Light and Color Lesson Plan

Physics

*note- do after waves lesson*

- Introduction (~3 minutes)
  - What are some sources of light you can think of?
  - What is light? What do you think light is?

- Speed of Light (~7 minutes)
  - How fast do you think light travels?? All light travels at the same speed, VERY FAST!
  - Demo: have a students try and spin in a circle before the light hits a wall when you turn on a flashlight!
  - Nothing can move faster than the speed of light, if you could run at the speed of light, you could run around the Earth 150 times in just 3 seconds!
  - It would take an airplane 260 days to travel the Earth 150 times!

- Colors and Wavelength (~5 minutes)
  - Each color of light corresponds to a certain wavelength! Handout to go with this!
  - Activity: Pass out diffraction glasses (if available) and ask students to describe what they see when they look at different light sources (windows, ceiling lights, etc.)

- White Light (~10 minutes)
  - White light is actually made up of all the colors in the rainbow!
  - Demo 1: show prism splitting apart white light (flashlight) into all the different colors
  - Demo 2: overlap red, blue, and green flashlights to create white light
  - Demo 3 (optional): overlap red, blue, and green on an overhead projector to show that you get black (because this is actually showing pigment, not the color of light!) This is similar to mixing paint together.

(continued on next page)
- Activity: Color Wheels (~25 minutes)
  
  • Use template to create color wheels for students to color in. Color the appropriate labeled sections.

  • Spin wheels on a pencil to show that white light is created!