mountains have on the climate?
3. Is there an active seismic and volcanic activity in the North American region?
4. In which areas is the largest population concentration?

United States of America – extra readings

The United States of America occupies the middle part of the North American continent. It is bounded on the east by the Atlantic Ocean, on the southeast by the Gulf of Mexico, and on the west by the Pacific Ocean. It borders Canada to the north and Mexico to the south. Beyond these borders, there are two territories that are part of the USA - the Alaska Peninsula (the most northwestern part of the continent of North America) and the Hawaiian Islands in the Pacific Ocean, more than 3,000 km away from the American continent. The USA is the largest country in the Western Hemisphere - more than 9.5 million square kilometers. The capital is Washington, located on the east coast. /**Fig.1**/

Fig.1

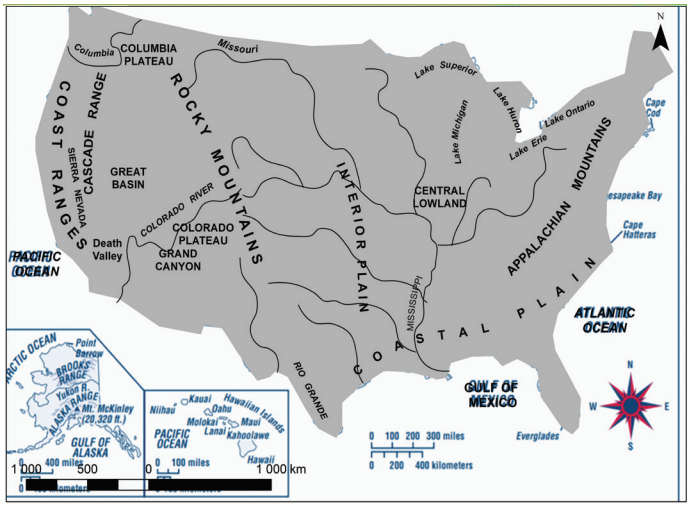


Fig.2

The central part of the USA is a vast lowland stretching from the ancient shield of central Canada on the north to the Gulf of Mexico on the south. To the east, the lowland gradually passes into the Appalachian Mountains, and to the west, through the transitional Great Plains, it borders the Rocky Mountains. From New York to the Mexican border stretches the low Coastal Plain, which faces the ocean along a swampy, convoluted coast. The gently sloping surface of the plain extends out beneath the sea. Between the Rocky Mountains and the Pacific Ocean, the Pacific coastal chain of rugged mountains and inland valleys is formed, the whole rising spectacularly from the sea without the benefit of a coastal plain. Between the Rocky Mountain and the border with Mexico, the mountain ranges are separated by high plateaus - Columbia Plateau and Colorado Plateau.

As befits a nation of continental proportions, the United States has an extraordinary network of rivers and lakes, including some of the largest and most useful in the world. In the humid East they provide an enormous mileage of cheap inland transportation; westward, most rivers and streams are unnavigable but are heavily used for irrigation and power generation. Chief among U.S. rivers is the Mississippi, which with its great tributaries, the Ohio and the Missouri, drains most of the midcontinent. The Mississippi is navigable to Minneapolis, nearly 1,900 km by air from the Gulf of Mexico, and along with the Great Lakes – St. Lawrence system it forms the world's greatest network of inland waterways. From the west, however, many of its numerous Great Plains tributaries are too seasonal and choked with sandbars to be used for shipping. The

Missouri, for example, though longer than the Mississippi itself, was essentially without

navigation until the mid-20th century, when a combination of dams, locks, and dredging opened the river to barge traffic. The five Great Lakes (four of which are shared with Canada) constitute by far the largest freshwater lake group in the world and carry a larger tonnage of shipping than any other. On the one hand, they are connected to the Mississippi-Ohio via Chicago by canals and the Illinois River, and on the other hand, technical facilities make it possible for ships to access from the ocean all the way to Chicago, bypassing Niagara Falls and other natural obstacles.

West of the Rockies, nearly all of the rivers are strongly influenced by aridity. In the deserts and steppes of the Intermontane basins, most of the scanty runoff disappears into interior basins.

The climate model in the USA is largely determined by the country's location across the continent from the Pacific to the Atlantic Ocean and from the tropics of cancer to 50 degrees north latitude. In this way, the USA avoids the harsh Arctic climate and the true tropics of the south. So, although the USA falls in the temperate zone, there are many variations due to the specific terrain and the large size of the land. In the middle parts of the country, the continental climate is the most acute. For example, in North Dakota, summer temperatures reach 49 degrees and winter temperatures reach -51 degrees. Due to the general air transport from west to east, Boston, which is on the Atlantic coast, also has a continental climate, although not notable with such a large amplitude. The reason for this is that the mountain ranges along the Pacific coast are a climatic barrier. It is very pronounced in the rainfall, which is present only on the western slopes of the mountains and absent on the eastern. That is the reason for the dry climate of the Great Plains. However, in the eastern direction the humidity increases owing to the frequent incursion from the south of warm, moist, and unstable air from the Gulf of Mexico, which produces more precipitation in the United States than the Pacific and Atlantic oceans combined. Air masses move north unhindered along the corridor of Interior Lowland. However, cold air masses also descend unimpeded from north to south on this road. The collision of these masses with different physical properties results in catastrophic meteorological phenomena - tornadoes, blizzards, hailstorms, precipitous drops and rises in temperature. That is why the lower Mississippi River is the place with the most tornadoes in the world.

The USA has existed as a country for less than 250 years. In this relatively short period of time, the population has managed to achieve incredible socio-economic progress - from an almost dual territory to a world economic power. The most amazing thing is that this was achieved by a population that is not indigenous to the country, but is outnumbered only by China and India. We can say that the indigenous population of the USA has been "replaced" by immigrants from all over the world - in the 18th and 19th centuries more than 60 million people immigrated to the shores of the country. Interestingly, only a few generations after immigration, many U.S. citizens can trace no discernible ethnic identity, describing themselves generically only as “American,” while others claim mixed identities. Despite the "blurring" of the ethnic roots of the population, there are still significant ethno-cultural differences based on the geographical origin of the people.

In the 19th century, settlers in New England formed a group of Yankees that spread west through New York, northern Ohio, Indiana, Illinois, Iowa, and Kansas. They have long been preserved as a community based on firm religious values and belief in the value of education. The Yankees are now leaders in business, literature and law, and in cultural and philanthropic institutions, and they have long been identified with the Republican Party. In contrast, other European settlers who came to Arkansas, Missouri, Oklahoma, and Texas became typical farmers, professed a different value system, and maintained affiliations with the Democratic Party until the 1960s. A very typical

example is the German settlers in Pennsylvania (Amish), who have preserved their language, culture and way of life for 300 years and even today deny industrialization and the modern way of life. The only European ethnic group to arrive in large numbers at the end of the 20th century were Russians, especially Russian Jews.

African Americans arrived in the USA during the colonial period and settled in the southern regions of the country, where they worked as slaves in large plantations. In 1790 they made up one-fifth of the country's population. In the century since the abolition of slavery, some 19 million blacks moved from the southern to the northern regions of the United States. And in the 20th century, many new immigrants arrived in the country from North Africa, India, Jamaica and the Dominican Republic. Despite the constant development of the population, American society has long been divided in its attitude toward its black citizens. Until the 1960s, segregation laws officially existed in the southern states, imposing restrictions on African Americans in terms of access to education, cultural activities, and other socioeconomic areas. This is gradually changing, culminating in the election of Barack Obama as President of the United States in 2008.

Latinos are another relatively distinct group of the population. United by a common language and religion (Catholicism), they make up about one-fifth of the total population and are the largest ethnic group in the United States. Their natural growth and immigration is due to more than half of the increase in the country's total population from 2000 to 2010. Although they seem to be a monolithic ethnic group, they have differences determined by their origin. Most of them are of Mexican descent - some remained as residents of Mexican Texas, Arizona, New Mexico, and California, later joined the United States, and others are illegal immigrants from Mexico. They inhabit the western and southwestern regions of the country, where they make up about a third of the total population. The second group is Puerto Rican Latin Americans. They have arrived on the continent under an island group association agreement with the USA. Thus, their migration is constant and smooth. The largest and most compact groups of them live in the northeastern states. The smallest is the group of Cuban immigrants who fled Fidel Castro's communist regime. They live relatively compactly in Florida - the closest American land to the island of Cuba.

Asia is also a source of population for the USA. The Chinese came first in the mid-19th century as workers on the transcontinental railroad. Many Japanese also settled in the United States, but during World War II, although they were American citizens, there was significant discrimination against them. Many were forced to return to Japan. Subsequently, prejudice against Asians disappeared and the United States accepted many Chinese, Vietnamese, Taiwanese, Koreans, and Filipinos. They adapt very quickly to the new conditions and spread everywhere. To a much lesser extent are immigrants from the Middle East. They arrived in the 20th century - Lebanese Christians in the first half of the century and Palestinian Muslims in the second half.

The indigenous Indian ethnic group exists in the USA in a very general sense. In the East, centuries of coexistence with whites has led to some degree of intermarriage and assimilation and to various patterns of stable adjustment. In the West the hasty expansion of agricultural settlement crowded the Native Americans into reserves where federal policy has vacillated between efforts at assimilation and the desire to preserve tribal cultural identity. Their number is 2.5 million at the turn of the 21st century.

The U.S. government has never supported an established church, and the diversity of the population has discouraged any tendency to unify religiously. As a result of this individualism, thousands of religious denominations thrive within the country. Only about one-sixth of religious adherents are not Christian, and, although Roman Catholicism is the largest single denomination

(about one-fifth of the U.S. population), the numerous churches of Protestantism constitute the majority. The remoteness of the American population from traditional European religious centers led to the emergence of many local religions - the Disciples of Christ (founded in the early 19th century), the Church of Jesus Christ of Latter-day Saints (Mormons; 1830), Seventh-day Adventists officially established 1863), Jehovah's Witnesses (1872), Christian Scientists (1879). In general, all world religions are represented in the USA, whose bearers are the respective emigrants.

At the dawn of the 21st century, the majority of the U.S. population had achieved a high level of material comfort, prosperity, and security. Nonetheless, Americans struggled with the unexpected problems of relative affluence, as well as the persistence of residual poverty. Crime, drug abuse, affordable energy sources, urban sprawl, voter apathy, pollution, high divorce rates, AIDS, and excessive litigation remained continuing subjects of concern, as were inequities and inadequacies in education and managed health care. Among the public policy issues widely debated were abortion, gun control, welfare reforms, and capital punishment.

Many Americans perceive social tension as the product of their society's failure to extend the traditional dream of equality of opportunity to all people.

The United States is the world's greatest economic power in terms of gross domestic product (GDP). With less than 5 percent of the world's population, the United States produces about one-fifth of the world's economic output. The United States also influences the economies of the rest of the world because it is a significant source of investment capital. Direct investment abroad by U.S. firms is a major factor in the economic well-being of Canada, Mexico, China, and many countries in Latin America, Europe, and Asia. The U.S. economy is marked by resilience, flexibility, and innovation. This is predetermined in historical aspect by a very important fact - for 200 years there has been no war on the territory of the USA. Thus, although the country has participated in two world wars and has made a lot of sacrifices, the US economy continues to prosper. Like any economic system, the American one is not perfect and has its crises. Such is the Great Depression of the 1920s. American leaders found a way out of the situation by creating and stimulating medium and micro enterprises, which are the backbone of the American economy to this day. In recent times, the crisis from 2007 to 2009, known as the Great Recession, has had a negative effect on the growth of the US economy. The reasons for it are the accumulation of a number of negative processes in the years before it - the collapse of stock markets following an untenable run-up in technology shares, losses from corporate scandals, the September 11 attacks in 2001, wars in Afghanistan and Iraq, the devastation of Hurricane Katrina along the Gulf Coast near New Orleans in 2005, and the punishing economic downturn.

Unlike many European countries, the U.S. government plays only a small direct role in running the country's economic enterprises. Businesses are free to hire or fire employees and open or close operations. Unlike the situation in many other countries, new products and innovative practices can be introduced with minimal bureaucratic delays. The government does, however, regulate various aspects of all U.S. industries. Federal agencies oversee worker safety and work conditions, air and water pollution, food and prescription drug safety, transportation safety, and automotive fuel economy. The federal administration operates the country's pension system, which is funded through payroll taxes. The government also operates public health programs such as Medicaid (for the poor) and Medicare (for the elderly).

In an economy dominated by privately owned businesses, there are still some government-owned companies. These include the U.S. Postal Service, the Nuclear Regulatory Commission, Amtrak (formally the National Railroad Passenger Corporation), and the Tennessee Valley

Authority (owned by the federal government, TVA provides electricity to people and industry).

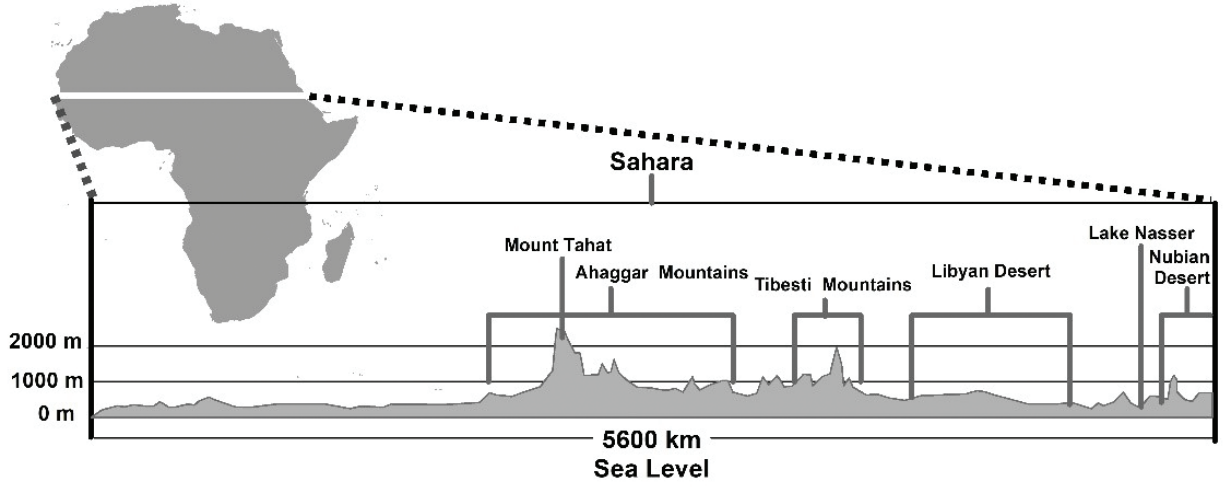
Despite its ability to weather economic shocks, the U.S. economy developed many weaknesses that pointed to future risks. The country faces a chronic trade deficit; imports greatly outweigh the value of U.S. goods and services exported to other countries. Many observers have pointed to an increasing gap in income disparity between the small cohort at the top of the economic pyramid and the rest of the country's citizens. The country's aging population placed new burdens on public health spending and pension programs (including Social Security). At the same time, the burgeoning federal budget deficit limited the amount of funding available for social programs.

SKILLS TASK 1

1. Is the Mississippi River navigable?
2. What are the characteristics of the climate in the middle parts of the USA?
3. What are the main ethnic groups in the US population?
4. What are the main economic crises that have affected the American economy for the last 100 years?

EXTRA PRACTICE SECTION

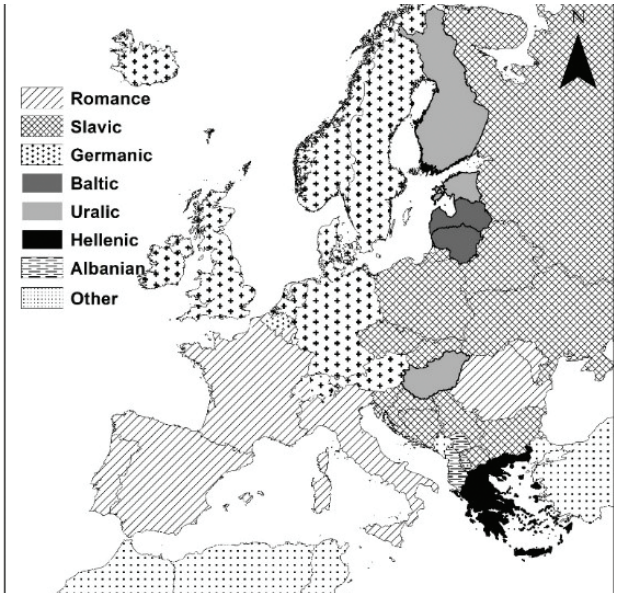
1. A vertical profile of the relief of the Sahara Desert is shown. Note which statement is true and which is wrong in the table below:



Statement	True	Wrong
Mount Tahat is over 2000 m above sea level.		
The highest part of the Nubian Desert exceeds 1000 meters above sea level.		
Lake Nasser is located west of Libyan Desert		
The Tibesti Mountains are higher than the Ahaggar Mountains		
Libyan Desert occupies a larger area than Tibesti Mountains		

2. Both figures visualize the predominant religion and language groups in European countries.

Which country is from the Romance language group and the majority of the population are Ortodoxes:.....



Which country is from the Baltic language group and the majority of the population are Catholics:.....

Which country is from the Uralic language group and the majority of the population are Catholics:.....

GENERAL KNOWLEDGE EXPLORATORIUM

1. The countries of which region were concerned by the reforms of the 90s?

Communism	→	Democracy
Central Planning	→	Open Market
Government Control	→	Private initiative
Council for Mutual *Economic Assistance*, CMEA	→	European Union

A/ Eastern Europe **B/** Western Europe **C/** South Europe **D/** The Scandinavian countries

2. The term which describes the process by which fertile land becomes desert, typically as a result of drought, deforestation, or inappropriate agriculture is called

A/ Desertification **B/** Drying **C/** Deforestation **D/** Dehydration

---

3. Which of the following country has a population majority consisting of immigrant?

A/ Great Britain **B/** Germany **C/** Australia **D/** China

---

4. The Indigenous peoples of Australia are called:

A/ Afrikaner **B/** Indians **C/** Mestizos **D/** Aborigines

---

5. Which term is used to describe the policy used to separate black and whites in South Africa?

A/ Apartheid **B/** Marginalization **C/** Division **D/** Separation

---

6. Which of the following statements is NOT true?

A/ Many of Africa`s economies rely too much on exporting raw materials.

B/ Colonialism caused long-term damage to the economies and cultures of African nations.

C/ Where (did) African ethnic or linguistic groups live which were taken into account when drawing the borders of African countries?

D/ AIDS has become a major health problem in Subsahar Africa.

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7. "HOW" question section. Read and explore for more!

How the wealth is disturbed in one African country? Botswana illustrates a problem that exists in many African countries today. It made a great deal of money from valuable resources but has (had) serious agricultural problems and an unequal distribution of wealth. Botswana gained its independence from Britain in 1966 and subsequently experienced long-term economic growth. In 1966, its per capita income stood at $69. In 1997, that figure rose to $3,900 per capita. Botswana's wealth is based on minerals. People discovered diamonds there shortly after the country's independence from Britain. By 1995, Botswana had become the world's third largest diamond producer. Diamonds account for more than 63 percent of government revenue. A problem, however, is the uneven distribution of the profits—an issue in many African countries. Approximately 80 percent of the people work as farmers and never benefit from the diamond revenue. The remaining 20 percent grow wealthy from diamond money.

AUSTRALIA

Australia – extra readings

Australia is the only country in the world that covers an entire continent as well as numerous islands, most notably the island state of Tasmania. It is the world's sixth largest country. Its borders are the Pacific Ocean to the east, the Indian Ocean to the west, the Arafura Sea to the north, and the Southern Ocean to the south. /**Fig.1**/

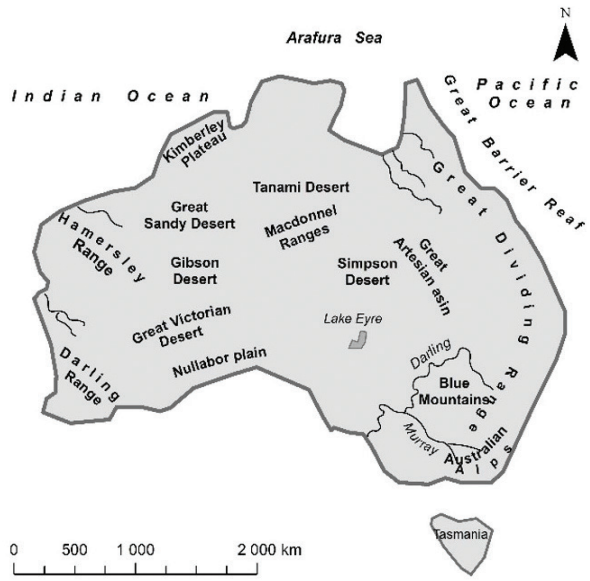

Fig.1

Fig.2

Australia`s Government is **federal parliamentary democracy.** As a member of the Commonwealth of Nations, Australia's head of state is the British monarch. Many Australians think the country should end its ties to Britain and become a republic. The debate still continues. Australia is divided into six states (New South Wales, Queensland, South Australia, Tasmania, Victoria, and Western Australia) and two principal self-governing territories (the Australian Capital Territory, which includes the national capital of Canberra, and the Northern Territory).

The **deserts** of Australia's interior make up a large portion of the continent, more than one-third. The famous Outback remote rural areas contains the country's largest deserts which are characteristic of very hot temperatures, little water, and almost no vegetation. Western Australia has three large deserts: the Gibson Desert, Great Victoria Desert, and Great Sandy Desert. The lowland plains of the east-central region gradually rise into a highland belt along the east coast. The Great Dividing Range is a mountain chain extending from Melbourne in the south to Cape York in the north. This 3,700-km stretch of mountain sends water down into Australia's most important rivers and the Great Artesian Basin, on the western edge of the Range. This is the largest groundwater source in the world. In contrast to Australia's Outback, there are (forests with a high rate of dense rain) in the northeast and in the Australian Alps, which receive more snowfall than Switzerland does. Mainland Australia's highest point, at 2,228 meters, is Mount Kosciuszko; the lowest point, at 15 meters below sea level, is Lake Eyre. The Great Barrier Reef, the largest barrier reef in the world, extends for 2,300 km (344,400

square kilometers.) off the northeastern coast of Australia. It is the world's largest coral reef and home to more than 2,000 species of fish. Its coral is made of a layer upon layer of tiny anemonelike creatures called polyps. The reef is a main tourism attraction and brings income to the Australian economy. The Great Barrier Reef has been designated as a United Nations World Heritage Site. /**Fig.1**/

Australia has an excellent **mineral resource** base. Australia has significant deposits of coal, natural gas, petroleum, and various minerals, including bauxite, copper, diamonds, gold, iron ore, lead, nickel, silver, tungsten, uranium, and zinc. Different types of minerals can be found in different regions throughout Australia. Western Australia has iron ore mines. The eastern region of Queensland and New South Wales has abundant coal. Minerals such as zinc, copper, gold, silver, tungsten, and nickel can be found in various parts of the country, including Tasmania. Oil and gas fields can be found in the northwestern coastal waters and in the Tasman Sea east of Melbourne. The country is self-sufficient in natural gas but does have to import some petroleum products.

Climate Australia is considered to be one of the driest continents on earth. The Tropic of Capricorn runs right through the middle of this country. Australia's climate is mostly arid to semiarid, but the south and east are temperate and the north is tropical. The north has hot, humid, rainy summers and dry, warm winters. In the south, summers are dry and sunny, and winters are mild and rainy. Except on the eastern coast, rainfall is generally low. The average annual rainfall ranges from 325.6 millimeters in Alice Springs to 1,847.1 millimeters in Darwin. The average daily maximum temperature ranges from 17.2° C in Hobart to 32.1º C in Darwin. The average daily minimum temperature ranges from 6.7° C in Canberra to 23.4° C in Darwin.

Australia is the world's driest inhabited continent, and many of its **rivers** have highly variable flows. Australia's longest river is the Murray 2,520 kilometers, which starts from the Great Dividing Range. Other major rivers are the Murrumbidgee (1,575 kilometers), the Darling (1,390 km) and a tributary of the Murray River), and the Lachlan (1,370 kilometers).

The historic isolation of Australia from the rest of the world has brought into existence **animals and organisms** that are not found anywhere, such as the kangaroo, echidna, and koala. Australia is home to many of the deadliest species of animals on the planet. There are 36 species of poisonous spiders in eastern Australia. It also has the greatest number of reptile species in the world as well as some of the most venomous snakes and other dangerous creatures like the crocodile. Australia has 516 national parks to protect its unique plants and animals.

About 200 years ago, Australia was occupied only by Aboriginals. Aboriginal people arrived in Australia about 50,000 years ago. They may have traveled from Asia across land bridges that existed when sea levels were lower. The Aborigines have learned to live in the harsh conditions of the outback. The first Europeans who sailed to Australia were Dutch explorers. They discovered Australia in 1606. Then in 1770 James Cook, an English explorer, landed in Australia (in Botany Bay – today in Sydney) and claimed the Eastern part as an English colony called New South Wales. Meanwhile, England had a severe problem with overcrowding of its prisons. Its problem was exacerbated by the loss of Britain's American colonies. Upon Cook's return to England, interest was generated in the concept of relieving prison overcrowding by sending prisoners to Australia. On January 26th, 1788, eleven ships with seven hundred fifty convicts sailed from Great Britain to Botany Bay. This day is now known as Australia Day, an official public holiday celebrated throughout Australia. Over the next 100 years, more than 150,000 additional men and women were shipped to Australia. Most of these people were convicted criminals. Prison colonies were established in Australia.The

prisoners' life was harsh in Australia because there weren't cities, it was difficult to get food and they often died of diseases. The practice of transferring prisoners to Australia ended in 1868. At the same time, the movement of prisoners from England to Australia was diminishing, the next wave of immigration was being fueled by the discovery of gold in the 1850s in the colonies of New South Wales and Victoria. A rush to find gold began and thousands of new immigrants arrived to Australia, mainly from Western Europe and China. For a short time, the newcomers lived peacefully with the Aboriginal people. But soon, fighting broke out over who owned the land. Many of the Aboriginals were killed. Aborigines were completely decimated in Tasmania.

In the 1800s there were six British colonies in Australia. The colonies improved quickly: cities grew bigger (Sydney, Melbourne, Adelaide, Brisbane), universities were established and railways were built. But in the 1890s there was an economic depression and the six colonies decided to unite to be more effective. On 1st January, 1901, the six colonies joined to form the Commonwealth of Australia. Melbourne was chosen as the temporary seat of government while a new capital city, Canberra, was constructed. Canberra became the capital of Australia in 1927. Australia became a dominion of the British Empire in 1931. This meant that it belonged to the British Empire but they had autonomy in both their domestic and foreign affairs. On October 9, 1942, Australia and Great Britain ratified the Statute of Westminster, which began to formally establish the country's independence. In 1962, the Aborigines were given the right to vote and in 1976 the Aboriginal Land Rights Act was passed. It gave right to the Aborigines to make claims on their ancient land in the Northern Territory. Nine years later, Uluru, the symbolic mountain, was also returned to Aborigines.

Australia is home to **24,99 million people** (2018). Population density is low, at 3 persons per square kilometer. Australia's population is not spread evenly across the landscape, since a large portion of the country is desert. Most of Australia's residents live in two widely separated coastal regions on the east and southwest coasts. About 85 percent of Australians live in or around cities along the coast. The five largest cities contain 60 percent of the population. The outback is sparsely populated, but is home to a number of aboriginal groups. Mining and some agricultural activities can be found in the outback.

Australia is one of the most **ethnically diverse countries**. Nearly 25 % of people living in Australia were not born here. Only about one percent are of Aboriginal descent. Until 1973, Australia had a collection of laws and policies known as the White Australia policy, which served to limit the immigration of nonwhite persons to Australia. While the White Australia policies limited immigration from some areas, other policies sought to expand immigration from the United Kingdom. Subsidies were offered to British citizens to relocate to Australia. Between 1830 and 1940, more than a million British citizens took advantage of the offer. Nowadays most Australians are of British descent, but that proportion is changing because of (the) high rates of immigration from places like Greece, Italy, Southeast Asia and India (who) also make up a notable proportion of Australia's immigrant population. Asians make up 6 percent.

English is the official **language** of Australia. The most commonly used languages after English are Italian, Greek, Cantonese, Arabic (including Lebanese), Mandarin, and Spanish. In addition, more than 50,000 people speak an indigenous language. As many as three hundred indigenous languages were spoken by Aborigines before the Europeans arrived, and just a few hundred years later, that number now stands at about seventy. Most aboriginal languages are in danger of dying out. Recent census data indicate that about a quarter of the population

identifies itself as Roman Catholic and another 20 percent self-identifies as Anglican (the national religion of the United Kingdom). An additional 20 percent self-identify as Protestant, other than Anglican, and about 15 percent as having no religion.

Australia is one of the most **urbanized** countries in the world; less than 15 percent of the population lives in rural areas. The largest city, Sydney, is often referred to as the New York of Australia. Sydney is positioned at the heart of the main core area. To the south of Sydney is the Australian Capital Territory, home to the capital city of Canberra. Canberra is actually the country's capital. The city is home to many people who have relocated to work in the government, media or attend the prestigious universities. Other major Australian cities include Melbourne, Perth, Adelaide, and Brisbane. Hobart is the largest city on the island of Tasmania and Darwin is the largest city in the Northern Territory. The culture of Darwin is influenced by Aboriginal peoples and Asia due to its proximity to both. The remote town of Alice Springs is located at the center of the Australian outback. Alice Springs is located in the center of the continent and has been given the designation of the middle of nowhere, or the center of everything. Most of Australia's population lives in the two economic core regions, so Australia exhibits a distinct core-periphery spatial pattern. The core areas hold the power, wealth, and influence while the periphery region supplies all the food, raw materials, and goods needed in the core.

Australia has a strong **economy** due to its extensive natural resources, well-developed industry, and tourism. The main industries in Australia are mining (such as coal and natural gas), industrial and transport equipment, food processing, chemicals, and steel manufacturing. Australia earns a large part of its income from mining. It is the world's top producer of diamonds, lead, zinc, and opals. In addition, it is a major producer of bauxite, coal, copper, gold, and iron ore. The mining industry faces difficulty. Many deposits lie in the outback, far from cities. As a result, it is expensive to build the roads and buildings necessary for the mines to operate. Because of the high costs of mining and the fact that Australia has historically lacked capital (money or property invested in business), Australian companies have had to rely on foreign investment. Foreign investors control about half the mining industry, so not all the profits stay within Australia. Only 6 percent of the Australian landmass is arable, and less than 1 percent is dedicated to permanent crops. The remaining 93 percent of the landmass is arid and nutrient poor. Nevertheless **agriculture** also plays a role in the country's economy, and its main products. Agricultural production is a major source of economic wealth for Australia even though only 11 percent of the population lives in rural areas. Unlike most developed countries, Australia does not rely heavily on manufacturing. One of the major industries in Australia is the processing of food products. The coastal region in Queensland, since it is warmer and receives more rainfall, is good for sugarcane and similar crops. Sheep and cattle ranches are common in central Queensland and Western Australia. Various regions of southern Australia are excellent for grape and fruit production. Australian wine production has risen to compete with the US and European markets. Only the dry central desert regions in the center of the continent are not favorable for agriculture. Australia is probably best known for its sheep farming. The extensive grasslands support tens of millions of domesticated animals — mainly cattle and sheep — which accounts for up to one-fifth of the world's wool production. Australia is the world's chief wool-producing country, with New South Wales - the leading area. Most of Australia's sheep are Merinos, which were brought from South Africa and England in the 1790s. Today, there are about 100 million sheep in Australia most of them on farms called stations. Some stations are huge and cover up to 5,792 sq miles (15,000 sq km).

In addition, Australia's natural wonders have made tourism a major industry.

Australia, an island nation located a great distance from major international markets, is heavily dependent on its system of **ports**. There are five major Australian ports: Adelaide, Brisbane, Fremantle, Melbourne, and Sydney.

Though Australia is a former British colony, Great Britain is not considered Australia's largest **trading partner**. Australia is closer geographically to the Asian economic community than to the European Union. Australia's foreign policy revolves around relations with the United States, Japan, China, and Indonesia. Throughout its history, Australia has been a partner of the United States, and the two nations continue to maintain a close political, military, and economic relationship. At the same time, Australia has increasingly strong economic ties with China. The largest imports were passenger motor vehicles, crude petroleum, computers, medicine, telecommunication equipment. The principal import partners were the United States, China, Japan, Germany, and Singapore. Australia does not export many manufactured goods. Its main exports are food and raw materials. The largest exports were coal, iron ore, non-monetary gold, crude petroleum, and bovine meat. The principal export partners were Japan, China, the United States, South Korea, and New Zealand. Australia wants to develop a more diversified economy that is not so dependent on agriculture. But it will be difficult to develop manufacturing plants that can compete with those in nearby Asia, where the cost of labor is generally lower. Finding a way to maintain prosperity in the face of global economic change is a major issue.

SKILLS TASK 1

1. What European country colonized Australia? How did the colonial activity impact the indigenous people?
2. What are some of Australia's main physical features?
3. How does climate relate to population?
4. What is the vast interior called?
5. What is the main difference in the sectoral structure of (Australia's) economy and (the) highly developed countries?