

## CONTENT:

- Students will learn what compost is and how it is different to soil.
- Students will learn what makes mushroom compost special and sustainable.
- Students will become specialists on one specific area of the mushroom life cycle and share this with their group, creating a collective genius.
- Students will be able to complete the worksheet on the lifecycle of the mushroom from the information obtained by their peers.
- Students have the opportunity to investigate the suitability of natural materials for a range of purposes.

**EXTENSION:** To learn how mushrooms are being used to create clothes, plastic and building materials. Discuss the sustainability of 'mushroom leather' and 'mushroom wood.' Refer to Resource 4.

## SUMMARY OF TASKS/ACTION:

- 1) Discuss with the students that mushrooms grow in compost, not soil.
- 2) Explore the compost provided in the mushroom grow kits. Remove from a box to inspect it.
- 3) Ask your students what they think compost is.
- 4) Allow students to discuss with a partner what they think is in compost
- 5) Explain that soil is made up of rock, sand, clay, silt, air, water and organic matter. Compost is made differently. Refer to Resource 3 "Making Mushroom Compost" video.
- 6) Now the students are aware of the compost makeup inside the grow kit, ask the students to predict the life cycle of the mushrooms from the compost
- 7) Students to be put into groups of 6, this is the "home group".
- 8) Students to number off within their 'home group' from 1-6.
- 9) All the "Number 1's" from each group come together as a "specialist group" and become a specialist on spores (seeds). Refer to Resource 1
- 10) All the "Number 2's" from each group come together as a "specialist group" and become a specialist on hyphae. Refer to Resource 1
- 11) Follow number 9 & 10 for groups 3, 4, 5, and 6.
- 12) Each specialist group cannot leave their group until they are experts on their focus area and can explain what happens in their stage of the life cycle.
- 13) Home groups come back together, and each student explains to the rest of their home group their stage of the life cycle.
- 14) From the information they have obtained from one another (creating a collective genius and peer learning) they will be able to complete the worksheet on the life cycle.

## DID YOU KNOW:

Mushroom compost is a scientifically developed recipe of recycled organic ingredients.

Mycelium plays a huge role in the environment. It makes up 30% of soil biomass, breaking down nutrients from rocks and decomposing plant matter. Amazing!

## EXTENSION:

Observe your mushroom grow kit and take photos to document the different stages of the life cycle as you see them taking place.

Remember a lot of the life cycle happens underground you we cannot see it - but now you understand the life cycle you know what is happening.

## CURRICULUM LINKS

**Science:** Science Understanding, Biological Understanding (ACSSU044) (ACSSU072) (ACSSU073).  
Science Inquiry Skills, Communicating (ACSI071).

**Humanities and Social Sciences:** Inquiry and Skills, Evaluating and reflecting (ACHASSI059, ACHASSI080).

**English:** Literacy (ACELY1676) (ACELY1687) (ACELY1792), (ACELY1688).

**General Capabilities:** Literacy, Critical and creative thinking, Personal and social competence.

**Cross Curriculum Priorities:** Sustainability.