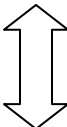


Guided Reading Chapter 25 Section 1

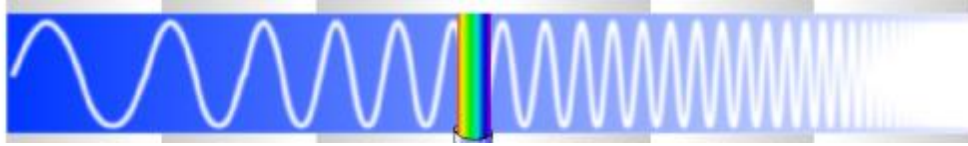
1. Light is a form of \_\_\_\_\_, just like heat and sound.
2. Look through the section and name at least three useful properties of light.
3. Remember back to chapter 12 when you learned about atoms. Explain how atoms are responsible for creating light.
4. Light travels at \_\_\_\_\_ meters/second!
  - a) 170
  - b) 300,000,000
  - c) 1 million
5. Why are fluorescent bulbs more efficient than incandescent bulbs?
6. What is color?
7. White light is a \_\_\_\_\_ mixture of all the colors.
  - a) observable
  - b) unequal
  - c) equal
8. A \_\_\_\_\_ flame has a higher energy than a \_\_\_\_\_ flame.
  - a) red, blue
  - b) green, blue
  - c) blue, red
9. Complete the table.

Energy	Color	Wavelength (nm)	Frequency (THz)
_____  <u>high</u>	Red		462
		600	500
	Yellow		
	green		566
		470	
	violet		750

10. Oscillations of electricity and magnetism create \_\_\_\_\_ waves, which include visible light waves.
11. Describe an electromagnetic wave, using a magnet as an analogy.

12. Label the waves on the electromagnetic spectrum.

### The electromagnetic spectrum



13. Why is it not possible to see the other waves on the electromagnetic spectrum?

14. As wavelength decreases, frequency and energy \_\_\_\_\_;

- a) increase                      b) decreases                      c) remain the same

15. Name a reptile and insect that can detect other frequencies of light. List the frequency as they detect.