

EMBARGOED
Until Release Date

YOU CAN by JOK CHURCH

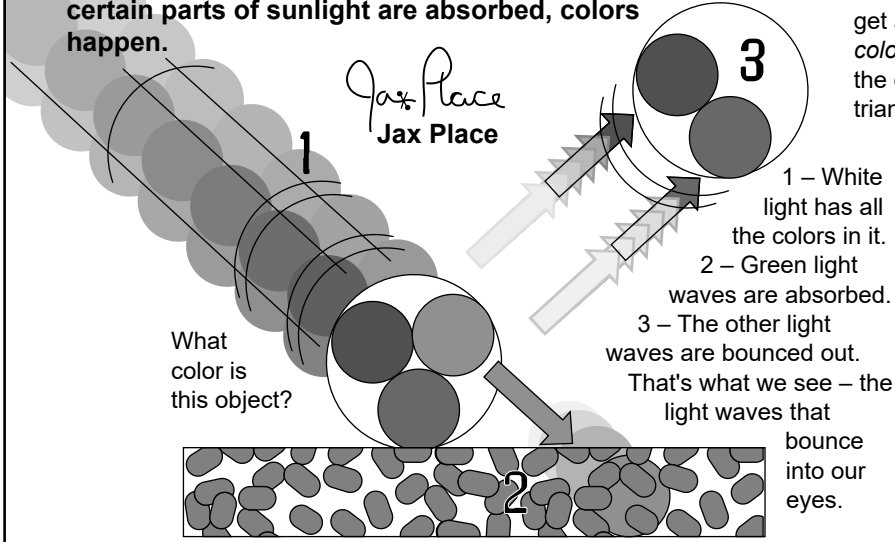
Dear Jax,
What is color made from? Where does color come from?
Thy Ha
Sunnyvale, California

Beakman or Jax
P.O. Box 30177
Kansas City, MO 64112
Question, name & address

jok@nbn.com
With **beakman & jax**

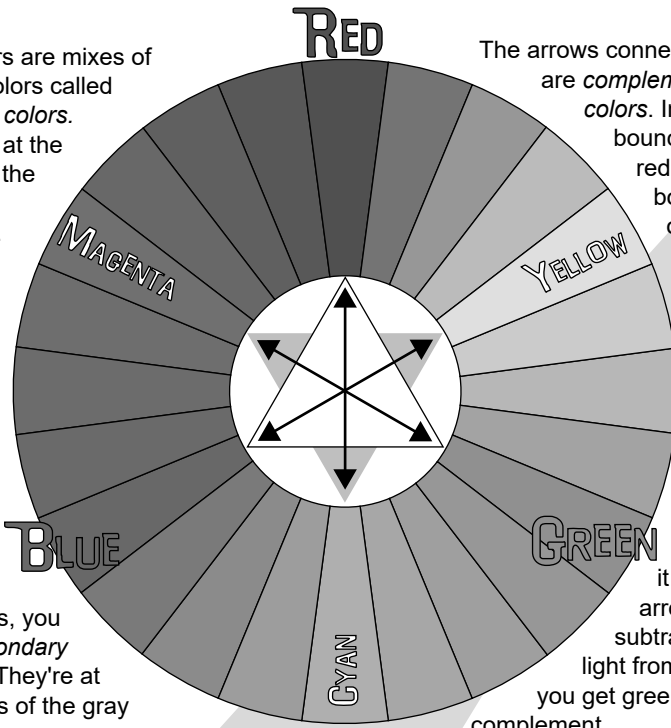
Dear Thy,
Color isn't made of things because color isn't a thing. Color is more like an event. Like a verb instead of a noun.

Colors happen when we see *part* of sunlight. When we see all of sunlight, we get white. But when certain parts of sunlight are absorbed, colors happen.



All colors are mixes of basic colors called *primary colors*. They're at the ends of the white triangle.

When you mix primary colors in equal amounts, you get *secondary colors*. They're at the ends of the gray triangle.



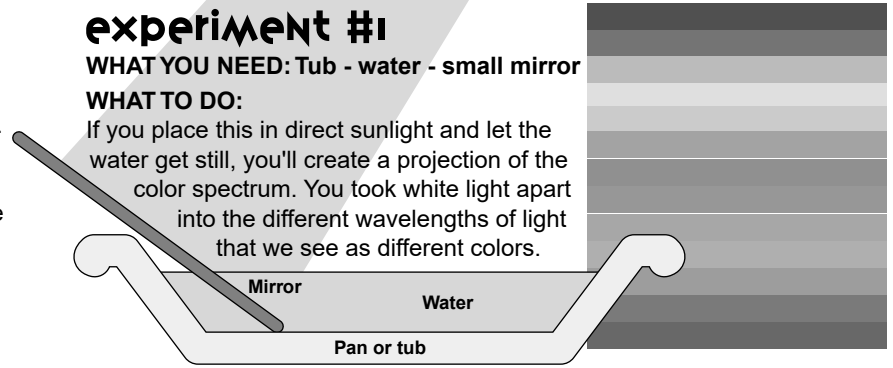
The arrows connect colors that are *complementary colors*. In our light-bouncing diagram, red and blue are bouncing into our eyes. To find the color we'll see, find red and blue on the wheel. Then go halfway between them. You can also find it with the arrows. If you subtract green light from white light, you get green's complement.

experiment #1

WHAT YOU NEED: Tub - water - small mirror

WHAT TO DO:

If you place this in direct sunlight and let the water get still, you'll create a projection of the color spectrum. You took white light apart into the different wavelengths of light that we see as different colors.



Some newspapers print us in black & white. Go to our Web site for a color version.

P.S. from Beakman: The color of the object is magenta. In the dark it has no color at all. You need light for color to happen, remember? And in magenta-colored light, it will look white. Really.

