



# Exploring Iridescence

## Materials

Clear nail polish

Long, thin strips of black paper, about one-inch wide

Water in a disposable plastic or metal tray or bowl (e.g. takeout food container)

Paper towel or rag

## Directions

1. Make sure you are in a well-ventilated area with adult supervision.
2. Add a shallow layer of water to a disposable plastic or metal tray or bowl.
3. Open a bottle of clear nail polish and touch the tip of the brush to the water's surface. The drop will spread over the surface of the water.
4. Hold one end of the black paper strip and dunk the opposite end into the water. Submerge about half of the paper while keeping your fingers dry.
5. Gently remove the paper strip from the water and lay flat onto a paper towel to dry.
6. Allow to dry on the paper towel and then observe the rainbow-colored layer of iridescence.

## What's happening? Background information for caregivers

Iridescence is a type of coloration. It appears shiny and changes color when you look at it from different angles. Iridescence can be seen in soap bubbles, CDs, peacock feathers, abalone shells, and some butterfly wings.

Iridescence is caused by light waves reflecting off multiple layers of a thin film on an object's surface. In this activity, the nail polish forms a thin film on the surface of the paper. Based on the thickness of the nail polish, it reflects different colors of light—the rainbow colors.

