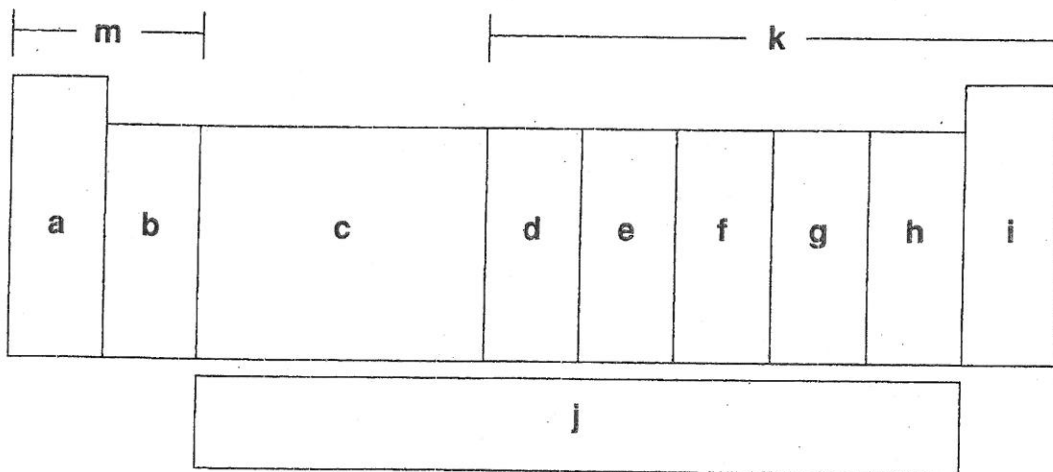


5-2 Review and Reinforcement

Reading the Periodic Table

On the line at the left, write the letter of the appropriate location of each group of elements on the periodic table below. Some letters will be used more than once.

- | | | | |
|----------|----------------------------|----------|--|
| <u>e</u> | 1. carbon family | <u>j</u> | 8. f-block elements |
| <u>b</u> | 2. alkaline earth metals | <u>i</u> | 9. noble gases |
| <u>j</u> | 3. inner transition metals | <u>k</u> | 10. p-block elements |
| <u>h</u> | 4. halogens | <u>f</u> | 11. nitrogen family |
| <u>c</u> | 5. d-block elements | <u>m</u> | 12. s-block elements |
| <u>g</u> | 6. oxygen group | <u>l</u> | 13. transition metals |
| <u>a</u> | 7. alkali metals | <u>d</u> | 14. group of one semimetal and four metals |



Use the skills you developed in Section 5-2 to answer each of the following questions.

Below is the abbreviated electron configuration for sodium. Explain each part of this configuration in the space provided.

- [Ne] 3s¹
- The noble gas core (or Neon's e⁻ config, that is the same as Sodiums.
 - The energy level. (Third specifically) or principal quantum #
 - one e⁻ in the s-orbital
 - orbital shape or last orbital used

6-2 Review and Reinforcement (continued)

Identify each of the following elements as a metal (M), nonmetal (NM), or semimetal (SM).

- | | |
|------------------|--------------|
| <u> M </u> | 19. sodium |
| <u> SM </u> | 20. silicon |
| <u> NM </u> | 21. neon |
| <u> M </u> | 22. calcium |
| <u> NM </u> | 23. nitrogen |

Write the family names that have been given to each of the following groups.

24. Group 1A alkali metals
 25. Group 2A alkaline earth metals
 26. Group 7A halogens
 27. Group 8A noble gases

Answer each of the following questions in the space provided.

- +2 28. What information is contained in each of the 109 squares on the periodic table?
At the very least most have the elements symbol ie Al for Aluminum,
the atm number & atm. mass.
Some also include the element's name & electron configuration.
29. What properties distinguish metals from nonmetals?
 +2 Metals are good conductors of electricity & heat,
are malleable & ductile.
Are shiny (luster)
Most are solids at rm temp.
- +2 30. What is an electron configuration, and what does it tell you about an element?
Indicates the arrangement of e⁻ in an atom.
The config. of the valence e⁻ is largely responsible
for the atom's chem behavior.