**Bill Nye the Science Guy**

**Light & Color**

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_ Class \_\_\_\_\_\_\_

**As you view the video, answer the following questions.**

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ light is a mixture of all the colors of the rainbow.
2. When white light passes through a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ it breaks up into the color spectrum.
3. The orange fruit looks orange because it \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the color orange and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ all the other colors.
4. Why does a black cloth feel warmer in the sun?
5. The neon in the tubes lights up because the electricity \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the particles (electrons) in the neon gas.

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1. Red absorbs all colors except \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ reflects all colors.
3. The color of an object is the color of the light it \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ light is long, slow waves.
5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ light is fast, short waves.
6. Why is the sky blue? \_\_\_\_\_\_\_\_\_\_\_\_\_ light gets scattered a lot more than \_\_\_\_\_\_\_\_\_\_\_\_, so the sky appears blue.
7. The water reflects the light from the sky so on a clear day, bodies of water appear \_\_\_\_\_\_\_\_\_\_\_\_\_\_.
8. White objects \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ all colors. Black objects \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ all colors.