

Teacher Resource

Worm Wee

Episode 26
10th September 2019

Focus Questions

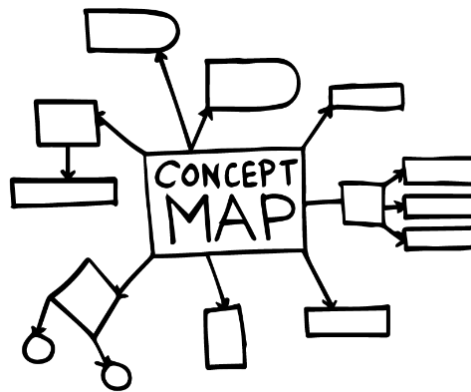
1. Before watching the BTN story discuss what you know about worms.
2. Describe the habitat of worms.
3. How do the tunnels that worms create in the soil help the environment?
4. What do worms eat?
5. What food shouldn't be given to worms?
6. Worms are nature's recyclers. What does this mean?
7. Some worm species eat their entire body weight every day. True or false?
8. What is worm juice?
9. What are the kids in the *Worm Wee* story doing with the worm juice?
10. Find an interesting fact about worms.

Activity

Class Discussion

As a class discuss the BTN *Worm Wee* story using the following questions as a guide. Record the main points of discussion on a mind map with **WORM WEE** at the centre.

- What do you know about worms?
- What is a worm farm?
- How does a worm farm work?
- What is worm wee?
- What things do you need to make a worm farm? Make a list.
- Why are worms good for the garden? List the benefits.



Students will then respond to one or more of the following:

- Think of a question you would like to ask the kids featured in the BTN *Worm Wee* story.
- Leave a message in the comments section on the BTN *Worm Wee* story page.
- Finish one or more of the following sentences:
 - Worm wee is...
 - Worms are important because...
 - Worms can convert all sorts of things into compost by...

Key Learning

Students will investigate the role of worms in the ecosystem. Students will explore the process of starting and managing a worm farm at their school.

Curriculum

Science – Year 3

Science knowledge helps people to understand the effect of their actions.

Science – Year 4

Living things have life cycles.

Living things depend on each other and the environment to survive.

Science knowledge helps people to understand the effect of their actions.

Science – Year 5

Scientific knowledge is used to solve problems and inform personal and community decisions.

Science – Year 6

The growth and survival of living things are affected by physical conditions of their environment.

Science – Year 7

Interactions between organisms, including the effects of human activities can be represented by food chains and food webs.

HASS – Year 5, 6 & 7

Reflect on learning to propose personal and/or collective action in response to an issue or challenge and predict the probable effects.

Activity

Glossary

Students will brainstorm a list of key words that relate to the BTN *Worm Wee* story. Students may want to use pictures and diagrams to illustrate the meaning and create their own glossary. Here are some words to get them started.

| | | |
|------------|----------------|------------|
| Fertiliser | Decompose | Waste |
| Food chain | Sustainability | Gardening |
| Compost | Organic | Decomposer |

Activity

Scientific investigation

Provide students with the opportunity to think and behave like scientists. In this activity students will be given the mission to explore a natural habitat in their local area, identify worms in their habitat and document what they find. Students will work individually or in small groups and use the following as a guide.

Plan

Plan a visit to a local nature reserve or your own school yard to explore and identify worms. Write a list of things you may need for the investigation, for example: pen and paper for taking notes, camera and magnifying glass. Predict where you might find worms and what you might see when you find them.

Explore

Visit the habitat and carry out an exploration of the area. Choose a spot in the environment to investigate. Look and listen for evidence that worms live in the area. Remember worms are very fragile – please make sure worms are treated with care and respect during your observations.

Collect

Collect as much data as you can about worms and record what you find. Write notes and sketch what you see to help in your investigation. Record what you see with a stills or video camera.

Share

Return to the classroom and share/compare your findings.

Analyse

Analyse your findings and write a short summary of your investigation. Respond to the following questions:

- Did you find any worms during your investigation? If yes, identify and describe what you found. If you didn't see any worms did you find any evidence that worms live in the area?
- What type of environment do worms like to live in?

Research

Research worms in more detail, and respond to one or more of the following:

- What do worms look like? Describe their physical characteristics. Do a scientific drawing of a worm labelling each part.
- What special features or adaptations do worms have to help them survive in their environment?

- What is its classification?
- What is the life cycle of a worm?
- What role do worms play in the ecosystem?
- Why are worms important?

Reflect

Reflect on the investigation by responding to one or more of the following questions:

- What did you enjoy about this investigation?
- What did you find surprising?
- What would you do differently next time?

Activity

Questions for inquiry

Students will develop their own question/s for inquiry about worms and their role in the ecosystem, collecting and recording information from a wide variety of sources. Students may develop their own question for inquiry or select one of the questions below.

- Worms are decomposers. What does this mean?
- Why do we need decomposers? Give examples of decomposers other than worms.
- Where are worms in the food chain? Draw a diagram showing what animal feeds on what. Use illustrations or photos to demonstrate this food chain. Explore what would happen to the food chain if there were no worms.
- What are the benefits of worms in the ecosystem?

Activity

School project

In this activity students will investigate the following questions to learn more about the process of starting and managing a worm farm at school. Consider dividing the class into small groups and giving each group several questions to answer. Each group will then share their findings with the class.

Students will respond to the following questions to learn more about the process of running a school worm farm:

- What do you need to set up a worm farm?
- How do you set up a worm farm?
- Who is responsible for the worm farm?
- What worms are best suited to worm farms?
- How much will a worm farm cost to set up?
- How much will your school save by having a worm farm?
- What scraps can you feed the worms?
- How will you collect the scraps for the worm farm?
- How will you measure the amount of scraps to go in the worm farm?
- How often do you need to feed the worms?
- What environment do the worms need to survive?
- Where will the worm farm be kept?
- Where will the other materials for the worm farm come from? E.g. newspapers, cardboard, soil, brown matter.
- What food shouldn't go in a worm farm?
- How will you collect the worm wee?
- How will you measure the amount of worm wee produced by the worm farm?

Individually or in small groups, students will then choose one of the following projects to work on and then present their findings to the class.

Instruction manual

Write an instruction manual with steps on how to make and care for a worm farm at your school. Consider using illustrations or photos to demonstrate steps in your instruction manual.

Persuasive writing

Write a letter to your principal explaining why your school should setup a worm farm. Research the environmental benefits of worm farms and include these points in your persuasive writing.

Audit

How much organic waste does your school produce? Conduct a waste audit and calculate how much waste your school would save going to landfill if you had a worm farm and composting system.

Poster

Create a poster to celebrate worms and their importance in the ecosystem or create a poster to send to schools with some handy tips on keeping a worm farm at school.

Useful Websites

Worms – Australian Museum

<https://australianmuseum.net.au/learn/animals/worms/>

Worm Farm 101 – ABC Gardening Australia

<https://www.abc.net.au/gardening/factsheets/worm-farm-101/11325460>

Building a worm farm – Landcare Australia

<https://landcareaustralia.org.au/wp-content/uploads/2016/05/Building-a-worm-farm-12.9-LR.pdf>

Worms 3 Ways - ABC Gardening Australia

<https://www.abc.net.au/gardening/factsheets/worms-3-ways/10838056>

Gardening Guide: Worms – BBC

http://www.bbc.co.uk/gardening/gardening_with_children/didyouknow_worms.shtml