

light study guide



vocabulary

light	A form of electromagnetic energy that we can see
prism	Object that separates white light and bends it into the colors that make it up
spectrum	Range of light waves with different wavelengths and energies
shadow	Places where light does not pass
reflection	Takes place when light bounces off a surface at an angle
refraction	Bending of light
lenses	Tools that refract light
convex lens	Light rays are brought together at a focal point, bulge in the middle
concave lens	Light rays are spread apart, curve inward
opaque	Objects block all light and create shadows such as a desk, a person, a muddy or polluted pond
transparent	Objects allow all light to pass through them and are things like glass or clear plastic or drinking water
translucent	Objects allow some light to pass through and may look blurry like a stained glass window

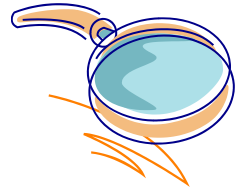
other facts



*White light is made of 7 colors:

ROY G BIV- red, orange, yellow, green, blue, indigo, violet-
these are the colors we see from the prism

*The closer an object is to a light source, the bigger the shadow



*Light coming from above an object creates a shorter shadow than light coming from the side of an object

*A shadow with clean sharp edges is cast when an object is close to its shadow

* A large blurry shadow is cast when an object is far from its shadow

*Opaque materials cause shadows when light strikes them

*Convex lenses are used in magnifying glasses, cameras, microscopes, and telescopes

* A smooth and shiny surface reflects light most clearly

*A white object reflects all colors

*A colored object absorbs some colors and reflects only the color we can see- for example, a blue object absorbs some colors and then reflects blue light

* Water droplets separate light so you can see a rainbow