

Light Energy Study Guide

Vocabulary to know:

refraction wave reflection absorb spectrum light

Write each vocabulary word on the line in front of its definition. Spell well!

1. _____ white light split into the many visible colors
2. _____ to make light **bend**
3. _____ when something (such as light) **bounces** off an object
4. _____ a form of energy
5. _____ the way that light travels
6. _____ when light is taken in by an object, and changed to heat

Light can be reflected, refracted, and absorbed. Label each situation to tell what it demonstrates.

Situation	What it Demonstrates (Light is...)
a black shirt on a sunny day	
sunlight shines through raindrops and forms a rainbow	
a mirror causes light to change its direction	
a white shirt on a sunny day	
water causes a straw to look bent, even though the straw is actually straight	

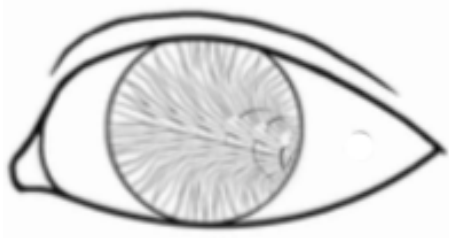
1. Tell one use that people have for lasers (concentrated light of only one color).

2. Tell an example of a time you have seen light split into the colors of a rainbow.

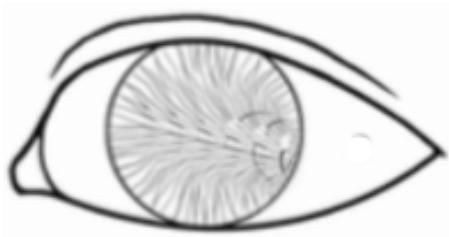
3. God used the rainbow as a sign of his promise to Noah and everyone on earth. What promise did God make to Noah?

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4. Draw the way your pupil would look when the light is very dim.



5. Draw the way your pupil would look when the light is very bright.



6. Explain why your pupil changes size when the amount of light changes.

Objects can be transparent, translucent, or opaque. Write *transparent*, *translucent*, or *opaque* to describe each of these objects. *The test may have different objects listed; be sure you understand the meaning of these categories!

1. _____ a cardboard box
2. _____ a piece of waxed paper
3. _____ a clear plastic cup
4. _____ a lampshade
5. _____ window glass
6. _____ a brick