

SOME THINGS TO HAVE ON HAND:

CD or DVD, diamond, bubbles, sponge, some leaves;
art supplies (paper, paints, brush, glue, glitter, etc.)

VIDEOS FOR MORE INFORMATION:

Bill Nye, Light and Color, Season 1, Episode 16
Science of Color and Light, Educational Films, 1988

FOR THOSE WHO WANT TO KNOW MORE:

1. Two systems of color:
 - a. One kind of color is from light. We see color as light.
 - Rainbow colors – different wavelengths – light particles, AKA photons, bouncing off from objects and reflect back into our eyes
 - Mix these colors >>> we see white
 - b. Another kind of color is from pigments.
 - Pigments are made from plants, minerals, chemical compounds, insects
 - Used in painting, dyeing, and printing
 - Mix these colors >>> we see dark, muddy, black colors
2. Chlorophyll has blue esters, black esters and green esters made of: Carbon, Hydrogen and Oxygen, plus some Nitrogen and Magnesium.
CHO = carbohydrate
3. Chlorophyll is an organic substance (chemistry of living things).
Water is an inorganic substance (chemistry of things not alive).
So, water absorbs colors – but does not act on them chemically the way that chlorophyll, a living thing, does. (My interpretation.)

Chlorophyll (Greek): Chloro-: greenish yellow. Phyllon: Leaf, blade.

4. LOOK UP: Black light. Night vision.

5. What is the connection between refraction and fractions?

“Frac-” means break. In refraction, light is broken into all its colors. In fractions, a whole amount is broken into parts such as cutting, or breaking, a pizza into 6 pieces, or parts. Each piece is $\frac{1}{6}$ of the pizza.

6. Primary colors of light: red – green – blue

Primary colors of pigment: red – yellow – blue