



Welcome to the Garden!

*TK-2 Lesson on
Gardening Citizenship*

Master Gardeners

The University of California Cooperative Extension (UCCE) Master Gardener Program (MGP) is an educational program designed to teach and effectively extend information to address home gardening and non-commercial horticulture needs in California.


UCCE is the outreach arm of UC's division of Agriculture and Natural Resources (ANR). Master Gardener volunteers (MG volunteers) promote the application of basic environmentally appropriate horticultural practices through UCCE-organized educational programs that transfer research-based knowledge and information.



University of California

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Teachers: Why Is this Important?

Gardeners are responsible for the care of the plants and the greater garden environment including beneficial insects and other living things.

- Some beneficial insects and other animals eat insects that eat our plants and flowers. Protecting these beneficial creatures provides an alternative to using chemicals in the garden.
- Some living things crawl through the earth and help aerate the soil for plants.
- Some living things crawl and fly through our flowers and help pollinate plants.

Learning Goal

Student gardeners will learn the importance of other living things including those that appear to be very different from themselves, and how to observe these living things in a garden setting.



Photo © Peggy Bakke

Welcome to the garden!



Oh, and what have we here?

I am a Ladybug!

- I am an [insect](#) that is helpful in the garden.
- I eat aphids and other insects that eat the garden plants.



Photo © Peggy Bakke

Ladybugs are
always
welcome in
the garden!



Oh, and what have we here?

I am a Bee!

- I am an insect that is helpful in the garden.
- I spread [pollen](#) to the fruits, vegetables and flowers.
- Watch me buzz to flowers looking for [nectar](#) and water!



Bees
are always
welcome in
the garden!



Oh, and what have we here?

I am a Butterfly!

- I am an insect that is helpful in the garden.
- I spread pollen to flowers, fruits and vegetables.
- Watch me flutter to flowers looking for nectar and water!
- I am fascinating to watch!



Photo © Peggy Bakke



Butterflies
are always
welcome
in the
garden!



Photos© Peggy Bakke

Oh, and what have we here?

I am a Hummingbird!

- I am a bird that is helpful in the garden.
- I eat insects and help spread pollen to the flowers.
- Watch me zoom to flowers for a sip of nectar and water.





Photo © Peggy Bakke

Hummingbirds
are always
welcome in the
garden!

Oh, and what have we here?

I am an Earthworm!

- I help the plants in the garden by loosening the soil around their roots.
- I help make new, rich soil for plants.





Photo © Peggy Bakke

**Earthworms are
always welcome in
the garden!**

Oh, and what have we here?

Children!

- Children are helpful in the garden.
- They plant seeds and plants in the garden.
- They water them and watch them grow.
- They practice good citizenship caring for all living things in the garden!





Children are
ALWAYS
welcome in the
garden!

Photos © Peggy Bakke



Together we ALL help to
grow a beautiful garden!

Just put us
ALL to work!



But wait! What have we here?

I am a Praying Mantis!

- I am an insect that is helpful in the garden.
- I eat insects that eat plants in the garden.
- BUT sometimes I also like Ladybugs and Hummingbirds!



Are praying
mantises always
welcome in the
garden?



Let's sing this
song together!

“Let It Be”

*(Sung to the
Beatle's tune)*

- A garden is full of living creatures, butterflies, worms, bugs and bees,
- But if you see a critter, Let it be.
- These living creatures help our plants to meet their many needs,
- So, if you see a critter, even a Praying Mantis,
- Let it be!
- Let it be, let it be, let it be, let it be.
- If you see a critter, Let it be.



Be a Good Garden Citizen

Be careful around living things

- Stay on the path so you don't disturb any living thing.
- Don't step on the helpful insects or the insects they eat.
- Be gentle with plants if you touch them and don't pick flowers or leaves.



Be a Good Garden Citizen

Practice safe behavior

- Bees can sting and ants can bite. Don't swat at a bee or pick up an ant.
- Do not touch or taste a plant without teacher or parent permission.
- Always wear shoes in the garden.

Check For Understanding

- Why is the ladybug a helpful insect?
- How do worms help a garden's soil?
- Name an insect that helps spread pollen.
- Describe how the hummingbird is helpful in the garden.
- Name one way you can be a good garden citizen.

Application Activity #1

Read Aloud and Discuss
Hey, Little Ant

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- [Video in English](#)
 - [Video in Spanish](#)



What do you think?

Are ants welcome in the garden?

I am an ant!

- I help plants by digging tunnels that loosen soil around their roots.
- The leaves and insects I bring to my nest for food also feed the soil.
- I eat insects that attack plants.
- I help spread pollen and seeds in the garden.
- I am food for insects, birds, and other animals.



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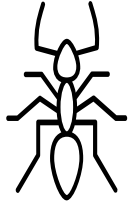

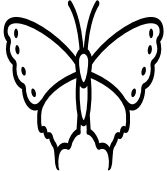


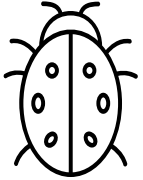
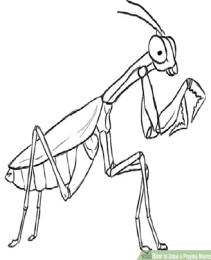
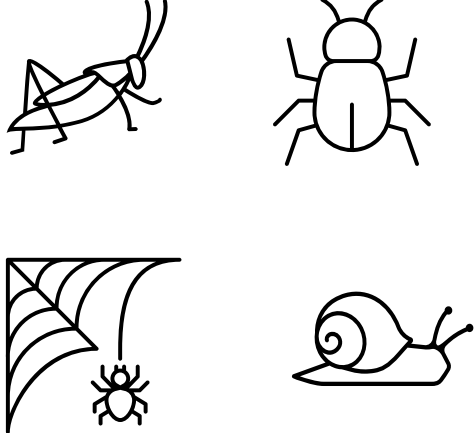
Application Activity #2

Take a walk guided by an adult through a garden and/or an open outdoor setting with vegetation.

- Look carefully for insects and other creatures.
- Use the chart to record the creatures observed.



Circle and record how many of each creature you see in your garden

<p>Ant</p> 	<p>Bee</p> 	<p>Butterfly</p> 	<p>Earthworm</p> 
<p>Hummingbird</p> 	<p>Ladybug</p> 	<p>Praying Mantis</p> 	<p>Other Creatures</p> 

Extension Activity

Attract helpful creatures to your garden.

Hang a hummingbird feeder and/or a [pollinator watering station](#).



Science Vocabulary

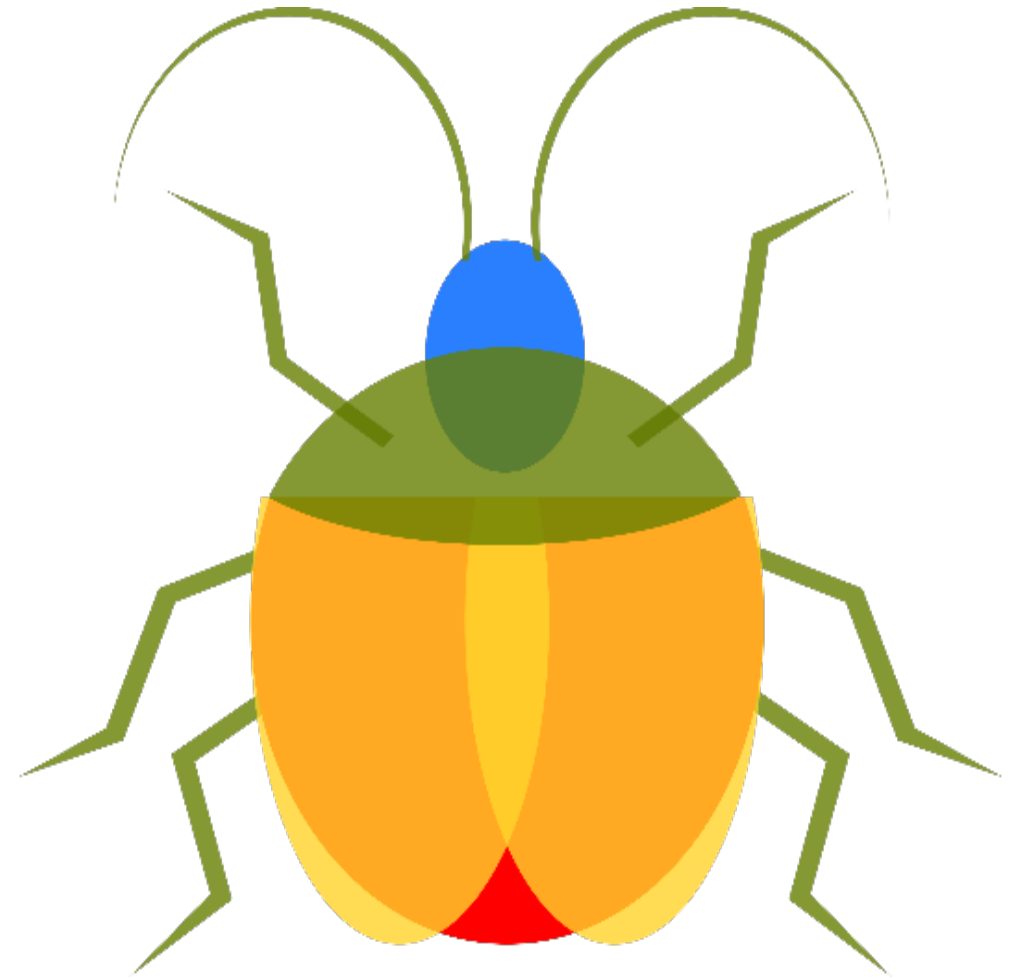
Insect

Nectar

Pollen

Insect

- Insects have 3 major body sections.
- Insects have 6 legs.
- Insects have 2 antennae.
- Most insects have 2 wings.



Nectar

A sugary fluid produced by plants that attracts insects and hummingbirds.



Pollen

- A fine, powdery yellow grain from a flower.
- Insects and hummingbirds spread pollen from one flower to another.



CA Preschool Learning Foundations Next Generation Science Standards

Preschool Science Inquiry Strand

Observation and Investigation:

- At around 48 months : 1.2 Observe objects and events in the environment and describe them.
- At around 60 months: 1.2 Observe objects and events in the environment and describe them in greater detail.

K Science and and Engineering

SEP-4 Analyzing and interpreting data:

- Use observations (firsthand or from media) to describe patterns and/or relationships in the natural and designed world(s) in order to answer scientific questions .

SEP-6 Constructing explanations and designing solutions :

- Make observations (firsthand or from media) to construct an evidence-based account for natural phenomena.

California Preschool Learning Foundations

California Next Generation Science Standards

Pre School Life Science Strand

- 1.0 Properties and Characteristics of Living Things
- At around 48 months: 1.1 Identify characteristics of a variety of animals and plants, including appearance (inside and outside) and behavior, and begin to categorize them.
- At around 60 months: 1.1 Identify characteristics of a greater variety of animals and plants and demonstrate an increased ability to categorize them.

K NGSS Life Science

- K-LS1-1. Use observations to describe patterns of what plants and animals (including humans) need to survive.

California Next Generation Science Standards

First Grade

- 1-LS1-1 Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs.
- Disciplinary Core Ideas: LS1.A: Structure and Function: All organisms have external parts. Different animals use their body parts in different ways to see, hear, ...protect themselves, move from place to place and seek, find, and take in food, water and air. Plants also have different parts (roots, stems, leaves, flowers, fruits)that help them survive and grow. (1-LS1-1)

California Next Generation Science Standards

Second Grade

2-LS4-1. Make observations of plants and animals to compare the diversity of life in different habitats. [Clarification Statement: Emphasis is on the diversity of living things in each of a variety of different habitats.]

LS4.D: Biodiversity and Humans

- There are many different kinds of living things in any area, and they exist in different places on land and in water. (2-LS4-1)

Resources

- Adapted from the manuscript *Welcome To The Garden* written by Riverside County Master Gardener Peggy Bakke.
- California Master Gardener Handbook, Second Edition, Dennis R. Pittenger, Editor, 2015
- [The Old Farmer's Almanac: Benefits of Ants](#) by George and Becky Lohmiller; April 30, 2020
- [Wiki How To](#)
- Images: Peggy Bakke, Creative Commons, Stock Images
- Videos: Riverside County Master Gardeners., Mrs. Britton's Book Nook, Piwi and Oli

Gardening Questions?

- Email the UCCE Master Gardeners of Riverside County
 - mgschoolgardens@gmail.com
- Email Helpline
 - anrmgriverside@ucanr.edu
- [Riverside Master Gardeners Website](#)



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