

## **NCERT SOLUTIONS- SOIL**

NCERT Solutions for Class 7 Science Chapter 9 Soil is the essential study material to perfect Soil topics. The NCERT Class 7 Science solutions provided here correctly answer NCERT textbook questions. Solutions curated in a comprehensive manner will help students understand the subtopics in this chapter in a better way.

## **IMPORTANT SUB-TOPICS MENTIONED IN THE NCERT CLASS 7 SCIENCE CHAPTER 9**

### **SOIL:**

NCERT Solutions for Class 7 Science Chapter 9 Soil has the following sub-topics as given below:

Sr. no	Topics
1.	Soil teeming with life
2.	Soil profile
3.	Soil types
4.	Properties of soil
5.	Moisture in soil
6.	Absorption of water by soil
7.	Soil and crops

## **NCERT SOLUTIONS CLASS 7 SCIENCE CHAPTER 9 SOIL:**

Tick the most suitable answer in questions 1 and 2.

- In addition to the rock particles, the soil contains**
  - air and water**
  - water and plants**
  - minerals, organic matter, air and water**
  - water, air and plants**

ANS- (iii) minerals, organic matter, air and water

- The water holding capacity is the highest in**
  - sandy soil**
  - clayey soil**
  - loamy soil**
  - mixture of sand and loam**

ANS- (ii) clayey soil

- Match the items in Column I with those in Column II:**

Column I	Column II
(i) A home for living organisms	(a) Large particles

## SOIL

(ii) Upper layer of the soil	(b) All kinds of soil
(iii) Sandy soil	(c) Dark in colour
(iv) Middle layer of the soil	(d) Small particles and packed tight
(v) Clayey soil	(e) Lesser amount of humus

ANS-

Column I	Column II
(i) A home for living organisms	(b) All kinds of soil
(ii) Upper layer of the soil	(c) Dark in colour
(iii) Sandy soil	(a) Large particles
(iv) Middle layer of the soil	(e) Lesser amount of humus
(v) Clayey soil	(d) Small particles and packed tight

**4. Explain how soil is formed.**

ANS- Rock weathering results in the formation of soil. Weathering is a process in which climatic variations, wind, and water largely cause the physical breakdown and chemical decomposition of minerals. Rocks are reduced to tiny fragments during the weathering process, which eventually transforms into soil particles to create a layer of soil.

**5. How is clayey soil useful for crops?**

ANS- The following are some benefits of using clayey soil for crops.

- It can hold a lot of water effectively.
- Organic matter is plentiful in clayey soil.
- Cereals like wheat can be grown in clayey and loamy soils.
- Clayey soil's ability to hold water allows for the growth of crops like rice, which need more water to grow.

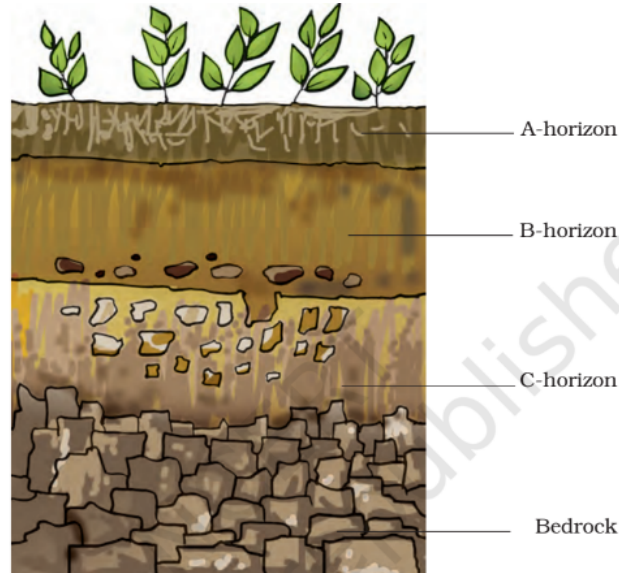
**6. List the differences between clayey soil and sandy soil.**

ANS-

Clayey Soil	Sandy Soil
Particles are finer	Particles are larger
Particles are tightly packed	Particles are loosely packed
Holds a good amount of water	Water holding capacity is low
It is heavy in weight	It is light in weight

Rich in humus and organic nutrients	Not rich in humus and organic nutrients
Very little air is trapped between the particles	More air is trapped between the particles

7. Sketch the cross-section of soil and label the various layers.



ANS-

Fig. 9.3 Soil profile

8. Razia conducted an experiment in the field related to the rate of percolation. She observed that it took 40 min for 200 ml of water to percolate through the soil sample. Calculate the rate of percolation.

ANS- Amount of water = 200 ml

Percolation time = 40 minutes

Percolation rate = Amount of water in ml / percolation time in minute  
 = 200ml / 40mins = 5ml/min

9. Explain how soil pollution and soil erosion can be prevented.

ANS- The following actions can be taken to reduce soil pollution:

- by utilising less plastics.
- by restricting the application of pesticides and chemical fertilisers.

The following actions can be taken to stop soil erosion:

- expanding the planting of trees.
- by putting an end to deforestation and keeping animals from overgrazing.

10. Solve the following crossword puzzle with the clues given:

**Across**

2. Plantation prevents it.

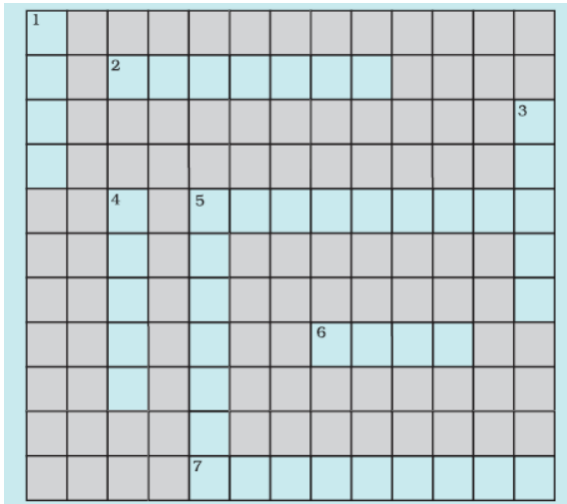
5. Use should be banned to avoid soil pollution.

6. Type of soil used for making pottery.

7. Living organism in the soil.

**Down**

1. In desert soil erosion occurs through.
3. Clay and loam are suitable for cereals like.
4. This type of soil can hold very little water.
5. Collective name for layers of soil.



ANS- Across:

2. Erosion
5. Polythene
6. Clay
7. Earthworm

Down:

1. Wind
3. Wheat
4. Sandy
5. Profile

