



## MADHAV INTERNATIONAL SCHOOL

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### Grade 3 Science

#### Chapter – 3

- **Write short answers:**

**Q 1. What is soil made up of?**

Ans. Soil is mainly made up of gravel , sand , clay , humus, water and air.

**Q 2. What is Humus? Why is it important for the soil?**

Ans. The rotted remains of dead plants and animals is called humus. Humus helps plants to grow well.

**Q 3. Name the different types of soil.**

Ans. Different types of soil are sandy soil, clayey soil and loam.

- **Answer these questions:**

**Q 1. Describe how soil is formed.**

Ans. In the beginning, the Earth was full of big rocks. The Sun heated up the rocks. The rain cooled them. This heating and cooling over thousands of years broke down the big rocks into smaller rocks. The smaller rocks continued to break down and formed tiny pieces of soil. Simple plants and animals grow in the soil. When these plants and animals die, their remains rot and form humus. Humus gets mixed with the soil and becomes a part of it.

**Q 2. How will you show that soil contains air?**

Ans. To show that soil contains air take a jar with some soil in it. Pour water into the jar. You will see air bubbles forming on top. When water is poured into the soil, air escapes in the form of bubbles. This shows that soil contains air.

**Q 3. How will you show that soil contains water?**

Ans. To show that soil contains water, put some garden soil in a vessel. Cover it with a lid. Heat the vessel for some time (take the help of an adult). Remove the lid. You will see tiny drops of water underside of the lid.

When the soil becomes hot, the water inside it changed into vapour. The vapour rose up to the lid. On touching the lid, this vapour cooled. The cooled vapour changed into tiny drops of water. This shows that soil contains water.

**Q 4. Write two qualities each of sandy and clayey soils.**

Ans. Sandy soil: sandy soil contains lot of air. It holds very little water.

Clayey soil: Clayey soil holds a lot of water. It does not hold much air.

**Q 5. Which soil helps plants to grow better? Why?**

Ans. Loam helps plants to grow better. This is because loam is a mix of sand and clay. It contains the right amount of air and can hold water well. It also has humus. Humus helps plants to grow well.

**Q 6. Why is soil important for us?**

Ans. Soil is very important for us. Plants grow in the soil. Our food crops also grow in the soil. So, there will not be any food for us if there is no soil.

We use soil as a building material. We make many useful items such as bricks, tiles and pots from soil. Sand is used to build houses.

#### Chapter - 6

- **Write Short answers.**

**Q 1. What is the main difference between the root and shoot?**

Ans. The part that grows below the ground is called the root. The part that grows above the ground is called the shoot.

**Q 2. Name any two roots that we eat.**

Ans. We eat the roots of carrot and beetroot.

**Q 3. Write two functions of the stem.**

Ans. Two functions of stem are as follows:

- The stem carries water and food to different parts of the plant.
- The stem bears branches, leaves, flowers and buds.

**Q 4 What is photosynthesis?**

Ans. Leaves use water, air and sunlight to make food for the plant. This process of making food is called photosynthesis.

**Q 5. When does a seed grow into a new plant?**

When the seed gets enough air, water and warmth, the baby plant inside it begins to grow.

**Answer these questions:****1. Name and describe the different types of roots.**

There are two types of roots: tap roots and fibrous roots.

A tap root is a long, thick root that grows downwards into the soil. Smaller roots grow out of the sides of a tap root. Carrot, beetroot and mustard have tap roots.

A fibrous root is made up of many small roots. The small roots grow out in many directions from the base of the stem. Grass, wheat and rice have fibrous roots.

**2. Why are leaves important for plants?**

Leaves are important for plants because of the following reasons:

- Leaves make food for the plant. Veins in the leaves carry food from the leaf to the other parts of
- Leaves help a plant to breathe.
- Leaves of some plants such as cabbage, spinach and coriander store food.

**3. How are flowers and seeds important for plants?**

Flowers and seeds are important for plants because most flowers grow into fruits that have seeds inside them. A seed has a baby plant inside it. When it gets enough air, water and warmth, the baby plant begins to grow. So, they help a plant to reproduce.

**Chapter 7**

- **Give reasons for the following:**

**1. Flesh eating birds have sharp and curved claws.**

Flesh-eating birds like eagles, kites and vultures have sharp and curved claws so as to catch small animals and hold their prey between their toes while flying.

**2. A woodpecker's nest is not made of grass and twigs.**

A woodpecker's nest is not made of grass and twigs because it makes a hole in a tree trunk with its chisel-shaped beak to make its nest.

- **Answer these questions:**

**1. What special features help a bird to fly?**

A bird can fly easily in the air because of 1. boat-shaped body that helps it to cut through the air easily 2. hollow and fewer bones that keeps its body light.

**2. How is the beak of pigeon different from that of a duck?**

A pigeon has a short, hard and horny beak that enables it to break and crush the grains it eats. A duck has a broad-flat beak with comb-like edges on its sides. These help the duck to retain food and grass in the mouth while straining out the water when it dives in a pond or lake for food.

**3. How are the claws of a perching bird different from those of a flesh eating bird?**

Perching birds like crows and pigeons grip the branches tightly like a lock as they sit on the branches. The grip is so strong that the bird cannot fall off even while sleeping on it. Flesh-eating birds have sharp, curved claws that are strong enough to catch prey and even hold them between the toes while flying.

**4. How is a woodpecker's nest different from that of a penguin?**

A woodpecker makes its nest by making a hole in a tree and lining it with bits of wood to make the nest comfortable. The penguin, however, just puts together stones and pebbles on ice-free ground to make a nest and lay its eggs.

**5. How do parent birds take care of their eggs and young ones?**

Most birds take care of their young ones by taking turns to sit on the eggs to keep them warm. They also try to keep enemies away. When one parent sits on the eggs, the other goes out to find food. The parent birds take care of the chicks until they grow their feathers and learn to find food for themselves.

### Chapter 8:

- **Write short answers:**

- 1. What is the role of the skeletal system?**

The skeletal system provides shape and support to our body. It also protects important organs such as heart, lungs and brain.

- 2. What is the circulatory system made up of?**

The circulatory system is made up of blood, heart and blood vessels.

- 3. What is the role of the nervous system?**

The nervous system controls all the activities of our body such as walking, talking, thinking, learning and hearing.

- **Answer these questions:**

- 1. Describe how digestion takes place inside our body.**

Digestion starts from the mouth itself when we eat. When we chew food it mixes with the saliva in the mouth and becomes soft. The food then goes into the stomach through the food pipe. In the stomach the food mixes with the digestive juices. It then passes into the small intestine, where it mixes with digestive juices of the liver, pancreas and small intestine for further digestion. The process of digestion is completed in the small intestine. Then, the digested food is absorbed by the blood in small intestine. The undigested food goes into the large intestine from where it is removed from the body through the anus.

- 2. How does the respiratory system work in our body?**

The respiratory system takes in oxygen from the air and supplies it to the various parts of the body. It also removes the harmful carbon dioxide gas from the body when we breathe out.

- 3. How does the excretory system work in our body?**

The excretory system consists of a pair of kidneys, ureters, bladder and urethra. The kidneys make urine, which is carried to the bladder by the ureters and passed out through the urethra.

### Chapter 9

- **Write short answers:**

- 1. List any two safety rules to be followed while crossing the road.**

Two safety rules to be followed while crossing a road are:

i. Use the zebra crossing. ii. Obey the traffic signals.

- 2. Write any two safety rules to be followed while playing.**

Two safety rules to be followed while playing are (any two):

- Wait for your turn at the swings.
- Learn and follow the rules of the games you play.
- Do not hit or push anyone while playing.
- Do not stand in front of a moving swing.

- 2. Define : First Aid.**

The help that an injured person gets before he or she can see a doctor is called first aid.

- 3. What should you apply on a bruise?**

We should apply an ice-pack made of 5-6 ice cubes on a bruise.

- **Answer these questions:**

- 1. You should put your things in their proper place. Why?**

You should put your things in their proper place as it will help you to find the things when you want them. Also, you will save yourself and others at home from falling or tripping over your toys and things if they are scattered around. Keeping things in their place makes your house clean and a healthier place to stay in.

- 2. List any four safety rules to be followed in school.**

Four safety rules that you can follow at school are (any four):

- i. Do not run or play on the stairs or in corridors.
- ii. Walk in a line and do not push others to go ahead.
- iii. Use sharpeners and not blades to sharpen your pencils.
- iv. Do not spill food and other eatables in the classroom.
- v. Do not stand or jump on chair and tables in the classroom.

**3. What first aid would you give to someone who has a minor cut?**

For first aid in case of a minor cut, wash the wound with an antiseptic lotion and apply an antiseptic cream on it. Cover it with an adhesive bandage or cotton and gauze bandage.

**3. Write any three things you should do to keep your house comfortable and safe?**

Actions that can keep your house comfortable and safe are (any three):

- i. Keep the room well-lit with sunlight by keeping the windows open.
- ii. Do not allow water to stand in and around the house as it breeds mosquitoes and other insects.
- iii. Have wire netting on doors and windows to keep out flies and insects.

**4. Write any three things you should do to keep your house clean.**

Actions to keep your house clean are (any three):

- i. Sweep and mop the floors every day.
- ii. Keep the washbasins clean and washroom dry always.
- iii. Throw the garbage in covered dustbins.

### Chapter 10

• **Write short answers:**

**1. What are luminous objects?**

Objects that give out light are called luminous objects.

**2. How is sound produced?**

Sound is produced when things vibrate. For example, musical instruments like sitar produce a sound when their strings vibrate on being plucked.

**3. How does force help us to do?**

Force helps us to push or pull things and change the direction of moving things. It can even change the shape of things.

**4. What is work?**

When we use force and are able to do things, work is done. For example, moving a chair or writing with a pencil is doing work.

**5. What is the source of energy for a child and a torchlight?**

The source of energy for a child is food and that of a torchlight is the battery inside it.

Answer these questions:

**1. How do we see things?**

When light falling on non-luminous objects does not pass through them, it gets reflected back. When this reflected light falls on our eyes, we are able to see things.

**2. Explain the meaning of vibration with suitable examples.**

The very quick back and forth movement of things is called vibration. For example, plucking a stretched rubber band produces vibrations and sound. We can also see vibrations when strings of musical instruments such as guitar are plucked.

**3. What is noise? Write two sources of noise.**

Loud and unpleasant sound is called noise. Some firecrackers and loudspeakers are sources of noise.

**4. What do you mean by force? Give two examples.**

When we push or pull things, we use force. We use force to change the shape of things. We also use force to stop moving objects or change their directions. For example, pushing a cart, pulling a trolley.

### Chapter 11

• **Write the difference between:**

**1. Axis and orbit**

Axis is an imaginary line that passes through the centre of the Earth about which it rotates.  
Orbit is the fixed oval-shaped path on which the Earth and other planets go around the Sun.

## **2. Rotation and revolution of the earth.**

The movement of the Earth about its axis is called rotation. The movement of the Earth around the Sun in its orbit is called revolution. One rotation of the Earth takes 24 hours, whereas one revolution of the Earth is completed in one year.

- **Answer these questions:**

### **1. What is the shape of earth, describe with an example.**

The shape of the Earth is like a sphere or a football. It, however, appears flat to us as we see a very small portion of its curved surface. For example, an ant on a football would think that the ball is flat as it can see only the small flat area around it.

### **2. How are days and nights caused due to rotation of the earth? Explain.**

As the Earth rotates one half of it faces the Sun and gets sunlight. It is day in this part. The other part of the Earth which is not facing the Sun is in the dark and has night. As the Earth goes on rotating the sunlit part goes into the dark side and has night. The part that was earlier in the dark begins to face the Sun and has day. Thus, the rotation of the Earth causes days and nights.

### **3. Explain the revolution of the earth.**

The Earth goes around the Sun along a fixed oval path called its orbit. This movement is called revolution. It takes the Earth about 365  $\frac{1}{4}$  days or a year to complete one revolution around the Sun.

### **4. Write a short note on the moon and its phases.**

The Moon shines as it reflects the light of the Sun. However, we can see only that part of the Moon from where light is reflected towards us. Thus, it appears that the Moon changes its shape on different days. These changing shapes of Moon as seen from the Earth are called its phases. When we see the whole Moon, we call it the Full Moon. When we see a very small portion of the Moon, it is called the Crescent Moon. When we see half of it, it is Half Moon and when we see a large part of it, we call it the Gibbous Moon. When we are unable to see the Moon at all, it is called the New Moon or the Dark Moon.

## **Chapter 12**

- **Write short notes on:**

### **1. Things that the air contains**

Air is a mixture of many gases such as oxygen, carbon dioxide and water vapour. It also contains smoke, dust particles and germs that make the air impure.

### **2. Humid weather**

When there is lots of water vapour in the air around us, it is said to be humid or moist. Such weather is called humid weather. Places that are close to sea mostly have humid weather.

### **3. Monsoon**

In the months between June and September it rains in most parts of India on most days. Farmers grow crops. It is called the monsoon or rainy season.

- **Answer these questions:**

### **1. Explain how the water cycle occurs in nature**

The Sun heats up the water in lakes, rivers and oceans. This water evaporates as water vapour. Plants also give out water vapour from their leaves. The water vapour rises up in the air. The water vapour comes in contact with cold air and condenses into tiny droplets of water. These droplets join together to form bigger drops. The big drops form clouds. When the clouds cool further, these drops of water become heavy and fall back on the Earth as rain. The rainwater flows back into lakes, rivers and oceans. Thus, the water of the oceans and lakes keep on moving in a cycle. This is known as the water cycle.

### **2. How do the sun and wind affect weather?**

Effect of Sun on weather: During the day the air and land get heat from the Sun. This makes the weather during the day warm. At night there is no Sun, so the land and air get cool. Thus, the

weather is cool during night.

Effect of wind on weather: The heat of the Sun causes the wind to blow. The Sun heats up the air.

Warm air is light. It rises up. To fill its place, cool air rushes in.

**3. What is a season? Describe the three main seasons in India.**

When the same type of weather continues for a few months, we call it a season. In India, the three main seasons are summer, monsoon and winter. In summer, the weather is mostly hot. It lasts between April and June. Monsoon season lasts from July to September. It rains on most of the days and farmers grow crops in this season. In winter, the weather is mostly cold. It lasts from December to March.

**Chapter: 13**

• **Give reasons for the following:**

**1. Plants clean the air we breathe.**

Plants make the air clean by taking in harmful carbon dioxide from the air for making food and giving out useful oxygen that is healthy for all living things.

**2. Plants help in increasing rainfall.**

Plants give out water vapour through their leaves. This water vapour rises in the sky to form clouds, which later fall as rain. So places with more trees get more rainfall.

**3. We need to save trees and forests.**

We need to save trees and forests as they help in protecting our environment and keeping it clean and healthy.

• **Answer these questions:**

**1. How do plants keep our environment clean and healthy?**

Plants keep our environment clean and healthy by taking in the harmful carbon dioxide gas from the air and giving out oxygen gas that all living things need to breathe and produce energy.

**2. Write three ways in which we can protect our trees and forests?**

We can protect our trees and forests by

1. not cutting down trees,
2. growing more trees and
3. following the rules of 3 Rs (Reduce, Reuse and Recycle) of environment.