

## Science Note Book Work-Grade 4

### Soil and its types

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#### K-W-L chart

K	W	L
What is soil?	Formation of soil.	Composition of soil.
Importance of soil.	Types of soil.	There are mainly three types of soil, sandy, clayey, and loamy.
	Conservation of soil.	Methods of soil conservation.

#### Pre assessment

1. Soil is made up of \_\_\_\_\_
2. Which layer of soil is the most fertile \_\_\_\_\_
3. Name any two methods to prevent soil erosion.

#### Vocabulary

Vocabulary	What it means
Soil	A mixture of tiny pieces of rocks and remains of dead plants and animals.
Topsoil	The top layer of soil, which is rich in nutrients and supports plants growth.
Weathering	When rocks break into smaller pieces because of rain, wind, and changes in temperature.
Soil Erosion	Removal of the top layer of soil by wind, rain or flowing water.
Soil conservation	Protecting soil from erosion so it stays fertile and useful.
Overgrazing	Animals eating grass from the same area again and again.
Terrace Farming/step farming	When farmers create steps on hills to trap water and the soil from draining.

#### Soil formation and components of Soil

##### Learning objectives:

Identify the components of soil.

Describe the formation of soil.

## Activity 1

Design a flipbook that explains soil formation from rocks to soil.



## Types of Soil

### Learning objective:

Explain the types of soils and their characteristics.

### Activity-2

Draw a three-column table describing types of soil, its characteristics and uses.

Types of soil	Characteristics	Uses
Sandy soil		
Clay soil		
Loamy soil		

## Soil Erosion and Conservation

### Learning Objective:

Describe the soil erosion and conservation.

### Activity- 3:

Create a table describing causes and consequences of soil erosion.

Causes	Consequences
Deforestation	Loss of soil fertility, habitat loss
Overgrazing	Soil compaction, reduced vegetation
Wind	Loss of topsoil, desertification.
Heavy rainfall.	Landslides, sedimentation of rivers.

## Activity-4

Create a mind map on different methods of soil conservation.



## Think and Answer

Why is soil considered as a natural resource?

**Ans:** Soil is considered a natural resource because it is formed naturally overtime and is essential for plants, animals, and humans. It provides nutrients for plants, helps grow crops, and supports life on earth.

## Value Based Question

Planting trees helps in soil conservation because:

- It absorbs water.
- It holds soil with roots.
- It increases soil erosion.

## Asset Based Question

**Assertion (A):** Sandy soil is not suitable for growing rice.

**Reason (R):** Sandy soil cannot hold water for a long time.

- Both A and R are true and R is the correct explanation of A.
- Both A and R are true but R is not the correct explanation of A.
- A is true but R is false.
- A is false but R is true.

## Research Work

Investigate and write about one method of soil conservation practiced in your local area. Explain its benefits and challenges.

## **Rubrics**

<b>Sl. No</b>	<b>Learning outcomes</b>	<b>I did it</b>	<b>I tried</b>	<b>I need to revised</b>
1	I can identify the components of soil			
2	I can describe the formation of soil.			
3	I can explain the types of soils and their characteristics.			
4	I can describe the soil erosion and conservation.			