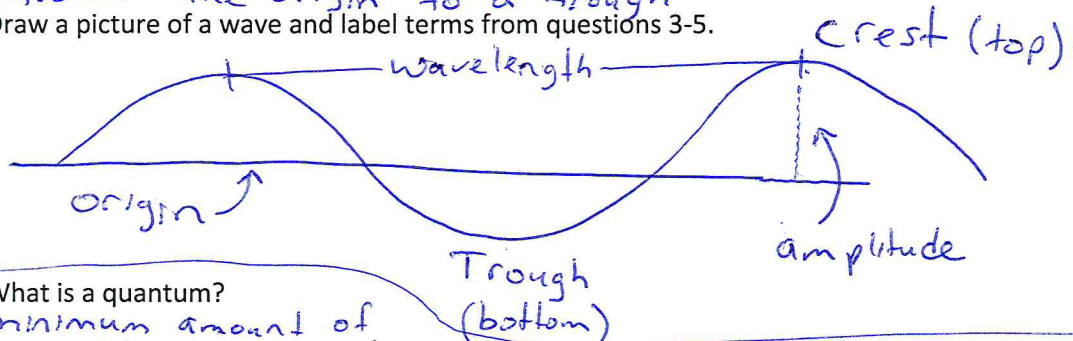


Name: Key Date: _____ Class: _____ Hour: _____

Chapter 5 Study Guide

1. What is electromagnetic radiation? Visible light form of energy that exhibits wavelike behavior as it travels through space. (Energy)
2. What is the atomic emission spectrum? Set of frequencies of the electromagnetic waves emitted by atoms of the element.
3. Define wavelength. Shortest distance between equivalent points on a continuous wave.
4. Define frequency. Number of waves that pass a given point per second
5. Define amplitude. Waves height from the origin to a crest or from the origin to a trough
6. Draw a picture of a wave and label terms from questions 3-5.



7. What is a quantum? minimum amount of energy that can be gained or lost by an atom
8. What does the s-orbital look like? (draw)

○ like a ball

9. What does the p-orbital look like? (draw)

∞ dumbbell shape

10. What does the d-orbital look like? (draw)



11. What is the maximum number of electrons are in the s-orbital?

2 electrons

12. What is the maximum number of electrons are in the p-orbital?

6 electrons

13. What is the maximum number of electrons are in the d-orbital?

10 electrons

14. What is the maximum number of electrons are in the f-orbital?

14 electrons