

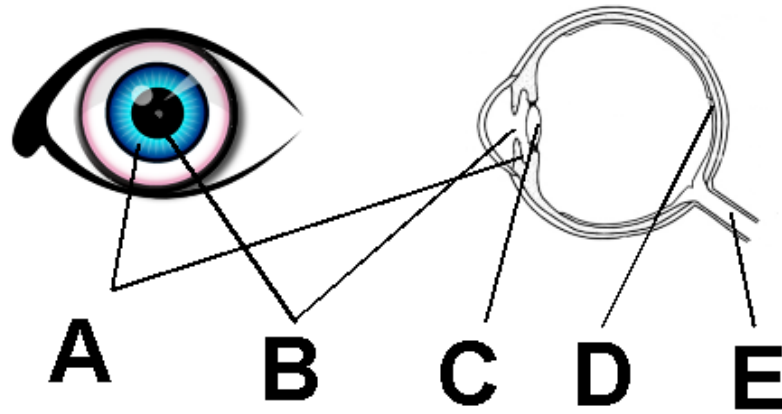
Name \_\_\_\_\_

Heat, Light, and Sound Review

Heat			
1	Name the three types of heat transfer.	Describe them.	Give an example of each.
	1. conduction	heat transfer through touch	egg frying on a pan
	2. convection	heat transfer through liquid or gas	boiling water
	3. radiation	heat moving in all direction	fire
2	Heat energy moves from:	Warmer to Cooler	Cooler to Warmer <del>X</del>
3	Define Temperature:	measurement of heat energy	
4	What unit do we use to measure temperature?	degrees	
5	Describe the convection current.	hot up, cold down	
6	Convection works in which two phases of matter.	liquids and gasses	
7	Conduction works with which phase of matter?	solids	
8	What is the most well known source of heat for the planet?	Sun	Bonus: Does it actually send heat to the planet? No, it's radiant energy (light) is absorbed by the planet and converted to heat
9		Defintiion	Examples
	Copnductor	easily transfer heat	metals, wax, water
	Insulator	doesn't easily transfer heat	plastic, rubber, wood, styrofoam, glass

Light									
1	Light is known as a <u>                    radiant                    </u> energy.								
2	Describe the light spectrum. <b>ROYGBIV</b>								
3	List some natural sources of light. <b>lightning fire                      lightning bugs glow worms</b>								
4	Define reflection <b>light bouncing off of a surface</b>								
5	Define refraction <b>light bending as it moves different speeds through different mediums</b>								
6	There are three different adjectives used to describe an object depending on how much light it lets through. Describe those three words.								
	Transparent <b>allows all light to pass through</b>								
	Translucent <b>allows some light to pass through</b>								
	Opaque <b>allows no light to pass through</b>								
7	List some things that could affect the shadow of an object. <b>angle of light                      distance of light level of transparency                      size of object</b>								
8	Describe the spectrum of radiant energies								
	<table border="1" style="width: 100%; text-align: center;"> <tr> <td>Radio Waves</td> <td>TV</td> <td>Microwaves</td> <td>Infra Red</td> <td>Light</td> <td>Ultra Violet</td> <td>X-Ray</td> <td>Gamma</td> </tr> </table>	Radio Waves	TV	Microwaves	Infra Red	Light	Ultra Violet	X-Ray	Gamma
Radio Waves	TV	Microwaves	Infra Red	Light	Ultra Violet	X-Ray	Gamma		
	<b>lower</b> _____ Frequency <b>higher</b> _____ Frequency								
	<b>lower</b> _____ Energy <b>higher</b> _____ Energy								
	<b>longer</b> _____ Wavelength <b>shorter</b> _____ Wavelength								

9.



Describe the different parts of the eye.

A – Iris	opens and closes depending on how much light
B – Pupil	hole in the eye which lets in light; gets bigger and smaller as the iris opens and closes
C – Lens	refracts the light onto the retina
D – Retina	changes the light into the electrical signal for the brain
E – Optic nerve	sends the signals to the brain

Sound		
1	Sound is just <u>vibrations</u> in the air.	
2	Define the word pitch.	<p>how high or low a sound is</p> <p>Now use it in a sentence. The higher pitch keys of a piano are to the right.</p>
3	Define volume.	How loud a sound is
4	What unit do we use to measure sound?	Decibels
5	Describe how sound moves.	<p>in waves</p> <p>compresses and spreads apart</p> <p>moves in all directions</p>
6	The higher the frequency of a sound the ( <u>closer</u> / <del>further apart</del> ) the particles will be.	
7	How might deaf people be able to communicate?	<p>lip reading</p> <p>sign language</p>
8	List some ways to prevent hearing loss.	<p>wearing ear protection</p> <p>turning down loud music</p> <p>properly clean ears</p>
9	Label the parts of the ear.	
<p>The diagram shows a cross-section of the human ear. Labels with arrows point to the following parts: ear canal (the opening of the ear), outer ear (the pinna), ear drum (the membrane separating the outer ear from the middle ear), middle ear bones (the three small bones in the middle ear), nerve (the auditory nerve), and cochlea (the spiral-shaped structure in the inner ear).</p>		