Name Per

UNIT 1	STUDY GUIDE	*Introduction to Science and Basic Chemistry*

Tentative Test Date: _____

☞IMPORTANT NOTE☜

Study guides are not graded and we do not review them in class.
Study guides are not meant to completely prepare you for the test.
Study guides will *guide* you in the right direction to *begin* preparing for the test.
To completely prepare for the test you should review your notes, homework, notes review sheets, warm-ups, activities, labs, and any readings.

Student Objectives

Your test is to see how well you meet the objectives. There will be questions for each objective on the test. How you respond to these questions will determine your grade. Below are all the objectives for this unit.

As a result of this student, the student will be able to:

- Define science and list/explain the steps of the scientific method
- Define and create observations and inferences
- Know the difference between a hypothesis, theory, and law
- Define an atom and identify its parts
- Draw an electron and Lewis dot diagram for an element
- Know the element symbols and names; know how to read the periodic table
- Explain how the periodic table is organized; recognize patterns in the table
- Read a chemical formula
- Compare and contrast acids and bases
- Identify substances as an acid or base

If you can successfully demonstrate you can meet these objectives, you will be ready for the test!

What you can expect on the test

1. T/F questions
2. Multiple choice questions
3. Matching (ex: definitions)
4. Labeling, drawing, reading diagrams
5. A lab portion
6. Short answer/fill-in-the-blank

Sample Questions

Listed below are several sample questions. If you have trouble answering these, you should review the content it is from. **Remember**: These are just example questions to help you study. You still need to review your notes, readings, activities, etc.

1. What is science?
2. What are the steps of the scientific method?
3. What is an observation? What is an inference? How are they different?
4. What is Ockham's razor?
5. What has to happen for a hypothesis to be verified?
6. What is the difference between a theory and law?
7. What is an atom? What are the parts of an atom?
8. What is an element?
9. Pick 15 elements and write their symbols.
10. How do you draw an electron diagram for an element?
11. How do you draw a Lewis dot diagram for an element?
12. What do the elements in a period of the periodic table have in common?
13. What do the elements in a group of the periodic table have in common?
14. How do you read a chemical formula?
15. What are some characteristics of acids?
16. Below what pH are acids?
17. What are some characteristics of bases?
18. Above what pH are bases?
19. How do you know if a substance is an acid or base?