

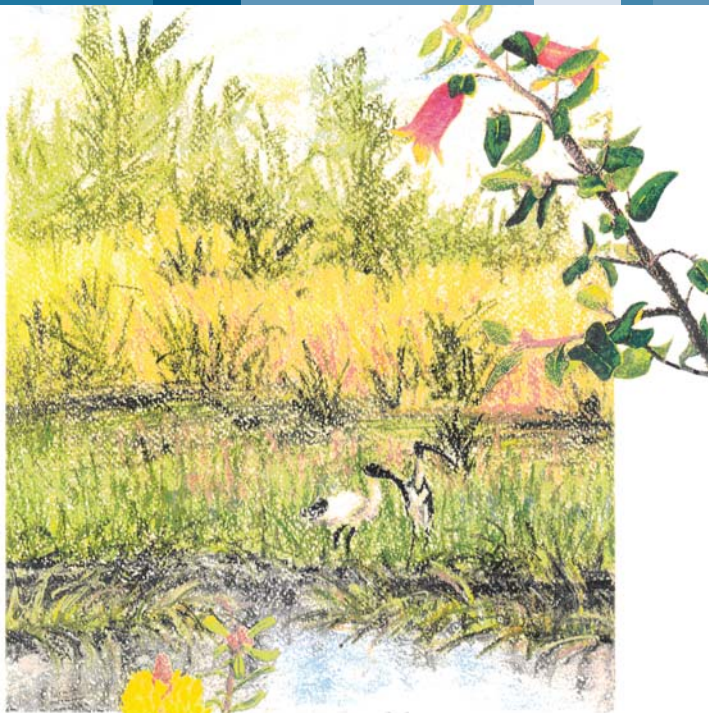


**PORTLAND
ALUMINIUM**

Partnering Stronger Communities

mini-beasts

Portland Aluminium Environmental Education



mini-beasts

Helping you protect our environment



UNIT SUMMARY

This unit of work focuses on the study of mini-beasts, both within specific areas of Portland Aluminium Smelter and in the local environment. The proposed activity sequence incorporates elements of an interactive approach to teaching, whereby students use their prior knowledge, explore topics, pose their own questions and report their findings. This unit can be linked to other units within the 'Environmental Education for the South West Folder'.

LEARNING OBJECTIVES / FOCUS AREAS

Students will be able to:

- Identify the variety of mini-beast in the local environment.
- Discover what particular habitats mini-beast prefer and why?
- Study the life cycle of a mini-beast.
- Understand the threats and competition mini-beasts experience.
- Learn ways to enhance their environment.

RESOURCES ATTACHED

- Suggested Teaching Sequence
- Activity Sheet 1 (Gotcha Identification Sheet)
- Activity Sheet 2 (Mini-beast in its Home)
- Mini-beast Safety Code

SPECIALIST MATERIAL

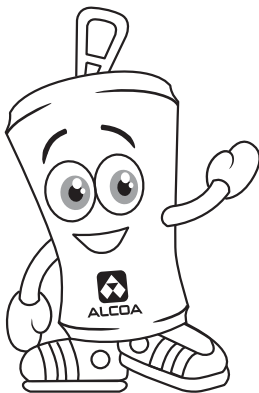
- Mini-beast Activities, Gould League, 1998
- www.gould.edu.com.au
- Backyard Wildlife, Gould League,
- [Backyard Insects](#), Gould League.

LEARNING OUTCOMES

Relevant outcomes from the Victorian Essential Learning Standards:

SCIENCE: Life and Living / Biodiversity

- Level 2, 3 & 4
 - Identify features of living things that change over time.
 - Map relationships between living things in a habitat
 - Identify living and non-living things that affect the survival of organisms in an ecosystem.



TEACHING SEQUENCE OUTLINES

Pre-visit (~2 lessons)

- Preparing to find out (List what students know about different mini-beasts)
- Explore the special characteristics of a mini-beast.
- Discover the Life-cycle of a mini-beast

The Visit (1/2 Day at Portland Aluminium Wetlands)

- As a group students, discuss the Safety Code of a mini-beast hunt.
- Mini-beast Hunt - Activity Sheet 1 (Gotcha Identification Chart)
- In pairs, students choose a search area. Activity Sheet 2 (Mini-beast in its Home)
- Group discussion to share information & display specimens caught.
- Group discussion about ways we can help mini-beasts in their homes.

Post Visit (~3 lessons)

- Write a story about a day in the life of a mini-beast.
- Create a habitat at your school for some special mini-beasts.

Further Study Suggestions:

- Refer to other units represented in the "Environmental Education for the South West" Resource Kit.

ACTIVITY INFORMATION

During the visit to Portland Aluminium's education centre, students will be:

- Briefed on safety
- Given a background talk about Portland Aluminium's 'Smelter in the Park'
- Divided into small groups of 8-10
- Allocated time at 3-4 stations relevant to the Mini-beast Unit
- Involved in a Mini-beast Hunt.
- Discussing, discovering and sharing information about Mini-beasts & their habitats
- Completing activity sheets relevant to their year level

MATERIALS

School

- Clipboards, pencils, appropriate clothing
- ### Portland Aluminium
- Lenses, containers, nets, activity sheets & ID charts

BACKGROUND INFORMATION

There are thousands of types of mini-beasts to be found. The best places to start looking are listed below:

HOMES:

Under bark - By gently pulling back some bark from a tree you might see some scurrying insects or even a huntsman spider.

In mulch - Scratching some leaf litter on the ground will interrupt a multitude of creatures, such as hunting spiders, centipedes, slaters, earwigs and earthworms, just to mention a few creatures that enjoy this damp, decomposing environment.

On gum leaves - Many of our small creatures depend on them as their home. Eg: Stick insects, katydids, ants, caterpillars and lerps.

Among flowers - Numerous buzzing insects consider flowers and the nectar they produce as important food. Flowers also rely on these insects to transport pollen from one flower to the other.

Among tall weeds - Butterflies and moths give some weeds constant attention. Hungry beasts, such as a caterpillar or grub also find some weeds ravenous.

Around plant roots - By pulling a sod of grass or a weed from the soil you will often find a fat, white curl grub. This grub will grow into a scurrying beetle.

In the compost - Lifting the lid of your compost bin will release a swarm of surprises. The average compost bin can contain dozens of different creatures, the most famous being the earthworm. Remember, by placing your kitchen and garden waste into your compost bin they are becoming a vital part of a fabulous food web.

In ponds and puddles - There is more to ponds than just tadpoles. Look closely and you will discover ferocious tiger beetles, mudeyes, backswimmers, leeches and many other magic aquatic animals.

Under rocks & logs - Something lying on the ground for an extended period of time is likely to attract a host of creatures. Remember to always replace the objects to ensure the creatures get their home back.

MAKING HOMES:

For those backyard rangers who would like to make a home for our friendly mini-beasts, here are a few ideas:

- Plant native plants and grasses in your garden
- Build a shallow pond with a few water plants and plenty of cover.
- Mulch and pile kitchen and garden waste
- Underlay a garden bed with old carpet & spread thick mulch over the top.
- Find some old rotting logs and rocks to decorate your garden with.

CREATURES:

Below is a short list of some of the creatures you might find in your schoolyard: Moths and their caterpillars, butterflies, sawflies and their grubs, ants, European wasps, bees, stick insects, praying mantis, slaters, snails, slugs, cockroaches, flies, earwigs, aphids, ladybirds, grasshoppers, crickets, cicadas, beetles and their grubs, spiders, centipedes, millipedes, harlequin bugs, dragonflies, damselflies and earthworms. These mini-beasts provide a vital link in many food chains.

GOTCHA

Activity Sheet 1

CIRCLE WHAT YOU HAVE FOUND:



Earth worm



Dragonfly



Snail



Beetle



Blowfly



Ant



Slug



Bushfly



Mosquito



Huntsman
Spider



Butterfly



Grasshopper



Ladybird



Mantid



Bug



Black house
Spider



Daddy long
Legs Spider



Scorpion



Web Spider



Bee



Cricket



Caterpillar



Moth



Centipede



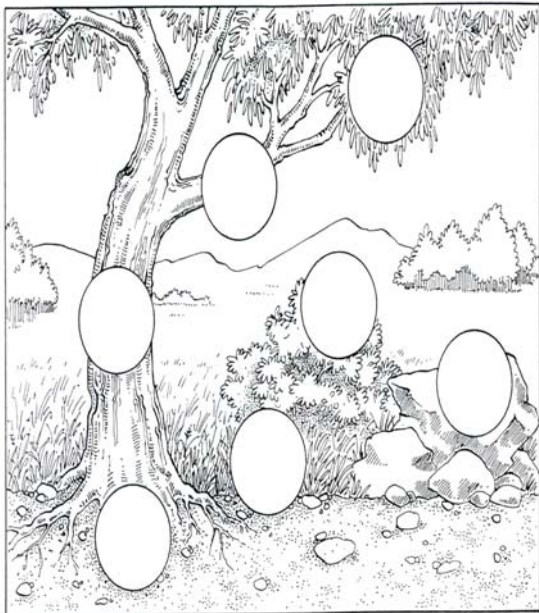
Mayfly

Mini-Beasts at home...

Activity Sheet 2

Draw the Mini-beasts in their home:

Extract from Gould League Mini-beast Activities.



MINI-BEAST SAFETY CODE

- Always walk - do not run
- No throwing
- Be careful of low branches
- Do not walk while holding sticks
- Use a ruler to probe at places you can't see
- Do not put your hands or fingers anywhere you can't see
- Do not use your hands to pick up spiders, centipedes or other biting animals
- Stay with the group
- Always place rocks, logs and other objects back where you found them, because they are animals' homes
- Do not harm any animals
- Respect animal's homes and don't break branches, pull out grass or rip bark off trees
- Always return animals to the exact place you found them
- Don't touch any sharp objects
- Respect other members of your group
- Always watch where you are walking