

SciGirls Activity 12

Forensic Science



Icebreaker

Observe how the appearance of ink changes when viewed by an infrared camera!

SciGirls Skill: Observing

Guide your girls as they

- 1) Write their first name and the type of pen they're using at the top of a blank sheet of paper.
- 2) Take another marker, and write their name and new marker type below the first sample. Continue with as many different markers as they wish.
- 3) Go into a room that can be darkened. Set the video camera to "night vision."
- 4) Turn out the room lights, making the room as dark as possible. View the paper through the camera's viewfinder.
- 5) Study the writing samples on the page. Which samples show up clearly in the viewer? Which samples are so faint they are hard to read or disappear completely?
- 6) Take a pen that shows up clearly in the camera viewer, and write a message on a new sheet of paper. Now take a marker that seems to go invisible, and scribble over the message. Take the paper into the darkened room, and view it with the night vision camera. You should be able to read the message just fine!



SciGirls Suggestion: You'll want to explain how the light spectrum goes beyond light that we can see with our eyes. Girls have likely heard the terms *ultraviolet* and *infrared*, but they may not understand them well. Use this activity to introduce girls to the full light spectrum.



You'll need:

- a home video camera with "night vision" option
- several brands and varieties of black ink pens and markers
- varieties of markers of various colors
- white office paper
- a darkened room