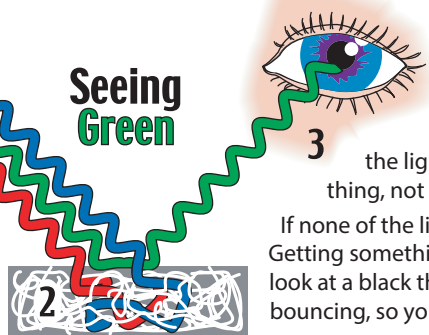




Dear Jax,
 How do you really
 make black with red,
 blue and yellow?
 Heather Federmeyer
 Grass Valley, California

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

Look @ Looking
 how we look at colors. Let's look at
 or green.
 from the sun is white. It has all the primary
 of light in it: red, green and blue.
 nes on a green thing. All of the light waves that are
 are absorbed by the green thing. They're kind of
 in and turn into heat. That's what makes it green -
 in everything that is not green.

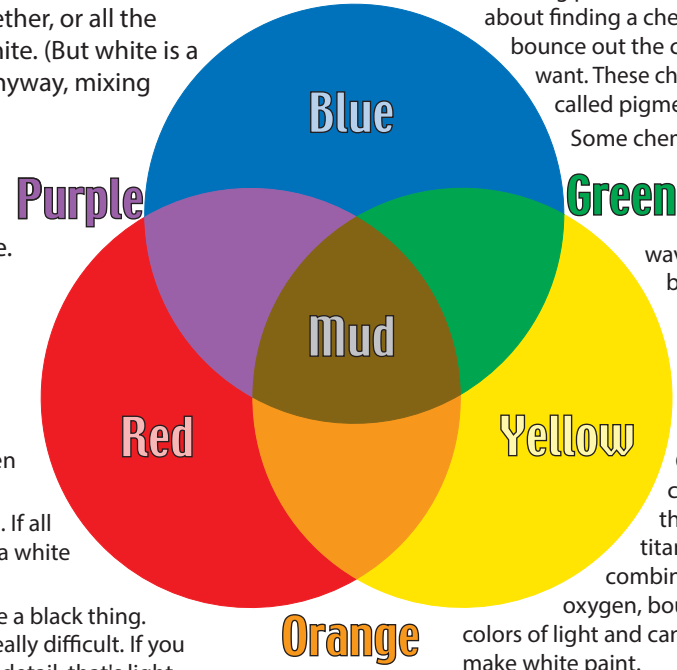


Dear Heather,
 Lots of us have mixed all the food colors together, or all the
 paints together, working to get black - or white. (But white is a
 whole other question, I think. Maybe not.) Anyway, mixing
 paints just gets you mud-color.
 Here's the deal: You can't make black
 mixing paints because black isn't really a
 color. (Take a breath now.) Black is what
 happens when there isn't any light - none.

Jax Place
 Jax Place



3. The only thing that bounces
 out into your eyes are the green
 light waves. You see green.
 Now here's the important part. If all
 the light waves bounce out, you have a white
 thing, not a green thing.
 If none of the light waves bounce out, you have a black thing.
 Getting something to absorb all light waves is really difficult. If you
 look at a black thing and can see its surface or a detail, that's light
 bouncing, so you don't really have black.



Creating paint or food colors is
 about finding a chemical that will
 bounce out the colors you
 want. These chemicals are
 called pigments.
 Some chemicals, such as
 carbon,
 absorb
 most light
 waves and
 bounce out
 very little. So
 we can kind
 of fake
 blackness
 that way.
 Other
 chemicals, like
 the metal
 titanium
 combined with
 oxygen, bounce out most
 colors of light and can be used to
 make white paint.

P.S. from Beakman: Why is black hot? I mean the temperature, not the moody art-student look. Black absorbs all the light waves and then turns them into heat because nothing ever just disappears - not light waves, not moody art students.