

## Background Information

Worms spend their life digesting, grinding, and excreting organic matter. Without the help of worms, every plant and animal that died and fell to the ground would stay right where it fell. By breaking down organic matter - like dead plants and decaying animals worms create valuable nutrients necessary for rich and fertile soil.

The worm 'poop' or cast is richer in nutrients and bacteria, than the surrounding soil.

Worm activity also creates miles of tunnels, vital for drainage and aeration in the soil, which is good for plant growth.

**The Earthworm - *Lumricus terrestris*** is the most common of the 200 known species of worm.

**The Composting Worm - *Eisenia foetida*** is a different species to the earthworm, often called by the common name brandling/ tiger/ red/ or dendra worm. These worms can eat through the greatest amount of organic matter, therefore making them the most efficient composters of all worms.

Worms are invertebrates. They have a long cylindrical body divided into segments. The grooves that extend around the body of the worm show the arrangement of the segments. Some species have a body composed of over 100 segments. The bump in the middle of the worm is the saddle or clitellum. This is only present on adult worms and contains the gland cells that secrete slimy mucus to form the cocoon, which will hold the embryos.

## Teaching Activity

1. Ask the children to predict where in the school grounds are the best places to find worms - in the flowerbed, under trees, in the grass or in the compost bin?
2. Using the fork or spade go into the school grounds and collect some worms, record how many worms were found in the different places.
3. Once you have collected the worms return to the classroom and split the class into pairs. Give each pair a worm.
4. Hand out the following pupil worksheet.



## Science

### QCA links

#### Unit 4B Habitats

#### Section 2

**Learning Objectives.** Children should learn -

- that different animals are found in different habitats.
- to make predictions of organisms that will be found in a habitat.

**Learning Outcomes.** Children -

- make and justify a prediction e.g. worms live under the soil because they don't like the light.

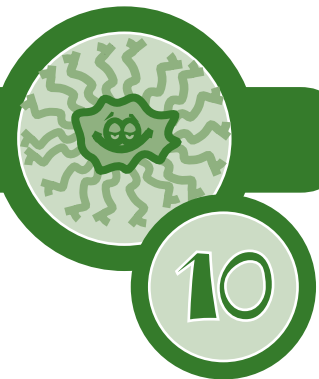
### Equipment

- ✓ Worms - earth or composting
- ✓ Garden fork or spade
- ✓ Protective gloves
- ✓ Magnifying glass
- ✓ Paper towels
- ✓ Rulers
- ✓ Transparent plastic container
- ✓ Damp soil
- ✓ Damp leaves
- ✓ Sand
- ✓ Torch

**Numeracy and ICT** – graphs and charts to show what location the most worms were found.



# Get To Know Your Worms



Group/Name: \_\_\_\_\_

**Care for your worm**  
Worms like to be damp so keep your worm on a moist paper towel.  
**Do not harm your worm**



## 1. How long is your worm?

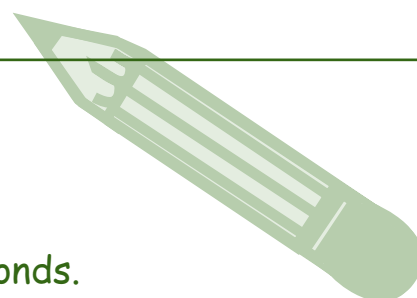
Worms are difficult to measure, they can make themselves very long or very short. Measure your worm at shortest and longest to find out the average length.

**!** Carefully use a pencil to guide your worm onto a straight line on a paper towel and make a dot at the front and back ends. Measure the distance between the dots.

Shortest length \_\_\_\_\_

Longest length \_\_\_\_\_

Average length \_\_\_\_\_  
(shortest + longest ÷ 2 = average)



## 2. What happens to your worm in the light?

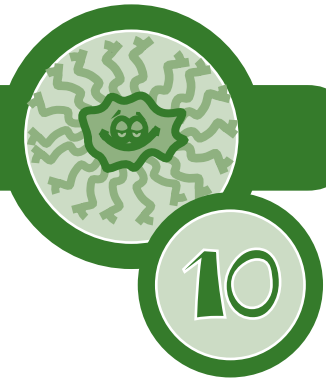
Shine a low power torch on the worm for 30 seconds.

What does the worm do? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

# Get To Know Your Worms



### 3. Which is the worm's head and which its tail?

Look at your worm using a magnifying glass.

Can you see:

- The worm's segments - a worm can have up to 100 segments.
- The worm's saddle - it looks like a large segment, lighter in colour.
- The worm's head - it is the end nearer the saddle.
- The worm's mouth - it is on the head and has a protective flap covering it.
- The worm's tail.

Draw your worm

Label the:

- segments
- saddle
- head
- mouth
- tail



### 4. Bridging the gap.

Put two books on the table leaving a gap of 3cm between them, lay a paper towel on each and sprinkle one with water so it is damp. Put the worm on the dry sheet and watch it bridge the gap to get to the wet sheet.

### 5. Listening to worms.

Put a worm on a piece of moist paper towel and put your ear up close and listen carefully to the worm moving. You will be able to hear the scratching sound of the bristles underneath its body. Worms move by squeezing and contracting their muscles, and have very tiny bristles on their belly side that help them grip the surface they are moving on.