Mini-beasts **(Pre-visit classroom exercise)**

Mini-beasts are small animals. They can be found crawling through the soil, swimming in water, flying through the air and clinging to plants.

Some mini-beasts eat dead leaves (plant litter) which covers the soil. They have a very important job because they help break down the plant litter so it becomes part of the soil again, making it more fertile for plants to grow in.

Some mini-beasts live in the soil. Worms are important because they make tunnels in the soil. Air and water for plant roots can enter the soil through the tunnels made by mini-beasts.

Many mini-beasts, such as beetles, live in trees. They eat the leaves. Some like to chew the whole leaf, others are fussy eaters and just eat the green parts, leaving the tough veins. These mini-beasts are important because they become the food for birds and other animals.

Some mini-beasts live in ponds and streams. They are important as food for fish. Many water mini-beasts such as dragonflies only live the first part of their life in water, the adult part of their life is often spent flying in the air.

Many mini-beasts are insects. There are many different types of insects but they all have similar body parts:

- a head with sensory parts such as eyes, antennae and a mouth
- a middle part called the thorax which has the legs and wings
- a squishy part called the abdomen which has the soft organs for digesting food and reproduction.

1. What are mini beasts?

_____

2. Name three places where mini beasts live. _____

_____

3. What are dead leaves which cover the soil called? _____

4. How do mini beasts in leaf litter make the soil more fertile?

_____

_____

5. Why are worms important in the soil?

_____

6. What passes through worm tunnels which plants need?

_____

7. Why are mini beasts in trees important?

_____

8. Name one mini-beast which lives part of it's life in water.

_____

9. Name the three main body parts of insects and what they are used for.

_____

_____

_____

Insects **(Pre-visit classroom exercise)**

There are more types of insects than any other animal. They are well adapted to their environment. This means their body shape and parts are very good at helping them live in their particular environment (habitat).

Insect adaptations include:

- two compound eyes to see you with
- up to three extra eyes to see you even better
- two antennae for feeling and smelling
- six legs for walking or swimming
- wings for flying to find food and friends (not all insects have wings)
- exoskeleton (shell) to protect it from hunters and from drying out
- air tubes throughout their body for breathing

Mouths

Insects have special mouth parts depending on what they like to eat. Some have strong jaws for eating leaves, others have a needle mouth to stick into things and suck up juices, a coiled tongue like the butterfly for collecting nectar from flowers or a sponge tongue like the fly for collecting fluids.

Life Cycle

There are two different life cycles insects may have. One life cycle goes from egg to nymph which is similar to the adult, just smaller and grows by shedding its skin (moulting). After moulting many times it becomes an adult insect.

The other life cycle goes from egg to larva (grub) which eats and eats then rests in a cacoon where it changes into the adult such as a butterfly.

1. Which word means an animal has body parts well suited to its environment?

_____

2. Name two sensory organs found on the head of an insect.

_____

3. How many legs does an insect have?

_____

4. What is an exoskeleton?

_____

5. How does an insect breath?

_____

6. Name three different types of insect mouth parts.

_____