

Wave Worksheet  
Electromagnetic Spectrum

Name \_\_\_\_\_

Match each kind of wave with one item from column one and one item from column two.

COLUMN 1	WAVE	COLUMN 2
<b>A.</b> used in remote controls for TVs and VCRs _____	RADIO _____	<b>H.</b> used to find a broken bone or illegal plane carry-on
<b>B.</b> goes through most matter except bone and lead _____	MICROWAVE _____	<b>I.</b> used to kill bacteria on food
<b>C.</b> highest frequency and energy _____	INFRARED _____	<b>J.</b> ROY G. BV
<b>D.</b> can cause skin cancer or promote vitamin D production _____	VISIBLE _____	<b>K.</b> shortest wavelength
<b>E.</b> longest wavelength _____	ULTRAVIOLET _____	<b>L.</b> most dangerous waves
<b>F.</b> used to transmit cellular phone calls _____	X-RAY _____	<b>M.</b> TV signals, and used in remote control devices like car alarms and garage door openers
<b>G.</b> wavelengths and frequencies that can be seen by the human eye _____	GAMMA _____	<b>N.</b> radiant heat rays

15. As you go from left to right across the electromagnetic spectrum what happens to the frequency and energy of the waves? \_\_\_\_\_

\_\_\_\_\_

16. What happens to the speed of light as it enters a different medium? \_\_\_\_\_

\_\_\_\_\_

17. Which color of the visible light portion of the electromagnetic spectrum has the highest frequency and the most energy? \_\_\_\_\_

\_\_\_\_\_

18. Which color of the visible light portion of the electromagnetic spectrum has the lowest frequency and the least energy? \_\_\_\_\_

19. What type of wave is a radio wave? \_\_\_\_\_ an infrared wave? \_\_\_\_\_