

Name: _____

Date: _____

Electrons

1. Electrons are found outside the nucleus.
 - a. True
 - b. False
2. Valence electrons are the electrons in the outermost shell.
 - a. True
 - b. False
3. The electron cloud is a visual model of the probable locations of electrons in an atom.
 - a. True
 - b. False
4. Electrons have what type of charge?
 - a. positive
 - b. negative
 - c. neutral
 - d. none
5. The scientist who first discovered electrons was_____.
 - a. Rutherford
 - b. Bohr
 - c. Thompson
 - d. Democritus
6. What can you conclude from the fact that electrons orbit far away from the atomic nuclei?
 - a. Electrons are extremely small.
 - b. Protons have a positive charge.
 - c. Atoms consist of subatomic particles.
 - d. Atoms are mostly empty space.
7. What is the maximum number of electrons that can fit in the first energy level around the nucleus of an atom?
 - a. 2
 - b. 8
 - c. 13
 - d. 18
8. What is the greatest number of valence electrons an atom can have?
 - a. 2
 - b. 3
 - c. 8
 - d. 12
9. When an atom gains an electron, it
 - a. acquires a negative charge and becomes a negative ion.
 - b. acquires a positive charge and becomes a positive ion.
 - c. becomes electrically neutral.
 - d. always has an uneven number of valence electrons.
10. Which of the following best describes an electron?
 - a. It has no charge and about the same mass as a proton.
 - b. It has a negative charge and much less mass than a proton.
 - c. It has a positive charge and much more mass than a neutron.
 - d. It has a negative charge and about the same mass as a neutron.