

**Chapter 18 The Electromagnetic Spectrum and Light**  
**Section 18.2 The Electromagnetic Spectrum**  
 (pages 529–545)

Name \_\_\_\_\_  
 Period \_\_\_\_\_  
 Date \_\_\_\_\_

*This section identifies the waves in the electromagnetic spectrum and describes their uses.*

**1. Complete the table for the electromagnetic spectrum. List at least two uses for each kind of wave.**

<b>The Electromagnetic Spectrum</b>		
<b>Type of Wave</b>	<b>Use #1</b>	<b>Use # 2</b>

**The Waves of the Spectrum**

- 2.** Is the following sentence true or false? (circle one - *If it is false change it to make it true*).  
 William Herschel determined that the temperature of colors of light was higher at the blue end and lower at the red end.
- 3.** Herschel’s curiosity led him to conclude there must be invisible \_\_\_\_\_ beyond the red end of the color band.
- 4.** Is the following sentence true or false? (circle one - *If it is false change it to make it true*).  
 The full range of frequencies of electromagnetic radiation is called the electromagnetic spectrum.
- 5.** Name each kind of wave in the electromagnetic spectrum, from the longest to shortest wavelength.

**Radio Waves**

- 6.** Circle the letter of each way that radio waves might be used.  
 a. x-ray machines      b. microwave ovens      c. radio technology      d. television technology
- 7.** Explain the difference between amplitude modulation (AM) and frequency modulation (FM)?
- 8.** How do microwaves cook food?