1. Atoms are made of three basic components. Name these three particles.

2. One of two forces that hold atoms together is called _____ _____.

3. A particle with a negative charge that was discovered by English physicist, _____, is called the _____.

4. Several scientists, including Ernest Rutherford, performed an experiment that helped improve the model of atom by realizing the inner core of the atom housed most of the mass. This core has a special name, the _____.

   a) electron b) nucleus c) proton

5. The two particles that make up most of the mass of the atom are called the _____ and the _____.

   a) proton, electron b) neutron, electron c) proton, neutron

6. Which particle occupies the space outside the nucleus, in a "cloud?"

7. Complete the following table, comparing forces within atoms.

Electromagnetic force		Compared to our solar system – planets don't fall into the Sun
	Attractive force between the proton and the neutron	Strongest force known to science
Weak force	A force that is significant when atoms break apart.	
	The weakest force	An unsolved mystery in science

8. The number of _____ is different for each element and is known as the _____ number.

9. The electric charge on an atom is neutral because the number of protons is the same as the number of _____, and each of their individual charges cancel out.

10. _____ are atoms of the same element with a different number of neutrons.