

Local Learning

Activities in Exploring Organic Gardening

Kelmarna Gardens Farm Education Programme

Downloadable PDF – Version 1.0

Session 2: Pals & Pests in the Garden

Lesson 2.1: What is a Weed?	2
Activity A: When and Where is a Weed?	2
Lesson 2.2: Pal or Pest? Predator or Prey?	3
Activity B: Beneficial or Non-Beneficial?	4
Activity C: Who’s Eating Whom?	5
Activity D: Designing Helpful Habitats	7
Lesson 2.3: Backyard BioBlitz	8
Activity E: In the Soil	9
Activity F: Counting Critters	10
Bonus Activity 2: Garden Yoga – Animals & Insects	12

This session is comprised of three lessons and a total of seven activities. Each lesson is designed to meet certain learning *objectives* and each activity is organised into three sections: **1) predict**, to encourage critical thinking and the formation of hypotheses; **2) investigate**, to take action and interact with the topic; and **3) reflect**, to interpret, analyse and evaluate experience for greater understanding.

In our activities, we strive to inspire curiosity, enjoyment and stewardship in caring for our environment. We hope that by showing the fun, intrigue and rewards of gardening, we can encourage our students to reflect on the experiences they share, to retain the lessons they’ve learned, to explore and discover on their own and to become more invested in the health of their environment.

Lesson 2.1: What is a Weed?

Objectives

- Students will identify and describe the definition of a 'weed'
- Students will use critical thinking and living world concepts to identify and describe when and where plants qualify as 'weeds'
- Students will use critical thinking, visual arts and living world concepts to identify and describe relationships between living organisms and how they benefit the goals of a garden

In this section, we will look at the role of plants relative to our goals in the garden to help understand what it means for a plant to be a weed. Building on their appreciation for plants as living organisms, guide your students to discover that plants are not necessarily always 'good' or 'bad' ('crops' or 'weeds'), but rather that these categories are imposed based on a plant's relationship to our goals as gardeners:

weed = a plant growing where it is not wanted

Prompt your students to think about and discuss their conceptions of what makes a weed. What plants can they think of that are considered weeds? Where do we find these plants? What is that plant's purpose in that space? In this way, we can help students to develop an awareness of the relationship between our goals or expectations and the role of the plant. Does that plant contribute or take away from our goals for a space? Use the activity below to help guide your students to identify and describe this definition of a weed.

Activity A: When and Where is a Weed?

Plants grow all around the world in lots of diverse places, climates and conditions. So, what makes a plant a weed? In this activity we will discover that us gardeners (or *people* in general) are usually the ones who decide what plants are more or less important to a space depending on our goals and expectations for how we wish to cultivate or use that space.

Place:	forest	garden	yard	lounge
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Plant:	kauri tree	tomato	grass	aloe vera
	tōtara tree	courgette	tecoma hedge	spider plant

tītoki tree	feijoa tree	harakeke flax	sweet basil
banana tree	corn	kūmara	thyme

Look at the examples above. In their current order, the first two rows of plants match up well with a suitable place for it to grow. However, mix and match these cards and suddenly you might see some issues. For example, a kauri tree would be perfectly at home in the forest, but can you imagine one growing in your lounge? Grass lawn is a common centrepiece of yards outside homes across New

Zealand, but I challenge you to find a gardener who would appreciate grass taking hold in their precious garden beds!

Now consider the third and fourth rows of plants – matching these might not be as straightforward. These plants might do well to grow in multiple places, although in each place their relationship to the goals of that space will change. Prompt your students to consider if certain plants would suit more than one type of space and to discuss how their role would be different in each.

For this activity, use examples like these and create more cards of plants and/or places that are familiar to your students, school or local area.

Predict: Discuss with your students some well-known areas around school, home or your local area. What kinds of plants grow in these places? How well do they reckon these plants ‘belong’ in the places they are growing? Prompt your students to name as many of the plants as they can. It can be useful to have plant names ready or access to quick research tools to look up and identify plants.

Would they consider any of these plants as weeds? Why is that? What common elements of nuisance can they identify among the ‘weeds’? Can they imagine a place where these ‘weed’ plants might be better suited? If we moved the plants, should they still be considered weeds? Record some of their ideas to review later.

Investigate: Shuffle your piles of ‘plant’ cards and ‘place’ cards. Your cards can feature words, icon images or even photos depending on the resources you have available and the level of detail you want to engage in with your students. For manageably sized groups you can have a single set of cards, or you can create multiple sets to break into smaller groups. Prompt your students to draw a card from each pile and consider each pairing.

How well would the plant suit the place? What is the role of the plant? What is the purpose or goals of the place? Does the role of the plant match the goals and expectations of that place? What are some issues you might encounter growing that plant in that place? Should we consider the plant a ‘weed’ in this space? If so, what space do you think would be a better fit for it?

Reflect: Have your students record their pairings and take notes on their analysis of those pairings by drawing and writing about what each situation would mean for the success of the plants and the places. Did they have any obvious mismatches? Which pairs worked better than others, and why? Were there any disagreements on what plants suited what places?

Finally, have your students compare their findings with their initial expectations. Did they discover anything surprising? What have they learned?

Lesson 2.2: Pal or Pest? Predator or Prey?

Objectives

- Students will identify and describe the meaning of ‘beneficial’ and ‘non-beneficial’ regarding living organisms in a garden setting
- Students will identify and describe the meaning of ‘predator’ and ‘prey’
- Students will use critical thinking, visual arts and living world concepts to identify and describe relationships between living organisms

In this section, we will look at different animals and insects in the garden to help understand their roles and what it means to be 'beneficial' or 'non-beneficial'. You will guide your students to discover how different animals and insects impact our goals for the garden. Like we discovered with weeds, considering something 'non-beneficial', or in other words a 'pest', is usually context specific. Remember to consider whether a critter contributes or take away from the goals for a space.

beneficial = any organism that *supports* or *benefits* the goals of the garden

non-beneficial = any organism that *hinders* or *harms* the goals of the garden

We will also look at how animals and insects in the garden relate to each other in the food chain, to help understand their roles as 'predators' and 'prey' and apply this understanding to help benefit the growing process in the garden. You will continue to develop your students' understanding of how living organisms interrelate by considering how animals and insects rely on each other for resources.

predator = any organism that *eats* another organism

prey = any organism that is *eaten* by another organism

Activity B: Beneficial or Non-Beneficial?

Prompt your students to think about and discuss their conceptions of what makes a creature 'good' or 'bad'. What animals or insects can they think of that are considered pests? Where do we find these critters? What is it that they do to violate the goals of that space? In this way, guide your students to develop an awareness of the relationships between the growing process, the needs of different organisms and how these factors are interconnected.

Predict: Discuss with your students what they know about animals and insects in the garden. What critters can they think of that live in the garden? Where do they live and what do they do? How do they effect the growing process of the garden? Do they make things easier or do they cause problems? Maybe they do a bit of both? Record some of their ideas to review later.

Investigate: Introduce or review with your students the concept of a Venn Diagram. This is a visual representation composed of overlapping circles that helps you to organise things into different groups to show how they relate.

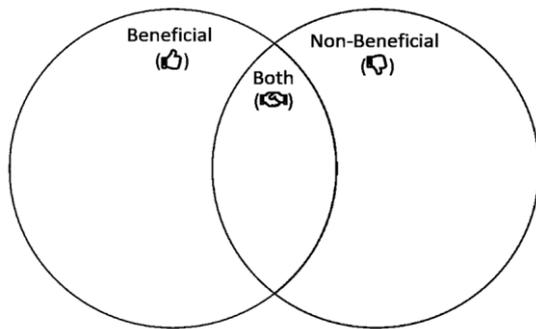
For this exercise we will use a simple Venn Diagram of two circles where one circle represents primarily beneficial creatures, the other circle represents primarily non-beneficial creatures and the section in the middle where the circles overlap represents creatures that can be considered both beneficial and non-beneficial. We will also use this diagram as a spectrum where you can characterise their role as more or less beneficial by placing the creatures further to either edge of their respective circles. Look at the example diagram below to

Prepare cards of animals and insects that you would like your students to consider. These can feature words, icon images or even photos depending on the resources you have available and the level of detail you want to engage in with your students. Consider each creature in turn. Where do your students think each one should fall within the diagram? What goals for the garden do we have mind

as we relate to the role of these critters? Compared to these goals, are they definitely beneficial (far left), absolutely non-beneficial (far right) or do they fall somewhere in between (centre)?

Prompt your students to share their reasoning for the placement of each one. Feel free to move and adjust the placements as your students discuss different aspects and impacts of each creature.

The Venn Diagram:



Some animals and insects to consider:

butterflies	worms	bees
snails	chickens	wasps
spiders	aphids	mice
ants	weeds	rabbits
ladybugs	micro-organisms	

Reflect: Have your students record and analyse their placements by drawing their own diagrams and writing about where each creature fell within the diagram and why. What impacts of each creature informed their placement decisions? Where there any disagreements about where certain critters should be placed? What are some examples of animals and insects that might have beneficial and non-beneficial effects on the garden?

For this exercise there is no real right or wrong answers. In fact, every animal and insect will have competing elements of meaningful support and potential harm to the garden. While this may be frustrating at times, this demonstrates a key point of recognition that, rather than categorical 'good' and 'bad', our perspectives can shift and will depend on how things interact with goals that we set.

Finally, have your students compare their conclusions with their initial expectations. Did they discover anything surprising? What have they learned?

Activity C: Who's Eating Whom?

Review your list of garden animals and insects from the previous activity. Now, prompt your students to think about where each creature gets its energy from. Who do they rely on for their meals? Think about and discuss their conceptions of which critters are 'predators' and which are 'prey'. In what situation might they be one or the other? How can we connect these relationships, and can we close the loop on the system to make a repeating cycle? In this way, guide your students to build on their understanding of how different organisms are interconnected and take a closer look at how energy flows through the food chain.

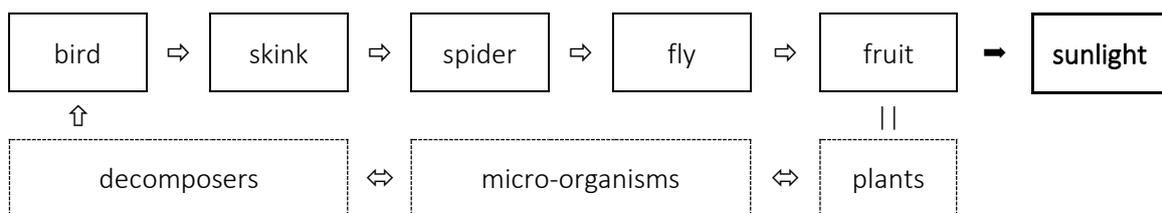
Predict: Discuss with your students what they know about predators and prey. Introduce or review with them the concept of a 'food chain' in which organisms rely on each other to transfer energy from one level to the next. What (or whom) do animals and insects consume to get their energy? How does this impact the environment in the garden? Can they find any links between organisms to start to create a bigger picture of the food chain? Is the food chain always linear (a straight line) or can we find ways of connecting both ends to explore how our ecosystem operates in more sustainable, cyclical ways? Record some of their ideas to review later.

Investigate: Prepare or reuse cards or simply create a list of animals and insects that you would like your students to consider. You can use words, icon images or even photos depending on the resources you have available and the level of detail you want to engage in with your students. We will use these cards to construct a visual food chain to represent how organisms rely on one another for food (distribute *energy* through *trophic levels*). Consider each creature in turn and discuss how they operate as a predator and as prey. Where do they fall in the food chain? What do they eat (are they *herbivores* or *carnivores*)? Are there any critters that eat them?

Prompt your students to share evidence and conduct simple research to discover what each critter eats and who might eat them. Understand that the placements may not be strictly linear as some creatures might have a varied diet or may be eaten by multiple predators. It is also important to remember to include plants within your food chain. Many critters eat primarily or even entirely plant matter, for example in the case of many pollinator insects, simply nectar from flowers.

Prompt your students to recognise that plants (*autotrophs*) form an essential foundation of their food chain. Remembering the five primary needs of plants (from *Session 1: Plant Needs and Seeds*) you can guide your students to identify **sunlight** as an essential source of energy and **photosynthesis** as an essential process that helps provide for everyone in the food chain (all *trophic levels*).

A basic example of a food chain diagram:



Depending on your focus, you can link the foundation of plants and the apex of predators by discussing the role of **decomposers** (*detritivores*, like mushrooms and certain micro-organisms) whose job it is to return the nutrients and materials of deceased organisms back into the soil to be reclaimed by plants.

Reflect: Have your students record and analyse their ideas about the food chain by drawing the connections they make and writing about how each creature relates to another. Which creatures ended up towards the 'top' of the food chain? How about near the 'bottom' or the foundation? How are the 'top' and the 'bottom' linked to create a cycle? Are there any critters that could fit multiple levels of the chain? Why and how does that work out?

For this exercise, your students' food chain diagram can take on various forms. In fact, most organisms will have the potential to find a variety of logical placement along the food chain and may rightfully connect with multiple layers due to diversified diets and the pressure of multiple predators. While this may lead to some messy charts, this demonstrates a key point of recognition that, rather than clear linear relationships, ecosystems that make up our environment are the result of a complex network of relationships that can be difficult to fully parse out or understand completely.

Finally, have your students compare their conclusions with their initial expectations. Did they discover anything surprising? What have they learned?

Activity D: Designing Helpful Habitats

For this activity we will be imagining a plan for a garden and developing a basic design to take account of promoting beneficial organisms and controlling non-beneficial ones. Review your critter lists and food chain relationships from the previous activities, then prompt your students to think about how we can use this information to create a space that supports our 'pals' and deters the 'pests'.

One outcome of this activity is to create a garden diagram, which can be purely imaginative or derive from the outline and characteristics of a real place that is familiar to you and your students.

It is important for students to have a partner or team to discuss their ideas with, so this is best done together as a class, in small groups or in pairs. If you are working on your own, be sure to share your ideas with a friend, parent or teacher.

Predict: Prompt your students to discuss how growing certain plants could help to attract animals and insects that are beneficial to the garden and help manage those that are non-beneficial. Start by taking certain plants as examples and guide your students to predict the type of habitat that would form as a result. What kinds of critters prefer that plant, either as a home or as a food source? With more of these critters in the garden, what impact will this have moving up the food chain? What are some other plants we can grow in the same space to help balance or counteract any issues that we might anticipate? Record some of their ideas to review later.

Investigate: Prompt your students to decide on a general goal for their garden. In the interest of this exercise, this be a simple mission statement to help guide the direction of our plant choices and make clear who are our 'pals' and 'pests'. Here are some quick examples of garden theme ideas and a few plants to think about growing:

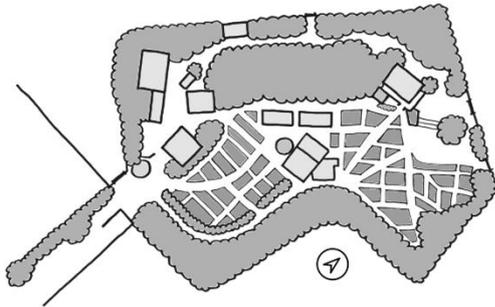
Colour	Smell	Pizza	Butterflies	Salad
-nasturtium -amaranth -marigolds -borage	-thyme -lavender -pineapple sage -rosemary	-tomato -sweet basil -capsicum -rocket	-swan plants -corn flowers -broad beans -sweet peas	-lettuce -sorrel -cabbage -mizuna

Once each group has decided on a theme, ask them to come up with at least a handful of plants that they can grow to promote that goal for their garden. The next step will be to have them look closely at what kinds of creatures each of those plants attracts and how this affects the habitat that their garden will create.

Do your plants bring in beneficials, non-beneficials or perhaps both? Considering the different creatures that each of your different plants attract, how do you think they will interact? What helpful combinations can you see? How about potentially harmful combinations? Even if they do not relate directly to your theme, should you considering adding other plant varieties to help balance some of the issues you might encounter?

For this portion of the activity, it will likely be important to do a bit more research on specific plants and the organisms that they support. You can use books, encyclopaedias or other great physical resources that you have available at school, at home or from your local library. You can help your students search a wealth of online resources, whether with a general Google search or on web portals like Forest and Bird (forestandbird.org.nz) or the Department of Conservation (www.doc.govt.nz/).

Reflect: Have your students record their ideas about the impact of each plant and finalise a design for their garden by drawing an overview of their garden plot and writing about how each crop relates to their theme and supports a healthy ecosystem. Then ask them to share their plans with the class, their parents or their friends. What plants did they decide to grow? Are there any plants that they decided to add or exclude because of their impact on the garden environment? How did they decide to design the layout of their garden so that it can be best cared for and enjoyed?



For their garden diagram, you can ask your students to create anything from a simple sketch to a detailed plan depending on your goals for this activity or the level of your students. For younger students, you might have them use colours, symbols or simple icons to identify areas of their garden. For older or more motivated students, you can have them create scale landscape plans that measure appropriate sections and clearly identify the purpose and reasoning for each.

Finally, have your students compare their conclusions with their initial expectations. Did they discover anything surprising? What have they learned?

Lesson 2.3: Backyard BioBlitz

Objectives

- Students will use statistics, geometry, measurement and living world concepts to identify living organisms, collect data and interpret their observations to describe their environment

In this section, we will explore our local areas to observe and interact with the organisms and processes that are happening all around us. Building on their awareness of the natural world, guide your students to discover the wealth of things that live and thrive in familiar places – some in more conspicuous ways and many others in less obvious corners of our everyday environment.

One tool that we will utilise to help bring our attention to these living organisms is a survey method called a **bioblitz**. This is a way of focusing and structuring your observations to get a more detailed and representative understanding of what goes on in a specific area of your environment. Elements of undertaking a bioblitz include **a)** narrowing your focus to a specific spot, **b)** defining a time limit or setting a window of observation and **c)** taking thorough notes on what you see.

bioblitz = an intense *survey period* to identify all the living species in an area

Prompt your students to think about what and how many organisms live in different areas of their everyday surroundings. What animals and insects do they encounter daily? What are they usually doing? Do they think they would discover more and different things if they looked more closely? What might they expect to find?

In this way, we can help students to develop a deeper awareness of living organisms and help relate these concepts to the immediate world around them.

Activity E: In the Soil

Thinking back to *Session 1: Plant Needs & Seeds*, we know that soil is fundamental to life. But what makes it so special, and what really goes on in the dirt below our feet? Well, the soil is teeming with life! As we learned before, healthy soil is made up of four main ingredients:

- a) **minerals** – tiny particles of rock, like sand and clay
- b) **organic matter** – worms, microscopic organisms and nutritious decay of past living things
- c) **air** – flowing through tiny spaces called *pores*, to allow soil ecology to *respire*, or breathe
- d) **water** – soaking into the soil to keep the soil ecology *hydrated*

In this activity, we will take a closer look at the soil in our environment and see if we can identify some of these key constituents. In particular, let's remember to keep our eyes peeled to identify the living organisms that we may encounter in the ground. This experiment is best done by comparing the results of multiple holes. This can be achieved by assigning a different spot to different groups and having them compare their observations, or – with smaller classes or individual students – you can simply have your student(s) investigate two or three spots and compare their notes on each.

Preferred tools for this investigation include:

- garden gloves
- hand trowel
- ruler
- magnifying glass
- digital camera
- pen and paper/notebook

Predict: Discuss with your students what they know about soil. What is in soil? What should 'healthy' soil look like? Are there any living things in the soil? If they were to dig a hole, what do they expect to find in the soil? How might our observations of dry, compact soil compare with moist loose soil? How many different living organisms do they think they will be able to see? How many more do they think are perhaps too small for us to see? Record some of their ideas to review later.

Investigate: Identify areas of your school grounds, yard at home or reasonable corners of your neighbourhood where you can create a small hole to investigate the soil. Guide your students to carefully disturb a small area measuring about 10cm in diameter and about 10cm deep. It is important that your students are mindful of their goal to search for and identify living organisms in the soil. So, the digging process should focus less on removing the soil to create a hole and more on gently turning over the soil and examining it for any movement or other signs of life.

Use the magnifying glass to help recognise and identify any small critters you come across. Throughout the process, prompt your students to take notes on what they observe and discover as well as snap photos with a digital camera, if possible, to save any evidence for further review later.

Reflect: Have your students record the details of each dig location and what they observe during each dig by writing about and drawing diagrams to represent each step of their process. Then ask them to share their findings with each other or compare across their multiple sites.

What kinds of evidence of life did they find in each hole? How many different organisms did they identify? Can they recognise or name any of these? For this general BioBlitz, it may be significant enough for students to simply see and experience diversity and quantity of living organisms in the soil. For a more detailed investigation or with older or more motivated students, you can use photos,

drawings and notes to guide your students in researching the species that they encountered in the soil.

What are some key site condition differences between the different holes and how do they think these characteristics affect the life that thrives in the soil there? Were they able to identify those basic constituents of healthy soil? How did life in dry, compact soil compare to moist, loose soil? How about soil in the open as compared to closer to a tree or other plants?

Finally, have your students compare their conclusions with their initial expectations. Did they discover anything surprising? What have they learned?

Activity F: Counting Critters

How much do we know about the life that thrives around us in our environment? In this activity, we will take a closer look at who lives in our environment and see how many animals and insects we can observe and identify. You and your students will choose specific spots to target your attention on and help focus your observations. This can take the form of a specific garden patch, a certain tree or other plant, a patch of berm near your school or berm or any other notable or intriguing corner of your local environment.

This experiment is best done by comparing the results of multiple observation areas. This can be achieved by assigning different spots to different groups and comparing observations, or – with smaller classes or individual students – you can simply have your student(s) investigate two or three spots and compare their notes on each.

This experiment is meant to be conducted over time. Depending on your timetable and goals for this exercise, you can condense your observation schedules into a matter of minutes or extend the survey over a day, days or even weeks. Here are some quick examples of observation schedules:

Minutes	<i>Students observe a spot continuously for a period of minutes (e.g. 10 minutes)</i>
One Day	<i>Students observe a spot for a few minutes at multiple times over a single day (e.g. 5 minutes at 9:00 [morning], 12:00 [noon] and 15:00 [afternoon])</i>
Multiple Days	<i>Students observe a spot for a few minutes at a designated time(s) each day (e.g. 5 minutes at 9:00, 12:00 and 15:00 for 3 consecutive days)</i>
Multiple Weeks	<i>Students observe a spot for a few minutes at a designated time(s) and day(s) (e.g. 5 minutes at 9:00 and 15:00 on Tuesdays and Thursdays for 2 weeks)</i>

In order to best undertake this experiment, it is important that students consider and understand responsible behaviour in order to stay safe and avoid disrupting the animals and insects that they intend to observe. Here are some basic aspects to consider with your students to help determine proper practice, encourage safety and preserve the habits and habitats of the critters they encounter:

Distance	<i>Consider how close or far to position yourself while observing your spot</i>
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Contact

Consider whether or how you should contact animals, insects and the environment while observing your spot

Noise

Consider how much or what kinds of noise you should make or avoid making while observing your spot

Predict: Discuss with your students what they know about the critters that live in your environment. What animals and insects have you seen or heard in your area? What do you know about their habits and habitats? What roles do they play in the ecosystem? Where would they expect to find some of these critters and what do they expect they get up to from day to day? How might our observations of trees and plants compare with other features of our environment? How many different animals and insects do they think they will be able to see in any one place and over time?

How do you think we should behave so that we do not disturb the animals and insects, disrupt their activities and impact our observation results? Can you come up with a 'code of conduct' for responsible observation? Record some of their ideas to review later.

Investigate: Identify areas of your school grounds, yard at home or reasonable corners of your neighbourhood that you can access, observe and keep track of over time.

Guide your students to devise an observation schedule of their spot. Prompt your students to remember to follow the code of conduct that you have devised as a class, both in the interest of the activity as well as their health and safety in the field.

You can use tools such as binoculars or magnifying glass to help identify critters at a distance or up close. Throughout the process, prompt your students to take notes on what they observe and discover as well as snap photos with a digital camera, if possible, to save any evidence for further review later.

Reflect: Have your students record the details of each location and what they encounter during each scheduled observation by writing about and drawing diagrams to represent each step of their process. Then ask them to share their findings with each other or compare across their multiple sites.

What kinds of animals, insects or other evidence of life did they find in each place? How many different organisms did they identify? Can they recognise or name any of these? For this general BioBlitz, it may be significant enough for students to simply see and experience diversity and quantity of living organisms in the soil. For a more detailed investigation or with older or more motivated students, you can use photos, drawings and notes to guide your students in researching the species that they encountered in the soil.

What are some key site condition differences between the different places that they observed and how do they think these characteristics affect the life that thrives there? Can they identify any notable features, like tree or plants, that might affect the life there? How did the activity at each site change at different times of day? How about over multiple days and in different weather?

Finally, have your students compare their conclusions with their initial expectations. Did they discover anything surprising? What have they learned?

Bonus Activity 2: Garden Yoga – Animals & Insects

Objectives

- Students will participate in movement, physical development and dramatic sequences that relate to different animals and insects
- Students will use creativity and movement to experiment with developing their own sequences that demonstrate aspects of natural cycles in the garden

- A. **Butterfly Pose** – prompt your students to imagine that they are butterflies. Speak about the role of butterflies as pollinators who help spread pollen from flower to flower so that plants can create new seeds.

Have your students sit on the floor and put the bottoms of their feet together with knees bent and out to either side. Then guide them to grasp their feet together with both hands and wiggle their knees as if they were brilliant and colourful butterfly wings fluttering around the garden.

- B. **Worm Pose** – prompt your students to imagine that they are worms. Speak about the role of worms as soil conditioners who process nutrients in the ground to keep the soil healthy and provide food and energy for plants to grow.

Have your students lay back with their backs on the floor. Guide them to stretch their arms out straight behind their head with palms together and their legs, with ankles together, as long and straight as they can down to their toes. Then give them the opportunity to imagine that they are worms wriggling through the soil and tunnelling their way around.

- C. **Ant Pose** – prompt your students to imagine that they are tiny, busy ants. Speak about the role of ants to process, sort and essentially clean up ‘messy’ areas around the garden and how they work effectively as a massive team to reuse and repurpose natural bits of waste.

Have your students roll onto their tummies, stretch their arms and legs out as far as they can and then slowly get up on their hands and feet to walk around on all fours. Give them the opportunity to imagine they are ants scampering around the garden in search of tasty morsels to pick up and bring back to their anthill.

- D. **Grasshopper Pose** – prompt your students to imagine that they are lively, springy grasshoppers. Speak about how grasshoppers have massive hind legs that they use like giant springs to jump long distance, many times farther than their actual size. Also speak about how they rub their legs together to make their distinctive chirping sound and communicate with each other.

Have your students crouch low to ground on the balls of their feet, coiled up and ready to leap! Then give them the opportunity to imagine they are energetic grasshoppers and to explode with all their energy by hopping as high and as far as they can manage. In between hops, prompt them to communicate with each other as grasshoppers by jiggling their legs as much as they can and chirping with their voices.

- E. **Chicken Pose** – prompt your students to imagine that they are clever, curious chooks. Speak about how chickens help with chores around the garden by eating insects, clearing small weeds, providing rich manure and laying fresh eggs for us to enjoy as part of a healthy diet.

Have your students stand up straight, bend forward at the waist and tuck their hands into their armpits with their elbows bent out to either side. Then give them the opportunity to imagine they are peckish chickens, flapping their wings and clucking as they explore the garden for a tasty snack and scouring the soil for unwanted weeds to pluck out with their beaks.

- 1) **Baby Bird Pose** – prompt your students to imagine that they are baby birds just about to hatch from their eggs. Speak about how birds lay eggs and baby birds grow inside of these eggs nestled in their nest until they are ready to hatch and break out of their shell.

Have your students to start out curled up on the floor in a tight ball, grasping their knees to their chest with both arms and lying on their side, warm and comfortable inside of their egg. Then guide them to feel themselves growing bigger and stronger and eventually cracking through their egg, tossing away the pieces of shell and emerging out into their nest.

- 2) **Feeding the Baby Birds** – prompt your students to imagine that they hungry baby birds waiting in their nests for a meal from their parents. Speak about how parents take care of their chicks by gathering food in their bellies, bringing it back to the nest and feeding it to their young ones. Baby birds need food to grow, but they cannot fly on their own yet.

Go around the class or group and pretend to ‘feed’ the ‘baby birds’ by giving each student an imaginary handful of yummy worms and insects to munch on. Once a ‘baby bird’ has been ‘fed’, that student can begin to ‘grow up’ and move into the next pose.

- 3) **Grown-Up Bird Pose** – prompt your students to imagine that they are young adult birds standing tall in their nest, looking over the side at the ground far below and eager to learn how to fly. Speak about how birds steadily grow bigger and stronger, must practice using their wings and eventually fly away from the nest.

Have your students stand up in their nest, tuck their hands into their armpits with their elbows bent out to either side and to flap their elbows as if to work out their wing muscles and practice flying away. Then guide them to grasp their feet together with both hands and wiggle their knees as if they were brilliant and colourful butterfly wings fluttering around the garden.

- 4) **Leaving the Nest** – speak about taking on new challenges. Going new places, meeting new people, trying new foods or having new responsibilities can all be scary—like jumping out of a nest. Guide your students to think about these or other situations and remember that when we try our best and have some help, these challenges can be fun and exciting too!

Go around the class or group and pretend to 'push' the 'grown-up birds' out of their nests by asking each student if they are ready to fly, and if they say 'Yes!', giving them a gentle push on the back of their shoulders. Then guide them into the next 'flying' pose by having them stretch both arms out wide to either side, bend forward at the waist and reach one leg up and back behind them to balance on one foot.

- 5) **Flying Bird Pose** – prompt your students to imagine that they are majestic birds soaring through the sky. Speak about how birds use their wings to fly, catch insects and other prey and often build their homes in high places, like the branches of tall trees.

Have your students stretch both arms out wide to either side, bend forward at the waist and reach one leg up and back behind them to balance on one foot. As they feel confident in their 'flight' prompt them to try the pose on the opposite foot.