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Prepared on : _____

Subject: Science
L-11 Rock and Minerals

I. Keywords

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|----------------|-----------------|
| 1. Crumble | 9. Fragments |
| 2. Nutrients | 10. Clayey |
| 3. Fertile | 11. Loamy |
| 4. Texture | 12. Fertilizers |
| 5. Igneous | 13. Pumice |
| 6. Sedimentary | 14. Minerals |
| 7. Metamorphic | 15. Humus |
| 8. Weathering | |

II. Pre activity: Write down the names of various types of soils found in your locality.

III. Short answer questions.

1. Name the rocks made from sediments?

Ans. The rocks made from sediments are known as sedimentary rocks.

2. Which type of soil do you find at the beach?

Ans. Sandy soil is found at the beach.

3. Rank the soils in the order of fertility, with the first being the most fertile soil.

Ans. In the order of fertility, soils can be ordered as:

Loamy Soil, Clayey Soil and Sandy Soil.

4. What is meant by weathering?

Ans. The process of breaking of a rock to form soil is called weathering. It takes thousands of years for big rocks to change into fine soil.

IV. Long answer questions.

1. What are minerals?

Ans.

- Minerals are substances that make up rocks, sand and soil.
- They are made up of chemicals.
- There are about 3,000 different minerals in the world.

2. How are sedimentary rocks formed?

Ans. Sedimentary rocks are formed when small pieces of rocks, sand, and mud are carried by wind or water. These pieces settle down in layers over time and get pressed together to form rocks.

3. Explain rock cycle?

Ans.

- Rocks follow a cycle called the rock cycle for their formation.
- The solid rock material inside the earth changes into liquid due to extreme heat and erupts out in the form of volcano lava.
- This lava cools down on the Earth surface and becomes solid rock again.

4. What is humus? Where is it found? How is it useful?

Ans.

- Humus is the remains of dead plants and animals.
- It is found in the topsoil layer.
- Humus makes the soil fertile and helps plants grow by providing nutrients.

5. Explain the layers of soil you find when you dig into the surface.

Ans. When we dig into the ground, we will find four layers of the soil, which are following:

Topsoil: The top layer where plants grow.

It is fertile and contains roots, water, and nutrients.

Subsoil: The layer below topsoil.

It has small rocks and fewer roots.

Weathered Rock: Made of broken pieces of rocks.

Water seeps through this layer.

Bedrock: The bottom layer with solid, hard rocks.

Plants cannot grow here.

6. Differentiate between igneous, metamorphic and sedimentary rocks.

Ans. The main differences between the three types of rocks are as given below:

Igneous Rocks: Formed when hot liquid rock (lava or magma) cools down and becomes solid. Like melted chocolate hardening.

Sedimentary Rocks: Formed when small pieces of rocks, sand, or mud settle in layers over time. Like layers of sand piling up.

Metamorphic Rocks : Formed when rocks change due to heat and pressure deep inside the Earth.

V. HOTS

1. Hari is making pots but they break very easily. What is the possible reason? What kind of soil should he use for making pots? Why?

Ans. The reason for the breaking of pots could be the use of improper soil for making pots. Hari should use clayey soil to make pots because it consists of very fine particles that stick together.

VI. Post activity: Draw and label the diagram of layers of the soil.

Subject Teacher

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