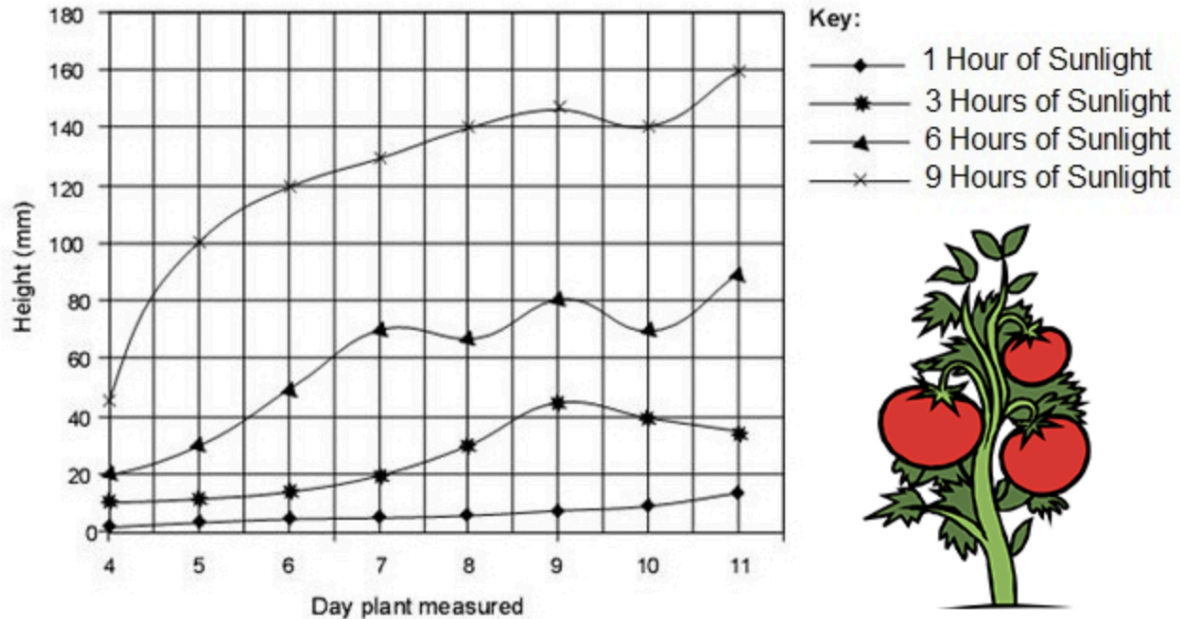


Test 1 Study Guide

Scientific Method



What is the independent variable?

What is the dependent variable?

What should the controls be for an experiment like this?

Someone hypothesized that the plant with the fewest hours of sunlight would grow the tallest. What would their conclusion be?

Lab Safety

What are some lab safety rules surrounding working with hot objects or flames?

Data

Give an example of qualitative versus quantitative data.

SI Units

List the SI Unit for the following:

Temperature:

Mass:

Length:

Time:

Scientific Notation

Write the following in scientific notation.

30200

0.0032

Percent Error, Accuracy, Precision

You measure 7 cm, 4 cm, and 2 cm. The actual measurement is 3.5 cm. What was your percent error each time? Were you accurate? Precise?

Significant Figures

How many significant figures are in:

2.0500

3000

0.002

304.1

% by Mass

In NaCl, chlorine is 70.0 g and the total mass of this sample of NaCl is 116 g. What is the percent by mass of chlorine? Of sodium?

Law of Multiple Proportions: when two compounds are made of the same elements, but the percent by masses are DIFFERENT

Law of Definite Proportions: when two compounds are made of the same elements, and the percent by masses are the SAME