

# VALENCE ELECTRONS

Name \_\_\_\_\_

The valence electrons are the electrons in the outermost principal energy level. They are always "s" or "s and p" electrons. Since the total number of electrons possible in s and p sublevels is eight, there can be no more than eight valence electrons.

Determine the number of valence electrons in the atoms below.

**Example:** carbon

Electron configuration is  $1s^2$   $2s^2 2p^2$  .

Carbon has 4 valence electrons.

1. fluorine \_\_\_\_\_

11. lithium \_\_\_\_\_

2. phosphorus \_\_\_\_\_

12. zinc \_\_\_\_\_

3. calcium \_\_\_\_\_

13. carbon \_\_\_\_\_

4. nitrogen \_\_\_\_\_

14. iodine \_\_\_\_\_

5. iron \_\_\_\_\_

15. oxygen \_\_\_\_\_

6. argon \_\_\_\_\_

16. barium \_\_\_\_\_

7. potassium \_\_\_\_\_

17. aluminum \_\_\_\_\_

8. helium \_\_\_\_\_

18. hydrogen \_\_\_\_\_

9. magnesium \_\_\_\_\_

19. xenon \_\_\_\_\_

10. sulfur \_\_\_\_\_

20. copper \_\_\_\_\_