



# Firefly Observation Activity

## Outdoor Activity

*It's nearly summer time, and with summer comes firefly season. Early summer (June and July) is the best time to spot fireflies. When scientists are studying fireflies, one way that they can identify the different species in an area is by studying their flash patterns. Use this sheet to observe and keep track of fireflies in your backyard or community. Fireflies need dark places where there is not a lot of artificial light, and they tend to be found near standing or slow-moving water like creeks. They also like wooded areas where there are trees.*

Choose a "sit spot" where you can sit to make your observations. Draw what you see from your sit spot in the box below. Note the types of plants and trees and other features that you see in the landscape.



Visit your sit spot for a fifteen minute period during several different time frames. For example, at 9:00 pm, 9:30 pm, and 10:00 pm. Use the table on the next page to help you record your observations.

- How many fireflies did you see during each time frame?
- What color were the flashes?
- What pattern did the fireflies flash?
- How high off of the ground were the flashes?

DRAW

These are all characteristics that can be used to determine the different species in your area.



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On a separate piece of paper or in a science notebook, copy the table below, adding more lines for each firefly observation that you make.

Time	Flash Color	Height off ground	Flash Pattern
	Green Yellow-green Amber Blue Other:		

If there are fireflies flying near you, try to catch one in a plastic or glass jar. Be sure that there are breathing holes in the lid of the jar so that the firefly can get oxygen. Take a few minutes to sketch the body of the firefly and note any patterns and colors that you notice on the body. Label the head, thorax, abdomen, legs, antennae, eyes, and lantern. Be sure to let your firefly go after you have made a detailed drawing and/or snapped a picture.

A large, empty rectangular box with a black border, intended for a student to draw a firefly or take notes.

Things to think about:

- What time of night did you see the most firefly activity?
- Try this activity at a friend's house or in a different environment. How is the firefly fauna different? Are there more species (more different flash patterns)? Fewer species but more individuals flashing the same pattern?

Additional Resources:

- Firefly Watch Citizen Science Project: <https://www.massaudubon.org/get-involved/citizen-science/firefly-watch>
- BugGuide: <https://bugguide.net/node/view/85>
- Firefly.org is a great place to find more firefly information: <https://www.firefly.org/>

OBSERVE

