Waves, Sound, and Light Internet Experience Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Go to this site: [http://www.hal-pc.org/~clement/Simulations/Mixing Colors/rgbColor.html](http://www.hal-pc.org/~clement/Simulations/Mixing%20Colors/rgbColor.html)
   1. Use the mouse to move the circles so that they are overlapping.

-What color do you get when all three overlap?\_\_\_\_\_\_\_\_\_\_\_\_\_\_

-What color does red and green make?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

-What color does green and blue make?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

-What color does red and blue make?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* 1. Click the right mouse button twice quickly. What color do you get when all three of these overlap?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

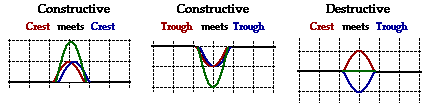
1. Go to this site: <http://www.acs.psu.edu/drussell/demos/waves/wavemotion.html>

a. Watch the red dot in the Longitudinal Wave. Describe its motion\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

b. Watch the Transverse Wave. As the energy moves to the right, describe the movement of the dots.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Go to this site: <http://www.physicsclassroom.com/Class/sound/U11L3a.html>

Write Constructive or Destructive in the yellow boxes below.



3. Go to <http://www.ndt-ed.org/EducationResources/HighSchool/Sound/tempandspeed.htm>

What is the speed of sound at 45ºC?\_\_\_\_\_\_ 21 ºC?\_\_\_\_\_\_\_\_\_ -1 ºC?\_\_\_\_\_\_\_\_

1. Go to this site: <http://science.hq.nasa.gov/kids/imagers/ems/waves2.html>

Fill in the blanks below:

“Electromagnetic waves are formed when an \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_field (which is shown in blue arrows) couples with a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_field (which is shown in red arrows). Magnetic and electric fields of an electromagnetic wave are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_to each other and to the direction of the\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.”

3. Click on “Different kinds of electromagnetic waves have different wavelengths.”

Scroll down to the electromagnetic spectrum graphic and fill in the table below. See how the first example is done for you.

|  |  |  |
| --- | --- | --- |
|  | Wavelength (cm) | About the size of… |
| Radio Waves  -TV  -cell phones  -long wavelengths  -low energy | 104 102 | Buildings, humans |
| Microwaves |  |  |
|  |  |  |
| Visible |  |  |
|  |  |  |
|  |  |  |
| Gamma |  |  |

USATestprep

Longitudinal Wave Characteristics Grade\_\_\_\_\_\_\_\_\_\_

Matching EM\_\_\_\_\_\_\_\_\_\_\_\_\_

Matching Waves\_\_\_\_\_\_\_\_\_\_\_\_\_

Speed of Sound Medium\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_