

SCIENCE
ACTIVITY-9
SOIL

Class: VII

Duration-30 minutes

Nature of activity: Individual

Learning Outcome: Students will be able to interpret that the process by which the water seeps into the ground and the ground water level rises is known as infiltration.

What we have to do?

To show the process of infiltration of water through the soil.

What do we require?

A used plastic bottle, soil, water, filter paper or a piece of cotton cloth.

What do I need to know?

Infiltration is the process by which the water goes inside the soil.

Teacher's Activity: Teacher will arrange the materials for the individual and give instructions regarding the activity.

How will you proceed?

Student's Activity:

1. Take a clean used plastic bottle and cut it with a knife about 5 cm below the neck. The bottle is divided into two parts. The upper part will be used as a funnel and the lower part as a container.
2. Fix a filter paper or cloth in the improvised funnel and keep it over the container. Now add some soil over the filter paper till it fills two third part of the funnel. Your apparatus to show infiltration is ready.
3. Pour some water on the soil and wait for 5 mins.

What have you observed?

Amount of water collected:	After 1 min	After 5 min

What have you learned?

- Surface water from any source (rain, river, lake, spring, snow, human activities) percolate through the soil and gets stored as ground water and this process is called _____.

What more can we do?

- Make a pit in the garden of a school or home. Connect the pit with the outlets of waste water. Cover the pit. Keep observing the pit time to time. Guess what happens to the water being collected in the pit?

Extended learning worksheet

Answer the following questions:

1. Radhika takes a beaker and fills it half with soil. She pours some water into the beaker and observes

(a) What does Radhika observe?

(b) Give reasons for the same.

2. Radhika then takes some dry soil from her garden and puts it into another beaker. She covers the beaker with a watch glass. She heats the beaker on a Bunsen burner and observes.

(a) What does Radhika observe?

(b) Give reasons for the same.

3. Percolation rate in sandy soil is the highest. Explain.

4. Soil 'X' has a high percolation rate whereas soil 'Y' has a low percolation rate of water. Which soil is suitable for growing rice crop and why?

5. A student has two samples of soil: Sample –X and Sample –Y. He pours an equal amount of water in both. In sample-X, the water is standing whereas in Sample Y, there is no water. What type of soil can X and Y be?
