

Chapter 3: The Earth and its Living World

CAN YOU TELL ? [PAGE 11]

Can you tell ? | Q 1 | Page 11

Where do you get water from?

SOLUTION

Water is obtained from different sources at different place. In cities we get it from taps and pipes. In villages we get it from wells or rivers, lakes, ponds, rains, dams, etc.

Can you tell ? | Q 2 | Page 11

Where do we lay the foundation of buildings?

SOLUTION

The foundation of buildings is laid on land.

Can you tell ? | Q 3 | Page 11

What need do we meet through breathing?

SOLUTION

The need for oxygen to survive is met through breathing. For this purpose, we breathe in air through our nose.

Can you tell ? | Q 4 | Page 11

From where does the earth get light and heat?

SOLUTION

The earth gets light and heat from the sun.

USE YOUR BRAIN POWER ! [PAGE 14]

Use your brain power ! | Q 1 | Page 14

In which layer of the atmosphere do we see the rainbow?

SOLUTION

We see a rainbow in the layer of the troposphere of the atmosphere.

Use your brain power ! | Q 2 | Page 14

Mountaineers carry oxygen in cylinders when they climb mountains that are more than 5000 m high. What could be the reason for that?

SOLUTION

As we climb up the heights, the air at the top becomes rare. At the height of 5000 m or more, the air is very rare. The oxygen may be limited here. Therefore the mountaineers carry oxygen in cylinders when they climb mountains that are more than 5000 m high.

CAN YOU TELL ? [PAGE 15]

Can you tell ? | Q 1 | Page 15

Make as long a list as you can of all the living things you see in the lithosphere, hydrosphere and atmosphere.

SOLUTION

Lithosphere	Hydrosphere	Atmosphere
Animals: Wild animals: Tiger, Lion, Leopard, Bear, Fox, Wolf, Hyena, Monkeys, Gorilla Domestic animals: Cow, Bull, Buffalo, Dog, Cat, Many types of birds	Marine fishes: Pomfret, Seer fish, Bombay duck Fresh water fishes: Rohu, Catla, Mrigal Other animals: Whale, Turtle, Crab, Lobster, Prawns	Flying birds, (the ones who are in the sky) Flying insects.
Plants: 1. Big trees: Mango, Jackfruit, Jamun, Neem 2. Shrubs and herbs 3. Various types of cacti 4. Medicinal herbs	Aquatic plants, Lotus, Hydrilla, Pistia, Eichhornia, Algae, Moss	Microorganisms

EXERCISES [PAGE 17]

Exercises | Q 1 | Page 17

What's the solution?

Dark patches appear on the skin after exposure to the sun.

SOLUTION

The harmful radiation of the sun can cause a burning sensation to our skin. In order to avoid this, we should not roam in the harsh sunlight. If it is necessary to leave the house, we should use an umbrella or cap. Wear cotton clothes that would cover the skin of your hands and legs. The use of sun-screen cream is advisable. Covering the face

with a handkerchief can protect the delicate skin. After returning from outside, splash cold water on the face. This will help to reduce the temperature of the skin.

Exercises | Q 2. (a) | Page 17

Use your brain power!

Why are micro-organisms important?

SOLUTION

In every envelope of the earth, there are microorganisms. These microorganisms perform an important function of degradation. They also occupy an important place in the food chain. The dead and decaying plant and animal matter is converted into soil and minerals by these microorganisms. If there were no microorganisms, huge piles of debris could have piled up everywhere on the earth. Therefore microorganisms are very important organisms on the earth.

Exercises | Q 2. (b) | Page 17

Use your brain power!

Think about all the foodstuffs obtained from the sea. Find more information and write ten lines about them.

SOLUTION

1. Many marine organisms inhabit seas. Some of these form our food.
2. Various edible varieties of fish are caught from the seas.
3. There are good quality proteins and fatty acids in the fish. Therefore, it is a nutritive food.
4. Shell fish varieties such as crabs, prawns, lobsters are favourite food items worldwide. Prawns are abundantly available in the Indian waters, therefore we get lots of foreigner-exchange through the export of prawns.
5. Bivalves, squids, oysters are also eaten as delicacies.
6. Algae from the seas are also eaten in the Asian countries, though not in India.
7. Agar is the substance made from marine algae which are used in jellies and puddings.
8. Salt is made from the seawater.
9. In some countries, potable water is made from the seawater by special processes.
10. Young ones of prawns and fishes are used for the aquaculture.

Exercises | Q 3. (a) | Page 17

Answer the following questions.

What are clouds made of?

SOLUTION

Clouds are made up of fine droplets of water. The sun's heat evaporates the water to form vapours from the earth's surface. This water vapour rises high up in the atmosphere. At cool heights, it condenses forming fine droplets of water which in turn make the clouds.

Exercises | Q 3. (b) | Page 17

Answer the following questions.

What is meant by 'biosphere'?

SOLUTION

Living things are seen in all the envelopes of the earth such as the lithosphere, hydrosphere, and atmosphere. All the living things together in these three envelopes form a biosphere. Thus, the plants, animals, and microorganisms together make a biosphere.

Exercises | Q 3. (c) | Page 17

Answer the following questions.

Make a list of the landforms you see in your surroundings and give a description of any two of them.

SOLUTION

In my surroundings, there is a small hillock and a playground. I can see mountain ranges at a far distance. Between these mountain ranges, there are valleys and passes.

Therefore, the list of landforms: Hillock, plain, mountain, valleys, passes

1. **Hillock:** Hillock is a small-sized mountain. The land on the hillock is sloping. It is easy to climb a hillock. We can plant trees on the slope of a hill to stop soil erosion.
2. **Plain:** The playground is plain. The Plain is a flat part of the land. There is no slope or elevation on the plain. Since the entire surface is flat, we can use it for playing and other activities. We can plant trees around the plain.

Exercises | Q 4. (a) | Page 17

In the following sentences, underline the words that refer to landforms.

Anil lives at the foot of a hill.

SOLUTION

Anil lives at the foot of a hill.

Exercises | Q 4. (b) | Page 17

In the following sentences, underline the words that refer to landforms.

Ria lives in the plateau region.

SOLUTION

Ria lives in the plateau region.

Exercises | Q 5. (a) | Page 17

Write a note about the following.

Evaporation

SOLUTION

The heat changes water into vapour. This action is called evaporation. The sun's heat converts the water present on the earth's surface into water vapour. The water that has percolated into the soil also evaporates due to heat. All such vapour enters the atmosphere. This vapour condenses and comes in the form of rain back to the surface of the earth. Thus evaporation is necessary for rainfall. The water cycle keeps on functioning due to evaporation.

Exercises | Q 5. (b) | Page 17

Write a note about the following.

Condensation

SOLUTION

Condensation is the process in which vapour is changed into water. In nature due to condensation, there is rainfall. The water vapour that reaches the upper layers of the atmosphere, gets condensed and forms fine droplets of water.

Exercises | Q 5. (c) | Page 17

Write a note about the following.

The water cycle

SOLUTION

The movement of water is continuously taking place from the earth's surface to the earth's atmosphere. The process of evaporation, condensation, and rainfall is a continuous process. Due to the sun's heat, the water on the earth's surface is continuously evaporated. Since the water vapour is lighter than air, it rises high in the atmosphere. Due to cool temperatures at the heights, the water vapour condenses forming fine droplets of water. These droplets later form clouds. When small droplets of water become heavier and bigger, they descend down on the earth in the form of rain. Rainwater mixes with different water bodies. The snowbound regions also show the

melting of ice and glaciers. This water also eventually mixes with ocean waters. In this way water moves in the cyclic manner, which is known as the water cycle.

Exercises | Q 6. (a) | Page 17

Give two examples of each.

Weather-related events

SOLUTION

1. Formation of clouds
2. Rainfall
3. Fog
4. Winds
5. Storms

Exercises | Q 6. (b) | Page 17

Give two examples of each.

Sources of water

SOLUTION

1. Rills and brooks
2. Streams
3. Wells and rivers
4. Lakes and ponds
5. Glaciers

Exercises | Q 7 | Page 17

Draw a labelled diagram showing the water cycle.

SOLUTION

