

# A day in the life of soil



## Healthy soils - a foundation for life

KLAs: Science/Agricultural Technology

LESSON TOPIC: Healthy soils

YEAR LEVEL: K-10

DURATION OF ACTIVITY: 45 minutes

Did you know that one teaspoon of healthy soil contains more living organisms than there are humans on the planet? Functioning, healthy soil is fundamental to quality, sustainable food and fibre production across the globe. We will learn about soil organisms, along with the interactions between biological, physical and chemical processes that build healthy soils. Students will take part in an imaginative role-play activity to learn about the processes of photosynthesis, nutrient cycling and decomposition. This activity is a great precursor or motivation for a school gardening project with a focus on building organic matter with compost or worm farms.

### SYLLABUS LINKS

This activity aligns with and extends concepts and content within the K-6 Science and Technology syllabus, the 7-10 Science syllabus and the 7-10 Agricultural Technology syllabus.

The science focus aligns with the Living World, and Earth and Space strands in Years K-6, and the Earth and Space strand in Years 7-10.

### LEARNING OUTCOMES

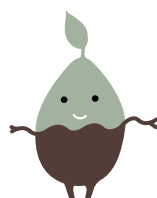
Students will:

- Develop their knowledge and understanding of what 'healthy soil' really means
- Identify and explore the different roles of micro- and macro-organisms that live in soil
- Discover the processes which build soil such as nutrient cycling, decomposition and plant root exudation
- Investigate the movement of energy (carbon) and nutrients through the soil food web

### EXPLORATORY AND PLAY-BASED COMPONENTS:

This activity combines exploratory and play-based learning with scientific methodology. The role play activity will provide students with a deeper understanding of the processes that build healthy soils, while having fun playing with ideas and concepts at a microscopic scale.

Curious? Learn more at [unediscoveryvoyager.org.au](http://unediscoveryvoyager.org.au)



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