

EDUCATOR NOTES:

[Investigating the soil food web](#)

Learning and Engagement Approach

This activity is designed to engage young learners aged from 7 – 13 years.

The activity is intended to:

- facilitate an observation of soil samples
- allow children to look closely for living things in the soil
- demonstrate the importance of things living in the soil
- increase awareness of biodiversity.

Safety Considerations

- Check the weather before conducting any outdoors activity. If there is going to be extreme temperatures, storms or high wind, postpone the activity.
- Ensure that everyone is wearing closed shoes, hats and sunscreen and has a water bottle handy.
- Keep any allergy plan information at hand and any associated allergy medication.
- The leaf litter can be home to animals such as spiders and centipedes; make sure children know not to handle animals and only move them with paintbrushes and spoons.
- Ensure that everyone washes their hands after finishing this activity.

Materials and References

Sourcing magnifiers

Magnifiers can be bought from discount stores and other similar shops, however most devices have a camera that zooms in on a subject quite well. There are also apps that transform a device's camera into a macro-lens.

Site Suggestions

Choosing a location for your investigation

- The soil food web is most obvious in the organic layer. The organic layer is where leaves, twigs, mulch and dead plant material is found.
- We suggest an area that is shaded and moist.
- Please conduct the identification component of this activity in the shade, as heat and sunlight can hurt the organisms.
- Be sure to return the samples back to where you found them after the children have finished looking at them.

Educator Tips

Reference resources

- Sustainable Gardening Australia has a good [overview of the soil food web](#) and they also include a diagram that elaborates on the food web and its components.
- Springtails are small invertebrate animals that live in the compost layer. There is a good [overview about Springtails](#) in 'The Conversation'.
- Find out all about fungi and what the mycelial threads look like in this [video from Gardening Australia](#)
- Cool Australia provides an elaboration on [Scientific Drawing Guidelines](#)

Aligning this Activity

- [Getting the buzz on bees and other beneficial plantings](#)
- [Creating compost](#)
- [Creating a food garden](#) sequence

Extension Activities

Extension 1

Investigate the life-cycle of a springtail, drawing the stages of its life.

Extension 2

Become mycologists (fungi scientists) and grow your own mushrooms with a mushroom kit. (these are commercially available).

Community Engagement

Use [The National Landcare Directory](#) to find a community environmental 'care' group near you. Landcare groups have experience in understanding soils, their qualities and characteristics, we encourage you to connect with them.

Look to the [Junior Landcare Community Page](#) for organisations to contact to help understand more about soil.

Use this [Australian City Farms and Community Gardens Network map](#) to find a City Farm or Community Garden near you.

Curriculum and Framework Links

SCIENCE

Year 2: [ACSSU030](#), [ACSHE035](#)

Year 3: [ACSSU044](#), [ACSIS054](#)

Year 4: [ACSHE062](#), [ACSIS064](#)

Year 5: [ACSHE083](#)

Year 6: [ACSSU094](#), [ACSHE100](#)

Year 7: [ACSHE120](#)

Year 8: [ACSHE135](#)

MATHEMATICS

Year 2: [ACMMG044](#)

Year 3: [ACMMG065](#)

Year 4: [ACMMG090](#)

Year 5: [ACMMG109](#)

Year 6: [ACMMG137](#)

Year 7: [ACMMG159](#)

Year 8: [ACMMG196](#)

HUMANITIES AND SOCIAL SCIENCES

Year 2 : [ACHASSI042](#)

Year 3: [ACHASSI052](#), [ACHASSI059](#), [ACHASSI060](#)

Year 4: [ACHASSI080](#), [ACHASSK088](#), [ACHASSK090](#)

Year 5: [ACHASSI102](#), [ACHASSK120](#)

Year 6: [ACHASSI122](#), [ACHASSI130](#)

DESIGN AND TECHNOLOGIES

Year 2: [ACTDEK003](#)

Year 3 & 4: [ACTDEP017](#)

Year 5 & 6: [ACTDEP019](#)

Year 7 & 8: [ACTDEK032](#)

HEALTH AND PHYSICAL EDUCATION

Year 2: [ACPPS018](#), [ACPPS022](#), [ACPPS023](#)

Year 3 & 4: [ACPPS036](#), [ACPPS040](#), [ACPPS041](#)

Year 5 & 6: [ACPPS054](#), [ACPPS059](#)

Year 7 & 8: [ACPPS073](#), [ACPPS078](#)

ETHICAL UNDERSTANDING

[Exploring values, rights and responsibilities](#)

PERSONAL AND SOCIAL CAPABILITY

[Social awareness](#)

CURRICULUM CONNECTIONS

[Outdoor Learning](#)

CROSS CURRICULUM PRIORITY

[Sustainability](#)

MY TIME, OUR PLACE: FRAMEWORK FOR SCHOOL AGE CARE

[Outcome 2 and 4](#)