



Background Information

What can you find in your compost bin? The compost heap offers a unique habitat for a wide variety of specially adapted organisms. Worms are very different from fruit flies, but both can be found in or around the compost heap. Worms feed on microbes and organic material. They have long segmented bodies and rely on muscle action for movement because they have no legs or wings. Fruit flies feed on the decomposing fruit. They are 'true flies', with six legs and one pair of wings. Using keys children can learn more about the organisms found in this particular habitat and compare them with the organisms found in contrasting habitats.

This activity helps children develop their observation skills and use keys to discover the variety of life found in the compost heap.

Teaching Activity

1. Introduce the compost heap as a habitat. What are its main characteristics (dark, moist, sheltered etc)? What are the main sources of food?
2. Ask children to fill in questions on the recording sheet and predict some of the organisms that might be found.
3. Demonstrate to the class how to look for organisms and identify some organisms using a simple key.
4. Split class into groups of 3-4 and give each group a small container of compost
5. Give each child a record sheet, clipboard and pencil
6. Ask them to look through the compost, identifying and drawing any organisms they find. (You may need groups to swap compost trays to maximise the number of organisms found).
7. Draw the group's findings together. What are the main physical characteristics of each organism? Ask groups how they identified their organisms.

Science

QCA Links

Unit 4B Habitats (6A Adaptation)

Learning Objectives: Children should learn:-

- how to observe the conditions in a local habitat and make a record of any organisms found
- to use keys to identify local plants or animals
- (how animals & plants are suited to their environment)

Learning Outcomes: Children

- identify and draw organisms found in the compost heap using keys (and suggest ways they are adapted)

Equipment:

- ✓ Supply of home-made compost
- ✓ Small trays or containers
- ✓ (eg margarine tubs)
- ✓ Hand held magnifying lenses
- ✓ Identification keys/books
- ✓ Protective Gloves
- ✓ 2-3 small trowels
- ✓ Minibeast hunt record sheets
- ✓ Clipboards
- ✓ Pencils

Curriculum Links

ICT - Create your own minibeast identification key (you may be able to use Textease)



Minibeast Hunt

Name: _____


What is the compost heap like as a habitat?

What is the main source of food in this habitat?

What can you find in the compost heap?

1. You will need a tray of compost, magnifying lens, gloves and a key.
2. Carefully look through your compost.
3. Use the key to name any creatures you find.
4. In the boxes below, draw and name what you find (the first one is done for you). How many creatures did you spot?

Record of my findings:

			
Snail			

TOTAL NUMBER OF CREATURES FOUND: _____

Pupil Identification Chart: 4B Habitats



1. Does it have legs?



No (go to 2)
Yes (go to 5)

2. Does it have segments?

No (go to 3)
Yes (go to 4)

⇒ use a book,
can you work
out what sort
of animal it is?

3. Does it have a soft body and a shell?

Yes **SNAIL**
No **SLUG**

4. Is it short and white?



Yes **INSECT LARVAE**
No **WORM**



5. Does it have 3 pairs of legs (an insect)?

Yes (go to 6)
No (go to 8)

6. Are it's wing always out on show?



Yes **FLY**
No (go to 7)

⇒ use a book,
can you work
out what sort
of animal it is?

7. Does it have a large pincer at the back?

Yes **EARWIG**
No **BEETLE**



8. Does it have 4 pairs of legs
(an arachnid)?



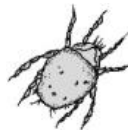
Yes (go to 9)
No (go to 11)

⇒ use a book,
can you work
out what sort
of animal it is?

9. Does it have a body split into two parts?

Yes **SPIDER**
No (go to 10)

10. Does it have very long legs?



Yes **HARVESTMAN**
No **MITE**



11. Does it have 7 pairs of legs, and plated
segments?



Yes **WOODLOUSE**
No (go to 11)

12. Does it have spiky legs, one pair per
segment?



Yes **CENTIPEDE**
No **MILLIPEDE**



Pupil Identification Chart: 6A Interdependence



1. Does it have legs?

No (go to 2)
Yes (go to 5)



2. Does it have segments?

No (go to 3)
Yes (go to 4)

3. Does it have a soft body and shell?

Yes **SNAIL**
No **SLUG**

⇒ use a book,
can you work
out what sort of
animal it is?

4. Is it short and white?



Yes **INSECT LARVAE**
No **WORM**



5. Does it have 3 pairs of legs (an insect)?

Yes (go to 6)
No (go to 8)

6. Are its wings always out on show?



Yes **FLY**
No (go to 7)

⇒ use a book,
can you work
out what sort of
animal it is?

7. Does it have a large pincer at the back?



Yes **EARWIG**
No **BEETLE**

⇒ use a book,
can you work
out what sort of
animal it is?

8. Does it have 4 pairs of legs (an arachnid)?

Yes (go to 9)
No (go to 10)

9. Does it have a body split into two parts?

Yes **SPIDER**
No (go to 10)

10. Does it have very long legs?



Yes **HARVESTMAN**
No **MITE**



11. Does it have 7 pairs of legs, and plated segments?



Yes **WOODLOUSE**
No (go to 11)

12. Does it have spiky legs, one pair per segment?

Yes **CENTIPEDE**
No **MILLIPEDE**



Now choose two creatures you identified and fill in the following boxes:

<p>Name of creature: Description:</p> <p>How has it adapted to the habitat?</p>	<p>Name of creature: Description:</p> <p>How has it adapted to the habitat?</p>
--	--