

Guided Reading Chapter 12 Section 2

1. What is a spectrum?
2. A \_\_\_\_\_ spreads light into its own individual colors.  
a) meter stick      b) microscope      c) spectroscope
3. The smallest amount of light energy is called a \_\_\_\_\_.  
a) light bulb      b) photon      c) ion
4. \_\_\_\_\_ were originally proposed by Niels Bohr.
5. Explain Figure 12.11 in your own words.
6. A theory that attempts to explain particles that are very small is called the \_\_\_\_\_.
7. What is Heisenberg's "uncertainty principle?"
8. Electrons have \_\_\_\_\_ energy when they are farther away from the nucleus.  
a) more      b) less      c) the same
9. How many electrons can occupy space in the first, second, third, and fourth energy levels of the electron cloud?
10. Draw electron diagrams for the elements C, N, and O.