Name: _____ Date: _____ 6.1

History of Chemistry

Key Question: How does studying the history of chemistry help you understand modern chemistry?

Before You Read

Skim Section 6.1. On the lines below, predict what you will learn by reading this section.

_____

_____

Skimming Hints

- Read parts of the text quickly to get a general idea of what it is about.
- Read the first and last sentence of paragraphs—do not read every word.
- Consider how photos, diagrams, and tables fit with the ideas presented.

While You Read

1. Scanning can help you locate specific information, such as a word, fact, or idea. When you scan, you read down a page to locate specific facts or answers.

Scanning Hints

- Predict where in the section you might locate the fact.
- Think about how headings, diagrams, or highlighted words might guide you.
- Move your eyes quickly down the page, seeking specific words and phrases.

Scan the text on pages 184 to 186 to locate the following specific information:

- What replaced the beliefs of the alchemists?

_____

_____

- What was the purpose of ancient chemistry?

_____

_____

- Who thought all substances were some combination of air, fire, earth, and water?

_____

_____

Name: _____ Date: _____ 6.1

History of Chemistry (continued)

- What happened in the 16th century that led to the science of chemistry?

_____

_____

- What was the "reformed chemistry movement"?

_____

_____

- What did early chemists do that alchemists did not?

_____

_____

- What prompted the need to name and organize elements and compounds?

_____

_____

2. Now read the section carefully to find an answer to the Key Question.

After You Read

- Discuss with another student your prediction and what you found out from reading Section 6.1. How accurate were your predictions? How similar were your findings?

- Discuss the question in the Learning Tip on page 186.

Name: _____ Date: _____ 6.1

History of Chemistry Word Scramble

Complete each statement by unscrambling the words below.

1. Ancient _____'s purpose was to find and purify new substances for as many uses as possible.
2. _____ were probably the first substances to be discovered.
3. The science of obtaining metals from ore and purifying them is called _____.
4. Alchemy was a reflection of the serious religious beliefs of the _____ _____.
5. It was a study of the natural world in an attempt to blend the natural world with the _____ world—a search for perfection.
6. The _____ _____ was the legendary substance believed by the alchemists to change common metals to gold, cure all diseases, and prolong life indefinitely.
7. In Europe, alchemy contributed to the manufacture of amalgams (_____ of mercury and other metals) and to advances in many other chemical processes and the apparatus required for them.
8. The alchemists believed that all the substances in the world were composed of some combination of the four basic _____: fire, earth, air, and water.
9. Early chemists recognized the existence of two types of pure substances—compounds and elements.
10. Elements began to be discovered at a rapid pace. The large increase in the number of elements and the discovery of _____ in compounds required a new system of names and symbols so that chemists could describe and discuss their findings with others.

1. YCTHMEISR ___ ___ ___ ___ ___ ___ ___ ___ ___
2. AETLSM ___ ___ ___ ___ ___ ___
3. LUMYGRETLA ___ ___ ___ ___ ___ ___ ___ ___ ___ ___
4. ELDIMD ESAG ___ ___ ___ ___ ___ ___ ___ ___ ___ ___
5. RUSAPLIIT ___ ___ ___ ___ ___ ___ ___ ___
6. S'SHHIPLOOPER ETONS ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___
7. SLALYO ___ ___ ___ ___ ___ ___
8. SNMEELET ___ ___ ___ ___ ___ ___ ___ ___
9. UNDOCOMPS ___ ___ ___ ___ ___ ___ ___ ___ ___
10. TIPROONROP ___ ___ ___ ___ ___ ___ ___ ___ ___ ___

Name: _____ Date: _____ 6.2

"It's So Elementary."

Compare the physical properties of metals, nonmetals, and metalloids.

Materials	Colour	Lustre	Malleability	Ductility	Tendency to form gases at room temperature
liquid bromine					
carbon					
oxygen					
nitrogen					
sulfur crystals					
H2 filled balloon					
aluminum foil					
sheet of iron					
copper wire					
zinc					
calcium					
magnesium					
silicon					
germanium					

Special chemical properties of

hydrogen: _____

calcium: _____

potassium: _____