

Name: Key  
Static electricity HW

Period: \_\_\_\_\_  
Date: \_\_\_\_\_

1-9. Complete the paragraph below using the word bank provided.

*Lose      Positively      Gain      Electrons      Equal*  
*Negatively      Nucleus      Atoms      Electrons      Neutrally*

Matter is made up of tiny particles called atoms. Protons and neutrons are found in the nucleus of an atom. Electrons spin around the outside of the nucleus. Protons are + charged, neutrons are 0 charged, and electrons are - charged. Typically, atoms are neutral because they contain equal numbers of protons and electrons. However, if atoms lose electrons, then they can become positive. If atoms gain electrons, they can become negative.

10. What is more likely to happen: an atom losing a proton or an atom losing an electron? Why?

Electrons, because protons are held tight in the nucleus.

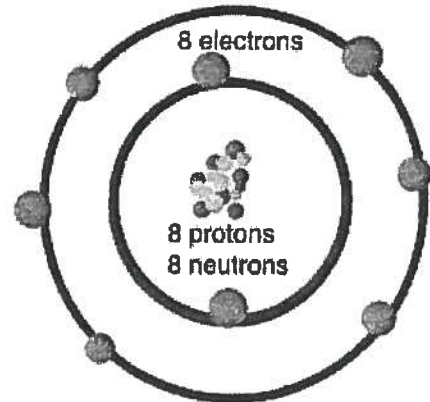
11. The diagram at the right depicts an atom of oxygen. It has 8 protons and eight electrons.

- What has to happen for it to become positive?

- a. Gain a proton
- b. Gain an electron
- c. Lose a proton
- ☒ d. Lose an electron

- What has to happen to it to become negative?

- a. Gain a proton
- ☒ b. Gain an electron
- c. Lose a proton
- d. Lose an electron



12. Finish these statement about charged objects by using the symbols  $>$ ,  $<$ , or  $=$ .

- For negatively charged objects the # of electrons  $>$  than the # of protons.
- For positively charged objects the # of electrons  $<$  than the # of protons.
- For neutrally charged objects the # of electrons  $=$  the # of protons.

13. During a science experiment, a neutrally charged plastic rod was rubbed with a wool cloth. The rod then became positively charged. Why?

- a. It stripped electrons from the piece of wool.
- ☒ b. The piece of wool stripped electrons from the plastic rod.
- c. It lost protons to the piece of wool.