

Focus Frame/Nature Viewer (outside)

During Year 1

Science (Te Mātaiaho, October 2025 version)

Physical Science

- materials

Soils and rocks have different properties including firmness, texture, colour and heaviness.

We are learning to:

1. Observe soil properties
2. Describe the properties of soil

What you need:

- Nature viewer frame
- Outdoor area - either Te Pourewa site or ngāhere

What ākonga do:

Use your nature viewer to focus in on one section of soil or a particular rock. Make sure you look within the cut out rectangle only. Move your viewer around until you find an area that you think is interesting. This will become your area to look really carefully at.

Kaiako prompts

The kaiako asks a series of prompt questions, pausing for thinking and observing between each question or statement. While ākonga are looking within their frame area the kaiako moves quietly around supporting while not leading or drawing attention to themselves.

The questions can be ones such as:

- What do you notice about the colour and texture of the soil/rock?
- How can you describe the colour and texture in detail?
- What would you say to tell someone else who had not seen this?
- What does it make you think?
- Is what you are seeing what you expected (yes/no, why/why not)?

If possible take a small sample of the soil to talk about again back in class and/or a photograph of the soil or rock.

This is an excellent time to talk about how scientists try not to disturb an area. They may take a sample if it is appropriate to do so. Historically scientists have drawn what they have seen and labeled this with information that helps them to know where and when they have observed this.

Bring ākonga back together to discuss what they saw in their frame. Bring them back to the element from Te Mātaiaho science - soil and rocks have different properties including firmness, texture, colour and heaviness. Ask them what they can say about what they observed in relation to this element.

Teacher notes

Soil in the Te Pourewa valley is a mix of sandy silt clay. It also contains peat and mud from tidal flows. The base level is built upon volcanic rocks (such as rhyolite) weathered from volcanic eruptions from the Auckland and Taupō Volcanic fields.

La Roche, J., & La Roche, S. (2022). The Pourewa valley story. Author.

Other possible links:

Auckland volcanoes <https://www.sciencelearn.org.nz/resources/aucklands-volcanoes>

Volcanic rocks <https://www.sciencelearn.org.nz/resources/650-types-of-volcanic-rock>

Taupō eruptions <https://www.sciencelearn.org.nz/resources/941-exploding-taupo>