



Colors in the Dark

- **Materials:** 4-5 pieces of paper of various colors. Construction paper or colorful copy paper would work well. It would be best to have at least something red, blue, green and yellow. (Optional – pencils and paper for students)
- **Instructions**
 - This activity will only work if you have room/space that can be fairly dark.
 - The leader will hold the pieces of paper so that the students cannot see them.
 - Turn off the lights and quickly hold up one piece of paper (this needs to be in the darkest part of the room).
 - Ask students to identify the color of the paper (they can write it down or shout it).
 - Repeat the process for one or two more colorful sheets.
 - Turn on the lights.
 - **OBSERVE & DISCUSS:**
 - Which one was hardest to see? Why do you think that was harder?
 - How confident are you in your answers?
 - Reveal the answers (show the same papers in order)
 - Were you able to identify the correct colors?
 - Which ones were most difficult to identify?
 - Will the results be different if we sit in the dark for 2 minutes first?
 - Turn off the lights and have all students sit in the dark for at least 2 minutes before repeating the same experiment. Be sure to change the color order or introduce colors you didn't use before.
 - Turn on the lights.
 - **OBSERVE & DISCUSS:**
 - Which one was hardest to see? Why do you think that was harder?
 - How many do you think you answered correctly?
 - Reveal the answers (show the same papers in order)
 - Did everyone get the same ones correct and wrong? Why?

In order to see color, our cones need to be activated, and those cones need quite a bit of light. In the dark our rods help us see and they do not process color.