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CLASS: 4

LESSON: 5. All about Soil

SUBJECT: Science

Q1 .Key words

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|-------------|------------------|------------|
| a] fragment | e] reforestation | i] humus |
| b] fertile | f] deforestation | j] erosion |
| c] gritty | g] conservation | |
| d] grazing | h] abundant | |

Q2. Pre activity

- 1] Why soil is important to living organisms?

Q3. Name the following

- 1] Name three layers of soil.

Ans] Topsoil, Subsoil and Bedrock

- 2]Name the layer which is made up of hard rocks.

Ans] Bedrock

- 3]Name two things which cause soil erosion.

Ans] Wind and Water

Q4. Short answer questions

1. How does soil form?

Ans] Soil is the topmost layer of the Earth's crust. Over a period of a hundred thousand years, big and small rocks get broken down into tiny gravel and particles, that forms soil.

- 2.What is soil erosion?

Ans] The washing away of the topsoil due to the action of wind or water is known as Soil erosion.

- 3.Name the farming method which is good for soil conservation. Why?

Ans] Farmers should grow different types of crops so that the soil gets time to recover between one crop and another. This type of farming is called crop rotation.

4. What is humus?

Ans] When living things such as plants and animals die on the surface, their bodies decompose and mix with the soil. This is called humus.

Q5. Long answer questions

1. Describe all the layers of soil.

Ans] Soil is made up of different layers. Each layer has a different colour. The layers of soil are: 1] **Topsoil:** The uppermost or topmost layer of soil is called topsoil. It tends to be soft and loose. Topsoil has water, air and humus. The roots of plants grow in this layer of the soil.

2] **Subsoil:** The layer below topsoil is called subsoil. Subsoil is harder than topsoil and has rocks. Only trees with long roots enter this layer of the soil. Otherwise, it does not support any form of life as there is not enough food or water for life to survive.

3] **Bedrock:** The layer beneath the subsoil is made up of hard rocks. This upper layer of rocks is porous. It means that water is able to pass through this layer. This layer is called parent material. The layer after that is a thick, hard slab of non-porous rock called bedrock.

2. How are some animals useful to the soil?

Ans] Small animals like rabbits, snakes and rats build homes in the soil. For example, rabbits live in burrows, earthworms and even smaller organisms live in the soil; such animals move around the soil and let air pass through it. They loosen the soil by breaking the harder bits and keeping the soil soft

3. Briefly describe all factors responsible for soil erosion.

Ans]The washing away of the topsoil due to the activity of wind or water is known as soil erosion.

Factors responsible for soil erosion are:

- a. Strong winds and fast current
- b. Cutting down of trees (deforestation)
- c. Improper methods to grow crops.
- d. Heavy rainfall

4. Describe methods in which soil can be conserved.

Ans] The methods for conservation of soil are

- Crop Rptation -Farmers should grow different types of crops so that the soil gets time to recover between one crop and another. This type of farming is called crop rotation.

- We should plant trees, grass and bushes on open farmlands so that the soil does not easily get carried away by wind or water.
- We must plant more trees in place of the ones that are cut down.
- Floods should be controlled by building dams across rivers. Also, the paths of flowing rivers should be controlled.

Subject Trs

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