

# Lights, Color, Action

*Catch some cool colors. Make a rainbow out of white light. Split your name with ink and reveal numbers with color filters. Color the world with the Technicolor Blender.*

## **SUMMARY:**

This one-hour class sheds light on the properties of rainbow colors. Children observe demonstrations that blend colors to produce white light, and others that separate white light into colors. Experiments with prisms and diffraction lenses give children the opportunity to explore the color spectrum of various light sources. A chromatography activity provides an interesting demonstration of separating printed colors on a filter. The instructor leads an activity from white light to the ultraviolet range. Children look at the world through tinted lenses to experience color-blindness and see through the eyes of animals. A light-induced, optical effects demonstration device to take home completes this illuminating adventure!

## **EDUCATIONAL VALUE:**

In this class, children enter the world of light and color. Exciting experiments on white light including color-wheel blending and prism-splitting spectrums introduce Newton's color theory concepts. Children learn the differences between mixing colored light and mixing colored paint. Activities involving spectrosopes, ultraviolet light, and chromatography provide entertaining lessons on scientific techniques used to study the physics of light. Children build Technicolor Blenders to demonstrate Newton's color wheel at home.

## **TAKE-HOME MESSAGE:**

- 1 White light contains all the rainbow colors.
- 2 Objects absorb certain colors and reflect other colors.
- 3 We see the colors an object reflects.

## **TAKE-HOME PRODUCT:**

Technicolor Blender

## **NORTH CAROLINA ESSENTIAL STANDARDS:**

- K.P.2 Understand how objects are described based on their physical properties and how they are used.
- 4.P.3 Recognize that energy takes various forms that may be grouped based on their interaction with matter.

