

SECTION  
**5-3 Chemical Families**

(pages 122-131)

**KEY CONCEPTS**

▲ Elements within the same family of the periodic table have similar properties because they have the same number of valence electrons.

**Vocabulary Skills: Applying Definitions**

On the periodic table below, label each of the following:

actinoid series

alkali metals

alkaline earth metals

boron family

carbon family

halogen family

lanthanoid series

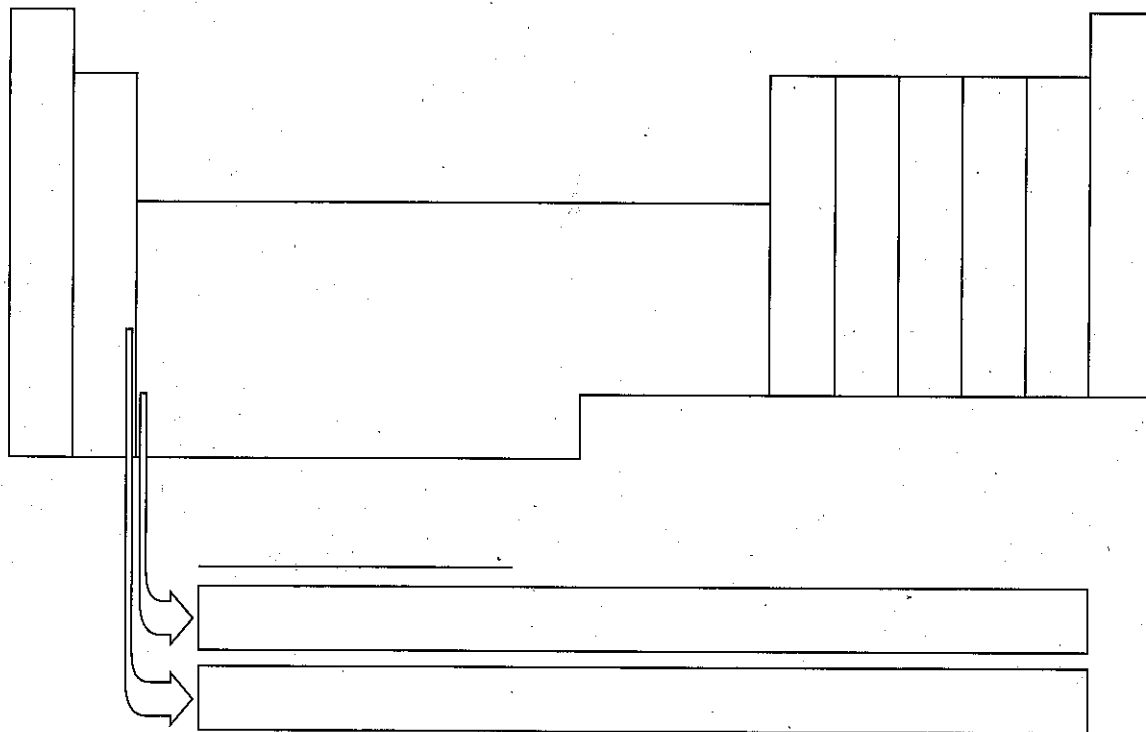
nitrogen family

noble gases

oxygen family

rare-earth elements

transition metals



## ■ Families of Elements: Understanding the Main Ideas

Listed below are some properties of elements. Write each property under the family of elements it applies to. Some of the properties will be used more than once.

- Atoms have 3 valence electrons.
- Atoms have 1 valence electron.
- Element called "basis of life" is in this group.
- Atoms tend to share electrons in chemical bonds.
- Atoms have 5 valence electrons.
- Never found in nature uncombined.
- Aluminum is in this group.
- Do not normally react with other elements.
- Atoms have 4 valence electrons.
- Most abundant element in the Earth's atmosphere is in this group.
- Atoms have 6 valence electrons.
- Atoms share or gain 1 electron in chemical bonds.
- Atoms have 2 valence electrons.
- Soft, silver-white, shiny metals.
- Atoms have 7 valence electrons.
- Most active nonmetals.
- Atoms have 8 valence electrons.

Alkali  
Metals

Alkaline  
Earth  
Metals

Boron  
Family

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**Carbon  
Family**

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**Nitrogen  
Family**

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**Oxygen  
Family**

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**Halogen  
Family**

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**Noble  
Gases**

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