

# Ultraviolet Light Detecting Bead Experiments

## Materials

- Ultraviolet light detecting beads
- Colored pencils
- Paper
- Watch with a second hand
- Data chart

## Procedure

1. In all cases, use the colored pencils to make a scale of colors for your bead(s), showing how bright their color is when exposed to light:

--	--	--	--	--

2. Then set up a data chart to record your data, similar to this:

Location	Shade of Color	Time to reach that shade (seconds)

Etc.

3. Possible investigations

- Record the reaction times/colors of the beads during the day, from sun-up to sun-down.
- Record the reaction times/colors of the beads in the snow to other locations, like an asphalt driveway or next to the lake.
- Record the reaction times/colors of the beads on different sides of your house/apartment building. Does the direction of light matter?
- Record the reaction times/colors of the beads as you climb a mountain. Are they affected by altitude?
- Compare the reaction times/colors of the beads to outside temperature. Are they faster to change in warm or cold weather?
- Compare the reaction times/colors of the beads next to your bedroom window and outside of it. Does glass affect the speed of their reaction?

**What have you learned about ultraviolet light with these beads?**