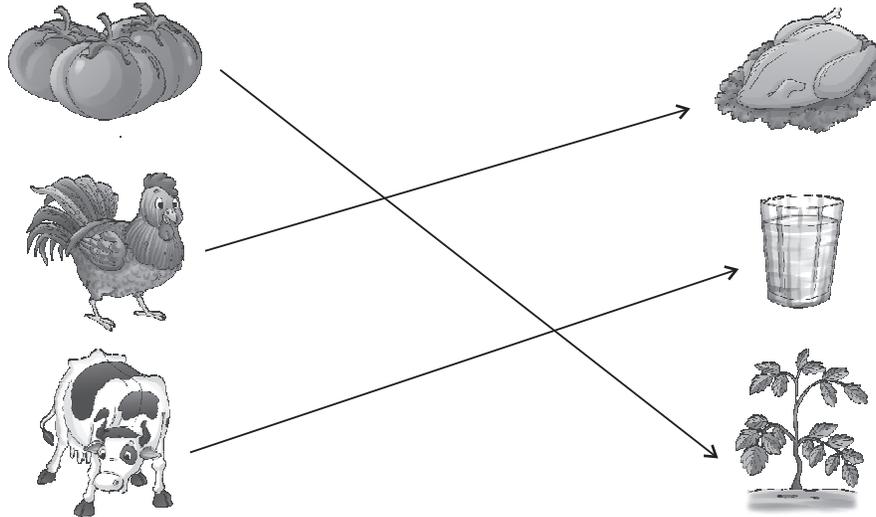


1

Food : Our Basic Need

Sam had draw pictures of some items and their sources. Match the food items to their respective sources. One has been done for you.

Ans.



Times to Answer

A. Name the following. One has been done for you :

- Ans. 1. Energy- giving food **Carbohydrates**.
 2. Body- building food **proteins**.
 3. Protective food **fight diseases and protect from falling sick**.
 4. Undigested food **undigested food**.

B. Give two examples of food items that are rich in the nutrient given in the first column :

Ans. Nutrient	Sources
Carbohydrates	cereals, banana, potato
Fats	Oil, butter, meat
Proteins	milk, egg, pulses
Vitamins and minerals	milk, curd, fruits

Some food items are given here. Select items here and make a balanced diet chart for yourself. Remember to include food items rich in different nutrients in each of your meals.

Ans. Breakfast	Lunch	Dinner
Milk, egg, bread, apple	spinach, cereals, bread, butter, curd, fruits	Fish, meat, chicken, green vegetables pulses, fruit, bread, salad

Times to Answer

A. Fill in the blanks by choosing the correct option :

- Ans.** 1. A **balanced diet** has the right amounts of all the nutrients.
 2. A balanced diet must also contain **roughage** and water.
 3. Food, if kept for long, gets **spoilt**.
 4. **Spoilt** food is unhealthy for us.

B. Name the method of preservation for each food item given below :

- Ans.** 1. Grapes **Drying**. 2. Mango **Pickling**.
 3. Milk **boiling refrigeration**. 4. Fish **canning**.

C. Sort the following foodstuff and put them into the correct columns. Two in each Think of other food items for each of the five food groups.

Ans. Carbohydrates	Proteins	Fats	Mineral & Vitamins	Junk
Rice	fish	oil	fruits	burger
Roti	milk	butter	vegetables	chips

Section 1 Formative Assessment (CCE Pattern)

A. Answer the following questions orally :

1. What are nutrients?

Ans. The food we eat contains substances that make us strong and healthy. These substances are called Nutrients.

2. What is a balanced diet?

Ans. A balanced diet is one which has carbohydrates, fats, proteins, vitamins, minerals and fibres in right amounts. It is the source of energy and is also responsible for growth and development.

3. What do you mean by preservation of food?

Ans. Preserving food means protecting food from getting spoilt.

4. What are carbohydrates ? Why do we need them?

Ans. Carbohydrates give us energy. Hence, food items rich in carbohydrates are called energy- giving food, sources Cereals, bread, potato, banana and sweets are rich in carbohydrates.

B. Fill in the blanks by choosing the correct option :

- Ans.** 1. Substances that make us strong and healthy are called **nutrients**.
 2. Food items rich in **carbohydrates** are called energy giving food.

3. **Fats** help to keep the body warm.
4. Over- cooking the food destroys the **nutrients**.
5. The **undigested** part of the food we eat is called roughage.
6. We should drink plenty of **water** everyday.

C. Tick (✓) the correct statements and put a cross (x) against the wrong ones :

Ans. 1. x 2. x 3. x 4. ✓ 5. ✓ 6. ✓ 7. x

Section 2 Summative Assessment (CCE Pattern)

A. Answer the following questions :

1. Name the five food groups according to what they do for our body.

Ans. 1. carbohydrates 2. fats 3. proteins
4. vitamins and minerals 5. roughage

2. Write two foods which are rich in carbohydrates.

Ans. Potatoes, cereals.

3. Why do we need roughage?

Ans. Some of the food we eat do not get digested completely. The undigested part of the food is called roughage. Roughage helps to remove waste material from the body.

4. Write two foods which are rich in fats.

Ans. Butter, Meat.

5. What is pickling?

Ans. Fruits and vegetables preserved in salt solution and oil.

6. Why do we cook food?

Ans. Food is cooked to

- Make it soft, easy to chew, and digest.
- Make it edible and tasty.
- Kill harmful germs.

7. Ram, the farmer had a very good crop of tomatoes. After selling them in the market, he had about 10kg left. How can he preserve the tomatoes?

Ans. By putting them in cold storage.

B. Name any two sources of the following.

Ans. 1. Carbohydrates	bread	banana
2. Proteins	Milk	eggs
3. Fats	Butter	oil
4. Vitamins	fruits	milk

- | | | |
|-------------|-------------------|---------------|
| 5. Minerals | apple | curd |
| 6. Roughage | vegetables | fruits |

C. Match the following :

- Ans.**
- | | | |
|--------------|---|------------------|
| 1. Iron | → | a. roughage |
| 2. Chocolate | → | b. proteins |
| 3. Fish | → | c. carbohydrates |
| 4. Oats | → | d. butter |

D. Define the following terms.

1. Roughage

Ans. Some of the food we eat do not get digested completely. The undigested part of the food is called roughage. Roughage helps to remove waste material from the body.

2. Balanced diet

Ans. A balanced diet is one which has carbohydrates, fats, proteins, vitamins, minerals and fibres in right amounts. It is the source of energy and is also responsible for growth and development.

E. Give reasons for the following :

1. Food should not be overcooked.

Ans. Overcooking the food destroys the nutrients.

2. Food should be cooked in enough water and excess water should not be thrown away.

Ans. Food should be cooked in just enough water to retain the nutrients. Do not throw away excess water as the nutrients are lost from the food.

3. We should include roughage in our food.

Ans. Roughage helps to remove waste material from the body.

4. Extra food and vegetables should be kept in the refrigerator.

Ans. Refrigerating food items kept in the refrigerator to preserve them.

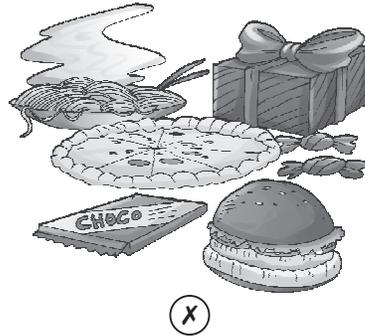
Section 3 Formative Assessment (CCE Pattern)

Do yourself.



Teeth and Digestion

Dev is very hungry. He has two choices of food items to pick from. Tick the food item that would be good for him. Discuss the reasons.



Times to Answer

Fill in the blanks :

- Ans.** 1. Temporary teeth are also called **milk** teeth.
 2. The second set of teeth is called **permanent** teeth.
 3. Number of teeth children have is **twenty- eight**.

Times to Answer

Match the following :

- | | | |
|-------------------------|---|-------------------|
| Ans. 1. Incisors | → | a. grip and tear |
| 2. canines | → | b. grind and chew |
| 3. molars | → | c. cutting |

Times to Answer

Fill in the blanks :

- Ans.** 1. Food passes fro oesophagus to the **stomach**.
 2. Bile is produced by the **liver**.
 3. Saliva is produced by the **salivary** glands.

Section 1 Formative Assessment (CCE Pattern)

A. Answer the following questions orally :

1. How are teeth important to us ?

Ans. Teeth give proper shape to our face. They also help us to speak properly. But most importantly, teeth help us to chew our food. Chewing breaks down the food into smaller pieces so that they can be swallowed and digested easily.

2. Name the different kinds of teeth.

Ans. Different kinds of teeth are incisors, canine, premolars, and molars.

3. What is digestion ?

Ans. The process of breaking down of food into simpler form is called digestion.

B. Fill in the blanks with the correct option.

- Ans.** 1. Number of teeth in a complete set of permanent teeth is **32**.
2. Teeth used for chewing and grinding are **molars**.
3. The **pulp** is the innermost layer of the tooth.
4. In the mouth, the food mixes with **saliva**.
5. The bile from the liver mixes with the food in the **small intestine**.

Section 2 Summative Assessment (CCE Pattern)

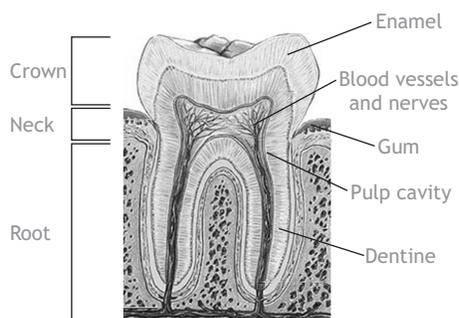
A. Answer the following questions :

1. Name the different types of teeth and their functions.

Ans. We have four types of teeth incisors for cutting, canines for gripping and tearing, and premolars and molars for grinding and chewing the food.

2. Draw and label the structure of a tooth.

Ans. **The structure of a tooth**



3. What causes tooth decay ?

Ans. It is a rot or cause to rot through the action of bacteria and fungi. The state and process of tooth decaying.

4. How should you take care of your teeth ?

- Ans.**
- Brush your teeth correctly and properly.
 - Do not eat too much of sticky foods, sweets and soft drinks.
 - Eat food that contains calcium and vitamins A, C and D . foods like milk, cheese, fruits and green leafy vegetables are good for teeth. Apples and raw carrots are considered very good for teeth.
 - Visit your dentist at least once in six months.

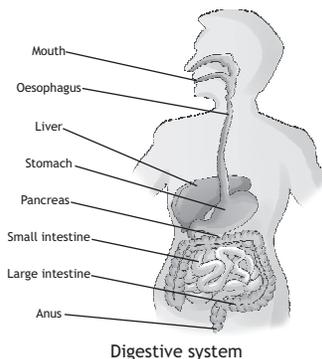
5. What is meant by digestion of food ?

Ans. The process of breaking down of food into simpler form is called digestion.

6. Draw a diagram and write what happens to the food in the stomach.

Ans. In the stomach : The food enters the alimentary canal. It passes through the oesophagus to the stomach. The stomach is a muscular bag. In the stomach, the food is churned and digestive juices are added. The food

turns into a semi- liquid mixture. Here the proteins are broken into simpler form.



7. What is the main role of the large intestine ?

Ans. **In the large intestine :** The undigested food passes into another tube called the large intestine. Here, water is absorbed from the undigested food. Whatever is left over is thrown out of the body through an opening called anus.

8. Write the number and function of each of the following kinds of teeth:

Ans. (a) **Molars :** The four teeth at the front of each jaw are specially made for cutting the food. They are called incisors.

(b) **Incisors :** There are two pointed teeth, one on each side of the incisors. Their work is to grip and tear the food. They are called canines.

(c) **Canines :** The remaining teeth are flat, grinding and chewing teeth. They are called premolars and molars. There are four premolars- two on each side of a jaw. Behind these are the molars which are broader than the premolars. There are six molars in each jaw- three on each side.

B. Match the following :

Ans.	1. Incisor	→	a. food pipe
	2. Mouth	→	b. bile
	3. Small intestine	→	c. teeth
	4. Oesophagus	→	d. saliva
	5. Liver	→	e. long coiled tube

C. Correct the following sentences :

1. A small baby has tooth buds inside the tongue.

Ans. A small baby has tooth buds inside the gums.

2. The colour of teeth depends on their function.

Ans. The colour of teeth depends on their enamel.

3. The outermost part of the tooth is called dentine.

Ans. The outermost part of the tooth is called enamel.

4. **Saliva helps in the digestion of protein.**

Ans. Saliva converts insoluble starch into soluble sugar.

5. **Bile helps to digest carbohydrates.**

Ans. Bile helps to digest fats.

6. **Water is absorbed in the small intestine.**

Ans. Water is absorbed in the large intestine.

Section 3 Formative Assessment (CCE Pattern)

Do yourself.

Unit – 2 Materials



The Right Clothes to Wear

Sort the given list of clothes into summer clothes and winter clothes. One has been done for you.

Ans.



T-shirt



Gloves



Jacket



Shorts

Winter Clothes

Jacket

Gloves

Summer Clothes

T- shirt

shorts

Times to Answer

Tick (✓) the correct statement and put a cross (x) against the wrong one :

Ans. 1. ✓ 2. x 3. x 4. ✓ 5. x

Section 1 Formative Assessment (CCE Pattern)

A. Answer the following questions orally :

1. **How do clothes protect us from insect bites ?**

Ans. Good clothes make us look smart. They protect our body from dust, heat, cold, rain and insect bites. If we wear long- sleeved clothes at night, we can protect ourselves from mosquito bites. Clothes, therefore, protect us from insect bites too.

2. Name the two types of fibres.

Ans. Natural and synthetic fibres.

3. How should we store clothes ?

Ans. Clothes need good care, especially silk and woollen clothes because some insects feed on these clothes. Therefore, once the season is over they must be put in the sun or dry-cleaned. They should then be packed. Moth balls or dried neem leaves should be placed with woollen clothes. These keep insects away. Proper care of clothes makes them last longer.

4. Name two natural fibres.

Ans. Cotton and jute fibres.

B. Fill in the blanks :

- Ans.**
1. A **raincoat** protects us from rain.
 2. Thick and warm clothes protect us from the **winter**.
 3. Light coloured clothes make us feel **cool**.
 4. The national dress of an Indian woman is the **saree**.
 5. **Synthetic** is a man-made fibre.

C. Tick (✓) the correct option :

- Ans.**
1. Our clothes protect us from :
c. dust and insect bites
 2. Which of these is the national dress of Japanese woman?
b. Kimono
 3. Which of these fibres is obtained from plants ?
a. Linen

Section 2 Summative Assessment (CCE Pattern)

A. Answer the following questions :

1. Why are clothes important ?

Ans. Good clothes make us look smart. They protect our body from dust, heat, cold, rain and insect bites. If we wear long-sleeved clothes at night, we can protect ourselves from mosquito bites. Clothes, therefore, protect us from insect bites too.

2. What is the difference between natural fibres and synthetic fibres ?

- Ans.**
- (i) Natural fibres are obtained from plants or animals eg. Cotton, jute, linen etc.
 - (ii) Synthetic fibres are man-made. Special chemicals made from by-products of petroleum are used for making synthetic fibre. Clothes made from these fibres are called synthetic clothes.

3. Why does a soldier wear uniform made from tough material ?

Ans. A Soldier wears a uniform made from tough material so that it does not tear easily.

4. Why do we wear socks and shoes ?

Ans. We wear socks and shoes to protect our feet from dust, heat, cold, germs and worms.

5. How can we take care of our clothes ?

Ans. Clothes need good care, especially silk and woollen clothes because some insects feed on these clothes. Therefore, once the season is over they must be put in the sun or dry-cleaned. They should then be packed. Moth balls or dried neem leaves should be placed with woollen clothes. These keep insects away. Proper care of clothes makes them last longer.

6. How should silk and woollen clothes be stored ?

Ans. Clothes need good care, especially silk and woollen clothes because some insects feed on these clothes. Therefore, once the season is over they must be put in the sun or dry-cleaned. They should then be packed. Moth balls or dried neem leaves should be placed with woollen clothes. These keep insects away. Proper care of clothes makes them last longer.

B. Give two examples of each :

Ans.	1. Countries and their National dresses	Saree	Kimono
	2. Certain insects feed on these clothes	Silver fish	Moth
	3. Things used to protect woollen clothes from insects	moth bells	dry neem leaves

C. Match the following :

Ans.	1. cotton	→	synthetic
	2. sheep	→	natural
	3. Rayon	→	summer
	4. Warm clothes	→	kill germs
	5. Dried neem leaves	→	winter

D. Write the reasons for the following :

Ans. 1. Summer 2. Yes , summer season 3. Winter 4. Winter

Section 3 Formative Assessment (CCE Pattern)

B. These people are from different states of India. Read the clues and write the name of the state they come from.

Ans.



Arti is from the state that has the Gateway of India. **Maharashtra**



Baldev is a Bhangra dancer. He is from **Punjab**



Ranbir is from the desert state of India. **Rajasthan**



Gopa is from the state of the Hoogli river. **West Bangal**

C. Collect pieces of three different kinds of fabrics. Observe them and fill in the blanks.

Ans.	Fabric	Feel The Texture	Does It Stretch ?	Can you see Through It ?
A.		woollen	Yes	No
B.		cotton	No	No
C.		silk	No	Translucent

E. Given below is a list of adjectives. Circle those which can be used to describe cloth.

Ans.	<input type="checkbox"/> Smooth	<input type="checkbox"/> red	tall	<input type="checkbox"/> expensive
	<input type="checkbox"/> Honest	<input type="checkbox"/> soft	clever	<input type="checkbox"/> purple
	<input type="checkbox"/> Bright	pretty	<input type="checkbox"/> hard	<input type="checkbox"/> stiff

Formative Assessment-1

A. Answer the following questions :

1. What is a balanced diet ?

Ans. A balanced diet is one which has carbohydrates, fats, proteins, vitamins, minerals and fibres in right amounts. It is the source of energy and is also responsible for growth and development.

2. How do clothes protect us from insect bites ?

Ans. Good clothes make us look smart. They protect our body from dust, heat, cold, rain and insect bites. If we wear long- sleeved clothes at night, we can protect ourselves from mosquito bites. Clothes, therefore, protect us from insect bites too.

3. How are teeth important to us ?

Ans. Teeth give proper shape to our face. They also help us to speak properly. But most importantly, teeth help us to chew our food. Chewing breaks down the food into smaller pieces so that they can be swallowed and digested easily.

States of Matter are Interchangeable

Solid, liquid and gas are interchangeable states. We have already studied about the three forms of water. They are **solid, liquid** and **gas**.

Time to Answer

Tick (✓) the correct statement and put a cross (x) against the wrong one.

Ans. 1. ✓ 2. ✓ 3. x 4. ✓ 5. ✓ 6. x

Section 1 Formative Assessment (CCE Pattern)

A. Answer the following questions orally :

1. Why do solids have a definite shape and size ?

Ans. Because molecules in a solid are tightly packed.

2. How can you change ice into steam ?

Ans. By heating it.

3. How is a gas able to spread in all directions ?

Ans. When gas is filled into a balloon it takes up all the space inside the balloon.

4. Under which conditions does a solute dissolve faster in water ?

Ans. (i) When water is stirred while mixing the solute.

(ii) When water is not cold.

B. Tick (✓) the correct statements and put a cross (x) against the wrong ones :

Ans. 1. x 2. x 3. x 4. x 5. ✓

C. Fill in the blanks :

Ans. 1. All matter in the world is made up of **molecules**.

2. Solids have a **definite** shape and a **fixed** volume.

3. Air is a mixture of **gases**.

4. **Matter** occupies space.

5. The solid which dissolves in a liquid is called **solute**.

Section 2 Summative Assessment (CCE Pattern)

A. Answer the following questions :

1. What is matter ?

Ans. All matter in the world is made up of molecules. Molecules are the smallest substances in matter that can exist independently. For example, a drop of water is made up of molecules of water.

2. How is a solid different from a liquid ?

Ans. Solid have a fixed shape and fixed volume while Liquid have no fixed shape. It can be poured and can flow.

3. How will you show that a gas does not have a fixed volume ?

Ans. When air is filled into a balloon it takes up all the space inside the balloon.

We can pump more and more air into a football. It means more air can be filled into the same space.

4. What is the difference between the two solutions formed a. sugar in water, and b. sand in water?

Ans. Sugar is soluble in water while sand is insoluble in water.

5. What is solution ?

Ans. When a solid dissolves completely in a liquid, the resulting liquid is known as solution.

6. Why does the volume of solution not change when sugar is dissolved in water ?

Ans. When we put sugar in water, its molecules scatter throughout the water. They occupy the empty spaces in between the molecules of water. This is why sugar seems to disappear when it is dissolved in water.

B. Match the following and write two examples for each :

Ans.

1. SOLID	→	neither fixed shape nor fixed volume	air	perfumed
2. LIQUID	→	fixed shape and fixed volume	table	spoon
3. GAS	→	no fixed shape but fixed volume	water	kerosene

C. What happens when :

Ans.

1. Honey goes to bottom	2. Melts	3. Melts
4. Freeze	5. dried	

D. Give reasons for the following :

1. A car occupies space.

Ans. Because car is a solid.

2. A perfume when sprayed spreads in the whole room.

Ans. Because perfume is a gas.

3. Fruit juice does not have a definite shape.

Ans. Because it is a liquid.

Section 3 Formative Assessment (CCE Pattern)

Do yourself.



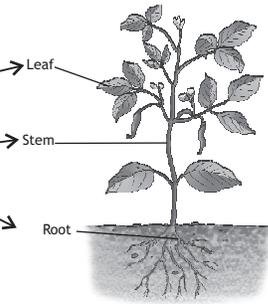
Plants Make Food

Some functions of plants are given below. Match the functions to the plant

parts. One has been done for you.

Functions

1. It holds the plant firmly to the ground.
2. It prepares food for the plant.
3. It keeps the plant upright.



- Complete the sequences below to prove that these products come indirectly from plants :

<p>What does a cow eat ? GRASS</p>	<p>Produces milk in its udders when it eats food</p>	<p>Milk</p>
<p>What does a chick eat to grow into a chicken ? GRAINS</p>	<p>CHICKEN</p>	<p>Chicken (dish)</p>

Complete the Sequence by filling in right words from the box.

Roots **absorb** water from the soil.

Tubes **conduct** water from roots to leaves.

Leaves use water in the process of **photosynthesis**.

A lot water is lost into the air through **stomata** in leaves.

Section 1 Formative Assessment (CCE Pattern)

A. Answer the following questions orally :

1. What do plant need to prepare food ?

Ans. Chlorophyll

2. How do plants use their food ?

Ans. Food is used to provide plants with energy, building of cells, repair, damage and to store food in different parts of a plant.

3. Where do we get energy from ?

Ans. For everything we do eating, blinking our eyes, talking, sleeping moving, studying energy is needed. In order to get energy, we need food.

B. Give one word for each the following :

Ans. 1. Stomata 2. Chlorophyll 3. Starch 4. Iodine

C. Tick (✓) the correct option :

Ans. 1. The green coloured substance in a plant is called :

a. Chlorophyll

2. Which among the following is used to test starch ?

- b. iodine
- 3. Green plants make their own food.
 - a. True
- 4. A green leaf turns blue- black when a few drops of iodine solution are put on it showing the presence of :
 - c. starch

Section 2 Summative Assessment (CCE Pattern)

1. Show with one example each that all food we eat comes directly or indirectly from plants.

Ans. All the food we eat comes directly or indirectly from plants. Some foods like wheat are obtained directly from plants. They are then changed to a form which can be consumed by us.

2. Why are leaves called the 'kitchen' of a plant ?

Ans. Leaves are the kitchen of the plant! They trap sunlight to prepare food for the plant using carbon dioxide and water. The chlorophyll traps sunlight and uses it to make food. Carbon dioxide and water combine with each other to form food. The process by which green plants make their own food using water and carbon dioxide in presence of sunlight is called photosynthesis.

3. What is a food chain ?

Ans. The sequence that tells about the flow of energy in the form of food among plants and animals is called a food chain.

4. What is the role of chlorophyll during photosynthesis ?

Ans. The important word here is 'Green'. Leaves of green plants contains a substance called chlorophyll which helps a plant to make its own food.

5. What is the purpose of photosynthesis ?

Ans. The process by which green plants make their own food using water and carbon dioxide in presence of sunlight is called photosynthesis.

6. How will you test the presence of starch ?

Ans. You can test for the presence of starch using a chemical called iodine. Iodine has the property to change the colour of starch to blue-black (dark purple) you can get a bottle of iodine from the laboratory in your school if you want to try this at home. Crush a few grains of rice, cut a few pieces of potato and take a few bread crumbs in three different bowls. With a dropper or spoon, pour some iodine over each. Observe the change in colour. Did all these foods contain starch ? Try the experiment with other foods like lemon, apple, milk and note your observations.

7. Trace the path of water in plants.

Ans. Get some tall white gladioli or white orchids from a florist. Place one or two flower stems into water with red or blue ink mixed in it. Leave for an hour or two. What can you see? This experiment shows that (Tick the correct option)

- Stem is strong.
- Stem carries water to various parts of plants.
- Flowers need coloured water.

B. Fill in the blanks to show the raw materials and conditions needed for photosynthesis to occur.

Ans. Sunlight
Carbon dioxide + Water Chlorophyll starch + oxygen

C. Match the following :

Ans. 1. The process of preparing food —————→ a. chlorophyll
2. The flat surface of the leaf —————→ b. oxygen
3. Prepared food is stored in —————→ c. leaf blade
4. Gas given out during the process of photosynthesis —————→ d. photosynthesis

D. Give reasons for the following :

1. Leaves are usually green in colour.

Ans. Leaves of green plants contains a substance called chlorophyll which helps a plant to make its own food.

2. Leaves are known as the food factory of the plant.

Ans. Leaves are the kitchen of the plant! They trap sunlight to prepare food for the plant using carbon dioxide and water. The chlorophyll traps sunlight and uses it to make food. Carbon dioxide and water combine with each other to form food.

3. Plants and animals are dependent on each other.

Ans. Food is stored in different parts of a plant : Food is turned into starch and stored in different parts of the plant. It is stored in the leaf, fruit, stem, root and in seeds. We eat fruits, stem of sugarcane, potato, ginger, etc. Roots of carrot, radish, etc. and grains of corn. Therefore, plants are also called producers of food while humans and animals are called the consumers of food.

E. Define the following terms :

Ans. 1. Chlorophyll - Leaves of green plants contains a substance called chlorophyll which helps a plant to make its own food.

2. Stomata - Leaves have tiny openings called stomata on their surfaces. You cannot see stomata because they are so tiny. Stomata are just like open windows that allow extra water in the leaves to escape in the form of water vapour. Water vapour is water in the form of gas. So,

- | | | |
|-------------------------|----------------|---------------|
| 3. Underwater plants | Hydrilla, | Tap grass |
| 4. Insectivorous plants | pitcher plant, | Venus flytrap |
| 5. Saprophytic | Mushroom, | Fungi |

B. Match the following :

- Ans.**
- | | | |
|--|---|----------------------|
| 1. Aquatic plants with roots hanging in water | → | Insectivorous plants |
| 2. Aquatic plants with fixed roots | → | Underwater plants |
| 3. Aquatic plants growing under the water | → | Saprophytic plants |
| 4. Plants that eat insects | → | Floating plants |
| 5. Plants that depend on dead plants and animals | → | Fixed plants |

Section 1 Formative Assessment (CCE Pattern)

A. Answer the following questions orally :

1. Why are leaves of cactus plant in the form of spines ?

Ans. Cactus is a desert plant. The leaves of cacti turn into spines or thorns, so that there is very little loss of water through them.

2. Name three deciduous trees.

Ans. Mango, Banyan and Neem.

3. What helps the floating plants to float on water ?

Ans. Floats are structures found at the base of leaves. They have spaces to hold air- this helps the plant to bob on water.

4. What is habitat ?

Ans. Plants are found almost in all parts of the Earth. They grow in places where sunlight and water are available. Plants are found on land and in water. Plants that grow on land are called terrestrial plants. Those that grow in water are called aquatic plants. Terrestrial and aquatic are examples of habitats or places where plants live.

B. Tick (✓) the correct option :

- Ans.**
- Which among the following is a non- green plant ?
b. mushroom
 - The stem of cactus plant is :
d. fleshy
 - Underwater plants breathe through their body surface as they do not have :
b. stomata

C. Fill in the blank :

- Ans.**
- Mangroves have **aerial** roots.
 - Rubber is a(n) **evergreen** plant.
 - Spruce is a **conifer** plant.

4. Water hyacinth is a **floating** aquatic plant.
5. Insectivorous plants trap **insects** and digest them to obtain **nutrients**.

D. Name one plant for each that adapts itself to the following conditions :

- Ans.**
- | | |
|------------------|---------------|
| 1. Dryness | Cactus |
| 2. Cold and snow | Pine |
| 3. Wetness | Lotus |

Section 2 Summative Assessment (CCE Pattern)

A. Answer the following questions :

1. What are adaptations ?

Ans. The ability to adjust to environment conditions in order to increase chances of survival is called adaptation.

2. Mention two adaptations each seen in plants growing in cold region and water.

Ans. In hills and mountains, it is very cold in winter. Plants that grow in such places must adapt themselves to survive the cold and snowfall. Pine, spruce, cedar and fir are some trees that grow in cold places. Water hyacinth is a floating aquatic plant. Its roots do not anchor it to the bottom of the water body. Floats are structures found at the base of leaves. They have spaces to hold air this helps the plant to bob on water.

3. How does a waxy coating help aquatic plants to survive ?

Ans. Petroleum jelly is waxy and waterproof. It forms a thin layer over the leaves and prevents water from rotting the leaves. Aquatic plants naturally have a waxy coating to keep them away from rotting.

4. Why do conifers have needle like leaves ?

Ans. These trees are also known as conifers. They produce cones instead of flowers. The cones have seeds. They are evergreen as they bear leaves throughout the year.

5. Explain the adaptations of a water hyacinth.

Ans. Water hyacinth is a floating aquatic plant. Its roots do not anchor it to the bottom of the water body. Floats are structures found at the base of leaves. They have spaces to hold air this helps the plant to bob on water.

6. What is the difference between evergreen and deciduous trees ?

Ans. The climate in plains is warm. Trees like mango, banyan and neem grow in plains. They shed their leaves in winter to protect themselves from cold. They are called deciduous trees. Some trees like coconut, rubber, teak and sugarcane grow in hot and wet climate. They are evergreen trees so do not shed their leaves in winter.

7. Describe some adaptations of lotus.

Ans. Lotus is fixed or rooted aquatic plants. This means their roots reach down through the depth to anchor them at the bed of the water body. The leaves are broad and flat. This allows them to float on water.

B. Match the following :

- Ans.**
- | | | |
|-------------------|---|---------------------|
| 1. Mushroom | → | a. aerial roots |
| 2. Lotus | → | b. underwater plant |
| 3. Tape grass | → | c. floating plants |
| 4. Water Hyacinth | → | d. parasite |
| 5. Mangrove | → | e. fixed plants |

C. Give reasons for the following :

1. Cactus flowers bloom at night.

Ans. Because water is available to desert plants mostly in the form of dew.

2. Coconut palms have thick shiny leaves.

Ans. Because it produces a crown of pinnacle compound yellow- green leaves is called fronds.

3. Desert plants have spines on their stem.

Ans. leaves change in to spines due to hot and dryness and a very little rainfall.

4. Deciduous trees have stems with thick barks.

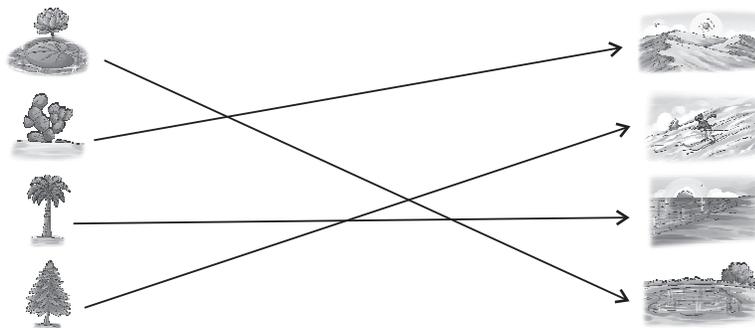
Ans. To withstand the cold winter conditions. The trees have a stem with thick bark.

D. Compare the adaptations of desert plants and conifers using the words given below :

Ans. Plant part	Desert plants	Conifers
Leaves	spines	Needle-like
Stem	fleshy	woody
Roots	shallow	deep

Section 3 Formative Assessment (CCE Pattern)

Match the plants on their left to the scene where they belong on the right :



Formative Assessment-2

A. Answer the following questions :

1. What helps the floating plants to float on water ?

Ans. Floats are structures found at the base of leaves. They have spaces to hold air- this helps the plant to bob on water.

2. How do plants use their food ?

Ans. Food is used to provide plants with energy, building of cells, repair, damage and to store food in different parts of a plant.

3. How can you change ice into steam ?

Ans. By boiling it firstly it will be converted in water and then in steam.

4. Where do we get energy from ?

Ans. For everything we do eating, blinking our eyes, talking, sleeping moving, studying energy is needed. In order to get energy, we need food.

B. Fill in the blanks :

- Ans.**
1. Rubber is a **evergreen** plant.
 2. Leaves of green plants contain a substance called **chlorophyll**.
 3. The quality of being soluble is known as **solubility**.
 4. Leaves of **cactus** are reduced to spring thorns.

C. Tick (✓) the correct statements and put a cross (x) against the wrong ones :

- Ans.**
1. Liquids do not have fixed volume. (X)
 2. Oxygen gas and food are formed in the process of photosynthesis. (✓)
 3. Lotus and water lily are floating aquatic plants. (X)
 4. The molecules of solids are held together very loosely. (X)

D. Name one plant each that adapts itself to the following conditions :

- Ans.**
1. Dryness cactus
 2. Cold and snow pine

E. Give one word for each of the following :

- Ans.**
- | | | | |
|----------|-------------|----------|------------|
| 1. Cells | 2. Alluvial | 3. Solid | 4. Stomata |
|----------|-------------|----------|------------|

F. Encircle the odd one :

- Ans.**
- | | | | |
|--------------------|-----------|---------|--------|
| 1. Solids | Plants | Liquids | Gases |
| 2. Pine | Cedar | Fir | Cactus |
| 3. Carrot | Sugarcane | Potato | Ginger |
| 4. Pressure Cooker | Frying | Whistle | Steam |

Summative Assessment-1

A. Match the following :

- Ans.**
- | | | |
|---------------------------------|---|---------------------|
| 1. Small intestine | → | a. roughage |
| 2. Mushroom | → | b. Kill germs |
| 3. Dried neem leaves | → | c. Leaf blade |
| 4. The flat surface of the leaf | → | d. parasite |
| 5. Oats | → | e. long coiled tube |

B. Give reasons for the following :

1. Desert plants have spines on their stem.

Ans. leaves change in to spines due to hot and dryness and a very little rainfall.

2. A car occupies space.

Ans. Because car is a solid .

3. White or light coloured clothes suit the hot weather.

Ans. Light or white colour reflects back heat.

4. Coconut palms have thick shiny leaves.

Ans. Because it produces a crown of pinnacle compound yellow- green leaves is called fronds.

5. A perfume when sprayed spreads in the whole room.

Ans. Because perfume is a gas.

C. Correct the following statements :

1. The digested part of the food is called roughage.

Ans. The digested part of the food is called Nutrients.

2. There are four molars in each jaw.

Ans. There are six molars in each jaw.

3. In hot weather we wear clothes made of wool.

Ans. In hot weather we wear clothes made of cotton.

4. The molecules in a gas are very tightly packed.

Ans. The molecules in a gas are very loosely packed.

5. Carbon dioxide gas is formed in the process of photosynthesis.

Ans. Oxygen gas is formed in the process of photosynthesis.

D. Define the following :

1. Photosynthesis-Leaves are the kitchen of the plant! They trap sunlight to prepare food for the plant using carbon dioxide and water. The chlorophyll traps sunlight and uses it to make food. Carbon dioxide and water combine with each other to form food. The process by which green plants make their own food using water and carbon dioxide in presence of

sunlight is called photosynthesis.

2. **Temporary teeth**-By the time the baby becomes three years old, it has a set of twenty teeth. This set of first teeth is called temporary teeth or milk teeth.
3. **Balanced Diet**-A balanced diet is one which has carbohydrates, fats, proteins, vitamins, minerals and fibres in right amounts. It is the source of energy and is also responsible for growth and development.
4. **Nutrients**-The food we eat contains substances that make us strong and healthy. These substances are called Nutrients.
5. **Insectivorous plants**-Some plants like the venus fly trap and the pitcher plant 'eat' insects. They are usually found in areas where there are not enough nutrients in the soil for a healthy growth.
6. **Refrigerating**-Food items kept in the refrigeration to preserve them.
7. **Pickling**-Fruits and vegetables preserved in salt solution and oil.
8. **Roughage**-Some of the food we eat do not get digested completely. The undigested part of the food is called roughage. Roughage helps to remove waste material from the body.
9. **Enamel**-The outer white part of the tooth is known as enamel. It is also the hardest part of the body.
10. **Mangroves**-Many trees called mangroves grow in marshy areas. They have aerial roots or breathing roots which grow out of the water. This way, the roots get sufficient air to breathe.

E. Answer the following questions :

1. **How will you show that a gas does not have a fixed volume ?**

Ans. When air is filled into a balloon it takes up all the space inside the balloon. We can pump more and more air into a football. It means more air can be filled into the same space.

2. **What is a food chain ?**

Ans. The sequence that tells about the flow of energy in the form of food among plants and animals is called a food chain.

3. **Why are clothes important ?**

Ans. Good clothes make us look smart. They protect our body from dust, heat, cold, rain and insect bites.

4. **What causes tooth decay ?**

Ans. It is a rot or cause to rot through the action of bacteria and fungi. The state and process of tooth decaying.

5. Why do we cook food ?

Ans. Food is cooked to

- Make it soft, easy to chew, and digest.
- Make it edible and tasty.
- Kill harmful germs.



Adaptation in Animals

Given below are names of three animals and pictures of three natural surroundings. Match the animals to the places where they are usually found. One has been done for you.

Cow



Monkey



Fish



Times to Answer

A. Fill in the blanks :

- Ans. 1. Mountains goats are **sure** footed.
2. Snakes move by pushing against the ground with their **scales**.
3. Turtles have **oar- like** to swim in the water.
4. Aquatic animals have **gills** to breathe oxygen dissolved in water.
5. **Hibernation** is to sleep through the winter to save energy.

B. Arrange the animals in their correct groups. One has been done for you :

Terrestrial	Aquatic	Amphibian	Aerial	Arboreal
Elephant	Fish	Frog	Parrot	Monkey
Giraffe	Octopus	Toad	Eagle	Bear

C. Give two examples for each of the following :

- Ans. 1. Terrestrial animals Elephant Giraffe
2. Aquatic animal fish Octopus
3. Amphibian Frog Toad
4. Aerial animal Parrot eagle

5. Arboreal animal

Monkey

Chameleon

Times to Answer

A. Give one example of each of the following :

Ans. 1. Vulture 2. Parasite 3. Chameleon 4. Scavenger

B. Think and answer :

1. What would happen if all animals were herbivores ?

(Hint : Will all have enough food ?)

Ans. There would be great shortage of food.

2. Why do eagles need such sharp eyesight ?

(Hint : Where do they live and what is their food ?)

Ans. Because their food is small creatures and they fly very high.

Section 1 Formative Assessment (CCE Pattern)

A. Answer the following questions orally :

1. How do animals living in extremely cold places protect themselves from cold ?

Ans. Animals living in cold places have a coat of thick furs and blubbers to beat the cold.

2. What is the difference between arboreal animal and aquatic animal ?

Ans. (i) Arboreal animals have long and strong limbs with sharp claws to climb the trees.

(ii) Aquatic animals have fins to move and gills to breathe.

3. Name any two terrestrial animals.

Ans. Elephant, Giraffe

4. Give three adaptations of aquatic animals.

Ans. Aquatic animals have Fins to move, gills to breathe and some have webbed feet.

B. Fill in the blanks with the correct option :

Ans. 1. The natural surroundings where an animal lives is called its **habitat**.

2. Animals that live on land are called **terrestrial**.

3. Birds and **bats** can fly in the air.

4. **Parasites** live on or inside the body of other animals.

5 The quills of a **pangolin** can cause painful wounds.

C. Tick (✓) the correct option :

Ans. 1. Which of these is arboreal animal ?

b. Monkey

2. The long sleep of animals during the cold season is called :

b. hibernation

3. Aquatic animals breathe through their :
 - c. gills
4. Which of these is not an amphibian ?
 - a. Lemur

D. Name the following :

- Ans.** 1. Hibernator 2. Migratory 3. Chameleon
4. Eagle 5. Fleas

Section 2 Summative Assessment (CCE Pattern)

A. Answer the following questions :

1. What is habitat ?

Ans. The natural surroundings of an animal is known as its habitat.

2. What are the adaptive features of terrestrial animals ?

Ans. Land animals breathe air directly from the atmosphere. So, most of them have lungs. Insects do not have lungs. They breathe with the help of air holes called spiracles present on their body surface. Land animals have well developed sense organs which keep them aware of the presence of food or dangers around them.

3. What helps a monkey to climb trees ?

Ans. They have long and strong limbs with sharp claws to climb the trees. The monkey and the chameleon have long tails to grip the branches. The tails also help the arboreal animals to balance their body.

4. What helps aquatic animals to move around in water ?

Ans. Fish have fins to swim with. Turtles, seals and dolphins have oar-like flippers to swim in water.

5. What are the adaptations of animals hunting in water for food ?

Ans. Animals like fish, prawn and crab which live inside water have gills to breathe oxygen dissolved in water. Some aquatic animals like whales and dolphins breathe through lungs. So, they come to the surface of water very often to breathe air. Water birds like ducks and swans have webbed feet which help them to paddle in water.

6. What is camouflage ?

Ans. Camouflage is the ability of an animal to change its colour to blend or merge with its surroundings, making it hard to be seen or spotted. The chameleon, a common garden lizard, changes its colour according to the tree or bush on which it sits.

7. How does a pangolin keep itself safe from its enemies ?

Ans. The quills of pangolins protect it from the enemies.

B. Define the following terms :

- Ans.** 1. **Hibernation**-Frogs, snakes, lizards and many insects survive in the winter by going into a long period of rest. They don't eat or drink during this period. They keep lying in a safe place like a cave, hole or burrow to save energy. This period of winter sleep is called hibernation.
2. **Aestivation**-In places where it becomes dry during summer, animals like frogs go into a sleep - like state to avoid the heat and shortage of water. This sleep like state during summer is called aestivation.
3. **Camouflaging**-Camouflage is the ability of an animal to change its colour to blend or merge with its surroundings, making it hard to be seen or spotted. The chameleon a common garden lizard, changes its colour according to the tree or bush on which it sits.

C. Give reasons for the following :

1. **Some desert animals like lizards and snakes hunt only at night.**

Ans. They sleep during day time.

2. **Leopards have spots on their bodies.**

Ans. Leopards can easily camouflage by its spots.

3. **Siberian cranes migrate to warmer regions during winter.**

Ans. They come to warmer regions in search of food.

B. Match the following :

- Ans.**
- | | | |
|---|---|----------------|
| 1. Animals that live on land | → | a. aquatic |
| 2. Long winter sleep | → | b. aerial |
| 3. Animals that live both in land and water | → | c. hibernation |
| 4. Animals that can fly | → | d. terrestrial |
| 5. Animals that live in water | → | e. amphibian |

Section 3 Formative Assessment (CCE Pattern)

There are ten animals hidden in this maze. Write the names of all of them. Are there more ?

- | | |
|------------------|------------|
| Ans. Frog | Rhinoceros |
| Bear | Lion |
| Deer | cow |
| Hen | Horse |
| Dolphin | Elephant |

Identify the animals with the following adaptive features.

- Ans.** 1. Tiger 2. Camel 3. Snake
4. Bat 5. Frog 6. Mosquito

Find information about behavioural adaptations of two animals. Draw or paste their pictures and write the information.

Do yourself.

Make a chart of animals that adapt themselves by blending in the surroundings.

Do yourself.

Make a chart on the adaptive features of a camel.

Do yourself.

Make a collage using pictures and names of any one of these groups

Do yourself.

Unit – 8 Moving Things, People and Ideas



Force, Work and Energy

Times to Answer

A. Read the clues to unscramble the letter, and write the answer. One has been done for you :

- Ans.**
1. A push or a pull acting on an object **FORCE** ORFCE.
 2. The force that pulls every object towards the centre of the Earth **GRAVITY** VTVIGRA.
 3. The Force that resists the motion or movement of an object **FRICITION** RICONFT.

B. Choose the correct option :

- Ans.**
- | | |
|--|-----------------|
| 1. It keeps you on the ground. | Gravity |
| 2. It stops a moving object. | Friction |
| 3. It worn out the soles of our shoes. | Friction |

C. Name the type of force responsible for the following :

- Ans.**
- | | |
|------------------------|---------------------|
| 1. Gravitation Force | 2. Frictional Force |
| 3. Gravitational Force | 4. Frictional Force |
| 5. Frictional Force | |

Times to Answer

A. Match the columns :

- Ans.**
- | Column A | Column B |
|----------------|---|
| Lever | - Used for moving heavy objects with less effort. |
| Wheel and axle | - Used in a bicycle. |

- Pulley - Used for lifting or lowering heavy objects.
- Inclined plane - Used for pushing heavy objects up or down.
- Screw - Used for holding objects together.

B. Fill in the blanks by choosing the correct option.

- Ans.**
1. **Energy** is the ability to do work.
 2. **Sun, wind** and **water** are some common sources of energy.
 3. We get solar energy in the form of **heat** and **light**.
 4. Wind energy can turn **wind mills**.
 5. The energy we get from water is called **hydro** energy.

Section 1 Formative Assessment (CCE Pattern)

A. Answer the following questions Orally :

1. Name any two type of forces.

- Ans.** (i) Mechanical force (ii) Electrostatic force.

2. When is work said to be done ?

- Ans.** When we use force on an object and the object moves through a distance we say that work is done.

3. Name two devices which use solar energy.

- Ans.** Solar cooker and calculator.

B. Choose the correct option :

- Ans.**
1. We need this to move an object **Force**.
 2. It keeps you on the ground **gravity**.
 3. It causes a moving object to stop **friction**.
 4. Basic tools which help us to work **simple machines**.
 5. A simple machine in the form of a bar resting on a support **lever**.
 6. A simple machine made up of a wheel with a rope **pulley**.
 7. A slope over which heavy objects can be pushed up or down **inclined plane**.
 8. It is used in a bicycle **wheel and axle**.

C. Write T for the t true and F for the false statements :

- Ans.**
- | | | |
|------|------|------|
| 1. T | 2. F | 3. T |
| 4. F | 5. T | |

D. Name the kind of energy used in :

- Ans.**
- | | |
|-----------------------|-----------------------|
| 1. Electrical energy | 2. Chemical energy. |
| 3. Solar energy. | 4. Mechanical energy. |
| 5. Mechanical energy. | |

Section 2 Summative Assessment (CCE Pattern)

A. Answer the following question :

1. List any two uses of force.

Ans. (i) To move an object
(ii) To stop an object from moving condition.

2. Name any two force in nature.

Ans. (i) Gravity (ii) Friction

(3) What is gravity ? How is it important ?

Ans. When anything is thrown in the air, it comes down after travelling some distance. This is due to a force called gravity. It is the Earth's gravity that keeps you on the ground. This is because the Earth's gravity pulls everything towards its centre.

4. What is friction ? How is it important ?

Ans. A force that acts between the object and the surface to either slow it down or stop it completely is called force of friction. Objects with smooth surface (like ice) have less friction while objects with rough surface (like carpets) have more friction. The soles of our shoes get worn out because of friction. Friction causes a moving object to stop.

5. What are the uses of simple machine ?

Ans. Simple machines have the following uses :

- They make our work easier.
- They help us to do our work faster.
- They help us to do our work with less force.

6. List the names of any three simple machines.

Ans. Simple machines are the lever, pulley, inclined plane.

7. What is a lever ? What is it used for ?

Ans. A lever is simply a bar resting on a support on which it can turn. It is usually used to move heavy objects with less effort. It is also used for cutting things and opening Lids. Scissors, Hammers, and Bottle openers are some examples of levers.

8. Write any two uses of a screw.

Ans. It is usually used for holding objects together. Some screws are also used for lifting things.

9. When can we say that work is done ?

Ans. Work is said to be done only when the object where force is applied moves through a distance.

10. List any three forms of energy.

Ans. (i) Electrical energy, (ii) Chemical energy, (iii) Heat energy.

B. Define the following terms :

- Ans.**
1. **Force**-A push or a pull acting on an object is called force.
 2. **Energy**-Energy is the ability to do work.
 3. **Solar energy**-The energy we get from the sun is called solar energy .
 4. **Wind energy**-The energy we get from wind is called wind energy.
 5. **Hydro energy**-The energy we get from water is called hydro energy.

C. Give reasons for the following :

1. Objects thrown up in the air come down after travelling some distance.

Ans. When anything is thrown in the air, it comes down after travelling some distance. This is due to a force called gravity. It is the Earth's gravity that keeps you on the ground. This is because the Earth's gravity pulls everything towards its centre.

2. Moving objects stop after covering a certain distance.

Ans. Friction causes a moving object to stop. A force that acts between the object and the surface to either slow it down or stop it completely is called force of friction. Objects with smooth surface (like ice) have less friction while objects with rough surface (like carpets) have more friction. The soles of our shoes get worn out because of friction.

D. Write the functions of the different kinds of energy :

- Ans.**
1. **Electrical energy**-Electrical gadgets such as fan, iron, bulb, television and Air conditioner work with the help of this energy.
 2. **Atomic energy**-Atomic energy can be used to produce electricity.
 3. **Heat energy**-Heat energy helps to move engineer, aeroplanes and rockets.

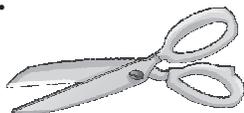
Section 3 Formative Assessment (CCE Pattern)

- **When you throw a ball in the air, it falls down. Can you tell why ?**

Ans. This is due to a force called gravity.

- **Identify the simple machines in the pictures, and write their names in the space given below.**

Ans.



Scissors



Nail



Pulley

- **Look for machines that you see in your house. Write which form of energy each one uses and to what form each one gets converted into. One has been done for you.**

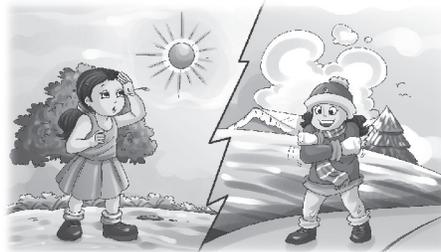
Ans.	Name of the machine	Energy used	Converted to
	Cooking stove	Chemical	Heat
	Solar Cooker	Solar	Heat
	Cell	Chemical	Mechanical
	Burning of coal	Chemical	Heat



Unit – 5 Natural Phenomena

Air, Water and Weather

Take hints from the pictures given below and complete the sentences.



Summer

Winter

- Ans. 1. The days are hot during **Summer**.
2. The days are cold during **Winter**.

Time to Answer

Fill in the blanks :

- Ans. 1. Our Earth is surrounded by a layer of air called **atmosphere**.
2. The **sea** breeze blows from the sea towards the land during the day.
3. The **land** breeze blows from the land towards the sea at night.

Time to Answer

Fill in the blanks :

- Ans. 1. Higher the temperature **faster** is the rate of evaporation.
2. Rate of evaporation depends on blowing of **air**.
3. A wet cloth will dry **faster** if it is spread out.

Section 1 Formative Assessment (CCE Pattern)

A. Answer the following questions orally :

1. Who is responsible for a change in the weather?

Ans. Sun.

2. What are the factors affecting evaporation ?

Ans. 1. Temperature, 2. Wind, 3. Surface Area.

3. How do evaporation and condensation take place in nature ?

Ans. Evaporation and condensation take place in nature too. Water on the surface of rivers, lakes, ponds and oceans gets heated UP by the heat of sun and evaporates. It rises up in the air. As the water vapour reached the upper parts of the atmosphere, it cools down and condenses as tiny droplets of water to form clouds. The water droplets in the cloud further condense to form bigger drops of water which come down to the Earth as rain.

4. What is a land breeze ?

Ans. The cool air from the land moves in towards the sea and takes its place. This is called land breeze.

B. Fill in the blanks with the correct option :

- Ans.**
1. Our earth is surrounded by a layer of air called **atmosphere**.
 2. Warm air is **lighter** than cold air.
 3. The process in which water changes from liquid form to solid form is called **freezing**.
 4. When liquid water is cooled to 0° C, it changes to **ice**.
 5. When it is cold, the raindrops freeze and turn into **hail**.

C. Tick (✓) the correct option :

1. It does not help in drying clothes faster.

Ans. b. water vapour

2. The amount of water vapour present in air is called.

Ans. b. humidity

3. Harmful germs in water can be killed by.

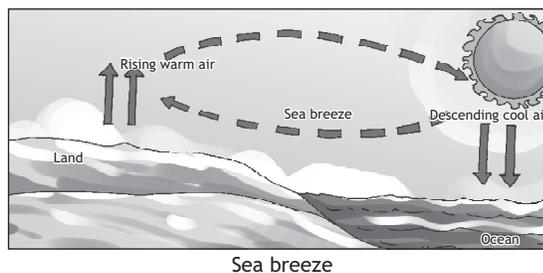
Ans. c. boiling

Section 2 Summative Assessment (CCE Pattern)

A. Answer the following questions :

1. With a neat diagram, write a note on sea breeze.

Ans. During the day, the land gets warmer faster than the water. The air above the land too becomes warm and rises up. The cool air from the sea moves in towards the land and takes its place. This is called sea breeze.



2. Define weather.

Ans. Weather is the state of the atmosphere of a place at a particular time in relation to heat, cloudiness, dryness, sunshine, wind and rain. The weather can be hot, cold, dry, windy, rainy or humid.

3. How does growth of crops depend on weather ?

Ans. Weather should be suitable for the proper growth of crops. Sudden changes in weather damage the crops. Lack of rains and long hot and dry periods destroy the crops. If there is a storm, the fruits fall off. Hailstones damage the blossoms, fruits, ears of grain, etc. so, a suitable weather is necessary for the growth and development of crops.

4. What are the factors affecting evaporation ?

Ans. Factors Affecting rate a Evaporation

Temperature : Higher the temperature, faster is the rate of evaporation. Our clothes dry faster in hot Sun than in the shade.

Wind : Wet clothes will dry faster under a fan blowing air on them than the clothes which are kept for drying in still air.

Surface area : A wet cloth, which is spread out will dry faster than a wet cloth, which is folded because a larger area is exposed for drying.

5. Explain the processes of sedimentation and decantation.

Ans. Sedimentation-Take some muddy water in a glass container (like a beaker). Leave it undisturbed for some time. You will find that some of the sand and clay particles have settled down at the bottom, leaving clear water on top. This process in which the impurities settle down at the bottom is called sedimentation.

Decantation-Now pick up the beaker gently and pour off the clear water into another vessel. This method of collecting clear water is called decantation.

6. How do evaporation and condensation take place in nature ?

Ans. Evaporation-The process in which water change its physical form from liquid into gas is called evaporation. Water gets evaporated due to the heat of the sun and forms clouds causing rain evaporation on takes place constantly in nature, but the rate of evaporation is not always same.

Condensation-The process of water vapour changing to liquid water is called condensation.

7. How can you save water ?

- Ans.**
- We should not waste water by letting taps drip.
 - We should avoid draining water unnecessarily when cleaning cars, balconies, kitchens or driveways.
 - Drinking water should be stored in clean and covered containers.
 - Water used in the kitchen for washing fruits and vegetable can be reused for watering plants.
 - Taps should not be left running while brushing or shaving.

8. What is the difference between dew and frost ?

Ans. In winters, when water vapour condenses on cold objects like leaves,

flowers and windowpanes, dew is formed. When it is extremely cold, the dew freezes into tiny white crystals called frost.

B. Correct the following sentences :

1. Water causes changes in weather.

Ans. Sun causes changes in weather.

2. During the night, water gets cooler faster than land.

Ans. During the night, land gets cooler faster than water.

3. The process is which water changes form liquid form to gaseous form is called condensation.

Ans. The process is which water changes from liquid form to gaseous form is called evaporation.

4. Clothes dry faster in winter than in summer.

Ans. Clothes dry faster summer than in winter.

5. Snow is frozen dewdrops.

Ans. Frost is frozen dewdrops.

C. Define each of the following :

Ans. 1. Weather-Weather is the state of atmosphere at a place and time relation to heat cloudiness, dryness, sun shine, wind and rain.

2. Evaporation-The process in which water changes its physical form liquid into gas.

3. Condensation-The process of water vapour changing to liquid water is called condensation.

4. Dew-In winters, when water vapour condenses on cold objects like leaves, flowers and windowpanes, dew is formed.

5. Fog-In winter, the water vapour in the air condenses on dust particles and forms a cloud just above the ground. This is called fog.

6. Rain-The water droplets in the cloud condense to form bigger drops of water which come down to the earth as rain.

7. Hail-When it is cold, the raindrops freeze and turn into ice.

8. Sedimentation-The process in which the impurities settle down at the bottom is called sedimentation.

9. Decantation-The method of collecting clear water is called Decantation.

10. Filtration-The process of removing impurities in water through a filter paper is called filtration.

Section 3 Formative Assessment (CCE Pattern)

Draw an object in each box which depicts three different types of weather on three different day.

● **Rohit and Mohit are discussing water cycle. Rohit says, 'We get rains**



Summer



Winter



A wind blowing

because of evaporation'. Mohit say, 'We get rains because of condensation'.

Who is right ? Or, are both of them right, or both wrong?

What would you tell them to help in settle their disagreement ?

Ans. Both of them right in nature, evaporation and condensation of water cause rains.

- **Show the journey of a water drop in the water cycle by drawing a series of pictures.**

Do yourself.

Formative Assessment-3

A. Answer the following questions :

1. When is work said to be done ?

Ans. When we use force on an object and the object moves through a distance. We say that work is done.

2. How do animals living in extremely cold places protect themselves from cold ?

Ans. Animals living in cold places have a coat of thick furs and blubbers to beat the cold.

3. What is a land breeze ?

Ans. The cool air from the land moves in towards the sea and takes its place. This is called land breeze.

4. What is the difference between a arboreal animal and aquatic animal?

Ans. **Arboreal Animal**-Arboreal animal have long and strong limbs with sharp claws to climb the trees.

Aquatic Animal-Aquatic animal have fins to move and gills to breathe.

B. Fill in the blanks :

Ans. 1. Warm air is **lighter** than cold air.

2. The quills of a **pangolin** can cause painful wounds.

3. It causes a moving object to stop **force**.
4. When it is cold, then raindrops freeze and turn into **ice**.

C. Name the following :

- Ans.** 1. Chameleon 2. Hand 3. Atmosphere
4. Northern fur seals.

D. Circle the correct option :

- Ans.** 1. A process in which the impurities settle down at the bottom is called **sedimentation**.
2. Deep sleep of some animals during winter is called **hibernation**.
3. Bottle opener is an example of **lever**.
4. Sea breeze blows towards **land**.

E. Tick (✓) the correct option :

- Ans.** 1. A process of change of water into water vapour is called :
b. Evaporation
2. It is a grooved wheel with a rope or cable around it.
c. Pulley
3. Who was the first person to told the world about gravity ?
a. Sir Isaac Newton
4. Aquatic animals breathe through their :
c. gills



Our Solar System

Time to Answer

A. Choose the correct answer from the bracket to complete the statement:

- Ans.** 1. **Uranus** is the seventh planet from the sun.
2. Mars is also known as the **Red** planet.
3. Pluto is one of the **Dwarf** planet which was earlier considered as a planet.
4. The Earth is the only planet on which water exists in **liquid** form.

B. Match the following :

Ans. Column A
Saturn –

Column B
Planet with Rings

Neptune	–	Farthest Planet
Earth	–	Blue Planet
Mars	–	Red Planet

Times to Answer

Winter is followed by spring. Look at the facts given below and match them with the correct reason given in the four options :

- Ans. 1. **Plants grow new leaves and bloom in spring.**
 b. Weather conditions are favourable.
2. **Many animals produce new babies in spring.**
 a. Weather is comfortable and there is plentiful food.

Section 1 Formative Assessment (CCE Pattern)

A. Answer the following question orally :

1. **How do day and night occur ?**

Ans. The rotation of earth causes day and night.

2. **Which movement of the Earth is called rotation ?**

Ans. Earth spin from west to east is called rotation.

3. **Name the imaginary line that runs through the centre of the Earth.**

Ans. Equator

B. Tick (✓) the correct option :

1. **I am a heavenly body. I give out heat and light. Who am I ?**

Ans. a. A star

2. **Which among the following is the heaviest planet ?**

Ans. c. Juptier

3. **The distance between the heavenly bodies is measured in terms of :**

Ans. c. light years

4. **Which of the objects given here can find place on the Earth and in the space ?**

Ans. c. Telescope

C. Fill in the blanks :

- Ans. 1. A group of stars in called a **galaxies**.
 2. The **Moon** reflect the light of the sun.
 3. Earth completes one **revolution** in 3651/4days.
 4. Moon is also called a **satellites**.

Section 2 Summative Assessment (CCE Pattern)

A. Answer the following questions :

1. **What is our solar system made up of ?**

Ans. Our solar system consists of the Sun, eight planets, Moons and other celestial bodies.

2. What is equator ?

Ans. An Imaginary line called equator divides the Earth into northern and southern halves.

3. Name the instruments used for exploring space.

Ans. (i) Telescopes, (ii) Space probes used for exploring space.

4. How are seasons caused ?

Ans. Different parts of the Earth tilt towards or away from the sun during one revolution of the Earth. This causes change in seasons.

5. What causes day and night ? Explain with the help of a diagram.

Ans. When the Earth rotates on its tilted axis, one half of the Earth faces the Sun and so it is day time in all the countries in this half. At the same time, the countries in the other half of the Earth which is away from the Sun, are in darkness and so have night time.

6. How do artificial satellites help us ?

Ans. Satellites are used to convey signals for television, mobile phones and many other communication nodes. It is only because of satellite you can watch a live telecast of an event happening thousands of kilometres away, sitting in the comfort of your home.

B. Tick (✓) the correct word :

1. The rotation / revolution of the Earth causes seasons.

Ans. The revolution of the Earth causes seasons.

2. Days and nights are caused due to rotation / revolution of the Earth.

Ans. Days and nights are caused due to rotation of the Earth

3. Stars / Planets have their own light.

Ans. Stars have their own light.

4. Neptune / Saturn has rings around it.

Ans. Saturn has rings around it.

C. Distinguish between the following :

Ans. 1. Rotation and Revolution

Rotation

(i) The Earth spin from west to east on its axis is called Rotation.

(ii) The Earth takes about 24 hours to rotate once on its axis.

Revolution

(i) The revolution of the Earth moves around the sun.

(ii) Earth takes about 365 and a quarter days or one year, to complete one revolution

- (iii) The rotation of the Earth causes day and night.
- 2. A star and a planet**
- A star**
- (i) Stars are actually huge balls of burning gases.
- (ii) The groups of star are called galaxies.
- around the sun.
- (iii) While revolution and tilted axis of the Earth causes the seasons.
- A planet**
- (i) Planets are smaller than stars. A planet does not have its own light.
- (ii) The sun, together with all the planets and their satellite make up the solar system.

Section 3 Formative Assessment (CCE Pattern)

Experimental Work—Handling Data

- **How many planets are there in our solar system ?**

Ans. Eight

- **How many planets take less than one Earth day to complete one rotation ?**

Ans. Two

- **Which planet is the slowest to complete a single rotation on its axis?**

Ans. Venus

- **Which planet's 'year' and 'day' are nearly the same ?**

Ans. Mercury

- **Among the planets Mercury, Venus, Earth and Mars which one spins the fastest on its axis ?**

Ans. Earth

- **Do you think there are life forms in the universe other than those found on Earth ?**

- **What do you imagine they might look like? Draw a picture.**

Ans. Do it yourself.

- **Would they be friendly ? Why do you think so ?**

Ans. Do it yourself.

Research Work

Do it yourself.

Life Skills

Do it yourself.

11

Protecting the Environment



Elephant



Tiger



Pine tree

Times to Answer

A. Name the following :

- Ans. 1. The loss of forests due to cutting of trees in large numbers
Deforestation.
2. The process of planting trees in large numbers **Afforestation.**

B. Write 'T' for the correct statements and F for the wrong one. Correct the wrong statement (s).

- Ans. 1. T 2. F 3. T 4. T

Section 1 Formative Assessment (CCE Pattern)

A. Answer the following questions orally :

1. What do you understand by deforestation ?

Ans. Cutting down of trees in large numbers is called deforestation.

2. Why do we celebrate World Environment Day ?

Ans. People discuss the environmental problems on this day and talk about ways to save environment.

3. Why do we need to protect animals ?

Ans. We need to protect animals because they are useful to us in many ways. We get milk from cows, buffaloes and goats. We get wool from sheep. Horses , donkey, camels and oxen help in carrying heavy loads. We get eggs from hen and duck.

B. Fill in the blanks by choosing the correct option :

- Ans. 1. Plants give us **oxygen** which is required by all living things.
2. **Trees** are natural homes to many animals .
3. **Plants** prevent soil erosion.
4. World Environment Day is celebrated on **5th June**.

C. Tick (✓) the correct option :

1. Cutting down of trees in large number is called :

Ans. b. deforestation

2. Van Mahotsav is celebrated in the month of :

Ans. c. July

3. World Environment Day is celebrated on :

Ans. a. June 5

Section 2 Summative Assessment (CCE Pattern)

1. List any two uses of plants.

Ans. (i) They give us fruits and vegetables to eat.

(ii) They give us oxygen to all living things.

2. Write any two ways to protect plants.

Ans. (i) Planting more trees than we cut

(ii) Reducing the use of products obtained from trees, for example paper.

3. List any two uses of animals.

Ans. (i) We get milk from cow, buffaloes and goats.

(ii) We get eggs from hen and duck.

4. Write any two ways to protect animals.

Ans. **Avoid using things made from animal parts :** Items like leather bags, fur coat and ivory decorations come from the different parts of various animals. Avoid using such items to prevent animal cruelty.

Avoid cutting down trees : Trees are natural homes to many animals. Hence, avoiding deforestation also helps in the protection of animals.

Section 3 Formative Assessment (CCE Pattern)

Anu uses the unused pages in all her old notebooks. In what way do you think she is helping to save plants ?

Ans. Do yourself.

Name the harmful practices that are shown in the pictures given below.

Ans.



Deforestation



Wasting paper

Collect at least five old things that you normally throw away. Make groups and discuss how best we can put these things to a different use.

Ans. Do yourself.

One has been done for you :

Old mugs

I can use it to make pen holders.

Old Newspaper	I can use it to make envelopes.
Old bottles	I can use it to make flower wash.
Old Note books	I can use it to make diaries.
Old calendars	I can use it to cover by books.
Old shirts	I can use them to make carry bags.

Formative Assessment-4

A. Answer the following questions :

1. How do day and night occur ?

Ans. Our solar system consists of the Sun, eight planets, Moons and other celestial bodies.

2. Why do we need to protect animals ?

Ans. People discuss the environmental problems on this day and talk about ways to save environment.

3. Which movement of the Earth is called rotation ?

Ans. Earth spin from west to east is called rotation.

4. What do you understand by deforestation ?

Ans. Cutting down of trees in large numbers is called deforestation.

B. Fill in the blanks :

- Ans.**
1. Plants give us **oxygen** which is required by all living things.
 2. The **Sun** is the nearest star to the earth.
 3. **Trees** prevent soil erosion.
 4. **Mercury** is the smallest planet in the solar system.

C. Give one word answer :

- Ans.**
- | | |
|------------------|------------------|
| 1. Moon | 2. Van Mahotsav |
| 3. Afforestation | 4. Deforestation |

D. Tick (✓) the correct option :

1. World Environment Day is celebrated on :

Ans. a. June 5

2. Which of these is the brightest planet in the solar system ?

Ans. c. Venus

3. Planting trees in large number is called :

Ans. a. afforestation

4. Aryabhata was the first satellite launched by India in :

Ans. b. 1975

E. Encircle the odd one :

- Ans.** 1. Mars Moon Jupiter Saturn
2. Afforestation Plantation Van Mahotsav Deforestation
3. Moon Sun Star Pole star
4. Sheep Horse Donkey Camel

Summative Assessment-2

A. Match the following :

- Ans.** 1. Animals that live on land → a. Aquatic
2. Gravity → b. freezing
3. Changing water from liquid form to solid → c. Sir Issac Newton
4. World Environment Day → d. territorial
5. Animals that live in water → e. 5th June

B. Differentiate between :

1. Rotation and Revolution

Ans. 1. Rotation and Revolution

Rotation	Revolution
(i) The Earth spin from west to east on its axis is called Rotation.	(i) The revolution of the Earth moves around the sun.
(ii) The Earth takes about 24 hours to rotate once on its axis.	(ii) Earth takes about 365 and a quarter days or one year, to to complete one revolution around the sun.
(iii) The rotation of the Earth causes day and night.	(iii) While revolution and tilted axis of the Earth causes the seasons.

2. Sea and land Breeze

Ans. Sea Breeze-During the day, the lands gets warmer faster then the water. The air above the land too becomes warms and rises up. The cool air from the sea moves in towards. The land and lakes its place. This is called sea breeze.
Land Breeze-During the night, the land gets cooler faster than water. The air above the sea becomes warm and rises up. The cool air from the land. Moves in towards the sea and takes its place. This is called land breeze.

C. Give reasons for the following :

1. Some desert animals like lizards and snakes hunt only at night.

Ans. Some desert animals like lizards and snakes hunt only at night because they sleep during day time.

2. Moving objects stop after covering a certain distance.

Ans. Moving objects stop after covering a certain distance Friction causes a moving object to stop.

3. Clothes dry faster in summer than in winter.

Ans. Higher the temperature, faster is the rate of evaporation.

4. Some animals hibernate during winter.

Ans. Frogs, snakes, lizards and many insects survive in the winter by going into a long period of rest. They keep lying in a safe place like a cave, hole or burrow to save energy.

5. We should not cut trees.

Ans. We should not cut trees because they give us fruits and vegetable to eat and give oxygen to all living things. They clean the air by taking in carbon dioxide.

D. Define the following :

Ans. 1. Hydro energy-The energy we get from the water is called Hydro energy.

2. Solar system-The energy we get from the sun is called solar energy.

3. Evaporation-The process in which water changes its physical form liquid in to gas.

4. Arboreal animal-Animals which spend a lot of time on trees.

5. Force-A push or a pull acting on an object.

6. Habitat-The natural surroundings where an animals lives.

7. Gravity-When anything is thrown in the air, it come down after travelling some distance.

8. Energy-Energy is the ability to do work.

9. Atmosphere-Our Earth is surrounded by a layer of air called atmosphere.

10. Deforestation-Cutting down of trees in large numbers is called Deforestation.

E. Answer the following questions :

1. How can you save water ?

- Ans.**
- We should not waste water by letting taps drip.
 - We should avoid draining water unnecessarily when cleaning cars, balconies, kitchens or driveways.
 - Drinking water should be stored in clean and covered containers.

- Water used in the kitchen for washing fruits and vegetable can be reused for watering plants.
- Taps should not be left running while brushing or shaving.

2. What is a lever ? What is it used for ?

Ans. A lever is simply a bar resting on a support on which it can turn. It is usually used to move heavy objects with less effort. It is also used for cutting things and opening Lids. Scissors, Hammers, and Bottle openers are some examples of levers.

3. What is camouflage ?

Ans. Camouflage is the ability of an animal to change its colour to blend or merge with its surroundings, making it hard to be seen or spotted. The chameleon a common garden lizard, changes its colour according to the tree or bush on which it sits.

4 What causes day and night ?

Ans. The rotation of Earth causes day and night occurs.

5. Write any two ways to protect plants?

Ans. **Avoid using things made from animal parts :** Items like leather bags, fur coat and ivory decorations come from the different parts of various animals. Avoid using such items to prevent animal cruelty.

Avoid cutting down trees : Trees are natural homes to many animals. Hence, avoiding deforestation also helps in the protection of animals.