



Subject: Science

3. Soil

Checkpoints

Choose the correct option

1. Soil is formed by cooling / weathering / heating.

Ans: Weathering

2. Humus is made-up of the rotting remains of plants / animals / both plants and animals.

Ans: Both plants and animals

3. For growing crops, the best type of soil is sandy / loam / clayey.

Ans: Loam

4. The top layer of soil is called subsoil / bedrock / top soil.

Ans: Topsoil

A. Take the correct answer

1. Soil is a precious resources because it

A) very expensive B) **Take millions of years to form**

C) Cannot be moved easily D) Is very heavy

2. Sand is composed of ____.

A) sand, silt, clay B) Air and water C) Humus D) **All of these**

3. The middle layer of soil in a soil profile is called the ____.

A) bedrock B) Parent rock C) Subsoil D) Top soil

4. Soil erosion occurs due to ____.

A) overgrazing B) Afforestation C) Step farming D) Weathering

5. We can protect soil from erosion and maintain its quality by ____.

A) cutting down trees B) Throwing garbage on land

C) **Planting different crops at different times** D) Destroying embankments along riverbanks

B. Fill the blanks

1. Many medicines are prepared from bacteria and fungi that grow in the soil.

2. **Sand** particles are the largest soil particles
3. **Loam** is the most suitable soil for growing crops.
4. The bottom layer of soil is called **parent rock**.
5. Embankments are built along riverbanks to prevent soil **erosion**.

C. Write true or false. Correct the false statement.

1. Silt is not a part of soil. **False**

Ans: Silt is a part of soil.

2. Clay particles can hold water for a long time. **True**
3. Subsoil is rich in humus. **False**

Ans: Top soil is rich in humus

4. Terrace or steps slow down the flow of rainwater. **True**

D. Short answers

1. What is humus?

Ans: Humus is made-up of the rotting remains of plants and animals. It makes the soil rich with nutrients.

2. Name the three basic types of soil.

Ans: The three basic types of soil are sandy, clayey and loam.

3. What does parent rock?

Ans: The bottom layer of the soil is called parent rock. It contains small pieces of rocks.

4. How does deforestation cause soil erosion?

Ans: The soil becomes bare because of deforestation. The heat of the sun makes the soil loose and dry.

5. Why is afforestation important?

Ans: Afforestation prevents soil erosion.

E. Answer these questions

1. How is soil formed?

Ans: Long ago, there were only big rocks on the earth. These big rocks broke into very small fine particles by the continuous action of sun, wind and water. This early soil was gradually scattered over the earth by wind and water. Small plants started growing on the soil. When these plants die, they rotted on the soil. This made the soil fertile. This helped the animals to also grow on land. As time passed, more and more rotting matter from dead plants and animals mixed with the weathered rocks to form a layer of soil on the earth.

2. What is the difference between sandy soil and loam?

Ans: Sandy soil has a lot of sand and very little silt and clay. They can hold a lot of air, but cannot hold water or nutrients for long. That is why sandy soil is not good for growing plants. Loam soil has the right mix of sand, clay and silt. It can hold air and water well, but it also allows water to flow easily and also contains humus. That is why loam is the best soil for growing plants.

3. What is the importance of top soil?

Ans: Top soil contains sand, clay, humus, water and air. It gives nutrients to plants. Roots of most plants grow in the top soil.

4. What is overgrazing and how does it cost soil erosion?

Ans: At times, animals keep eating grass in grasslands without allowing it to grow back fully. This is called overgrazing. It makes soil bare and loose. So, it becomes easy for the wind and water to carry away the top soil and cause soil erosion.

5. How step farming useful for preventing soil erosion, explain?

Ans: In terrace or step farming, terrace or steps are cut into the sides of the hills. Crops are planted on these terrace. These terrace slow down the flow of rainwater. They save the top soil from being washed away.

F. Complete the think and answer in your own words.