

Name \_\_\_\_\_

H Chem, Period \_\_\_\_\_

### *The Periodic Table*

1. What is periodicity or the periodic law? How does periodicity affect the organization of the periodic table?
2. What do elements in the same period have in common?
3. What do elements in the same group have in common?
4. Why are the alkali metals and the halogens very reactive? Explain.
5. Which group is the most unreactive? Explain.
6. If you find an element in nature in its pure elemental state, what can you infer about the reactivity of the element?
7. What period are the following elements in?
  - a. He \_\_\_\_\_
  - b. Ge \_\_\_\_\_
  - c. Rb \_\_\_\_\_
  - d. I \_\_\_\_\_

8. What group are the following elements?

a. Sulfur \_\_\_\_\_

b. Ca \_\_\_\_\_

c. Iodine \_\_\_\_\_

d. Fe \_\_\_\_\_

9. Name an atom with the following characteristics.

a. Halogen \_\_\_\_\_

b. Metalloid \_\_\_\_\_

c. Alkali metal \_\_\_\_\_

d. Noble metal \_\_\_\_\_

e. Lanthanide series \_\_\_\_\_

f. Alkaline Earth metal \_\_\_\_\_

g. Transition metal \_\_\_\_\_

h. Noble gas \_\_\_\_\_

10. What is the atomic symbol for silver?

11. What is the name and symbol for the alkaline earth metal in period 6?

12. Ni is the symbol for what element? What family is it in?

13. The element that has the atomic number 17? What group is it in?

14. List the symbols for two transition metals in period 4.

15. Name and give a symbol of one noble metal?

16. Name and give the symbol for the noble gas in period 5.

17. Give the name and symbol for the halogen in period 4.

18. What is the symbol for element with atomic number 74?

19. What is the name and symbol for the alkali metal in period 3?

20. Why do atoms lose or gain electrons? Explain each.