

Assignment #1 of the Summer Level-1/Level-H chemistry packet requires you to outline Chapter 1 and 2 of the textbook. The textbook is broken into segments that easily lend themselves for outline-style notes. When outlining, be sure to include all key topics and vocabulary words within each section. Below is a sample of an outline for Chapter 1 – some parts are left blank for you to fill in. You are responsible for complete outline notes for Chapter 2.

## Introduction to Chemistry

### 1.1 Chemistry

What is matter: \_\_\_\_\_

What is chemistry: \_\_\_\_\_

What are the five major areas of chemistry?

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

Pure chemistry is \_\_\_\_\_

Applied chemistry is \_\_\_\_\_

### 1.2 Chemistry far and wide

Chemists design materials to fit \_\_\_\_\_

List two ways to meet the demand for energy

1. \_\_\_\_\_

2. \_\_\_\_\_

How are soybeans a source of energy? \_\_\_\_\_

\_\_\_\_\_

What is the role of chemistry in the development of medicines? \_\_\_\_\_

\_\_\_\_\_

List three new materials chemists have developed that have medical applications

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

How do chemists contribute to agriculture? \_\_\_\_\_

\_\_\_\_\_

What are two ways that chemists work to protect the environment?

1. \_\_\_\_\_

2. \_\_\_\_\_

### 1.3 Thinking like a scientist

Practical alchemy focused on \_\_\_\_\_

Alchemists developed processes for separating \_\_\_\_\_ and purifying \_\_\_\_\_

How did Lavoisier help to transform chemistry? \_\_\_\_\_

What is the scientific method? \_\_\_\_\_

A scientific problem is often discovered when an \_\_\_\_\_ is made

A \_\_\_\_\_ is formed when an explanation is proposed for an observation

Testing a proposed explanation requires designing an \_\_\_\_\_

For the results of the test to be accepted, the test must produce the same results \_\_\_\_\_

An explanation may become a \_\_\_\_\_ if the same results are found after many tests

Independent variable: \_\_\_\_\_

Dependent variable: \_\_\_\_\_

What is a scientific law: \_\_\_\_\_

Collaboration is \_\_\_\_\_

Scientific communication is \_\_\_\_\_

What is the purpose of a scientific journal \_\_\_\_\_

### 1.4 Problem solving in chemistry

What is involved in effective problem solving? \_\_\_\_\_

What are the three steps for solving numeric problems?

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

If your answer to a problem does not seem reasonable, list two things you can do

1. \_\_\_\_\_

2. \_\_\_\_\_

What are the steps for solving conceptual problems? \_\_\_\_\_

After you fill in the blanks for Chapter 1, you must create your own **HAND WRITTEN** outline for Chapter 2.