

# **Solution of Science Class 5**

# Chapter: 1A

## Five Kingdom Classification

**1. Choose and write the best option for each statement.**

- a. i. Plants
- b. iii. Invertebrates
- c. ii. Gills
- d. iii. Amphibian
- e. i. Mammals

**2. Identify which group of vertebrates an organisms belongs to.**

Organisms	Group
Turtle	reptiles
Snake	reptiles
Man	mammals
Rat	mammals
Whale	mammals
Parrot	birds
Dog	mammals

**3. Look at the following images and write answer of the following given questions.**

- b. They look the same because they both are without tail, but they also look different as frog has smooth skin and toad has rough skin.
- c. They are similar because they both have backbones.
- d. They are different because frogs lives in water and toads lives on land.

**4. Answer the following question.**

- a. Classification means to put things into groups on the basis of the similarities and differences in their characteristics.
- b. Living organisms are classified into five main groups called as “five kingdom classification. Five kingdom classification helps to study all living organisms on the basis of their similarities and differences.
- c.

Vertebrates	Invertebrates
<ul style="list-style-type: none"> <li>Vertebrates are the animals that have backbone.</li> </ul>	<ul style="list-style-type: none"> <li>Invertebrates are the animals that do not have backbone.</li> </ul>
<ul style="list-style-type: none"> <li>They have endoskeleton.</li> </ul>	<ul style="list-style-type: none"> <li>They have exoskeleton.</li> </ul>

• Example:- Fishes and Amphibians	• Example:- Worms and sponges.
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d. Fish Reptiles Birds Amphibians Mammals

e.

Vertebrates	Habitat	Warm blooded cold blooded
1. Fish	water	Cold – blooded
2. Amphabians	water and land	Cold – blooded
3. Reptiles	land	Cold – blooded
4. Birds	all types of habitats	Warm – blooded
5. Mammals	every habitat on land	Warm - blooded

5. **Classify the following invertebrates into warm, mollusk and insect on the basis of their characteristics.**

1. It is a worm.
2. It is an insect.
3. It is a mollusc.

## Chapter: 1B

### Classification of Plants

1. **Choose and write the best option for each statement.**

- a. iii. one
- b. ii. two
- c. ii. sunflower
- d. ii. two
- e. iii. three
- f. ii. fibrous

2. **Answer the following question.**

a. Leaves grow on plant stems or branches. Gas exchanges take place here. Plants make their food in leaves therefore, they are called food factory. During photosynthesis, plants release oxygen as a waste product.

b.

(i) Flowering plants	Non – flowering
• Flowering plants bear flowers on them.	• Non – flowering plants do not grow flowers.

<ul style="list-style-type: none"> <li>Flowers are the reproductive organs of flowering plants.</li> </ul>	<ul style="list-style-type: none"> <li>They reproduce through seeds or spores.</li> </ul>
<ul style="list-style-type: none"> <li>Example: Sun flower</li> </ul>	<ul style="list-style-type: none"> <li>Example: Mosses</li> </ul>

(ii) Monocot	Dicot
<ul style="list-style-type: none"> <li>Monocots have only one cotyledon in their seeds.</li> </ul>	<ul style="list-style-type: none"> <li>Dicots have two cotyledons in their seeds.</li> </ul>
<ul style="list-style-type: none"> <li>Example: wheat and corn.</li> </ul>	<ul style="list-style-type: none"> <li>Example: pea and beans.</li> </ul>

**C.** Vascular bundles are the veins of the plant, they carry nutrients and water up and down the stem.

**d.** **Conifers** reproduce by seeds developed in their cones.

**Ferns** reproduce by spores developed on the underside of their leaves.

**Mosses and liverworts** reproduce through spores developed in their capsules.

**3. List differences between monocot and dicot plant.**

Monocot	Dicot
fibrous	tap
scattered	ringed
multiples of 3	multiples of 4 or 5
parallel veins	net – like veins
one cotyledon	two cotyledon

## Chapter: 2

### Microorganism

**1. Choose and write the best option for each statement.**

- a. iv. Chickenpox
- b. ii. Pneumonia
- c. i. virus
- d. i. virus
- e. ii. protozoa
- f. iv. all of above

**2. Answer the following question.**

**a.**

<b>i. Microorganism</b>	<b>ii. Microscope</b>
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<p>The organisms that cannot be seen through naked eye are called as microorganisms.</p> <p>Examples: viruses and bacteria.</p>	<p>Microscope is a device that produce a much larger view of small objects so that they can be seen clearly.</p>
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**b.** A decomposer is an organism that decomposes, or break down, organic material such as the remains of dead organisms.

Decomposers play a critical role in the flow of energy through an ecosystem.

**c.**

- Always wash your hands for 20 seconds after public interaction.
- Always wear mask in schools, bazar etc.
- Always maintain a safe distance specially from a person who is coughing and sneezing.
- Always use filtered or boiled water.
- Visit your family doctor to have a regular checkup.

**d.**

- Microorganisms are the key players in the production of dairy products by the process called fermentation.
- A fungus is added to the bread dough before baking.
- Microorganisms are not only helpful to our body but they are also helpful to the environment.
- Some microorganisms are used as insecticides that keep the insects and pests away from crops.

**e. Ways by which Microorganisms Enters the body**

Microorganisms can enter our body and cause infections through many ways. They can either enter our bodies through air, water, food, animals, or through skin.

#### **Air**

When a person sneezes or a cough, germs spread in air all around. These germs enter the body through air when the other person breathes.

#### **Water**

When a person drinks contaminated water containing microorganisms, these germs are transferred to his body.

#### **Contact with skin**

Microorganisms enter our bodies through cuts, scratches, injuries or even through direct skin contact.

#### **Food**

Contaminated food contains microorganisms. When a person eats this food, the microorganisms enter his body and cause disease.

### Animals

Animals like mosquitos are also the carriers of germs. They suck blood from an infected person and when they bite a healthy person, the germs transferred to that person's blood.

### 3. Search and identify which groups of microorganisms enter the following.

Bacteria

Virus

Bacteria

Fungi

Fungi

Bacteria

## Chapter: 3 Flowers and Seeds

### 1. Choose and write the best option for each statement.

- a. iv. ovule
- b. i. anther sac
- c. i. Peas
- d. i. seed
- e. iii. Pistil
- f. iii. embryo

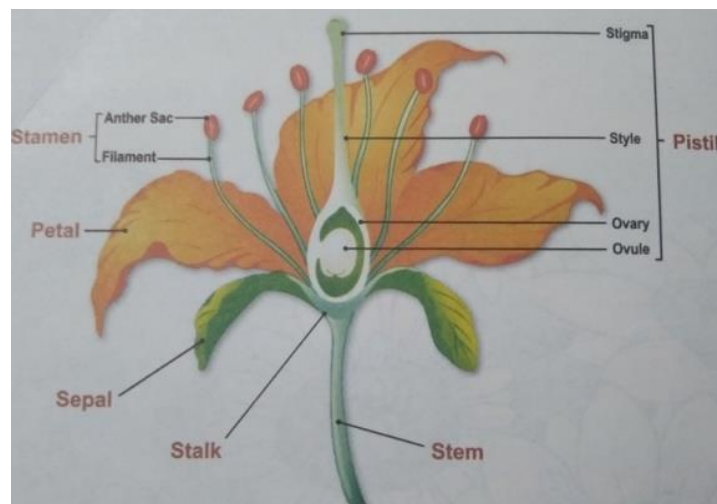
### 2. Read the statement, then find the answers in the puzzle given below.

- a. anther
- b. filament
- c. stigma
- d. style
- e. ovary

S	H	A	W	C	D	Q	U	R
T	I	V	N	A	F	J	P	L
Y	L	U	S	T	I	G	M	A
L	M	S	X	Z	H	S	J	I
E	F	I	L	A	M	E	N	T
O	N	R	Y	O	V	A	R	Y

3. Locate the label different parts of a flower. Also write their functions in the given table.

Parts of a Flower	Function
Sepals	They protect immature flower.
Petals	They attract the insects.
Stamens	They carry male reproductive cells.
Pistils	They carry female reproductive cells.



4. Answer the following question.

a.

Pollination	Fertilization
<ul style="list-style-type: none"> <li>Pollination is the transfer of pollens from anther sac of the flower to the stigma.</li> </ul>	<ul style="list-style-type: none"> <li>Fertilization is the fussion of male and female gametes, forming the diploid zygote.</li> </ul>
<ul style="list-style-type: none"> <li>It is achieved by external agents like water etc.</li> </ul>	<ul style="list-style-type: none"> <li>It does not require external agents.</li> </ul>
<ul style="list-style-type: none"> <li>It is an external mechanism.</li> </ul>	<ul style="list-style-type: none"> <li>It is an internal mechanism.</li> </ul>

b. When birds visit flowers to get nectar, pollens get deposited on the bird's head and neck and then get transferred to the next flower that it next.

c. Pollination in which transfer of pollens from another sac to the stigma takes place within the same flower is called self – pollination.

Example: peas, oats, and wheat.

Pollination in which transfer of pollens from anther sac to the stigma takes place across flowers of two different plants is called cross pollination.

Example: grasses, and sunflowers.

d. Reproduction in plants is the production of new offspring in plants.

- **Sexual Reproduction**

This type of reproduction takes place by the fusion of sperm and egg cell i.e. seed.

- **Asexual Reproduction**

This type of reproduction takes place in the absence of sperm and egg cell. A plant can reproduce from its parts. i.e. stem, root and bulb etc.

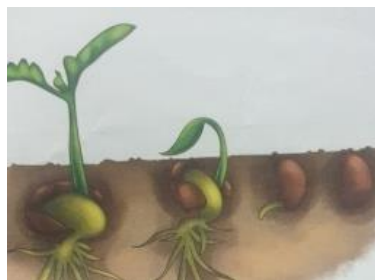
e.

- **Seed coat**, protects the internal parts from damage and from drying out.
- **Endosperm** provide nutrition to the seed during germination.
- **Cotyledon** surround the embryo in the form of special leaves called cotyledons or seed leaves.
- **Embryo** stores food and nourishes the growing plant.

f.

Embryo	Seed coat
<ul style="list-style-type: none"> <li>• <b>Embryo</b> is the most important part of a seed because embryo is where life starts within a seed. Embryo stores food.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Seed coat</b> is the outer covering of a seed. It protects internal parts from damage and drying out.</li> </ul>

g.



h.

Characteristics	Chick pea	Maize seed
Shape	Cone shaped	Oval shaped
Colour	Black or brownish	Light white or pale
Hardness/softness	Hard seed coat	Soft seed coat
Endosperm	No endosperm	Endosperm present



## Chapter: 4

### Environmental Pollution

**1. Choose and write the best option for each statement.**

- a. iv. all of them
- b. i. Flowers
- c. iv.. atmosphere
- d. i. Rubber
- e. ii. Resume

**2. Answer the following question.**

**a. Pollution** is the presence of harmful contaminants and poisonous substances in the natural environment which may cause adverse changes to the environment.

#### **Types of Pollution**

- Land pollution
- Water pollution
- Air pollution

#### **Land Pollution**

Land pollution is defined as the deposition of solid or liquid waste material on land or underground as a result of human activities.

#### **Water Pollution**

Water pollution is the contamination of water bodies such as lakes, rivers, oceans and groundwater, very often by human activities.

#### **Air Pollution**

Air pollution occurs when gases or dust particles are added into the atmosphere in a way that makes it harmful to human beings, animals and plants.

**b.**

#### **Effects of water pollution:**

- Plants also get affected in their habitat due to the contaminated water.
- Water pollution affects the natural food chain as well.
- Many diseases such as typhoid and cholera spread mainly through polluted water.

#### **Effects of air pollution:**

- Air polluted affect the ozone layer which surrounds the earth.

- Smog is a mixture of smoke and fog react with sunlight. It can irritate the eyes and throat and damage the lungs.
- Breathing polluted air puts people at a higher risk of getting ill with diseases like cancer or asthma and other respiratory diseases.

#### **Effects of land pollution:**

- Land pollution affects the ecosystem.
- Land pollution affects the health of an organism.
- Land pollution affects the vegetation.

c. Biodegradable substances are those substances that degrade or break down naturally. Materials like plants, animals and their waste, paper, fruits, flowers, vegetables are biodegradable materials.

Non – biodegradable substance are those substance that do not degrade easily. Rubber, plastic, chemicals, and paint are non – biodegradable items.

d. Non - biodegradable substances do not break down easily, because they are synthetic products, like plastic, glass and batteries. As they do not break down easily and cannot be disposed off, they cause pollution, blockage in drains and choking of animals.

e.

- Use re - useable utensils.
- Use re - useable grocery bags.
- Donate items that are not in use.
- Avoid food that is wrapped in plastic.

**3. The picture below depict different types of pollution. Write down their causes and suggest ways to reduce pollution.**

#### **Air pollution:**

**Causes:** forest fires, volcanic eruptions and wind erosion.

#### **Ways to reduce pollution:**

- Do not burn the trash.
- Try to use public transport when you travel.
- Do not use harmful chemicals on crops.
- Plant more trees.

#### **Water pollution:**

**Causes:** Water pollution is caused by throwing industrial waste in water bodies, acid rain and global warming.

#### **Ways to reduce pollution:**

- Do not throw medical wastes in water.
- Dispose of toxic chemicals properly.
- Keep out oils, fats or grease from the sink.

### **Land pollution:**

**Cause:** Use of pesticides, littering, soil erosion and deforestation.

### **Ways to reduce pollution:**

- Dispose of wastes properly.
- Throw your litter in the bin.
- Do not throw garbage on public parks.

## **Chapter: 5**

### **Physical and chemical changes of Matter**

#### **1. Choose and write the best option for each statement.**

- i. boiling
- ii. condensation
- i.. solid to liquid
- iii. mixture
- i. Air
- i. in cuts
- i. Formation of liquid droplets above the solution
- i. dilute

#### **2. Classify the following as true or false. Also rewrite the correct statement with reason in your notebook.**

- T
- F
- T
- T
- F

### **REASONS**

**b :** in a physical change , the composition of matter remains same.

**E :** Burning of wood is a chemical change.

#### **3. Label the following as chemical change (cc) or physical change (pc).**

- physical change
- physical change

- c. chemical change
- d. physical change
- e. chemical change
- f. physical change
- g. chemical change
- h. physical change
- i. chemical change
- j. chemical change

ii. **Classify each of the following as a homogeneous or heterogeneous mixture.**

- a. Hetrogeneous                      b. Homogeneous                      c. Hetrogeneous
- d. Homogeneous                      e. Homogeneous

4. **Write the differentiate between a physical change and a chemical change.**

Physical change	Chemical change
• No new substance is formed.	• One or more new substances are formed.
• No production of energy.	• Production of energy takes place.

5. **Tick (✓) which solution /solution are homogenous.**

Sugar in water                      ✓

Salt in water ✓

6. **Answer the following questions.**

a. A physical change is a type of change in which one substance does not change into another different substance.

Example: freezing of water & melting of wax

b. When a solid is heated the molecules that make up the solid begin to vibrate. This cause them to take up more space, and the solid matter expands. After sometimes, particles break strong attraction, causing the solid to melt.

c. The change of liquid to the solid state is called freezing. Freezing happens in water, when the molecules of water get so cold that they slow down enough to hook into each other forming a solid crystal. It happens at C.

d.

Dissolving	Melting
• Dissolving is a process where a solute dissolve in a solvent to form a solution.	• Melting is a process that changes a substance from solid to a liquid state.

<ul style="list-style-type: none"> <li>Dissolving does not need heat to occur.</li> </ul>	<ul style="list-style-type: none"> <li>Melting needs heat to occur.</li> </ul>
<ul style="list-style-type: none"> <li>It involves two or more substance to occur.</li> </ul>	<ul style="list-style-type: none"> <li>It involves only one substance to occur.</li> </ul>

**e.** The smaller the size of solute the greater is the rate of dissolution. It is because smaller solute particles are in more contact with water as compared to larger particles.

**f.** Burning of wood is a chemical change. By the burning of wood, carbon dioxide , ash, water vapours, heat and light are produced which are different from the original substance, that is, wood.

**g.** The concentration of a solution is a measure of the amount of solute that has been dissolved in a given amount of solvent or solution. On the basis of amount of solute in a solvent, solution are of two types:

- Dilute solution
- Concentrated solution

**h.** Rusting is a chemical change that affects iron articles and slowly destroys them. When the iron articles are exposed to air and moisture, rust formation takes place. In this chemical change a new substance called rust is formed which is different from iron, oxygen and moisture. Therefore, rusting of iron is a chemical change.

**i.**

<b>Mixture</b>	<b>Solution</b>
A mixture is two or more substances mixed together and are not completely dissolved.	A solution is a mixing of two or more substances together, but substances are completely dissolved.
The substances in a mixture can be easily separated.	The substances in a solution cannot be easily separated.
The amount of components in a mixture do not have a fixed ratio.	A solution usually has a fixed ration of substances.
Mixture can be homogeneous mixtures or heterogeneous.	A solution is only homogeneous.
Sand and water, oil and water are some examples of mixture.	Sugar and water, salt and water are examples of solution.

**j.**

- Concrete is used in roads. It is a mixture of water, sand and other chemicals.
- Ice cream is a mixture of milk, sugar and flavours.

- Milk is also a mixture which is daily used. Milk is the mixture of water, proteins and fats.
- Tea is mixture of tea leaves, milk, water, and sugar.

## Chapter: 6A

### Light and Shadow

**1. Fill in the blanks with appropriate words.**

- a. long
- b. short
- c. opaque
- d. earth

**2. a. List at least four examples of each.**

Natural Sources of Light	Man – made Sources of Light
sun	lamp
stars	bulb
lightening	torch
fireflies	candle

**b. List at least four examples of each.**

Luminous Objects	Non – Luminous Objects
sun	pen
bulb	pencil
torch	chair
star	wood

**3. Read the following examples and write the reason.**

This is because the ball stops the light from reaching the wall in the region of the dark circle.

**4. Answer the following questions.**

**a.** Light rays always travel in a straight line, they may only change direction when they strike with an object or passes from one material to another. Shadows are evidence of light travelling in straight lines.

**b.** Light rays travel in a straight lines. Sometimes, when an objects blocks the path of the light, it cannot be seen on the other side of the object, as a result of which a shadow is formed.

c. Transparent objects are the objects that allow light to pass through them; Example glass.

Translucent objects are the objects that allow some light to pass through them; Example water. Opaque objects are the objects that do not allow any light to pass through them. Opaque objects are responsible to cause shadow formation, Example wood, rubber, etc.

d. During the course of the day the position of the Sun affects the size of the shadow. When the Sun is low in the sky, shadows are long. When the sun is high in the sky, shadows are short.

e. The size of shadows can be changed by changing the distance between the light source and the object. When the object is placed near the light source. Most of the light is blocked by the object and it casts a bigger shadow. When the object is placed far from the light source, it casts a smaller shadow.

Shadows can be changed their shape. When a light source moves closer to the object, the shadow becomes longer and wider. Whereas, when the light moves away from the objects, the shadow becomes shorter and thinner.

## Chapter: 6B

### Sound

1. Choose and write the best option for each statements.

- a. i. solid
- b. iii. decibel
- c. i. 343
- d. iii. vacuum

2. In which state of matter does the sound travel fastest? Identify the state and put '>' and '<' in correct order.

Gas < Liquid < Solid

3. Answer the following question.

- a. Sound travels in the form of waves, when these sound waves strike our eardrum cause them to vibrate. As a result of these vibrations, we hear the sound.
- b. Space has no air to vibrate and therefore no sound is heard in space.
- c. The distance between the particles in liquid is less than gases, Therefore, sounds travel faster in liquid as compared to gases.

- d. To reduce the loudness of a sound, we use soundproofing materials. Soundproofing materials absorb sounds and prevent vibrations to travel through them. These materials can be cushions, foams, carpets and curtains, etc.
- e. **Due to noise pollution humans have following health issue like;**
- Headache
  - High blood pressure
  - Constant stress
  - Loss of sleep
  - Memory loss
- f. The effects of noise on birds are as follows:
- physical change to ears.
  - stress responses.
  - changes in vocal communications.
  - fright – flight responses.
  - charges in reproductive success.

## Chapter: 7

### Electricity and Magnetism

1. **Choose and write the best option for each statement.**

- a. i. Battery
- b. ii. neutrons
- c. iii. Gold
- d. iii. at the poles
- e. iii. repel
- f. iv. all of the above
- g. i. Glass
- h. i. alnico

2. a. **List at least three examples of each.**

Magnetic Materials	Non – Magnetic Materials
Iron nails	glass
cobalt bolt	plastic bottle
nickle bolt	rubber

b. **List at least five examples of each from daily life.**



Conductors	Insulator
Pans and pots	Glass
Jewellery	Wood
Forks	Plastic
Knives	Rubber
spoons	Paper

### 3. Answer the following questions.

a.

Conductors	Insulators
<ul style="list-style-type: none"> <li>Materials that allow electric current to pass through them are called conductor.</li> </ul>	<ul style="list-style-type: none"> <li>Materials that do not allow electric current to pass through them are called insulators.</li> </ul>
Example: copper and silver	Example: paper and wood

b. Electric current, always flows from positive terminal of the cell to the negative terminal of the battery.

c. **Temporary magnets** cannot retain their magnetism or retain it for a very short period. When the magnetic field is removed, they lose their magnetism gradually. Examples: paper clips, nails, and screwdrivers.

**Permanent magnets** retain their magnetism even in the absence of any external magnetic field. Permanent magnets do not lose their magnetism easily. Examples includes alnico(an alloy of aluminum, nickel, and cobalt).

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

Example: Electric motor, Electric forms.

d. Magnets are used in laptops.

We use magnets to stick small sticky notes on a whiteboard.

Magnets are used in door locks which help them to close.

Magnet compass is used to find the ways as it always points towards North – South direction.

e. i. **Static electricity** build up a charge by gaining or losing electrons on the surface of the insulator.

ii. **Current electricity** is the flow of electrons inside the conductor.

iii. Magnetic field is an area around the magnet where the force is stronger and it is responsible for push or pull.

iv. A magnet is an object that attracts or pulls some objects towards itself, these objects are made of magnetic materials. Example: iron and nickel.

Non – magnetic materials cannot be attracted towards the magnet. These materials include all non – metals such as wood, glass, paper, rubber and plastic.

f. An atom consists of sub – atomic particles called electron's protons and neutrons. Electrons have negative charge.

- Protons have positive charge.
- Neutrons have no charge, they are neutral..

An atom of carbon is illustrated in the figure given below.

## Chapter: 8A

### Structure of the Earth

1. Choose and write the best option for each statement.

- a. iv. crust
- b. iv. Crust, Mantle, Core
- c. i. Inner core
- d. i. Mantle
- e. ii. 0.0001
- f. iii. 97%

2. Determine whether each of the statement below is true or false. Also rewrite the true statement in your notebook.

- a. F
- b. T
- c. F
- d. F
- e. T

**True statements :**

a : The mantle is the thickest layer of earth.

c : All oceans and mountains exist on crust of earth.

d : Ponds are used as a habitat of some endangered species.

3. Label the layers of the earth.

Crust                      Mantle                      Outer core      Inner core

**4. Answer the following questions.**

- a. silica and aluminium
- b. It is the inner most layer of the earth. This layer is as hot as the surface of the sun. This layer is solid and is made of iron and nickel.
- c. core
- d. **Core**

Inside the mantle, there is core of the earth. Core is divided into two parts; the outer core and the inner core.

**The Outer Core**

The outer core surround the inner core. The outer core is in liquid form and is composed of iron and nickel.

**The Inner Core**

It is the inner most layer of the earth. This layer is as hot as the surface of the sun. This layer is solid and is made of iron and nickel.

- e. Four sources of water on the earth are :oceans, lakes, rivers, and glaciers.

## **Chapter: 8B**

### **Soil**

**1. Choose and write the best option for each statement.**

- a. iv. Mud
- b. i. Sandy
- c. iii. Clay
- d. i. 45%
- e. ii. Columnar

**2. Match the type of soil with appropriate description.**

Sandy Soil	Large spaces between particles
Loamy Soil	Humus
Silt Soil	Found near the river
Clay Soil	Tightly packed particles

**3. Answer the following question.**

- a. i. Loamy soil is dark in colour.
- ii. It is soft and dry.

**b.** Soil is formed by the breaking down of rocks by the action of wind, water and climate. This process is called weathering. Weathering of rocks produces small particles of various materials.

**c.** Texture of soil is an important characteristic. Texture means the size of the particles that make the soil. Example:. Sand has larger size of particles and feels rough.

**d.**

<b>Black soil</b>	<b>Yellow soil</b>
<ul style="list-style-type: none"><li>• Black soil is rich in organic matter.</li></ul>	<ul style="list-style-type: none"><li>• Yellow soil is rich in iron.</li></ul>
<ul style="list-style-type: none"><li>• It contains high amount of nutrients.</li></ul>	<ul style="list-style-type: none"><li>• It contains low amount of nutrients.</li></ul>

**e. Types of soil**

#### **Sandy Soil**

The particles in the sand are quite large. They cannot fit close together, that is why there are large spaces between them. Sandy soil cannot hold water strongly and roots of plants cannot absorb water easily. It also has very low amount of nutrients.

#### **Clay Soil**

The particles in clay are much smaller and tightly packed together, leaving little space for air.

Clay soil has more amount of nutrients for the better growth of plants.

#### **Silt Soil**

The size of the particles in silt is somewhere between those of sand and clay. It is smooth to touch. It holds water better than sand. The silt soil has more amount of nutrients. Therefore, it is also used for agriculture purpose.

#### **Loamy Soil**

Loamy soil is dark in colour and is soft and dry. It contains right proportion of water nutrients and air for plants to grow.

**f.** A healthy soil consist of the following main components:

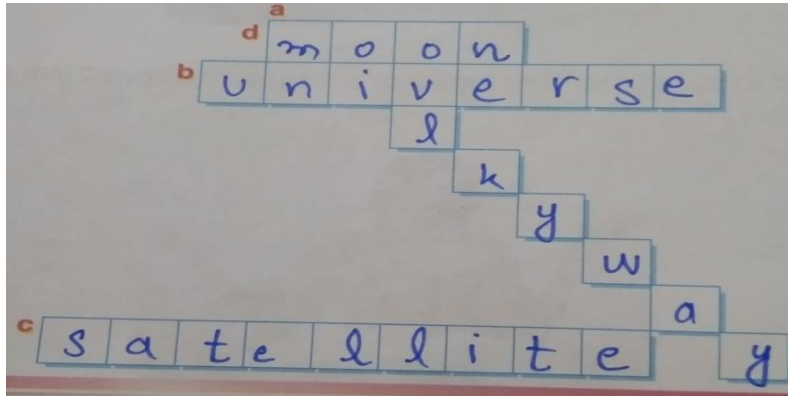
- Minerals
- Organic matter(humus)
- Water
- Air

## **Chapter: 9**

### **Space and Satellites**

**1. Read the given statements and complete the crossword puzzle.**

- a. Milky Way Galaxy.
- b. universe
- c. satellite
- d. moon



**2. Complete the timeline by writing the year of accomplishment.**

1957 1961 1969 1977 1995 2014 2020

1958 1966 1975 1981 1998 2015

**3. Write down the uses of satellites in space.**

- a. Satellites are the main source of TV signals.
- b. Satellites provide information related to weather.
- c. Satellites based on navigation helps us to find exact position.
- d. Satellites is a primary source for cell phones.
- e. Communication satellites are used to communicate between different locations.

**4. Answer the following questions.**

a. NASA is responsible for advancement in science and technology related to air and space. The engineers of NASA develop specific machines for specific purposes to perform necessary functions for a mission. These machines are called satellites.

b. A satellite is a heavenly body that revolves around the planet in an orbit.

**Importance:** Satellites looking towards earth provide information about clouds, oceans,, lands and ice. They also measures gases in atmosphere. And satellites monitor wildfires, volcanoes, their smoke.

c. Moon is the natural satellite of the Earth. Mercury and Venus has no Moon. Mars has 2 Moons. Similarly, Jupiter- 79, Saturn- 82, Uranus – 27 and Neptune has 14 Moons.

These are all natural satellites. Satellites which are made by man and launched into the orbit, these are called artificial satellites.

Artificial satellites are used to study the planets, they help us to communicate, navigate and to observe the universe.

### **Types of Artificial Satellites**

- i. Geostationary Satellite
- ii. Communication Satellites

## **Chapter: 10**

### **Technology in Everyday Life**

#### **1. Fill in the blanks.**

- a. narrow spaces
- b. Mason's level
- c. wire strippers
- d. tectonic
- e. short circuit

#### **2. Answer the following question.**

- a. Spirit level is an instrument designed to indicate whether a surface is horizontal or vertical. Different types of spirit level used by carpenters, bricklayers, other building trades workers and in some photographic work.
- b. Washing hands is an important step to remove germs from hands as these germs could cause infection. Therefore, wash hands for 20 seconds at least and dry them with a towel.
- c. Earthquakes happens when the tectonic plates in earth's crust , shift causing waves which move and crash up against one another. Earthquakes come without warning and are usually followed by similar aftershocks.
- d. Level usually has two small liquid – filled tubes, one horizontal and the other vertical.

The horizontal vessel is used to find the horizontal plane. Notice that the vessel has a bubble in the center and two lines, which are called guidelines.

When we measure horizontal object, and the bubble falls between the two guidelines, it means that the object is completely level.

- e. A plumb line is a weight suspended from a string used as a vertical reference line to ensure a structure is centered.

#### **3. Write any six materials which are used to make foot bridge.**

Cardboard

String

Ruler

Pen

Glue

Popsicle sticks

**4. Write briefly the steps for dressing of a wound in the given space.**

- a. Before starting the wound dressing, gather all the necessary materials, cleanser, guaze pads, medical tape and gloves.
- b. Wash your hands and put a pair of clean gloves.
- c. Take a tweezer and a cotton ball. Dip the cotton ball in the saline solution.
- d. Then, clean the edges of the tape so that the tape comes off easily.
- e. Now, remove the dressing and assess the wound. Check if there are any signs of infection.
- f. Now apply new dressing, apply an antibiotic ointment on the wound, cover the wound with guaze pads and then secure edges with the help of medical tape.