ACTIVITY - MINIBEASTS AND PIT TRAPS

The students set pit traps and describe, classify and draw a minibeast from a trap.

Concepts

- We rarely see many of the wide variety of animals that live around us.
- Most of these animals are nocturnal.

Objectives

- To trap and describe a variety of animals.
- To compare characteristics of different animals found in traps.
- To compare the number of animals trapped at night and during the day.

Curriculum Links

CURRICULUM AREAS	STAGE/ YEAR	NUMBER/ STRANDS	UNDERSTANDINGS/ TOPICS
Science	7	Plants/Animals	Hypothesising about the use of colour as an adaptation.
Science (Transition)	7	page 38	Mini Beasts.
Mathematics	5/6/7	S:P1.4 S:P4.4	Carry out scaling activities. Reduce and enlarge.

PROFILE	STRAND	LEVEL
Science	Conducting investigations.	2, 3, 4. Use equipment to conduct tests to gather information.

Background Information

We don't see many of the numerous animals that live around us. This is because they are small, secretive, and often nocturnal. These animals include spiders, insects, worms and a host of other minibeasts. Many of them may be caught in simple pit traps.

The number and type of animals found in each pit trap you set will vary according to:

- whether it is set during the day or overnight;
- the season (late spring is preferable, autumn and summer are second best);
- the habitat or place;
- day to day weather.

In winter, the pits may fill with water and it is often too cold for many animals to be moving. Also, flying insects will not normally be found in pit traps.

For those wanting to identify their animals, a key for woodland minibeasts is provided in Appendix 1.

Key Words

Characteristics, habitat, nocturnal, secretive.

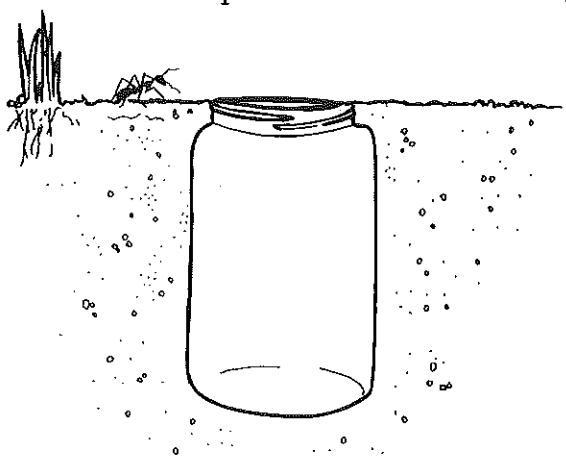
Resources/References

Curriculum Branch, Ministry of Education. (1978). *Transition Science 7-8*. Ministry of Education, Perth.

Teacher Directions

For each trap, you will need a receptacle with steep, slippery sides. For example, a glass jar or a plastic cup. Glass jars with a metal, screw-top lid are best.

1. Direct the students, in groups of four, to set pit traps by digging the receptacles into a hole within bush or a garden (two jars per group, set in the same area as each other). The sides of the trap must be flush with the ground. For example:



2. Each group should set one trap during the day [A] and the other overnight [B]. Animals caught in [A] should be kept overnight in containers with air holes.
3. Ask students to predict what they will find in their traps. Flying insects could be discussed at this point.

   WARNING: it is very important to discuss with students those animals which are poisonous. No animal should be handled unless the teacher is confident that it is safe to do so.

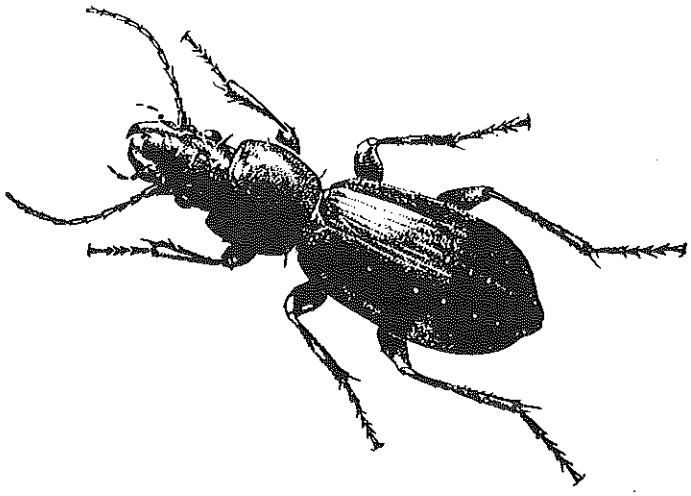
4. Compare how many insects were trapped in [A] and [B]. Ask students to think of reasons for their results.
5. Students use hand lenses to examine the animals that they have found. The safest way to do this is through the glass of a jar.
6. Complete resource sheets and discuss. (Minibeast sheet).

Evaluation

- Were students able to describe the important details of animals found?
- Were students able to identify similarities and differences between animals found?
- Could students develop an hypothesis as to why less animals were trapped during the day compared to the night? (Note that under some circumstances, for example when the night has been very cold and wet, the reverse could apply.)
- Were students able to complete a drawing of their minibeast to scale and then enlarge it?

Complementary Activities

- Compare the contents of pit traps set:
  i. in different seasons;
  ii. in different habitats or places;
  iii. in different weather conditions.
- Can students find any adaptations on the minibeasts and suggest reasons for them? Note: an adaptation is any feature or behaviour that assists an animal to survive in its environment - for example the flat shape of cockroaches, the hard, waterproof covering of slaters and the colouring of grasshoppers. Coloration in Nature is a Year 7 Science topic in the turquoise *Doing and Thinking* text, pages 27-30.
- Use the key in Appendix 1 to identify your minibeasts.
- Discuss poisonous minibeasts - most school or local libraries will have relevant information.



MINIBEASTS

1. From the contents of your pit trap choose a minibeast that interests you.

2. Examine it closely through a hand lens. Do not touch the minibeast unless your teacher tells you that it is safe to do so. Some minibeasts are very poisonous.

3. Describe the 'beasty' below. If you don't know the name for it, make one up.

Name: _____

Description: _____

_____

_____

_____

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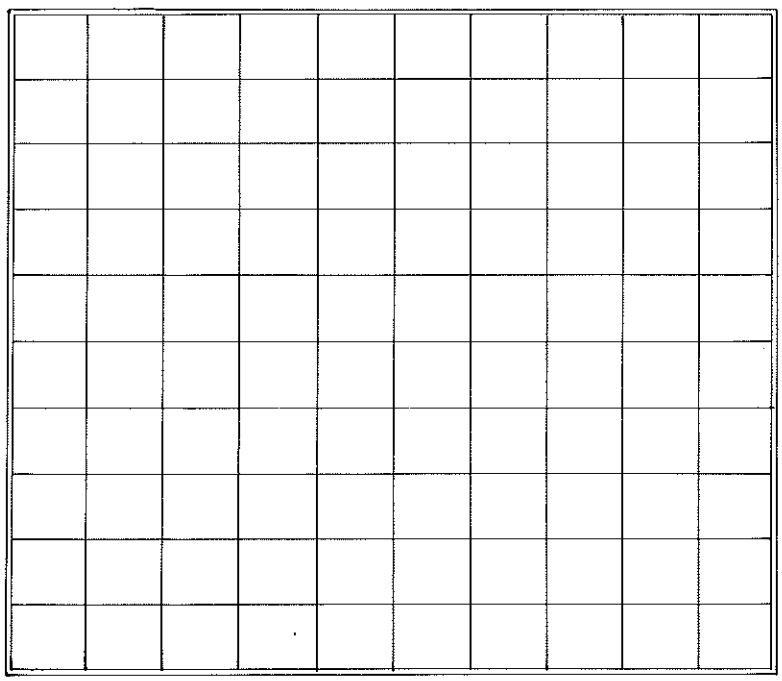
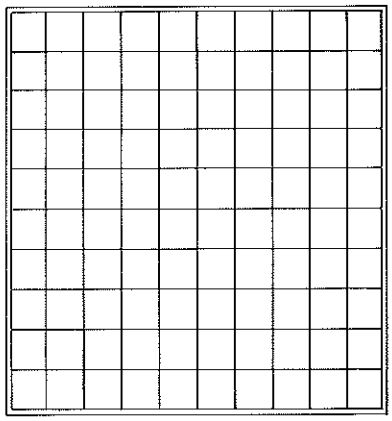
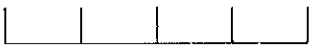
Now draw your minibeast on the small grid below. Don't forget to include, as accurately as you can, all of the important details. Then enlarge it onto the big grid. Use a scale (for example 0.5mm = 1.0cm)







SCALE

4. Compare this minibeast with another from your pit trap. Write the similarities and differences of the two below.

Name of Beast 'A': _____

Name of Beast 'B': _____

Similarities: _____

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Differences: _____

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