

SOIL DETECTIVES ACTIVITY - INSTRUCTIONS FOR TEACHERS (3-6)

This is a great activity for students to explore and observe different soils and the living creatures that use soil as habitat.

CURRICULUM LINKS: HS2-GEO-01, ST2-SCI-01, ST2-PQU-01, ST2-DAT-01

You will need:

- Trowels or small spades
- Trays or containers to collect soil in – reuse washed meat trays / metal trays / take-away containers etc.
- Access to compost soil / veggie garden bed soil / soil under mulch
- Magnifying glasses to share
- Sticks or old cutlery to move soil around and investigate with
- **Soil Detectives Activity Sheet 3-6**
- **Soil Critters Resource Sheet**

What to do:

1. As a class have a discussion about soil and what the students think it might be made up of. You could also talk about different words that are used instead of soil e.g. dirt, earth etc.
2. Discuss our different senses and what they can be used for. Relate using our senses to what might be discovered about soil.
3. Recap on tool safety and show students the containers and trowels that will be used to collect their soil samples. Distribute a **Soil Detectives Activity Sheet & Soil Critters Resource Sheet** to each group along with a magnifying glass.
4. Organise the students into groups to collect soil samples from the 2 different areas. Each group needs to collect a soil sample from the compost bin and one other location of their choice, noting down the location.
5. Once the students have collected their soil samples, ask them to have a good look in each of the soil samples – What do they **see**? What does it **feel** like? What does it **smell** like? They should try to note down or draw their observations in each of the columns for each soil sample.
6. Refer to the **Soil Critters Resource Sheet** and see they can find any of those creatures in their soil sample.
7. Ask students to return their soil samples to the areas that they collected them from and clean their tools and trays, wash their hands and regroup as a class.
8. As a class share observations about the different soils and see if there are some general trends. Discuss the reasons for making a sausage out of their soil sample. Does anyone know why we did this? What are we trying to find out? Discuss that soil is made from sand (gritty), silt (smooth) and clay (sticky) and different soils have different amounts of each in them. Discuss the life they found in each soil sample too.
9. **Extension Activities.** Students could explore more experiments with soil to further their understanding of how soils affect the plants that grow in them. See separate extension activity sheet, **Separating Soils** (Jar Test).