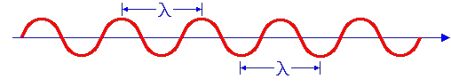


Name _____

Behavior of Waves Research



Directions – Go to the following website to gather information about behavior of waves.
https://science.nasa.gov/ems/03_behaviors

1. What is Reflection?
2. What type of surface will reflect almost all light?
3. The _____ of an object is actually the wavelengths of the light _____ while all other wavelengths are _____.
4. This reflective behavior of light is used by lasers onboard NASA's Lunar Reconnaissance Orbiter to map the surface of the _____.

Draw a picture of Refection

5. What is absorption?
6. What does the absorbed light turn into?
7. What color absorbs the most light energy?
8. Why is the black pavement hotter than a light colored concrete sidewalk?
9. What is it called when the warming of air above cities influences the weather?

Draw a picture of Absorption

10. What is diffraction?
11. What tool uses diffraction to separate light wavelengths?
12. Patterns in a spectral signature help scientists identify the physical condition and composition of _____ and _____ matter.

Draw a picture of Diffraction

13. What is scatter?
14. Why does the sky appear blue? (must use 3-5 sentences)

Draw a picture of Scatter

15. What else in the atmosphere scatters light?
16. What is refraction?

Draw a picture of Refraction

17. Light travels slower in _____ than in a _____, and even slower in _____.

18. What causes light to bend?

19. Different _____ of light are slowed at different _____, which causes them to bend at different _____.

Video: Light Optics

1. Light can _____ off of things. Light can be _____. Or light can be _____.
2. What do the two kids make with a milk carton & mirrors?
3. Light travels in a _____ line unless it hits something or is pulled by gravity.
4. Scientists like to think of light as traveling in _____.
5. A remote control uses _____ light.
6. The way a lense is _____ effects how it bends light.
7. _____ lenses make things look smaller.
8. _____ lenses make things look bigger.
9. When light _____ down, it changes direction.
10. The _____ point is where the beams of light come together.
11. _____ reflection is reflection inside.
12. Heat is _____ light.
13. White light contains all the colors of the _____.