

Chapter 12: Atoms and Elements

Lesson 1

Vocabulary Words

1. Atom
2. Protons
3. Nucleus
4. Neutron
5. Electron
6. Atomic number

The Atom: Guide Questions

- 1) Is an aluminum atom still aluminum?
- 2) What is an atom? What are its parts?
- 3) How are protons, neutrons, electrons alike?
- 4) How are protons, neutrons, electrons different?
- 5) Infer: Some of the first scientist who studied atoms found that most atoms have no charge, yet protons and electrons do have charges. What inference do these observations support?
- 6) If two substances have different atomic numbers, what can you infer about them?
- 7) What is the atomic number of an atom with 26 protons? With 55 protons?

Lesson 2: Elements

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Vocabulary Words

7. Elements
8. Metal
9. nonmetal

Guide Questions

- 1) Name some elements.
- 2) How do elements differ from one another?
- 3) What is the most common element in Earth?
- 4) What is the most common element in the Universe?
- 5) How might elements with greater atomic numbers form from hydrogen and helium?
- 6) How are the characteristics of electrical conductivity and malleability important to making or using the object?

Lesson 2: Periodic Table

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Vocabulary Words

- 1) Periodic Table

Guide Questions

- 1) How are elements in the same family alike?
- 2) How are elements in the same period alike?
- 3) Name some elements that normally exist as solids, liquid, and gases.
- 4) Which elements have been made in laboratories?
- 5) The elements in column 18 are all gases at room temperature. Name some of them.
- 6) Which columns are mostly metals?
- 7) Name some metals that are good conductors of heat and electricity.
- 8) What examples can you think of in which we use those properties to get jobs done?

Review for Test

- 1) Read and study Chapter 12: Lesson 1 and Lesson 2.
- 2) Read and study Guide Questions in the notebook.
- 3) Vocabulary:
 - a. Element
 - b. Compound
 - c. Proton
 - d. Electron
 - e. Neutron
 - f. Nucleus
 - g. Atomic number
 - h. Atoms
 - i. Metal
 - j. Non metals
- 4) Name the elements

Element	Name
Ca	
C	
H	
O	
N	
S	
Na	
Cl	

- 5) Draw an atom diagram for an element.