New Amazing Science
5
Answer Key

Contents

Unit 1 | Classification of Living Thing

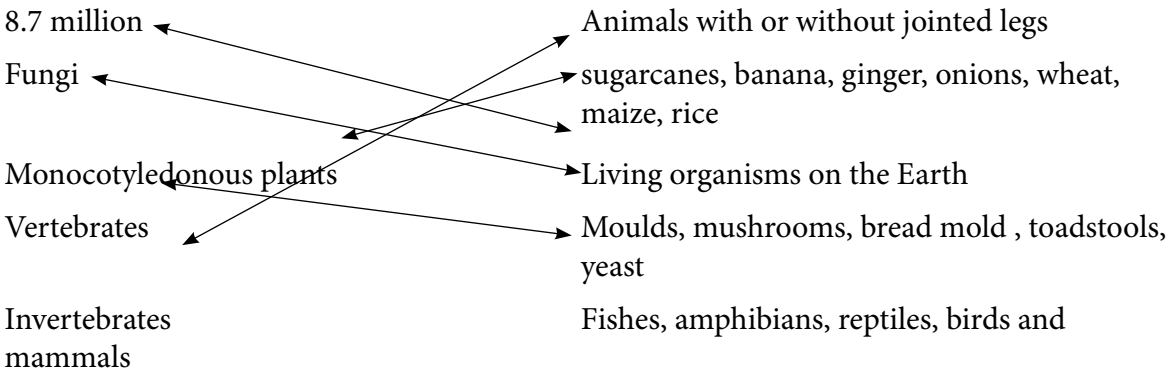
ANSWER KEY UNIT 1

Circle the correct answer.

1.	b. 1 million animals and 350 000 plants
2.	b. monera
3.	a. mould
4.	b. algae
5.	b. amphibians

Vocabulary Review

Match the words and sentences to their relevant fact, statement or example.



Observe and Answer

1	a.	Fungi Kingdom Plant Kingdom Animal Kingdom
1	b.	Monocot Dicot

One-Word Answer

1.	Biologist
2.	Fungi
3.	Algae

4.	Fishes
5.	Invertebrates

Detailed Questions

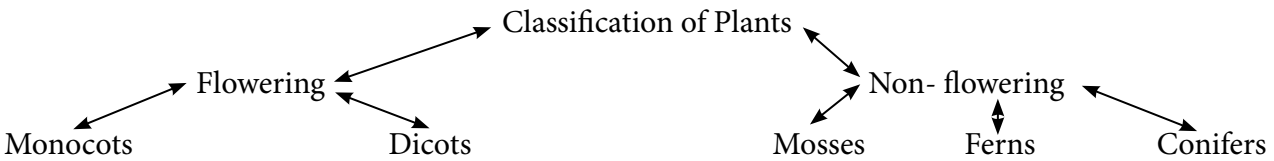
1. Describe the classification of living organisms and why is it important?

Answer:

Biologists have classified all living organisms into five groups, which are as follows: protists kingdom, monera kingdom, fungi kingdom, plant kingdom, the animal kingdom and it is important because this division helps us to understand, how all the different things in the world fit into a pattern.2. Write a note on plants and draw a web to show the classification of Plant Kingdom.

Answer:

Plants are multicellular living organisms. They contain a green substance called chlorophyll. This substance absorbs energy from sunlight and is used to make food.



3. Name the five groups of Vertebrates and briefly write the characteristics of each group with examples.

Answer:

	Name	**Characteristic**	**Examples**
1	Fish	• They live in water. • They have a streamlined body shape • Their Skin is mostly covered in scales. • Their tails and fins assist in swimming. • They breathe through gills. • They lay eggs.	Goldfish Trout
2	Amphibians	• They spend their lives partially on land and in water. • Young amphibians live in water and their skin is moist. • They have four limbs that are used to jump on land and swim in the water. • Adults breathe through lungs on land and young ones use gills. • They lay eggs without shells in the water.	Frog Toads

3	Reptiles	• They live on both land and water. • They have dry, scaly skin. • They have four limbs and a tail to crawl on land and swim in the water. • They use their lungs to breathe. • Most lay eggs with thick shells.	Snakes Turtles
4	Birds	• They live on land. • The only animals with feathers. • Most have wings to fly but not all birds can fly. • They breathe using their lungs. • They lay eggs with shells.	Eagles Sparrows
5	Mammals	• Most live on land, some, like dolphins and whales, live in water. • They are covered with fur and hair. • They have four limbs which they use to walk and run. • They breathe using their lungs. • They give birth to babies and feed them on milk.	Dogs Horses

4. Briefly write about the following terms:

Answer:

a. Vertebrates

Vertebrates are animals that contain a hard, bony internal skeleton inside their body which helps them move about. Their backbone consists of many vital bones which help support and move the body, also protecting the spinal cord. The vertebrate group contains fishes, amphibians, reptiles, birds, and mammals.

b. Characteristics for classification of Vertebrates

Vertebrates can be classified on the basis of their habitat, how they move, their body surfaces, the way they respire and reproduce.

c. Extinction

The disappearance of species when the last of its member dies is called extinction.

d. Endangered species with conservation measures

Species in danger of extinction are known as endangered species. To save them, conservation measures, such as not capturing and collecting wildlife, not buying products made using these animals such as furs and shells and not littering must be taken into account.

5. a. What are flowering plants? Describe their groups with examples.

Answer:

An advanced group in the plant kingdom, which produces flowers and fruits, is known as a flowering plant. They have roots, stems, leaves and the fruit or flower contains the seed. Flowering plants are divided into two groups; monocotyledons or monocots and dicotyledons or dicots. Dicots include peas, beans, chickpeas, peanuts, mint, rose, and tomatoes. Monocots include wheat, maize, rice, sugarcane, banana, ginger, onion, and grass.

b. Differentiate between monocots and dicots by filling out the table below:

Part of the Plant	Groups of flowering plants	
	Monocots	Dicots
Seed	*Has one cotyledon*	*Has two cotyledons*
Stem	*Scattered xylem and phloem*	*Organized xylem and phloem*
Leaf	*Parallel veins*	*Web-like veins*

Unit 2 MICROORGANISMS

ANSWER KEY UNIT 2

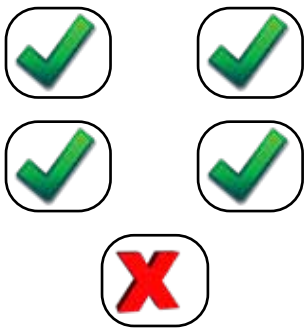
Circle the correct answer.

1.	b. typhoid
2.	b. very fast
3.	c. yeast
4.	c. fungi
5.	a. recycle

Fill in the blanks.

1. ***Microorganisms*** are so small that we cannot see them with a ***naked*** eye.
2. Some microorganisms are ***useful*** and some are ***harmful***.
3. In warm, moist and dark environments, ***bacteria*** grow very fast.
4. We should always ***wash*** our hands with ***soap*** and water to stay healthy.
5. ***Virus*** causes cold, influenza, and measles.

Observe and Answer



One-Word Answer

1.	Germs
2.	Bacteria
3.	Diseases
4.	Mushrooms
5.	Antibiotics

Detailed Questions

1. What do you understand by the word 'Microorganism'? Describe and explain their habitat.

Answer:

Microorganisms are unicellular or multicellular organisms that are not visible to the naked eye. Microorganisms can either be harmful or useful and are found everywhere such as our bodies, air, surfaces and water. They can produce their own food or feed off of other organisms. They need food, water, air, ways to dispose of waste and a hospitable environment to survive.2. Name some disease-causing germs with example.

Answer:

Bacteria cause cholera, typhoid, tuberculosis, throat infection and salmonella.

Viruses can cause covid-19, influenza, measles and chickenpox.

3. Fill in the given table to show various features of three types of microorganisms.

Answer:

Physical Features	**Types of Microorganism**		
	Bacteria	**Virus**	**Fungi**
Size	≈100 x smaller than animal cell	≈1/ 1000 000 mm	Visible to the naked eye except for unicellular fungi
Shape	Spherical, rod-like or spirals	Geometric	Various shapes
Structure	Single-celled with no proper nucleus	Protein coating surrounding their genetic material	A tangle of slender thread-like structures, each made up of one or more cells

4. List at least three measures that protect us against diseases.

Answer:

1. Washing hands with soap and water before touching food.
2. Wash fruit and vegetables before eating them.
3. Keeping food covered to protect from flies.

5. Write a detailed note on the useful microorganisms.

Answer:

Microorganisms that cause us no harm are considered useful microorganisms. They are useful to us for various purposes, for example, they decompose dead organisms, yeast is a fungus used to make bread, a bacteria mixed with milk is used to make yoghurt and cheese. Bacteria can be used to make kinds of vinegar, antibiotics and those present in our bodies help us digest food.

Unit 3 FLOWERS AND SEEDS

ANSWER KEY UNIT 3

Circle the correct answer.

1.	b. reproduction
2.	b. petals
3.	b. anther
4.	a. fertilization
5.	a. orange, melon, bitter gourd

Vocabulary Review

Tick whether true or false.

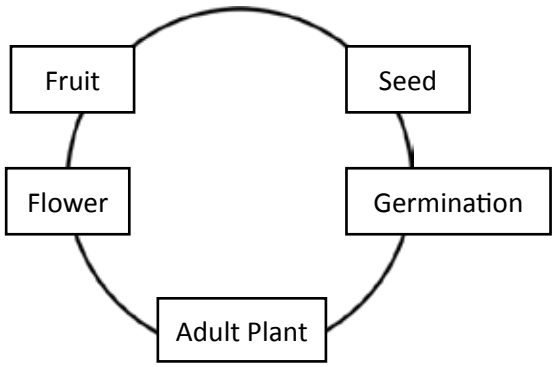
	TRUE	FALSE
Petals are protected by sepals before they open	✓	
Some flowering plants have separate male and female flowers on the same plant.	✓	
Sexual reproduction in flowering plants can take place only when multiple cells combine.	✓	
Non-flowering plants produce spores for reproduction.	✓	
The spores are carried to different places by water.		✓

Observe and Answer

(Processes)

Pollination Germination Sexual Reproduction

(Label)



One-Word Answer

1.	Animals
2.	Hibiscus
3.	Carpel
4.	Papaya
5.	Seed

Detailed Questions

1. Define pollination and describe its types with examples.

Answer:

The process of transfer of pollen grain from the anther to stigma is known as pollination. There are two types of pollination; self and cross. In self-pollination, pollen is transferred from anther to stigma of the same plant and in cross-pollination; pollen is transferred from anther to stigma of another plant of the same species.

2. a. Define reproduction in plants.

Answer:

Reproduction is the name of the biological process by which new individual organisms (called offsprings) are produced from their parents. In plants, there are two types of reproduction processes present: asexual and sexual.

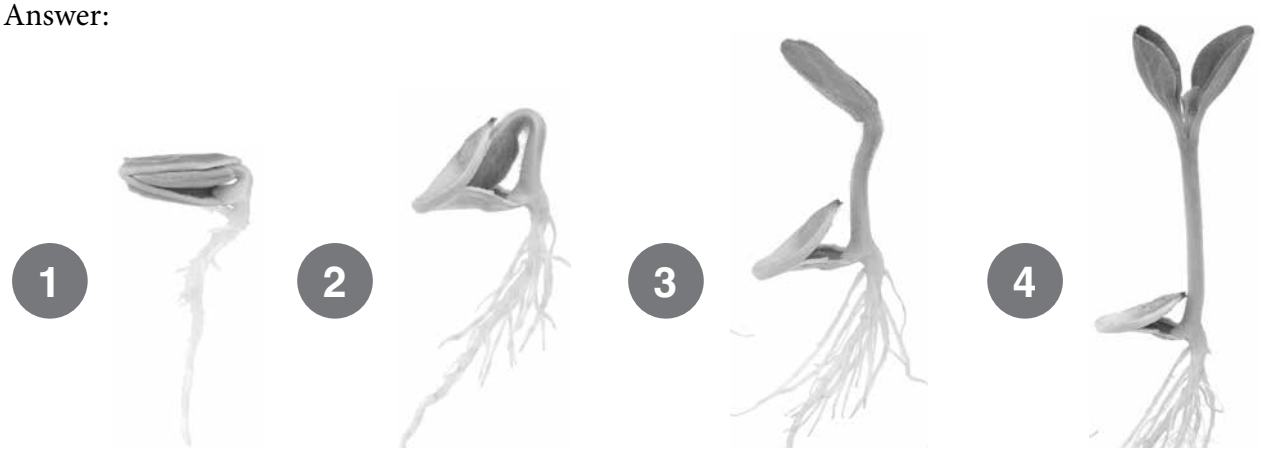
b. Explain the difference between sexual and asexual reproduction in plants.

Answer:

SEXUAL REPRODUCTION	*ASEXUAL REPRODUCTION*
▪ *Involves male and female parts.*	▪ *Only one parent is involved.*
▪ *The offspring has properties of both parents mixed.*	▪ *Produces genetically identical offspring/*
▪ *Requires fertilization of reproductive cells to produce seeds or spores.*	▪ *No special reproductive cells are required..*
▪ *Always result in the production of seeds.*	▪ *Can produce bulbs, runners and tubers.*
▪ *Takes place in a flower of a plant.*	▪ *Takes place in Stems, roots, and leaves.*

3. Describe using illustrations, the structure of a seed and the process of germination.

Answer:



When the seed germinates, the roots appear first. The developing baby plant gets its food from the seed leaves.

Next, the shoot appears and the young plant develops.

At this stage, the leaves have developed. The young plant will now make its own food in order to grow.

After some time, the seed leaves drop off. The young plant needs light, air and water to make food and grow well.

4. What are some other ways in nature by which plants propagate themselves? Give examples.

Answer:

Following are some ways plants propagate :

- Tubers are swollen underground Stems. The eyes or the buds grow into new shoots. E.g. Garlic, ginger, potato.
- Sugarcane, roses, money plant, grapes, and several other plants are largely produced by STEM cuttings.
- Bulbs are modified stems wrapped in leaves. The buds grow from the STEM to form new shoots.
- Some plants have buds in their stems that grow horizontally over the soil develop new plants, called runners.

5. Fill in the table below to show differences in features between chickpea and maize seed.

Answer:

Features	Chickpeas Seed (Dicotyledons)	Maize Seed (Monocotyledons)
Cotyledon	▪ *Contains two cotyledons which are fleshy and store food*	▪ *Contains one cotyledon that is present in the embryo and is thin, small and lacks food material*
Endosperm	▪ *Not present*	▪ *Are mostly present and store food.*

Unit 4 | ENVIRONMENTAL POLLUTION

ANSWER KEY UNIT 4

Circle the correct answer.

1.	a. Smog
2.	d. all of the above
3.	a. greenhouse effect
4.	b. water pollution
5.	b. non-biodegradable

Vocabulary Review

CAUSE	EFFECT
Smog	Infertility of soil
Pollutant	Life on Earth is hard due to warmer temperature
Greenhouse gases	Causes asthma, bronchial infections, allergies and heart problems
Polluted water	Environmental pollution
Non- Biodegradable waste	Harms aquatic ecosystems

Observe and Answer

Non-Biodegradable

Non-Biodegradable

Biodegradable

Biodegradable

Biodegradable

One-Word Answer

1.	Air
2.	Pollutant
3.	Houses
4.	Recycling
5.	Jute/ Paper

Detailed Questions

1. What is pollution?

Answer:

The introduction of harmful substances into the environment due to human activities is called pollution.

2. Name three types of pollution and explain their causes.

Answer:

Types of Pollution	Causes
Air Pollution	- *Burning of fuels to produces electricity.* - *Fuels burned by vehicles.* - *Burning of garbage.* - *Harmful smoke released by industries*
Water Pollution	- *Dumping of industrial, human waste in rivers, lakes and seas.* - *Every day sewage and garbage are dumped into the sea.*
Land Pollution	- *Landfills full of garbage.* - *Wrong disposal of waste on land.*

3. What is the effect of water, air and land pollution on the environment and life?

Answer:

Pollution, be it air, water, or land, is harmful and life-threatening. Air pollution can cause breathing problems and climate change since, due to the release of various harmful substances, not only can the temperature rise, it can make it difficult to breathe. Water pollution not only endangers the ecosystem and humans, but it also has disastrous consequences for aquatic and other wildlife animals and plants. The water becomes unfit for consumption, swimming and bathing. Land pollution not only kills animals that are stuck or consume the waste, but it also makes the land surface unsuitable for living and destroys our ecosystem.

4. What is the effect of burning fossil fuels on the emission of greenhouse gases in the air?

Answer:

The burning of fossil fuels increases the amount of gases in the atmosphere, which leads to more heat being trapped. This causes the climate to change due to the temperature change.

5. What measures needs to be taken to reduce non-biodegradable material?

Answer:

We should reduce, reuse and recycle non-biodegradable material. For example: use durable and reusable water bottles instead of plastic bottles, use jute or paper bags instead of plastic shoppers.

Unit 5 | CHANGES OF MATTER

ANSWER KEY UNIT 5

Circle the correct answer.

1.	a. physical and chemical
2.	a. steam
3.	b. log of wood burns
4.	c. physical and chemical change
5.	a. chemical change

Vocabulary Review

1. Matter remains the same kind; however, it may change state due to a physical change.
2. Change in state is a physical change.
3. Ice starts to melt at 1°C; chocolate melts at a temperature of about 45 oC and candle wax melts at about 47°C.
4. When a log of wood is burned, it changes into ashes.
5. A solution is strong if there is a lot of solid dissolved in the liquid and weak when it is less.

Observe and Answer

(left to right)

(Row 1)

- Steam is being formed while cooking.
- Water vapours condense on a glass surface.
- Melting of ice.

(Row 2)

- Precaution from chemicals and germs in the air by facial mask use.
- Chemical change. Fruits decomposition by moulds (Fungi)

One-Word Answer

1.	Water
2.	Metals
3.	Rust
4.	Chemical

Detailed Questions

1. Define a physical change and list some examples.

Answer:

When matter changes its physical properties such as changes in state, shape, size and colour and not chemical is known as physical change.

2. Write a note on three states of water.

Answer:

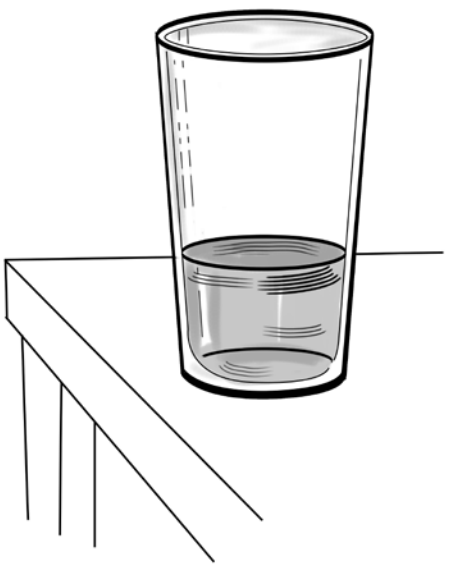
Water exists in all three states be it solid, liquid and gas. The solid form of water is known as ice. The liquid water evaporates to form the gaseous form of water known as water vapours. Water vapours condense to form liquid water.

3. Define Condensation and give a daily life example with an illustration.

Answer:

Condensation is known as the process through which water vapour turns into liquid.

An example of condensation is water droplets on a glass.



4. How can you make a solid dissolve faster in a liquid? Explain.

Answer:

Solids can be dissolved faster in a liquid through the following ways:

- Stirring – Using tools to mix and dissolve solid into a liquid.
- Temperature – Heating or using a warmer liquid to dissolve a solid.
- Reducing the size of solid – IF solid is crushed it will dissolve more quickly.

4. a. What is a chemical change?

Answer:

When a matter changes into another kind of matter thus changing its chemical properties is known as a chemical change.

b. How can you tell that a chemical change has taken place?

Answer:

When a change in a matter cannot be reversed is known as chemical change, such as burning of coal into ashes.

Unit 6a | LIGHT

ANSWER KEY UNIT 6a

Circle the correct answer.

1.	b. energy
2.	b. Sun and stars
3.	b. luminous source of light
4.	b. opaque
5.	b. same

Vocabulary Review

	TRUE	FALSE
1. You cannot see stars in the day because of bright sunlight.		
2. The Sun is a large ball of burning gases.		
3. The Earth and Moon are solid from outside and inside		
4. Earth is billions of miles away from the Sun.		
5. The Earth's axis is slightly tilted, causing day and night.		

Observe and Answer

Good Reflector

Good Reflector

Bad Reflector

Good Reflector

Bad Reflector

One-Word Answer

1.	Waves
2.	Artificial / man-made
3.	Light rays
4.	Moon
5.	It reflects

Detailed Questions

1. Define:

Answer:

a. Light
Light is a form of energy, which can come from a different source.

b. Speed of light
The speed of light is 300,000 kilometres per second.

c. Sources of light
Light comes from different things, some are natural and some are artificial. The natural light comes from the Sun, the moon, and the stars. Some lights are manmade and artificial, for example, candles, burning wood, searchlights, torches, electric bulbs and lanterns.

d. Ray of light
A straight line along which the light travel is known as a ray of light.

e. Beam of light
A collection of rays of light is known as a beam of light.

2. What is a source of light? Explain different sources of light with examples.

Answer:

An object that gives out light is a source of light. Light comes from different things, some are natural and others are artificial. Example; Natural light sources: The sun, The moon and the stars. Artificial light sources: candles, burning wood and bulbs.

3. What is the difference between luminous and non-luminous objects? Explain with examples.

Answer:

Objects that produce their own light are called luminous, for example, The sun, the stars and fire. Objects that do not produce their own light are called non-luminous objects, for example, the moon.

4. How is matter classified on the basis of the way light passes through them? Give examples.

Answer:

It is classified into three types, on the basis of how much light passes through them. The materials that allow light to pass through them completely are called transparent materials, such as glass. The materials, which let some light pass through them, are called translucent materials, such as frosted glass. Materials that do not allow light to pass through them are called opaque materials, such as

wood.5. Write a short note on:

Answer:

a. Shadow and its Characteristics

Shadow: When a translucent or an opaque object is placed before a source of light, this dark spot is known as a shadow.

Characteristics of a shadow:

- The shadow of the object forms on the opposite side from the light source.
- A shadow shows only the shape or outline of the object.
- Shadows do not depend on the colour of the object.
- Opaque objects form dark shadows as they block the light completely which translucent object form faint shadows as the objects allow light to pass through partially.

b. Size and position of the shadow

The size of the object depends on the distance between the object and the source of light.

The closer the object, the bigger the shadow is formed.

The size also depends on the distance between the object and the surface where it is formed.

The length of the shadow depends on how high or low is the light source.

Unit 6b | SOUND

ANSWER KEY UNIT 6b

Circle the correct answer.

1.	in all directions
2.	weaker
3.	ticking of a wall clock
4.	vacuum
5.	fast

Vocabulary Review

Fill in the blanks

1. When a bell rings, it vibrates and produces ***sounds***.

2. Sound travels through ***solids, liquids*** and ***gases***.

3. Sound travels ***slowest*** through the air, ***faster*** through liquids and ***fastest*** through solids.

4. By reducing ***unpleasant sounds,*** we can reduce noise pollution.

5. Jet airliners produce unpleasant, loud sounds that cause ***noise*** pollution.

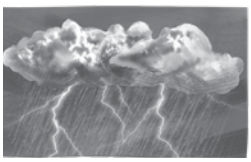
Observe and Answer

Pleasant

Unpleasant

Unpleasant

Pleasant



Unpleasant

One-Word Answer

1.	Sound
2.	Three
3.	Vacuum
4.	Loud
5.	Sleep

Detailed Questions

1. How is sound produced? Explain with example.

Answer:

Sound is produced by forward and backward movements of objects producing it, for example, Wings of bees move forward and backwards very fast as we hear a buzz.

2. Describe sound waves.

Answer:

Sound waves are produced when an object vibrates and it causes vibrations in air particles. These particles bump into the particles close to them, which make them vibrate too, causing them to bump into more air particles. This movement is called Sound waves.

3. Name three states of matter and explain how sound travels in each.

Answer:

The three states of matter are solid, liquid and gas. Sound travels fastest through solids, faster through liquids and slowest through gases.

4. Define the following with examples:

Answer:

a. Loud and soft sounds

The loudness of sound is determined by the intensity or amount of energy in sound waves. The higher the intensity, the louder you hear the sound. Loud sounds become softer if you move away from them. The closer you are to the vibrating object, the louder the sound is.

b. High and low sounds

Some sounds are low. Some sounds are high. The sounds are high when something vibrates very fast. A mouse can make a high squeak because sound produced by the mouse vibrates very fast. The sounds are low when something vibrates more slowly. A cow makes a low sound when it moos because the sound made by the cow vibrates slowly.

5. What is noise pollution and how does it negatively affect humans and the environment?

Answer:

Noise is any sound that we do not like. Loud music and noise can also be very disturbing if the volume is turned up for hours. Very loud noise can damage the ears, cause sleeplessness and, in older people, can lead to deafness and it is damaging for the environment as well.

Unit 7 ELECTRICITY AND MAGNETISM

ANSWER KEY UNIT 7

Circle the correct answer.

1.	b. light bulb
2.	a. zero
3.	b. switch
4.	c. molten core
5.	b. north magnetic pole of the Earth

Vocabulary Review

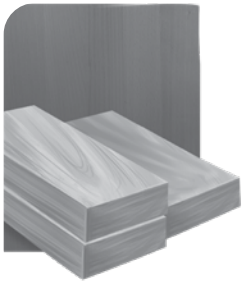
Fill in the blanks.

1. The word ***electricity*** is used to describe electric energy.
2. Atoms are composed of smaller particles called ***protons, neutrons, electrons.***
3. In the nucleus of an atom, the ***proton*** has a charge.
4. Rubbing materials produce ***static*** electricity.
5. The same kind of electric charges ***repel*** each other and opposite charges attract each other.

Observe and Answer

Good

Good



Bad

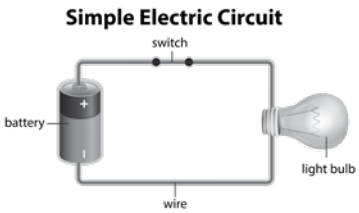
Good

Bad

One-Word Answer

1	Matter
2.	Poles
3.	Charged
4.	Neutral
5.	Electromagnetism

DRAW AND ANSWER

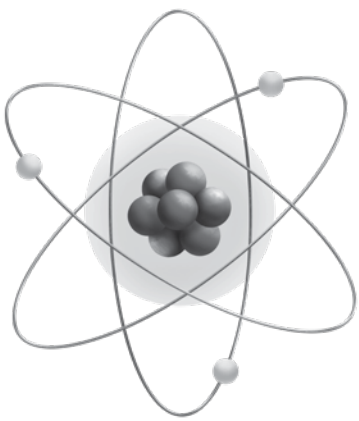


Detailed Questions

1. What are atoms? Describe the smaller parts of an atom and illustrate.

Answer:

ATOM: All matter is made up of tiny building blocks called atoms. The smaller parts of an atom are protons, neutrons and electrons.



2. What is static electricity? Explain.

Answer:

The object's excess of positive or negative charge is called static charge. This buildup of charge on an object is known as static electricity as it does not move from one place to another.

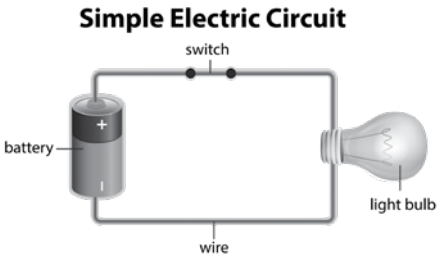
3. Define conductors and insulators with examples from daily life.

Answer:

A conductor is a material that lets charges flow through it easily. The wires are made up of copper, hence are good conductors. An insulator is a material that does not let charges flow through it easily, a wooden door is a good example of an insulator.4. Describe an electric circuit. Illustrate and explain its three main parts.

Answer:

An electric circuit is a path for electric current. It has three main parts: A conducting path, The wire, is one of the conducting paths, it links the source of charge and the device in a loop. In homes, the wire is made of copper surrounded by a plastic coating. A source of electric i.e a battery which is a battery is a source of electric energy. A battery converts chemical energy to electric energy.

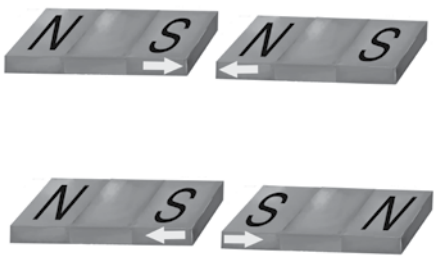


5. Describe and illustrate:

Answer:

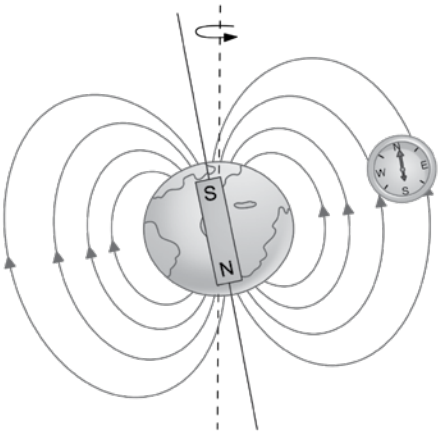
a. Poles of a magnet: attraction and repulsion

All magnets have two magnetic ends, called poles, the North Pole and the South Pole. Unlike poles attract each other, and like poles repell each other.



b. Earth as a magnet

The Earth behaves like a giant magnet. At the centre of the Earth is the liquid core. The core is made up of molten metals that are magnetic which create a huge magnetic pulling force.

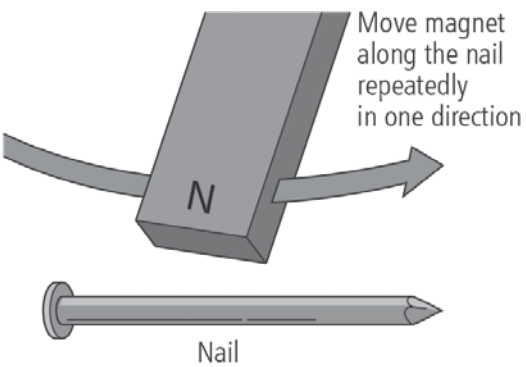


c. Working of a Magnetic Compass

A compass has a needle which is a small, thin magnet. It can move freely so its North end is attracted to Earth's north magnetic pole. It always lies in North to South directions.

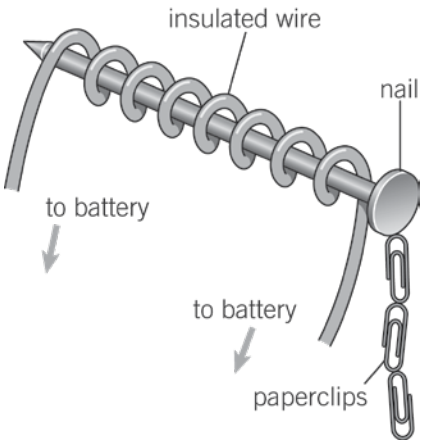
d. Types of magnets.

There are three types of magnets. **Permanent magnets** retain their magnetic properties and exhibit magnetic behaviour for a long period. **Temporary magnets** act like magnets when exposed to a strong magnetic field. We can create temporary magnets by stroking a piece of iron or steel (e.g. a needle) along a permanent magnet. And lastly, **electromagnets**, are a type of temporary magnet created by the flow of electric current through it.



e. Structure of an Electromagnet

An electromagnet is a magnet that can be switched on and off with electricity. When the current flows, it works like a magnet, when the current stops, it goes back to being an ordinary metal.



Unit 8 STRUCTURE OF EARTH

ANSWER KEY UNIT 8

Circle the correct answer.

1.	b. mantle
2.	b. ocean
3.	b. streams and rivers
4.	a. humus
5.	a. dam

Vocabulary Review

Match the following

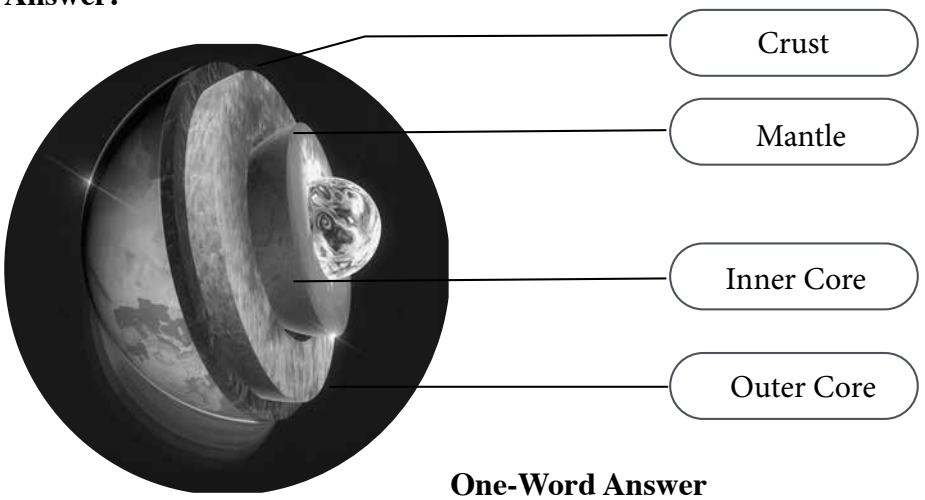
Word	Description
Core	Contains more glacial ice than any other country on earth outside the polar region.
Pakistan	Has two parts and is made up of iron and nickel.
Rivers	Groundwater builds up above the rocky layer and people dig wells to get it.
Groundwater	A mixture of small particles and pieces such as rock, air, minerals, salts, water, humus and microbes
Soil	Begin as streams and eventually end up in oceans.

Observe and Answer

Examples of these water resources include glaciers, running water, rainwater, ponds, lake, reservoirs and wells.

4. Define soil and explain its various components.

Answer:



One-Word Answer

1.	CRUST
2.	INNER CORE
3.	WATER
4.	GLACIER
5.	SOIL

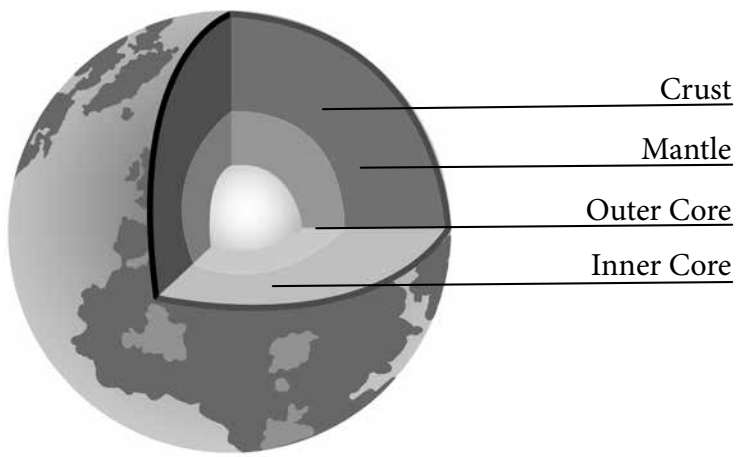
Detailed Questions

1. Describe the three parts of the Earth.

Answer:

The Earth is divided into three parts: The crust, a thin, solid, and the outermost layer. The second layer is known as the mantle, a thick layer of rock below the crust. The core is the central part of the Earth which, in turn, has an outer part and an inner part. Each layer has its properties. These properties depend on the pressure exerted by the layers above. It also depends on the temperature, which goes up as you go deeper into Earth.

2. Illustrate and label a diagram showing the Earth's structure.



3. Describe the different sources of water, with examples.

Answer:

There are four sources of water. They are oceans, groundwater, standing water, rivers and streams.

4. Define soil and explain its various components.

Answer:

Soil is the upper layer of the crust of the Earth. It is a mixture of small pieces of rock, air, minerals, salts, water, humus, microbes, earthworms and some insects.

5. What are the different types of soils based on their particle size? Explain.

Answer:

There are five different types of soil based on their particle size :

CLAY SOIL:

This type of soil is made up of tiny particles which stick to each other. As there are very few air spaces, water is trapped between the particles.

SANDY SOIL :

This type of soil is made up of bigger particles that have large spaces between them so water and air can freely circulate in them. Water drains very quickly from it and takes away most of the minerals with it.

LOAM :

This soil contains a mixture of large and small particles as well as a lot of minerals due to the presence of humus.

HUMUS :

Humus consists of the dead and decaying remains of plants. It helps to keep the soil in good condition for the healthy growth of plants. It binds large particles of sand so that they are not easily blown away by wind, or washed away by flowing water. It helps to loosen up small clay particles so that the water present between them is drained away and more air can circulate.

Further Notes

Unit 9 SPACE AND SATELLITE

ANSWER KEY UNIT 9

Circle the correct answer.

1.	d. all of these
2.	b. Moon
3.	a. 365 days
4.	a. 1990
5.	b. weather satellites

Vocabulary Review

WORD	DESCRIPTION
NASA	Communication Satellites
The Universe	Used to transmit and receive signals, reports and pictures from outer space
Planets	National Aeronautics and Space Administration(USA)
Artificial Satellites	All the planets, stars and the space between them
TV live streaming	Natural Satellites that revolve around the Sun

Observe and Answer

Natural Satellite

Artificial Satellite

Artificial Satellite

Ground Station

One-Word Answer

1.	Scientist
2.	Soviet Union
3.	Neil Armstrong (and Buzz Aldrin)
4.	GPS

Detailed Questions

1. a. Define Space.

Answer:

Space is the area beyond the Earth's atmosphere and between the planets and other celestial bodies.

b. Why is the study of space and beyond important for human beings?

Answer:

The study of space and beyond is important as it helps to understand the true nature of the universe.

2. What does "NASA" stand for? Explain its role in space exploration, 20th Century onwards.

Answer:

NASA stands for National Aeronautics, and Space Administration and is an agency of the United States government. NASA has led the way in space exploration. In the 20th century, astronauts began to explore space. They built powerful rockets. The satellites were sent to faraway places. The first human sent to the moon was in 1960. In the 21st century, technology became more advanced and scientists now had higher goals to achieve.

3. a. Define the term 'Satellite'.

Answer:

Satellites are small objects that revolve around larger objects. They can be natural or artificial.

b. How are satellites important in the exploration of the universe?

Answer:

Satellites help scientists to know more about space, the universe, the solar system and Earth. Artificial satellites are used to transmit and receive signals, reports, and sends pictures from outer space.

c. Describe the natural satellites of the planets in the solar system.

Answer:

A natural object that revolves around another larger natural object in outer space is called a natural satellite. Moon and Earth both are natural satellites. The moon revolves around the Earth.

4. Define and state the importance of artificial satellites.

Answer:

Artificial Satellites are man-made objects placed in an orbit around the Earth or a larger natural object in outer space. Artificial Satellites help scientists to know more about space, the universe, the solar system and Earth. These satellites are used to transmit and receive signals, reports, and sends pictures from outer space. We also use these satellites for global communication, television broadcasting, and weather forecasting.

5. Describe the following:

Answer:

a. Geostationary satellites

The Global Positioning System or GPS provides the location and time information to the GPS receiver in our phones.

b. Weather satellites

They provide information about weather patterns, greenhouse gases and climate change. Scientists get to know about hurricanes and severe storms which are on their way.

c. Communication Satellites

They have made it possible to transmit radio and television programmes around the world.

Unit 10 TECHNOLOGY IN EVERYDAY LIFE

ANSWER KEY UNIT 10

STATE WHETHER TRUE OR FALSE

1.	True
2.	True
3.	False
4.	True

One-Word Answer

1. First Aid Box contains bandages, tweezers and other medical products.
2. Precautionary measures should be followed handling the technology.
3. Safety Rules helps us stay safe.

ANSWER THE FOLLOWING QUESTIONS

1. How should the pointed objects be handled?

Answer:

Pointed objects should be handled carefully. Learn to hold the pointed objects in such a manner that you and others are safe.

2. What is an evacuation plan?

Answer:

In case of an emergency, like an earthquake or a fire, you need to leave the place to a safe point, following a plan which is known as an evacuation plan. In all civil societies, evacuation plans are made to make citizens safe.

3. What is a plumb line used for?

Answer:

A Plumb line is a weight suspended from a string used to hang things vertically straight, for example, flag pole.

4. What is the advantage of using LED lights?

Answer:

LED lights are very efficient and consume less energy than an incandescent light source.

5. What is a spirit level?

Answer:

A spirit level is a tool that helps you tell if a surface is perfectly straight. All spirit levels measure a horizontal line, while some also measure a vertical line. There is a bubble in the spirit level that is exactly in the centre of the marked lines on the tube. For example, the surface of a table is perfectly smooth if the bubble is in the centre.