SOIL TYPES

10.8.2018

Subject

Basic Science

Prepared By

[Instructor Name]

Grade Level

1

Overview

This lesson plan covers teaching content for;

1. Types of soil
2. Properties of soil

Objectives

Students will be able to;

1. Define" Soil".
2. Describe the characteristics of soil.
3. Identify similarities and differences among the different types of soil.

Information/Instruction

1.Tell the students that Soil is the uppermost layer of the Earth. Soil is one of the most important natural resources (like air and water).

2.Most of our foods grow in soil. It is the home for billions of organisms. We build homes and buildings on it.

3. Questions;

Teacher Guide

Day 1/Lesson 1- 15 Mins

1. Take five samples of soil from different places on the separate plastic trays and label them A, B, C, D and E.
2. Divide the students in small groups (4-5 members in each group).
3. Instruct the students to pick some quantity of soil from all the trays one by one and note down their following characteristics.
4. Ask them to observe the characteristics, which are; color, texture, size and weight of the particles, dampness and note them in their books.

Guided Practice

Day 2 Lesson 2- 15 mins

This lesson will be a follow-up lesson from the previous lesson the students observed and recorded the three different types of soil.

1. Ask them to use the previous observations to make logical guesses about where each soil sample was taken from.
2. Listen to their interesting comments or observations so that you can bring the questions into your group discussions later.
3. Ask everyone to leave their jars of soil and go back to their seats with their book while you discuss their predictions.
4. At the end of the lesson, Ask students whether their predictions about the trays were correct or not, comparing predictions to what occurred.
5. Inform the students if the soil particles are greyish in color, light in weight and larger in size, then the soil is called **sandy soil.**
6. Tell them If the soil particles are bluish grey or bluish green, smooth and silky, heavier in weight and smaller in size, then this soil is called **loam**.

Materials Required

- Different type of soils
- plastic trays
-glass jars
-seed,flowers and grasses

Additional Resources

- http://www.thescienceofsoil.com/teach
- https://study.com/academy/lesson/soil plan.html
- https://www.soils4teachers.org/lessons activities

https://www.pinterest.com/pin/1315902

Additional Notes

- What is soil?
- Do you know how soil is formed?
- What is the texture of soil?

4. After these questions introduce them that the way a soil feels in called the soil texture, it may be gritty, floury or sticky.
5. Inform the students that soils differ in their particle size, color, texture and humus content.
6. Tell the students that; In sandy soil, particles are light in weight. It can't hold water and
7. nutrients. They can easily be drained.
   - In loam soil, particles hold water; it can be hard to drain and hold limited nutrients.
   - Clay particles hold water well, it can become heavy and water logged and can hold onto nutrients.

Teacher Guide

Day 3/Lesson 3- 15 Mins

1. Bring in different kinds of soil for your students to analyze. If possible, have students use hand lenses and microscopes to see what is in each kind of soil.
2. You can collect soils from a garden, beach, park, or nursery.
3. Have your students record what they see. Which soil has the most rocks? Which soil has the most bits of dead plants and animals? Which soil is darkest, and which keeps its shape longest when you stick your thumb in it?
4. To extend the activity, have students predict which soil holds the most water. Then have students pour a small amount of water in each soil sample and place it in a warm place. After an hour, have students check to see which soil stayed damp the longest.

Guided Practice

7. If the particles of the soil are bluish green or bluish grey, smooth and soapy, smallest in size and are heaviest in weight then soil is called clay soil.

Day 4/Lesson 4- 15 Mins

1. Bring in different kinds of soil for your students. If possible get topsoil, clay soil, and sandy soil (or even sand).
2. Have students' plant seeds in each kind of soil and observe how they grow. Which soil is best for plants? Which soil is worst? If possible, try experimenting with different seeds such as grasses, flowers, and vegetables. Different plants grow best in different kinds of soil.

	Teacher Guide	Guided Practice
Assessment Activity 1.Are students participating in discussion? Are they making logical guesses based on information found?	Assessment Activity 1.	
Summary		