

1) Pathway of light: \* We see objects because they reflect light  
Light bulb → ball (object) → child's eye

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2) Lightning and thunder happens at the same time. However, light travels faster than sound, so the light gets to your eye before the sound reaches your ear.

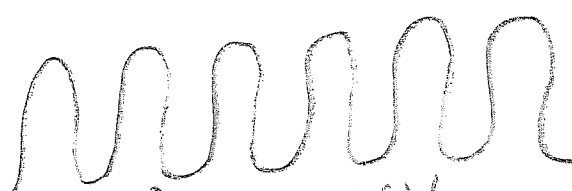
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3) Light colored clothes REFLECT more sunlight than dark colored clothes.  
OR  
Dark colored clothes ABSORB more sunlight than light-colored clothes.

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4) A bell rings: The bell vibrates - causes air around it to vibrate - creating sound waves.

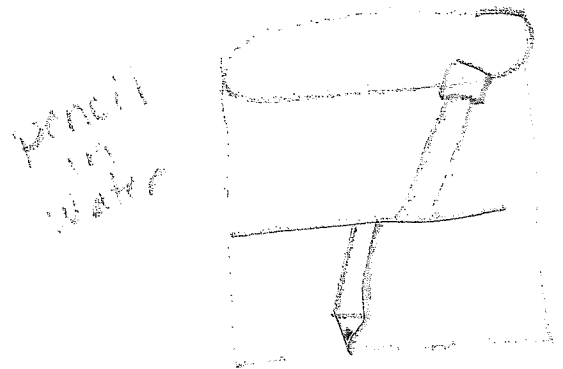
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5)   
High frequency  
High Pitch

  
Low frequency  
Low pitch

- b) Transparent: Let most of the light through  
Translucent: Let some light through  
Opaque: Light does not pass through
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→ Light is REFRACTED when it passes through different substances (air, water, glass).  
When light hits the water, it is "bent" because it is not traveling as quickly through the water as it was through the air. The pencil appears broken because light reflected from the pencil to our eye is traveling at different speeds through the air and water.



b) An apple looks red → it reflects only RED light. (absorbs the rest)

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a) A surface looks DULL because a rough surface reflects light rays in many different directions.

A surface looks shiny because a smooth surface reflects most light rays in the same direction.