

Soil

Soil is an essential natural resource. There are different types of soil, and people often take for granted the fact that soil is a living, breathing world. Soil supports a large group of living organisms.

There are many different types of soil. Soil is made up of different sizes of minerals like clay, silt, and sand. The combination of these minerals determines how the soil can be used. For example, soil with a high sand content is not very strong and should not be used as a material for buildings. Soil that is mainly clay often cracks as it dries. Throughout history, soil has been an important part of the building process since it is used for making bricks and concrete.

Farmers also find it important to study the soil when determining where to plant crops. Farmers examine several factors, such as moisture content, temperature, and chemical characteristics. This helps them to figure out what types of crops to plant because some plants need more water than others. Some plants need warmer soil temperatures in order to grow. By examining the soil, a farmer can determine which types of plants will grow best in a certain area. For example, farmers would not plant corn in soil that is mainly sand because sandy soil does not have the many characteristics that corn needs in order to grow.

In addition to being used for farming and building materials, soil has several other useful functions:

- It can be a home for animals and insects (like groundhogs, moles, snakes, and ants).
- It is used to filter waste and water.
- It can store and heat water.
- It produces and stores gases (like carbon dioxide).

There are several factors that determine how soils are formed. Some of them are:

1. Parent material- This is what actually makes up the soil.
2. Climate- Heat, wind, and ice affect how fast or slow the soil processes.
3. Organisms- These are the things that live on or in the soil.
4. Topography- The location of soil changes how the soil is affected by climate. For example, soil at the bottom of a hill will get more water than the soil at the top of a hill.

Soil is formed very slowly and makes up only about 10% of Earth's surface. It is important to study soils because they have so many uses.

Name _____

Date _____

Soil Questions

Multiple Choice:

1. These factors determine how soil is formed:
 - a. Topography
 - b. Climate
 - c. Farmers
 - d. Organisms

2. Soil takes up roughly this percent of Earth's surface:
 - a. 5%
 - b. 10%
 - c. 20%
 - d. 25%

3. Soil is made up of different sizes of these minerals:
 - a. Clay
 - b. Grass
 - c. Silt
 - d. Sand

True or False:

- ___ 4. Farmers would probably think it best to grow corn in very sandy soil.
- ___ 5. Soil can be used to heat and store water.
- ___ 6. Soil is formed slowly.
- ___ 7. Soil is not a living, breathing world.

Fill Ins:

8. Soil is a home for animals and _____.
9. This is what we call the material that actually makes up the soil: _____.
10. Soil at the _____ of a hill will get more water than soil at the _____ of a hill.
11. Soil produces and stores gases like _____.

Name _____

Date _____

Soil Answers

Multiple Choice:

1. These factors determine how soil is formed:
 - a. Topography
 - b. Climate
 - c. Farmers**
 - d. Organisms
2. Soil takes up roughly this percent of Earth's surface:
 - a. 5%
 - b. 10%**
 - c. 20%
 - d. 25%
3. Soil is made up of different sizes of these minerals:
 - a. Clay
 - b. Grass**
 - c. Silt
 - d. Sand

True or False:

- F** 4. Farmers would probably think it best to grow corn in very sandy soil.
- T** 5. Soil can be used to heat and store water.
- T** 6. Soil is formed slowly.
- F** 7. Soil is not a living, breathing world.

Fill Ins:

8. Soil is a home for animals and **insects**.
9. This is what we call the material that actually makes up the soil: **parent material**.
10. Soil at the **bottom** of a hill will get more water than soil at the **top** of a hill.
11. Soil produces and stores gases like **carbon dioxide**.