

EXPERIENTIAL LEARNING- ACTIVITY NO – G- II

Subject	Geography
Class	VIII
Chapter /Unit	L-2 : Land, Soil and Water resources .
Topic	Soil Profile
Time	2 days (day 1 to conduct and day 2 to document)
Nature of Activity	Individual

Activity Title – Soil Profile

What will I learn(Learning outcomes)?

The students will be able to -

- examine and create a soil profile in a transparent bottle using the sample of soil available in their immediate environment (home /school) .

Skills - Examining and Creating

What I have to do? – To create a soil profile by collecting the sample of soil from the immediate surrounding and study the characteristic feature of each layer of soil .

What do I require ? –A transparent plastic bottle(250-500 ml) , 100-150 ml of water , marker pen and sample of garden /park soil (100-150 gms/ handful) .

What do I need to know?- The unconsolidated mineral or organic material on the immediate surface of the Earth that serves as a natural medium for the growth of land plants is called soil.

Teacher's Activity-

Teacher will -

- explain the layers of soil as given in the lesson .
- guide the students ,step by step to complete the activity –

a. collect the following material for the activity - A transparent plastic bottle(250-500 ml) , 100-150 ml of water , marker pen and sample of garden /park soil (100-150 gms/ handful) .

b. take a plastic transparent pet bottle(250ml) and fill it half with the water.

c. make a funnel with the paper and arrange it in the bottle.

d. carefully put the soil in the bottle through the funnel.

e. remove funnel and close the bottle with its lid and shake it vigorously for few seconds and keep it aside for a day.

f. observe the bottle after a day and you will notice different layers of soil formed after the settling down of heavier material in the soil at the bottom of the bottle .

g. label each layer by writing on the bottle with the marker pen.

h. click a picture of your soil profile and document it in the notebook.

How will I proceed ?

Student's Activity – Students will-

- follow the instruction and proceed for the activity step by step as explained by the teacher .
- gather all the required material i.e a transparent bottle(250-500 ml) , 100-150 ml of water , marker pen and sample of garden /park soil (100-150 gms/ handful) .
- use a paper funnel and will put soil in the bottle ,half filled with water .
- shake the closed bottle and set it aside for a day.
- observe the coloured layers formed in the bottle on the second day when the heavier material in the soil settled down and lighter floats above in the bottle .
- use a marker pen and write the names of different layers of soil on the bottle.
- click a picture of soil profile and paste it in their notebooks.

What have I observed?-

OBSERVATION TABLE- SOIL PROFILE

LAYER OF SOIL	ONE CHARACTERISTIC
*Top soil	Dead remains of plants and animals found .
Sub soil	
Weathered rock	
Parent rock	

* Sample filled

What have I learnt?-

The top most layer of the _____ is the soil.

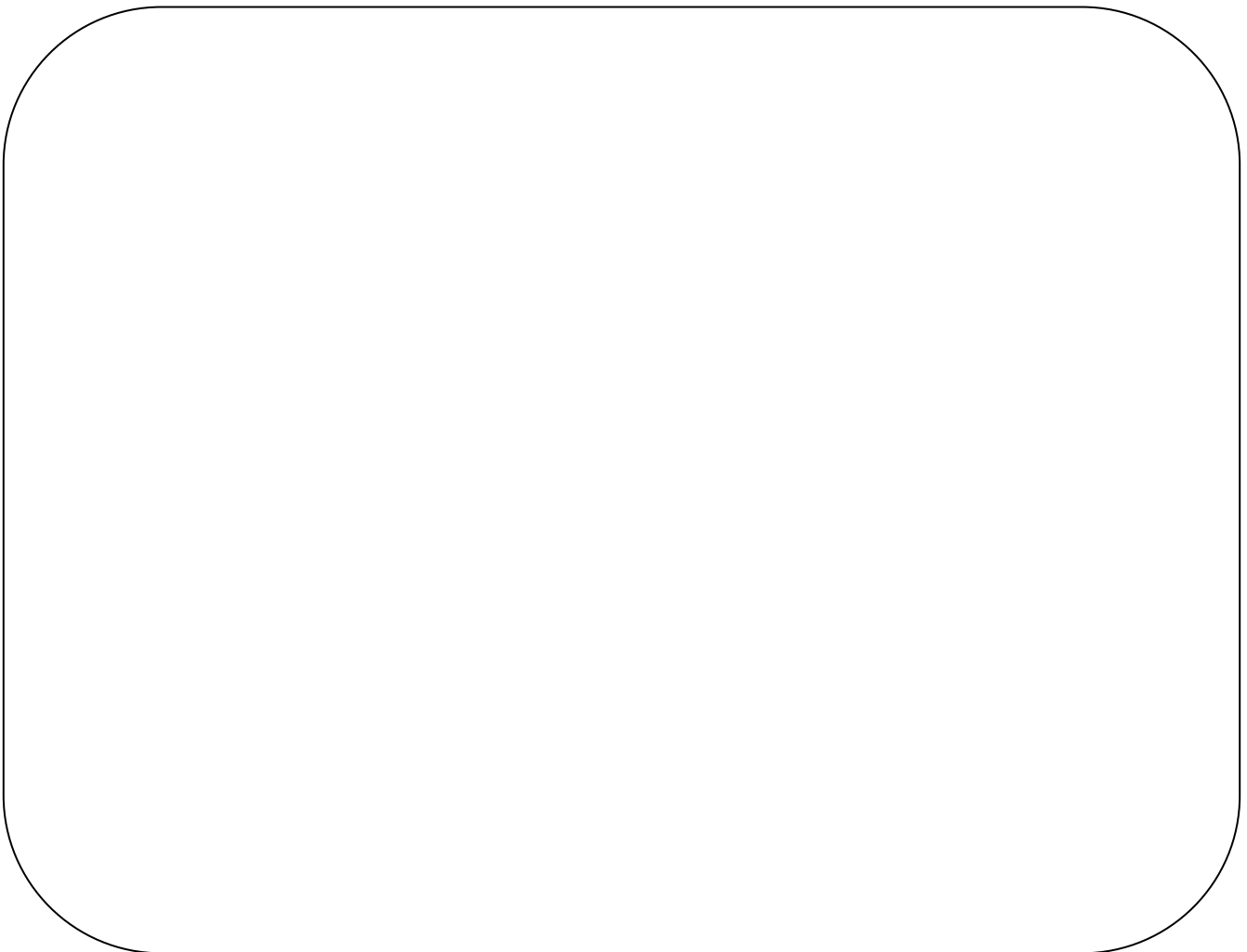
In a soil profile _____ is a layer where most nutrients for _____ are found .

What am I curious to learn?

Physical properties (colour, texture, composition etc) of different types of soils found in my surroundings .

Let me evaluate myself

Q1. Draw a labeled diagram of soil profile in the space provided below-

A large, empty rounded rectangular box with a thin black border, intended for a student to draw a labeled diagram of a soil profile. The box is oriented vertically and occupies the lower half of the page.

Q2. Highlight the importance of soil for existence of life on earth in three points.

Q3. Match the following –

	COLOUMN A		COLOUMN B
a	Crab	1	Sand and beaches
b	Rodents	2	Burrows in soil
c	Garden Lizard	3	Surface soil
d	Earthworm	4	A horizon of moist soils
e	Scorpion	5	Deep, narrow holes in soil

Q4. Choose the correct option for the following –

1) What is a a soil horizon?

- ☐ a) A factor influencing how soil is formed
- ☐ b) A layer of soil
- ☐ c) An organism found within the soil
- ☒ d) A technique used to map soils

2) Which three layers form the soil profile?

- ☐ a) Air , water and soil
- ☐ b) Minerals, organic matter and living organisms
- ☐ c) Clay, silt and sand
- ☐ d) The topsoil, subsoil and parent materials