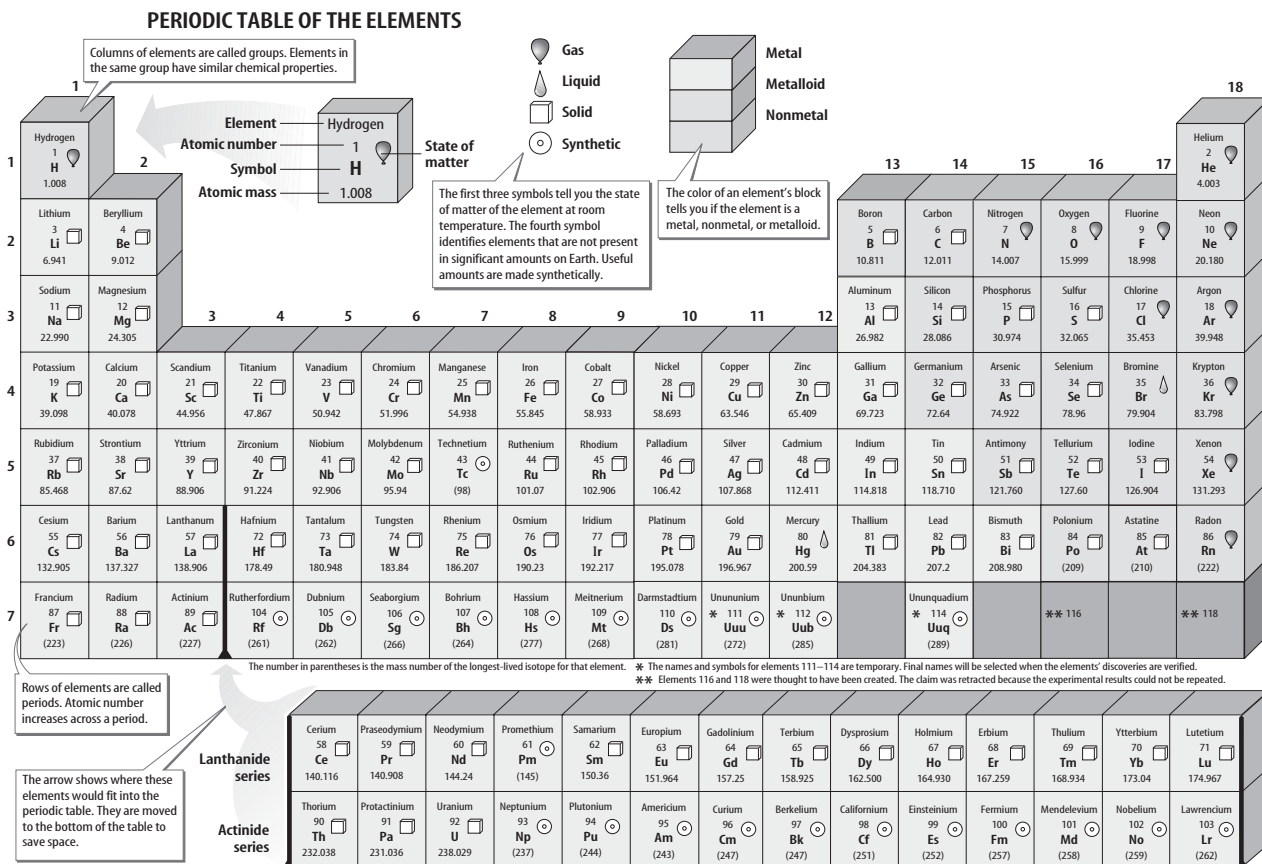


Directed Reading for Content Mastery

Overview The Periodic Table

Directions: Use the illustration of the periodic table to complete the tasks below.

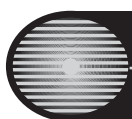


Meeting Individual Needs

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- Circle the noble gases family of elements. It contains helium. What is the group number? _____
- Draw an "X" (in red) through the element with the lowest atomic number. Name the element. What is the atomic number?

- Draw a box around the period that contains radioactive elements. It includes uranium. What are these called? _____
- Underline all of the elements in the oxygen family.
- Draw a line through the symbols of all elements in Period 3. List them.



Section 1 ■ Introduction to the Periodic Table

Directions: Label the following elements key using the terms listed below.

element name	atomic number	atomic mass	element symbol
1. _____	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> 1 H Hydrogen 1.008 </div>	3. _____	
2. _____		4. _____	

Directions: Use the data on the left to complete the two element keys below.

5. element name: **aluminum**

element symbol: **Al**

atomic number: **13**

atomic mass: **26.982**

6. element name: **gold**

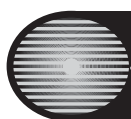
element symbol: **Au**

atomic number: **79**

atomic mass: **196.967**

Directions: In the blank on the left, write **True** if the statement is true. If the statement is false, change the word in *italics* to make it true.

- _____ 7. Groups 3–12 are metals and are called *representative* elements.
- _____ 8. *Nonmetals* are good conductors of heat and electricity.
- _____ 9. The elements in the periodic table are organized by their atomic *number*.
- _____ 10. There are seven *groups*, or rows, in the periodic table.



Directed Reading for
Content Mastery

Section 2 ■ Representative Elements

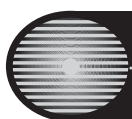
Section 3 ■ Transition Elements

Directions: Draw a line between each group or family name on the left to the element it contains on the right. Refer to the periodic table and, if necessary, to your textbook.

- | | |
|---------------------------------|-------------|
| 1. lanthanide series | iodine |
| 2. period 5 | potassium |
| 3. alkali metals family | cerium |
| 4. carbon family | boron |
| 5. period 2 | lead |
| 6. alkaline earth metals family | krypton |
| 7. noble gases family | einsteinium |
| 8. actinide series | calcium |

Directions: Circle the term in parentheses that correctly completes the sentence.

9. All of the elements in the actinide family are (liquids/radioactive).
10. Carbon, the first element in the carbon family, is a (metal/nonmetal).
11. The element with the least atomic mass is (hydrogen/helium).
12. Mercury is the only metal that is a (gas/liquid) at room temperature.
13. Nobel gases (rarely/often) combine with other elements.
14. Lanthanides are (inner transition/representative) elements.

**Directed Reading for
Content Mastery****Key Terms
The Periodic Table**

Directions: Complete the following sentences using the terms listed below.

catalyst
synthetic

representative
transition

period
metal

group
nonmetal

metalloid
semiconductor

1. A row of elements whose properties change gradually is called a _____.
2. _____ elements include metals, metalloids, and nonmetals.
3. A column of elements in the periodic table with similar properties is a _____ or family.
4. A _____ is usually shiny and conducts electricity well.
5. A _____ is usually a gas or brittle solid that is a poor conductor of electricity.
6. A _____ has properties of metals and nonmetals.
7. An element that conducts electricity better than a nonmetal but not as well as a metal is a _____.
8. Gold and silver are _____ elements.
9. A substance that can cause something to happen faster than it might have otherwise, but is not permanently changed itself, is called a _____.
10. _____ elements are made in laboratories.