

Name: _____ Date: _____ **Bill**

Nye the Science Guy Light & Color

1. _____ light is a mixture of all the colours of the rainbow.
2. When white light passes through a prism it breaks up into all the _____, called the _____ of colours.
3. The orange fruit looks orange because it _____ the colour orange and _____ all the other colours.
4. When light is absorbed, it is changed to _____.
5. Mixing all colours of light makes _____ light; mixing all colours of paint results in a _____ color.
6. Neon lights are filled with neon gas, which is then excited by high voltage _____ and becomes colourful.
7. Red absorbs all colours of light, except _____.
8. The colour _____ absorbs most of the heat from the sun and reflects very little; wearing _____ allows you to stay cool because the clothes will reflect most of the light.
9. Red light is made of _____ and _____ waves; blue light is _____ and _____ waves.

10. Why is the sky blue?

11. Why does water look blue on a sunny day?

Bill Nye: Light and Color Video Quiz

Circle the correct word or phrase to make the sentence correct.

1. The colour of an object is the colour it ABSORBS / REFLECTS.
2. The colours of the rainbow CAN / CAN'T be broken down or separated further.
3. The PHOTONS / CHEMICALS in the skin of fruits and vegetables absorb and reflect light to make them look like different colours.
4. Black light is seen when light is almost completely ABSORBED / REFLECTED. The energy is then changed from HEAT / COLOUR to HEAT / COLOUR.
5. A LASER / SPECTRUM is a very intense beam of light.
6. The colour RED / BLUE has a long wavelength, while the colour RED / BLUE has a short wavelength.
7. Our sky appears blue because the atmosphere ABSORBS / SCATTERS more blue light than any other colour.

Write the word "true" or "false" beside each of the following statements.

1. Mixing colors of paint gives you the same result as mixing colours of light.
2. White light has no colour.
3. Each color of the rainbow can be broken up into other colours using a prism.
4. An orange looks orange because the chemicals in its skin absorb orange light.
5. Much of the light that a black cloth absorbs is changed to heat.
6. We can always see the beam of light from a laser.
7. Different colours of light from the sun have different wavelengths.
8. Blades of grass absorb all other wavelengths of light except green.