

Unit 1 Study Guide Answer Key

Study Guide for Scientific Method, Lab Safety, Metric Measurement, and Graphing Test

Fill in the missing word/words.

Scientific method - organized problem-solving procedure in science

Variable - any factor that can change in the experiment

Hypothesis - an educated guess for a scientific problem that can be tested

Control - the standard used to compare with the outcome of a test

Write the steps of the scientific method in order:

1. State the problem
2. Gather information (research)
3. Form a hypothesis
4. Perform the experiment
5. Analyze Data
6. Draw a conclusion

Read the problem and identify the parts of the experiment.

Gloria wanted to see if different chemicals would affect the color of cabbage juice. She put the same amount and type of cabbage juice into four test tubes.

She added ten drops of chemical x into test tube 1, ten drops of chemical y into test tube 2, and ten drops of chemical z into test tube 3. She did not add any chemicals to test tube 4. She observed each of the test tubes for 20 seconds after she added the chemical and recorded her observations.

Identify-

Constants drops of chemicals, amount of c.j., type of c.j.

Independent variable different chemicals added

Dependent variable color change of c.j.

Control test tube 4 (no chemical added)

study your safety symbols, be able to identify them.

Study your metric notes/worksheets.

Write the abbreviation for each-

millimeter mm

milliliter ml

kilometer km

centimeter cm

kilogram kg

milligram mg

How many mm in a cm? 10 How many cm in a m? 100 How many m in a km? 1000

Which basic unit would you use to measure or weigh?

Length of a door m thickness of a nickel mm distance to Lynchburg km

A piece of candy g weight of a person kg

This country developed the metric system France

3 reasons for using the metric system

1) it is easy, based on 10's

2) it is accurate

3) it is universal

Label the following graph with (x axis, y axis)

Y-axis (DV)

X-axis (IV)

Number intervals on a graph must be in order and have consistent intervals.

