Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period \_\_\_\_\_

Vocabulary and key concepts.

**NATURE OF SCIENCE**

1. The three major fields of science are **Life Science**, **Physical Science**, and **Earth**

**Science**. **Life science** is the study of all things that are living. **Earth science** is the

study of all non living aspects of the earth. **Physical science** is the study of the

way things work.

2. **Science** is the search for answers to questions.

3. An **observation** is a record of what you see.

4. An **inference** is a conclusion based on what you observe.

5. The **purpose** identifies what you are trying to find out by conducting the experiment.

6. In an experiment, the **hypothesis** is an educated guess as to what will happen.

The words **if, then, and because** should be used when writing a hypothesis.

7. An **experiment** is a trial or test to verify a hypothesis.

8. The **first step** of the scientific method is to **ask a question or identify the problem** you can answer by performing an experiment.

9. When you conduct a science experiment, the observations you make may lead

you to ask new questions.

10. In an experiment, the **conclusion** analyzes the observations to prove the

hypothesis, make an inference or ask more questions.

11. A **controlled experiment** has all variables controlled but one. This experiment

tests one factor at a time.

12. A **variable** is a factor in an experiment that can affect the outcome.

13. A **controlled variable** is a factor that is not changed.

14. An **independent variable** is a factor that is purposely changed by the

experimenter. The independent variable is found on the X-axis.

15. A **dependent variable** is a factor that might change as a result of the independent

variable. The dependent variable is found on the Y-axis.

16. The **procedure** is your step by step directions written clearly enough that

someone else could do the experiment

17. Information you gather in an experiment is known as **data**. These pieces of

information are acquired through observation and experimentation.

18. Each set of repeated measurements in an experiment are known as a **trial**.

19. A balance is used to determine mass of an object. The **gram (g)** measures mass.

Equal amounts of different substances usually have different masses. **Mass** is the amount of matter in an object.

20. Volumes of different substances usually have different masses. **Volume** is the amount of space taken up by an object.

21. A meter stick is used to determine the length of an object. The **meter (m)**

measures length or distance in the metric system.

22. A graduated cylinder is used to determine the volume of a liquid. The **liter (L)**

measures volume or capacity in the metric system.

(Over)

23. A thermometer is used to measure temperature. **Degrees Celsius ( C)** measures

temperature in the metric system.

24. The **second (s)** measures time.

25. Before beginning an experiment, students should always know safety procedures

and take precautions to keep themselves and their classmates safe.

26. If you get hurt in science, you should inform your science teacher immediately.