



Provincial Department Of Education – Sabaragamuwa
WEEKLY SCHOOL

Subject : Science

Grade 7

Week : 05th of 3rd Term

Unit 15 – Soil(2)

➤ Composition of soil



Activity 15.3

Separation of components in the soil

You will need :- A long polythene tube, threads, soil, water

Method:-

- Cut a polythene tube about 50 cm long and tie one end of it. Fill ¾ of the tube with water.
- Dig a hole in your school garden and take a sample of soil from it.
- Mix the soil sample with water.
- Then, add it to the water already present in the polythene bag and leave to settle.
- Now observe.
- You can observe the separation of components of soil as shown in Figure 15.4

Then, take a polythene tube of 1m long. Fill ¾ of it with water and put twice the amount of soil taken in the above activity into it

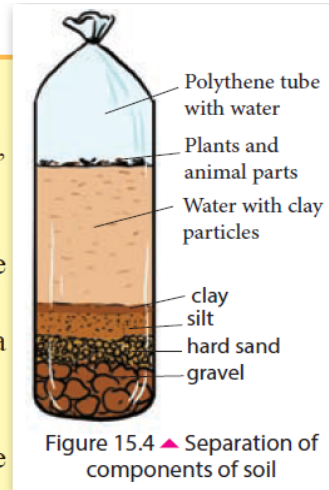


Figure 15.4 ▲ Separation of components of soil

- Write short notes about each of the following.

- **Soil minerals**

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- **Functions of soil minerals**

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- **Soil organic materials (Humus)**

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- **Functions of soil organic materials (Humus)**

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- **Soil air**

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- **Functions of soil air**

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○ **Soil water**

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○ **Functions of soil water**

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○ **Soil organisms**

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○ **Functions of soil organisms**

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○ **Soil erosion**

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○ **Write down some of the ways in which soil erosion can occur.**

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Finding how the covering of earth affects soil erosion

You will need :- A tin with holes at the bottom, three large plastic bottles, three small plastic bottles, soil, grass clod, dried/decayed leaves

Method :-

- Cut three large bottles as shown in Figure 15.14. Remove their lids.
- Cut three small bottles as shown in the Figure. Do not remove the lids.
- Add the same type of soil in equal amounts to each large bottle. Then press them well.
- Plant the grass clod in one bottle and keep dried/decayed leaves on the surface of the other bottle. Keep the soil in the third bottle open.
- Make holes in small bottles and tie them to the mouth of the large bottles, as shown in the figure.
- Keep those bottles on the edge of the table in a manner that the bottom of the large bottles is little tilted up.
- After the grass grow well, pour water to the soil samples by using three taps. The speed of the flowing should be equal. Or else, pour equal amounts of water on to the soil samples in the same height. Use the tin with holes at the bottom to pour water.
- Observe the colour of water collected in small bottles.

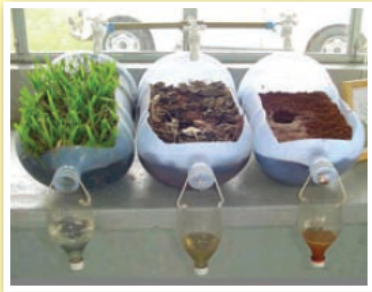


Figure 15.14 ▲ Comparing soil erosion

○ **Write down some of the methods that can be used to reduce soil erosion in a sloping**

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