

A nice fat fly makes a yummy breakfast for a frog!



# Bugs

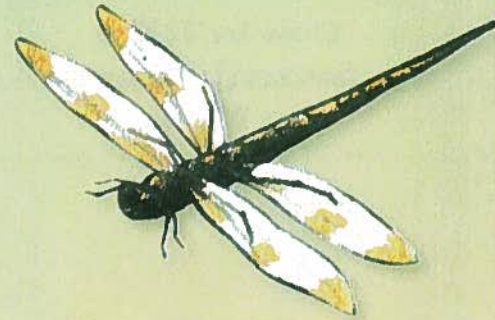
LEGACY: NATURALIST



**B**ugs help us in lots of cool ways. Explore the world of bugs and learn more about these little creatures that do so much.

## Steps

1. Draw a bug poster
2. Try a bug craft
3. See bugs in action
4. Explore bug homes
5. Take a bug field trip



## Purpose

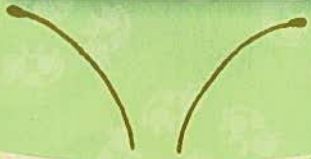
When I've earned this badge, I'll know all about bugs.



## Bug or Insect?

Though many people call all insects “bugs,” a bug is actually a certain kind of insect. “True bugs” have a mouth shaped like a straw that they use to suck nectar from plants or blood from other insects. They also have a special type of front wing. In this badge, we call *all* our insect friends bugs—even those that aren’t true bugs. (Spiders are related to bugs and insects, so you can learn about them in this badge, too.)

### How to Tell a Butterfly From a Moth



Butterfly's Antennae



Moth's Antennae

### STEP

# 1 Draw a bug poster

Every step has three choices. Do ONE choice to complete each step. Inspired? Do more!

Use one choice to help you find out more about one kind of bug. Then draw a poster of your bug. Label its parts and answer the questions in the box. When it's done, share your poster with your Brownie friends.

### CHOICES – DO ONE:

Talk to a bug specialist in your town or community. They might work at a museum or for a farming organization or gardening club.

OR

With an adult's help, find websites about your bug. And look online for lots of good photos so you can see your bug in action!

OR

Read a book or watch a video about your bug. It should be a book or video about a real bug, not a cartoon.

### More to Explore

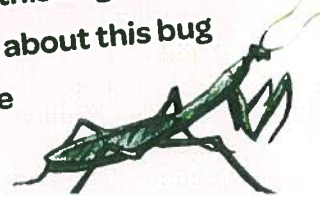
Pretend you're a Girl Scout in 1930. They had to know 50 different insects to earn their Insect Finder badge! Can you put 10 different bugs on your poster?



### ALL ABOUT MY BUG

Write on your poster:

- where your bug lives
- how long it lives
- what it eats
- what is good about this bug
- what is not so good about this bug
- who its enemies are





STEP

## 2 Try a bug craft

There are lots of “buggy” things you can make. Try making your own colorful or silly or sparkly bug!

### CHOICES – DO ONE:

**Make a paper-plate spider.** Decorate a paper plate with markers or paint to look like the body of a spider. Draw eyes, or make them by attaching googly eyes or covering dots of glue in glitter. Cut four black pipe cleaners in half to make eight legs and attach them to the plate. Bend them to make your spider stand!

OR

**Make an egg-carton caterpillar.** With an adult’s help, cut a strip of six cups from an egg carton. Paint or color the cups. Poke two holes in the top of the first cup, which will be the head. From inside the cup, poke a pipe cleaner inside each hole and pull it through. The pipe cleaners will stick out of the top to make antennae. Draw or glue on round objects for eyes.

OR

**Make your own butterfly.** Use markers to decorate a coffee filter with lots of bright colors. These are the wings. Then paint and add glitter to a wooden clothespin for the body. When the pin is dry, clip it in the middle of the coffee filter to create your butterfly.

**FOR MORE FUN:** Make tissue-paper flowers and hang your butterfly above them for a pretend butterfly garden.

### More to Explore

**Make a butterfly feeder.** Make a place where butterflies can eat—and you can see them fly by! Punch holes in a plastic plate or container lid (like an ice-cream carton lid). Put string through the holes and hang the plate or lid from a tree. Put fruit on the feeder. It may attract other bugs, so tie it away from doors or windows!

## Words Worth Knowing

### ENTOMOLOGY

(en-toe-mall-o-gee) is a long word that means “the study of bugs.”

### ENTOMOLOGISTS

(en-toe-mall-o-gists) look at what certain bugs do to crops or find out if a group of bugs is growing or shrinking.

An entomologist who studies butterflies is called a **LEPIDOPTERIST** (lep-ee-dop-ter-ist).

### An APIOLOGIST

(a-pee-o-lo-gist) studies honeybees.



## Bug Jokes

- What did one cockroach say to the other?

*You bug me!*



- What do you get when you cross a bee and a cow?

*A hamburger.*

- What do you get when you cross a pig with a centipede?

*Bacon and legs.*



STEP

## 3 See bugs in action

Even though most bugs don't live very long lives, they are very busy!

### CHOICES – DO ONE:

- Watch three bugs.** Look for three different bugs in your area. They could be an ant carrying food, a beetle chewing on a leaf, and a roly-poly (sow bug) on a porch. Identify the bugs and try to find out what they are doing and why!

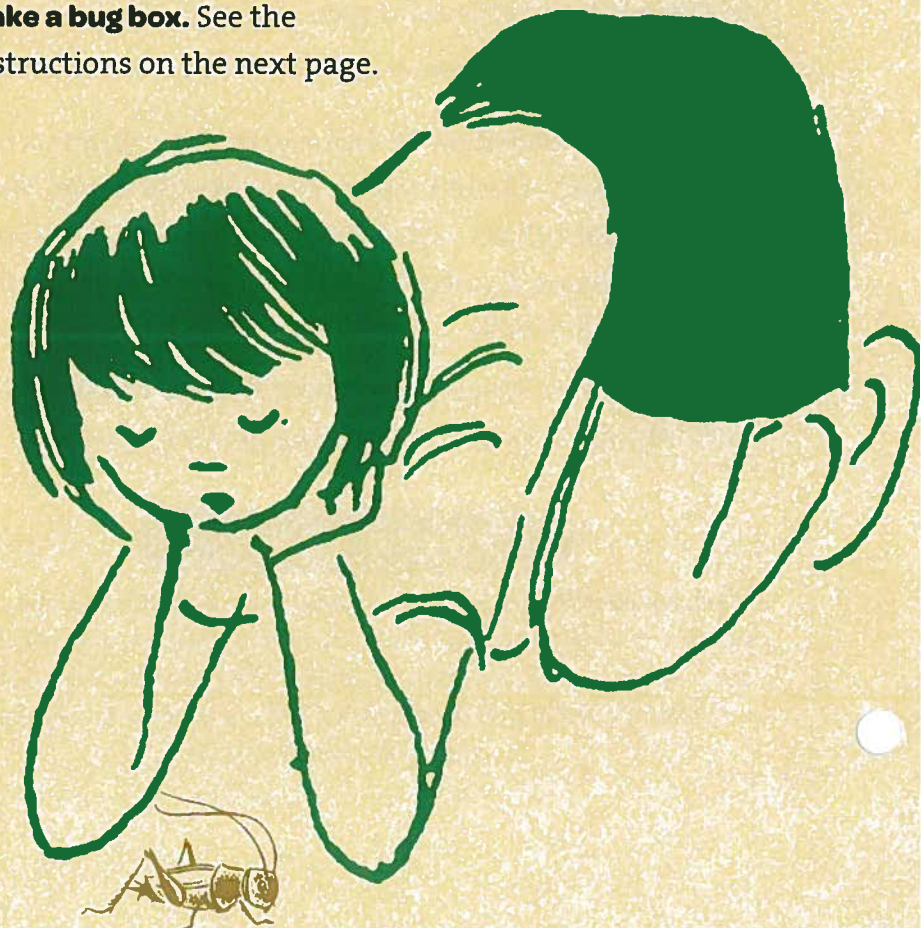
OR

- With an adult, find an ant trail.** See what happens if you put a stick in the middle of the trail. What about a little water? What about food? See what you can find that distracts the ants (without hurting them, of course).

FOR MORE FUN: Try to follow the trail to the ants' home.

OR

- Make a bug box.** See the instructions on the next page.

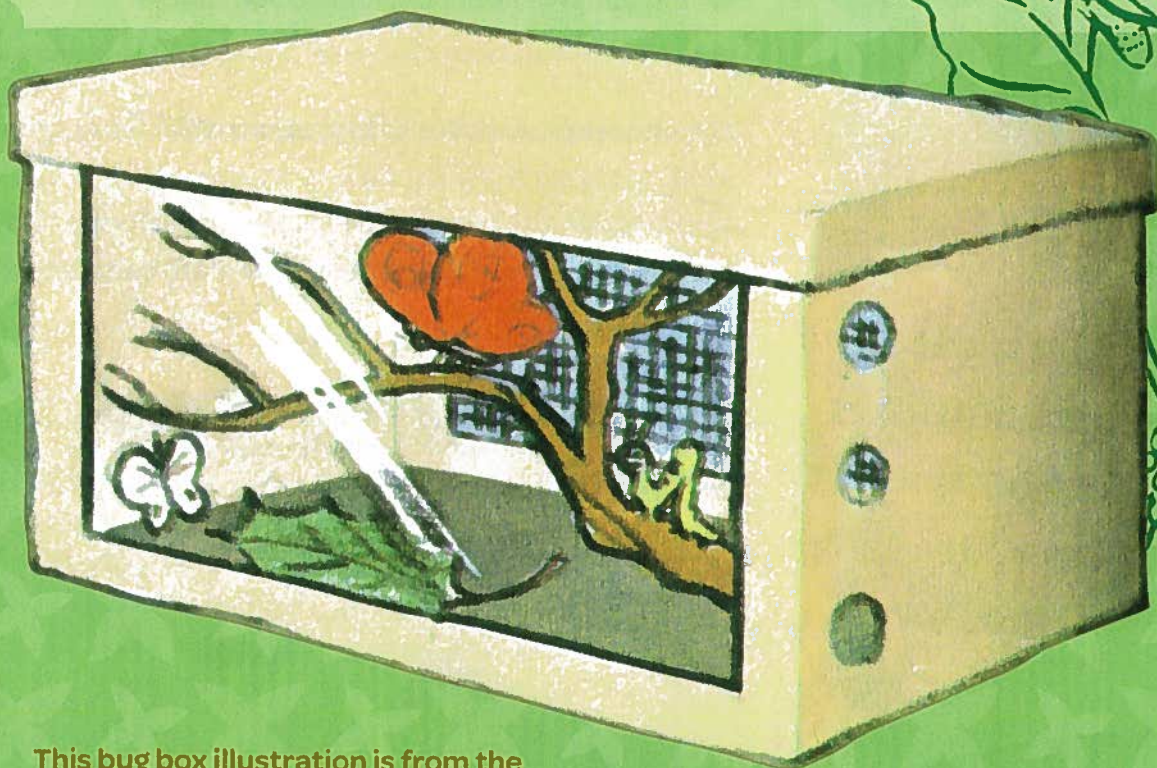




# Make a Bug Box

You can take a closer look at a bug in action by making a bug box. Try using it to watch grasshoppers, centipedes, lightning bugs, or moths. Check with an adult first to make sure your bugs don't bite!

- 1 Remove the lid from a cardboard shoe box. Cut a rectangle out of one of the long sides—it should be about 6 inches long by 3 inches wide.
- 2 With the cutout side facing you, tape or glue on a piece of plastic wrap to create a window. Make sure the window is tight enough that the bugs can't escape.
- 3 Poke three small breathing holes (smaller than your bugs, so they won't get out) into each side of the box.
- 4 Make a home for your bugs along the bottom of the box, using materials from the place you found them and without destroying their home. You might add grass, twigs, small rocks, or leaves.
- 5 Add bugs! Be gentle so they don't get hurt. Re-cover the box. After you've had an hour to watch, carefully place the bugs back where you found them.



This bug box illustration is from the *Cadette Girl Scout Handbook*, 1963. Your bug box might look a little different!

STEP  
**4 Explore bug homes**

**It isn't just the bugs that are cool. The places they live are fun to explore, too! Find out more about bug homes in this step.**

**CHOICES – DO ONE:**

- Draw a cocoon.** Some bugs, like caterpillars, sleep in a cocoon. Inside, they transform into a moth or butterfly. Find out what else goes on in there. Then draw what you think it looks like inside a cocoon.


**OR**

- Make a model of a bug house.** Bugs live in all kinds of houses: hives, cocoons, tunnels, even inside wood. Make a model of what an bug house looks like.

**FOR MORE FUN:** Talk to your friends about how your home is the same and different from your bug house. If you could, would you live in the bug house you made?

**OR**

- For one week, watch a spider on its web.** Team up with an adult to watch it during different times of day. What does the spider work on? Does the web look any different? Is there food somewhere? Don't touch the spider or disturb the web—some spiders can bite!

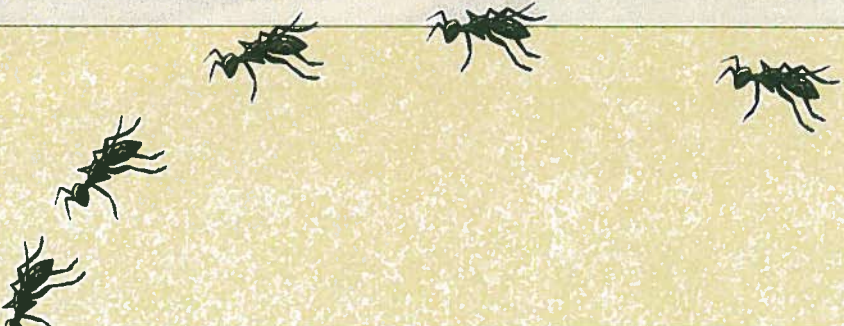


**Watch the spiders build their webs. Some of them can dive and some can fly. You doubt it. Watch them. Seeing is believing.**

—*How Girls Can Help Their Country, 1913*

**More to Explore**

**Build an ant farm.** Ants like to live together in a group called a colony. Team up with an adult to create a place for a group of ants to live. Use a kit or find directions online, and be careful to choose ants that don't bite.



STEP

# 5 Take a bug field trip

The best place to view creepy critters is outside where they live! Take a trip to get up-close with your bug friends.

## CHOICES – DO ONE:

**Visit a farm.** Farms have lots of animals and crops, so they can be a great place to see bugs. Bring a magnifying glass to see the tiniest ones. Ask the farmer why bugs can be useful to crops, and what their favorite bug on the farm is.

FOR MORE FUN: Go to a farm where they raise bees, and taste fresh honey.

OR

**Take a bug walk or bug hike.** See how many kinds of bugs you can find along the way. Use a magnifying glass and look on the ground and up high in branches.

FOR MORE FUN: Go with friends! See who can find the most bugs along the hike, or who can find a bug they've never seen before.

OR

**Visit a museum, zoo, or botanical garden with a bug collection.** Look at the bugs. How are they grouped? What's the strangest bug in the collection? Some places have a live insect viewing where you can hold the bugs. You could give it a try!

### More to Explore

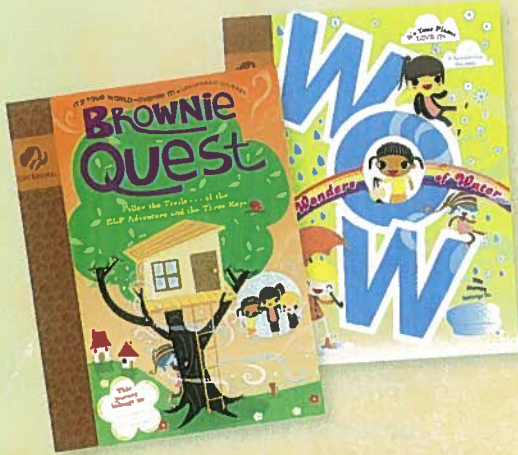
**Find out about good bugs and bad bugs.** On your bug field trip, ask a bug expert about good bugs (like those that help spread pollen so new flowers can grow) and bad bugs (those that destroy trees or plants) that live in your area. Are some bugs both good and bad?

For example, termites help break down dead wood into healthy soil, but they also eat the wood in our houses!

## More Bug Jokes

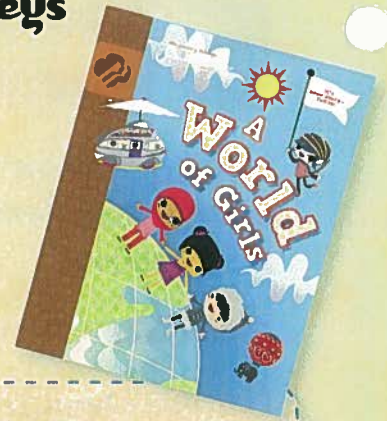
- What goes snap, crackle, fizz?  
*A firefly with a short circuit.*
- What creature is smarter than a talking parrot?  
*A spelling bee!*
- What's the biggest ant in the world?  
*Ant-arctica!*





## Add the Badge to Your Journeys

Your Leadership Journeys invite you to think globally—there's a big world out there! Ask a Girl Scout adult to help you find out about butterflies or other bugs in another country in the world. Then add something about them to your craft project.



### Now that I've earned this badge, I can give service by:

- Hanging my bug poster in my classroom to teach others about bugs
- Helping Daisies make butterflies to decorate a Daisy flower garden
- Taking my family on a bug hike and sharing what I know about different bugs



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**I'm inspired to:**