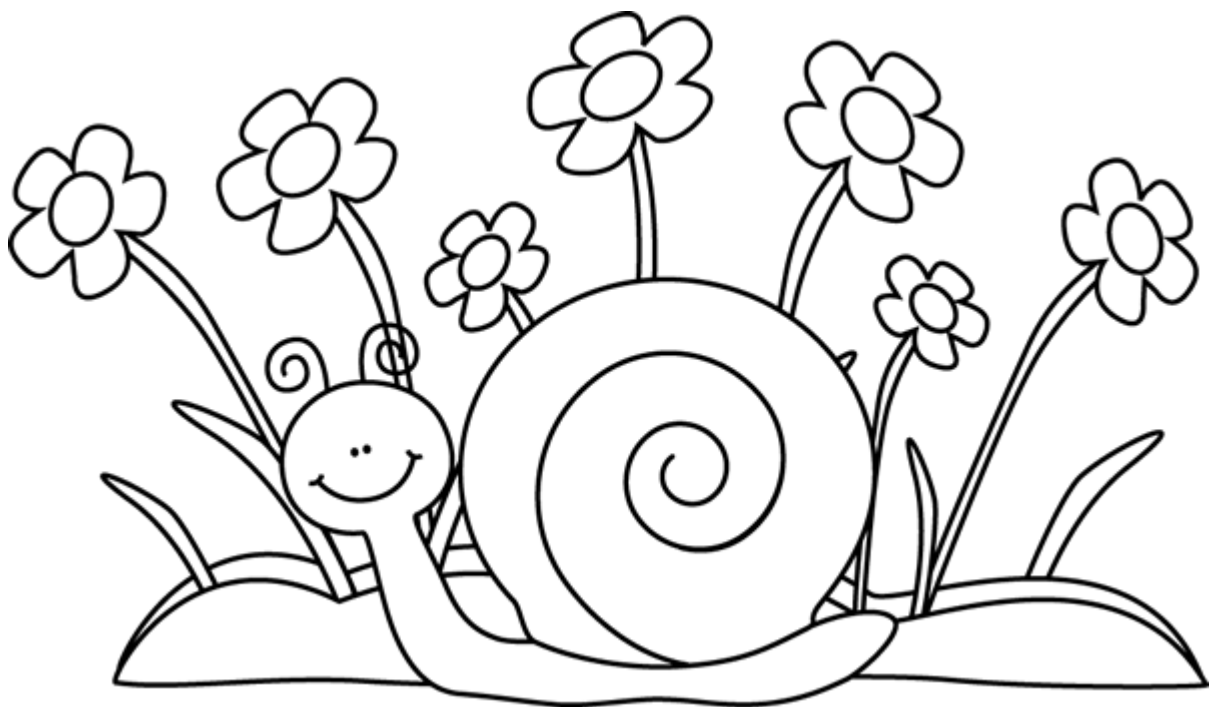


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Nature Journal



The Firefly



Fireflies, also called lightning bugs, are beetles that produce bioluminescence to attract mates or prey.



Bioluminescence: Production and emission of light by a living organism

FUN FIREFLY FACTS

- Fireflies talk to each other with light. In some species the eggs glow, in others the larva glow, and in some species the adults emit light.
- In Ohio there are about 24 species. Worldwide there are 2000+ firefly species.
- Fireflies spend up to 95% of their lives in the larval stage. Firefly life stages are Egg → Larva → Pupa → Adult. The adult lives only a few weeks.
- Fireflies are medically and scientifically useful. The two chemicals found in a firefly's tail can be used to study many diseases and have been fitted into spacecraft to detect life in outer space
- Fireflies don't make tasty prey. They taste bad and can be poisonous to some animals.

Catch a Firefly!

What you need

- A jar with lid
- Tool to poke holes in lid
- Apple slices
- A damp paper towel or unbleached coffee filter
- A butterfly net



From <https://www.firefly.org/how-to-catch-fireflies.html>

Prepare Your Jar

- 1. Poke holes in the lid of your jar. Ask an adult for help.**
- 2. Crumple a damp unbleached coffee filter or paper towel and put inside. This way, your fireflies will have air, hiding spots, and won't dry out.**
- 3. Put an apple slice inside. Fireflies will drink the juice.**

1. Fireflies are easy to spot—just look for the flashing lights. They typically love long grasses, fields, and the edges of wet areas.
2. Turn off any outside lights.
3. Then take a flashlight outside. Watch the fireflies and see if you can imitate their flashes. (You can place blue plastic over your flashlight to turn the light blue. Fireflies may not be confused by blue light).
4. When you get close enough, catch your fireflies carefully using a net. Remember fireflies are fragile. Put in your jar.
5. Observe them no longer than one day. Let them go at night where you caught them.

BUILD FIREFLY HABITAT IN YOUR YARD!

*Firefly are disappearing, but you can help!
Fireflies need just a few basic things: food, shelter, moisture,
protection from pesticides, and dark nights.*

*Consider leaving some corners of your yard a little wild. This helps fireflies
AND their food. It is as easy as 1 , 2 , 3!*

Info from Xerces.org



1) Abundant Food Sources

When leaves fall off the trees in fall, leave the leaves! Pick a spot in some areas of your yard or garden to let leaf litter gather. This provides habitat for snails, slugs, and earthworms which firefly larva need for food.

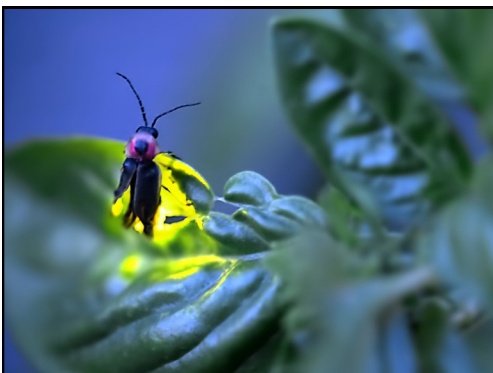
(Photo: Heinz Albers / Wikimedia Commons)



2) Safe Places

Fireflies need plants, leaf litter, and underground burrows for perching, shelter, and protection. Pick a couple Ohio native plants to plant with your family. Don't over-mow your lawn. Pick a part of your yard to let the grass grow longer!

Photo: Justin Wheeler



3) Dark Nights

Dusk- and night-active fireflies need darkness in order to use their bioluminescent light signals to communicate. Turn off your outside lights to help them!

(Photo: Radim Schreiber, fireflyexperience.org)

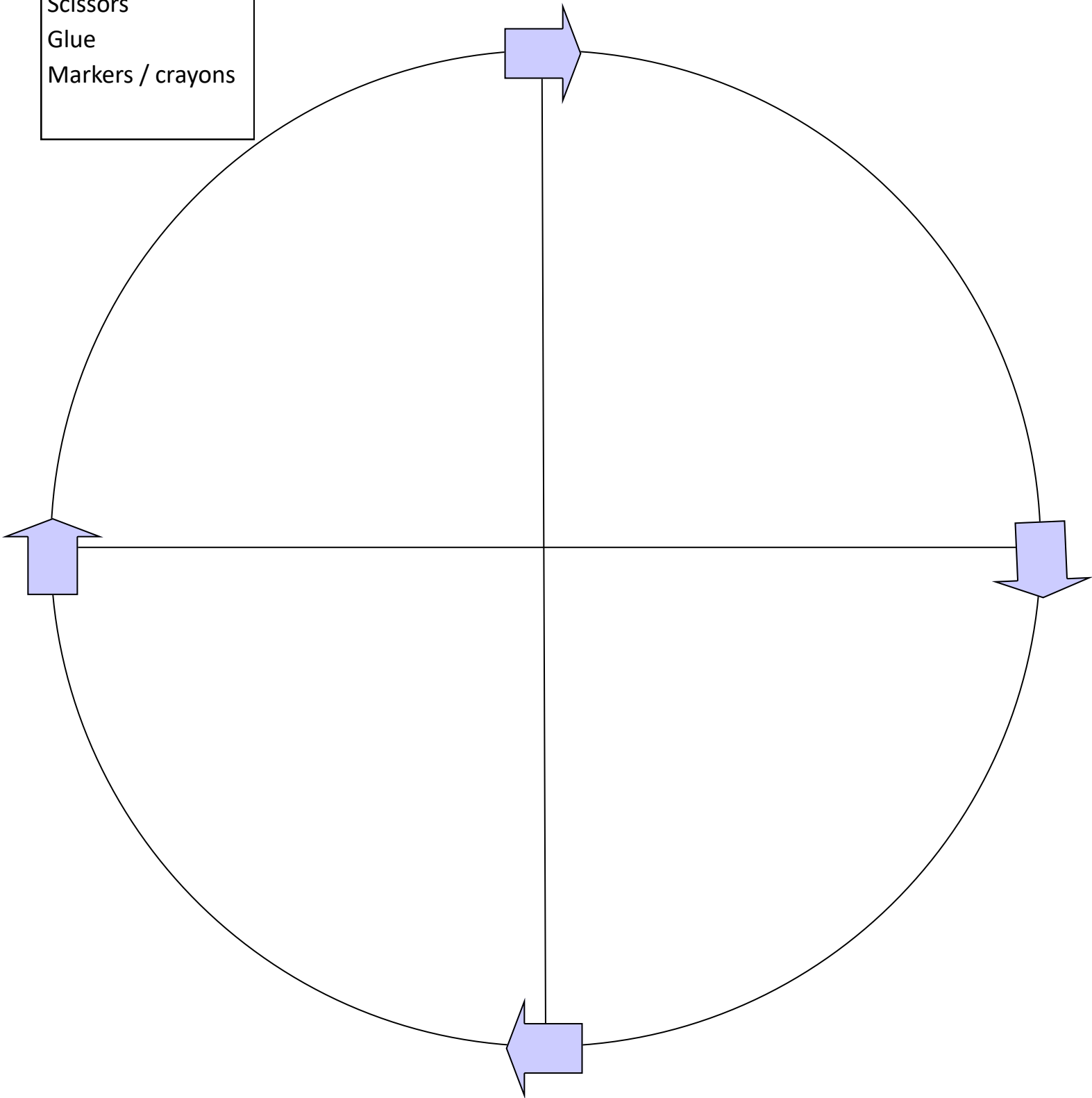
Firefly Life Cycle

You Will Need:

Scissors

Glue

Markers / crayons



Color Me!

A line drawing of an adult fly, showing its head with antennae, thorax with wings, and segmented abdomen. It is positioned within a pentagonal frame.

Adult

A line drawing of a fly pupa, showing a segmented, curved body with a small head at one end. It is positioned within a pentagonal frame.

Pupa

A line drawing of a fly larva, showing a long, segmented body with many pairs of legs. It is positioned within a pentagonal frame.

Larva

A line drawing of a fly egg, showing a small, oval-shaped egg with a textured surface. It is positioned within a pentagonal frame.

Egg

Color Me!

**Cut out the life cycle
pieces.**

**Glue on the Life Cycle
page in order.**

LEARN THE FIREFLY LANGUAGE

You Will Need:

- Pen light, small keyring LED light or other small light source
- Some electrical or opaque tape

Use a piece of the electrical tape to cover the edges of the flashlight so that only a sliver of light shows when you turn it on.

Go outside just before dusk to an area where you have seen fireflies display before, and bring a copy of this sheet. Try to mimic the flash signals of the species you see.

