







science in nature Iridescence

Explore iridescence in our first video for families! Delve into some background information, look at examples of iridescence in the natural world (and around your house) and follow along to do an activity—we'll demonstrate in the video.

Watch now!

Supplies to gather ahead of time

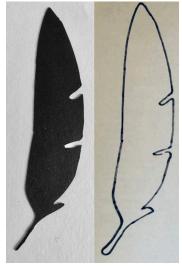
- 1. A piece of dark colored paper
- 2. Scissors
- 3. Container to hold 1 inch of water—about 6 x 8 inches, just slightly bigger than the paper cutout you will make
- 4. Clear nail polish—any brand is okay, but unfortunately some of the more natural brands don't work as well
- 5. Clothes pin or paper clip
- 6. Pipe cleaner or other wire to make butterfly antennae

Directions

- 1. Gather your supplies.
- 2. Cut out a butterfly or feather. You can draw your own or copy ours.
- 3. From here on, if you can, <u>follow along on the video</u>. The activity is at 4:32–8:36.
- 4. Put about one inch of water in your container.
- 5. Carefully open the jar of nail polish over the container of water and let one drop of polish fall off the brush onto the surface of the water.
- 6. Gently slide your paper butterfly or feather into the water so that it goes under the surface. Don't let go!
- 7. Lift the paper butterfly or feather out of the water so that the nail polish sticks to it.
- 8. Use the clothespin or paper clip to hang your butterfly or feather to dry.



Butterfly shape to trace or copy.



Feather shape to trace or copy.



Iridescent bubbles in brewing coffee.



Your host for this program, Rose Lavino. Rose is a senior at CU Boulder, majoring in Anthropology with a minor in Education.



Anna's hummingbird: light reflecting from head feathers at different angles (credit: Mick Thompson / Eastside Audubon)

Museum collection connections.

All of the specimens in the accompanying video are from our Education Collection. Most museums keep a separate collection of specimens and objects to be used for teaching. These specimens are able to be looked at up close, and sometimes touched, by our audience. Things are in this collection rather than the research collections because they often don't have enough information on where they were found, or they might not be in very good condition. These objects facilitate tangible learning moments, which are some of the best ways to connect our visitors with science and nature.

Dig deeper.

Try some experiments. Make a prediction about the outcome before you make a change.

- Change the texture or color of the paper you use.
- Drop other liquids onto the surface of the water to see which look iridescent.

What next?

- Look for other examples of iridescence in your daily life.
- Light is necessary to see iridescent colors—what other examples of the interplay of light and color can you find?



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