

Name: \_\_\_\_\_ Date: \_\_\_\_\_

## CHEMISTRY

### Periods and Groups

Atomic number — 5      10.811 — Atomic mass

B — Symbol

Boron — Name

Legend:

- Alkali metal
- Alkaline earth metal
- Metal
- Transition metal
- Lanthanide
- Metalloid
- Non-metal
- Halogen
- Noble gas
- Actinide

**Periods** are horizontal rows on the periodic table. Periods are numbered 1 to 7, top down on the periodic table. Period 1 begins at Hydrogen (H). Period 7 begins at Francium (Fr).

**Groups** are vertical columns on the periodic table. Groups are numbered **1A to 8A** from left to right across the periodic table (excluding the transition metals, lanthanide series metals, and actinide series metals).

Group 1A Alkali metals (H)  
 Group 2A Alkaline earth metals (Be)  
 Group 3A Boron group elements (B)  
 Group 4A Carbon group elements (C)

Group 5A Nitrogen group elements (N)  
 Group 6A Oxygen group elements (O)  
 Group 7A Halogen elements (F)  
 Group 8A Noble Gas elements (He)

**Groups** are numbered **3B to 12B** from left to right across the periodic table for the **transition metals only**.

Group 3B Sc      Group 8B Fe  
 Group 4B Ti      Group 9B Co  
 Group 5B V      Group 10B Ni  
 Group 6B Cr      Group 11B Cu  
 Group 7B Mn      Group 12B Zn

**Element identification.** Write the chemical symbol for the element at the given location on the periodic table of the elements. The location is written as “Period, Group”. The chemical symbol for an element may be 1 or 2 letters. If 1 letter, it must be capitalized. If 2 letters, the first letter is capitalized and the second letter is lower case.

|                       |  |                         |  |
|-----------------------|--|-------------------------|--|
| 1. Period 1, Group 1A |  | 9. Period 4, Group 3B   |  |
| 2. Period 1, Group 8A |  | 10. Period 6, Group 6B  |  |
| 3. Period 3, Group 3A |  | 11. Period 5, Group 12B |  |
| 4. Period 2, Group 6A |  | 12. Period 4, Group 7B  |  |
| 5. Period 5, Group 2A |  | 13. Period 5, Group 11B |  |
| 6. Period 4, Group 5A |  | 14. Period 6, Group 4B  |  |
| 7. Period 4, Group 8A |  | 15. Period 5, Group 5B  |  |
| 8. Period 3, Group 6A |  | 16. Period 4, Group 12B |  |