

# Google Earth Education

## **LESSON TITLE**

**TIME** 40 minutes

#### **OVERVIEW**

THE STUDENTS WILL BE ABLE TO UNDERSTAND THE PROCESS OF SOIL FORMATION, ITS USES AND POLLUTION OF SOIL.

#### SUBJECT/TOPIC NATURAL RESOURCES SOIL

#### AGE LEVEL **CLASS IX**

### • Learning Objectives

Define soil and understand the importance of soil. 2. Explain why plants need soil. 3. Be familiar with how soil layers are formed. 4. Explain moisture retention capabilities of the three major soil particles. 5. List and describe functions of soil. 6. Describe ways soil can be enriched.

### **Inquiry**

I will ask the students to find out



How much soil is on the Earth? and how much is available for ag produce

What is soil and why is soil important?

#### **Materials Needed**

- 1. Soil samples from 3 uniquely different sites
  - 2. Garden trowel

3Teacher computer with internet access and projector • Student computers/laptop/tablet with internet access (preferably one per student but at least enough for small groups of 3 4 students). Extension activity: Erlenmeyer flask, funnel, soil samples



#### **Lesson Summary**

- Engage: Take each jar with the sand, silt and clay. Slowly pour 1 cup of water into each jar. Ask youth if they noticed any differences of how the water reacted to each soil sample.
- Explore: Farmers, gardeners and anyone else growing plants need to know what kind of soil is present. For example, sandy soils require less fertilizer and more frequent applications of water than clayey soil.
- Explain: The composition, moisture-holding capacity, drainage, and fertility of soil can be changed by using soil enrichers.
- Revise: Adding organic matter to the soil can: Make a heavy soil lighter, crumblier, and friable. This is especially important in areas where the soil is high in clay. • Hold light soil particles together and help

	<ul> <li>anchor them against erosion. This increases the water-holding capacity of soil in sandy areas</li> <li>Apply: Planting windbreaks and plants on the soil can help prevent erosion from occurring.</li> </ul>
Sustainable Development Goals  13 CLIMATE 15 UFE ON LAND	Culminating Task/Assessment What is soil and why is soil important? 1. What is soil? Why is it important? 2. Why do plants need soil? 3. How are soil layers formed? 4. What are the three major soil particles? How do they affect moisture retention of soils?

5. What are functions of soil?6. How can soil be enriched?



Textbook Chapter Class ix NCERT book chapter 14 NATURAL RESOURCES

#### Credits

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