



# Bugs in the garden – Early Learning

## Background information:

**Learning goals:** This activity is designed to get children into the garden and looking at the bugs that can be found in our own backyards and how these bugs are important to the environment as a whole. Younger children are asked to identify different creepy crawlies and to think about where they live and what they eat. Older children are asked to describe the bugs they see in detail, using magnifying glasses. Children are then asked to think about why insects are important and how we can look after them. All children are then asked to make a bug house to keep bugs in your garden warm in winter and cool in summer.

**Content information:** Many of us get the heebie-jeebies about creepy crawlies. Maybe that's because there are so many of them. In fact, as a group insects are the most populous animals on Earth: it is estimated that there are 200 million insects for every human on the planet!!!

Fear not, the earth is not in danger of being overrun by bugs. Instead they are actually vital to the healthy functioning of almost every aspect of our natural environment. They work as pollinators, as decomposers, they enrich and aerate the soil, and are a critical part of the food chain, serving as a source of food for all sorts of animals.

All bugs are defined as being 'invertebrates', meaning they have no spine. (Humans and other mammals have a spine and belong to the category 'vertebrates'.) Bugs that you may find in your garden could include:

1. Insects - Insects are defined as having a body made up of three parts; a head, an abdomen, and a thorax (the bit that lies



- between the abdomen and the head, in humans this would be the chest). They have two antennae, three pairs of legs and a hard exoskeleton. Some examples of insects are bees, ants, beetles, mosquitoes, crickets and butterflies.
2. Spiders - Spiders are arachnids, not insects. They are defined by having eight legs and don't have antennae.
  3. Worms - Worms tend to be tube shaped, slimy and live underground or under cover (such as rocks or logs).
  4. Snails - Snails and slugs belong to the phylum Mollusca which they share with squids, cuttlefish and octopus.

Without bugs our world would be a very different place. Because insects pollinate so many of our foods and because they are a critical part of the food chain for so many of the animals that we eat, our choice of foods would be drastically cut. In addition, we would have a hard time moving around because of all the dead animals and plants lying around. Creepy crawlies may be creepy but without them world would be a sadder, smellier, quieter, blander and more boring place to be.

*"If all mankind were to disappear, the world would regenerate back to the rich state of equilibrium that existed ten thousand years ago. If insects were to vanish, the environment would collapse into chaos." - E. O. Wilson*

### **Definitions:**

- Pollination - the process by which pollen is transferred in the reproduction of plants, thereby enabling fertilisation and reproduction.
- Decompose - make or become rotten; decay or cause to decay.

### **New words for children to learn:**

- Insect
- Pollination
- Decompose



## Activity: Bugs

Ages - 0 to 2

### What to do:

*Preparation:* If the yard at your centre is small or if you think digging up the yard might be viewed unfavourably, bring in a tub of soil from home for children to dig in.

Take children into the yard and look for bugs. Look for ants, beetles and flying insects. You may also like to dig a little in the soil and see if you can see any bugs in the soil. Alternatively, use the soil you bought in from home.

As you look for bugs talk to your children about being safe with bugs:

- Some bugs – such as ants or spiders – can bite.
- Bugs shouldn't be eaten – they may be poisonous.

With your children see if you can see any places where bugs might be living. You may see a spider's web or an ant nest. Can you help the bugs by making a house for the bugs so that they stay warm in winter and cool in summer? You make a bug house out of a pile of sticks and leaves, or you can use the [Build a bug house instruction sheet](#) to make one out of milk cartons, other containers or cardboard.

### Provocations:

- I wonder what bugs we have in our yard?
- I wonder if we have any spiders in the yard?
- I wonder if we have any beetles?
- I wonder if we have any flies or bees?



- I wonder if we have any ants?
- I wonder what the bugs in our yard eat?
- I wonder if we can find any bugs in the soil?
- I wonder where the bugs in our yard live?

### **Possible lines of development:**

- Bugs inside – what can you see?
- Other animals in the garden.
- Arrange an 'Insect Incursion' for your children.
- [Build a bug house instruction sheet](#)

### **Ages - 2 to 3**

#### **What to do:**

*Preparation:* If the yard at your centre is small or if you think digging up the yard might be viewed unfavourably, bring in a tub of soil from home for children to dig in.

Take children into the yard and look for bugs. Look for ants, beetles and flying insects. Working as a group, turn over a few stones or logs in the yard (if you have any) to see if there are any bugs underneath. You may also like to dig a little in the soil and see if you can see any bugs in the soil. Alternatively, use the soil you bought in from home.

Using the magnifying glasses ask children to take a closer look at the bugs. Ask children to describe the features of the bugs they see (how many legs, what colour, any wings or other features etc) and what the bug is doing (flying, walking, hopping etc).

As you look for bugs talk to your children about being safe with bugs:

- Some bugs – such as ants or spiders – can bite.
- Bugs shouldn't be eaten – they may be poisonous.



- Always check with an adult before you pick up a bug.

With your children see if you can see any places where bugs might be living. You may see a spider's web or an ant nest. Can you help the bugs by making a house for the bugs so that they stay warm in winter and cool in summer? You make a bug house out of a pile of sticks and leaves, or you can use the [Build a bug house instruction sheet](#) to make one out of milk cartons, other containers or cardboard.

### **Provocations:**

- I wonder what bugs we have in our yard?
- I wonder what the bugs in our yard eat?
- I wonder if we can find any bugs in the soil?
- I wonder where the bugs in our yard live?
- I wonder if any other animals eat the bugs that live in our yard?
- I wonder what the biggest bug in our yard is?
- I wonder what the smallest bug in our yard is?

### **Possible lines of development:**

- Other animals in the garden.
- Looking after other animals in the garden e.g. build a possum box, bird baths, logs and stones for bugs and small animals.
- Arrange an 'Insect Incursion' for your children.

## **Ages - 3 to 5**

### **What to do:**

*Preparation:* If the yard at your centre is small or if you think digging up the yard might be viewed unfavourably, bring in a tub of soil from home for children to dig in.

Begin by asking children to share what bugs they think live in the



garden at your centre. Make a record of these suggestions so you can come back to them later.

Explain to children that they will now be looking for bugs in the garden. However, there are some safety rules that they must all be aware before they do:

- Some bugs – such as ants or spiders – can bite.
- Always check with an adult before you pick up a bug.

Take children into the yard and look for bugs. Look for ants, beetles and flying insects. Working as a group, turn over a few stones or logs in the yard (if you have any) to see if there are any bugs underneath. You may also like to dig a little in the soil and see if you can see any bugs in the soil. Alternatively, use the soil you bought in from home.

Using the magnifying glasses ask children to take a closer look at the bugs. Ask children to guess what type of bug they think it is, describe the features of the bugs they see (how many legs, what colour, any wings or other features etc), what the bug is doing (flying, walking, hopping etc), whether there is only one of these bugs or many of them and where in the garden these bugs are found. Ask students to use their sensors to explore their surroundings; what do they see, hear, and smell?

With your children see if you can see any places where bugs might be living. You may see a spider's web or an ant nest. Can you help the bugs by making a house for the bugs so that they stay warm in winter and cool in summer? You make a bug house out of a pile of sticks and leaves, or you can use the [Build a bug house instruction sheet](#) to make one out of milk cartons, other containers or cardboard.

### **Provocations:**

- I wonder what types of bugs we have in our yard?
- I wonder what the bugs in our yard eat?
- I wonder if we can find any bugs in the soil?



- I wonder where the bugs in our yard live?
- I wonder if any other animals eat the bugs that live in our yard?
- I wonder what things a bug needs to stay happy and healthy (e.g. rocks, bark, leaves or logs for shelter, food, water)?

### **Possible lines of development:**

- Looking after other animals in the garden e.g. build a possum box, bird baths, logs and stones for bugs and small animals.
- World's biggest and smallest bugs.
- Dangerous bugs (spiders, ants etc).
- Arrange an 'Insect Incursion' for your children.

## Evaluation

Complete an analysis of learning listing evidence about:

<b>Belonging</b>	Finding something of interest
<b>Communication</b>	Expressing an idea or feeling
<b>Exploration</b>	Engaging with challenge and persisting when difficulty arises
<b>Well being</b>	Being involved

## Embedding into daily practice

- Grow flowers containing nectar. Some birds, mammals and bugs need nectar for food.
- Provide hollows, rocks, logs and leaf litter, which are used by many little and large animals for shelter and nesting.
- Don't pour chemicals down the drain - these can hurt little animals in your local creek.



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