



How to identify soil texture

This simple test introduces the differences between different kinds of soil and invites learners to investigate samples to work out what type of soil they have outdoors. Soil tests are carried out by professional gardeners and scientists to understand more about soil and how it behaves – and can help you to make decisions on suitable plant choices and care. For younger learners, this is a great opportunity for sensory exploration, description and communication.

Teaching time

15–30 minutes

Learning outcomes

- make close sensory observations of nature, noticing similarities and differences
- describe and/or identify soil type based on observations
- discuss observations and findings as a group

Step by step

Introduce the concept that soil is made from rock fragments as well as lots of other materials – and these fragments can be felt by doing a soil texture test. [Find out more about soil types here.](#)

Ask learners to take a sample from each of the three bowls (a golf ball sized amount will do) and add a small amount of water until the soil has the consistency of putty or play dough.

Use the accompanying flow chart or support learners to ask questions about what the soil feels like, to decide whether samples A, B and C are sand, clay or loam. As this is a messy activity aprons may need to be worn to protect clothes.

For younger learners, use this activity as an opportunity to explore texture, colour and shape.

Ask learners questions such as:

- which soil type would you prefer to have in your garden?
- which soil do you think would need to be watered more often?
- what other ingredients might there be in garden soil outside?
- you can also use 'I wonder' statements to encourage curiosity from younger learners

Afterwards, wipe down surfaces and wash hands. A clay soil will stick to your fingers more than a sandy soil!

For older learners, discuss how this practical test involves recording and interpreting information about the environment to learn more about what we can do to care for it. How might we use this information to make decisions for our outdoor space?

Green Skills



Suitable for

Early Years
Key Stage 1
Key Stage 2
Key Stage 3
Key Stage 4

Location

Indoors

Season

Spring
Summer
Autumn
Winter

What you'll need

3 dry soil samples which are mainly clay, mainly sand or loam in three containers labelled A, B and C*

a bowl containing tap water

hand washing facilities

ruler

wipe down surface or surface protection

optional: aprons or alternative protection for clothing

* samples should be taken approximately 15cm below the surface

Key vocabulary

Soil
Texture
Sand
Clay
Loam

Support and extension opportunities

Once learners have learnt the basic steps of how to assess their soil, go and collect different soil samples from around your site to test



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