

Hypothesis

What is a hypothesis?

A **hypothesis** is a possible answer to a scientific question. It is based on observations you make and information you gather. For example, you may have observed that milk that is not refrigerated quickly sours. Your hypothesis might be: Refrigeration slows the spoiling of milk.

A good hypothesis must be testable. An **experiment** is used to test a hypothesis. The results of the experiment help you decide if your hypothesis is correct.

Read about the following investigations:

1. Juanita planted seeds with an oblong shape in three containers. She placed ten seeds with the pointed end facing down in one container. In the second container, she placed ten seeds with the pointed end facing up. She put ten seeds pointing sideways in a third container. All the seeds were covered with soil. Each container was given equal amounts of water and light each day. Within three weeks, ten plants were growing in each of the containers.

2. Dylan calculated the density of water and of four solid objects. He then placed the objects in a tub filled with water. Dylan observed that the objects that were more dense than water sank to the bottom of the tub. The object that was less dense than water floated to the water's surface.

3. Shari set up plastic bowling pins 0.5 m from the end of a ramp. She rolled a ball down the ramp and into the pins. She then counted how many of the pins the rolling ball moved. She repeated this three more times using balls of different masses. Shari observed that the ball with the greatest mass moved the most pins.

Show What You Know

Write a hypothesis for each investigation above.

1. Hypothesis: _____

2. Hypothesis: _____

3. Hypothesis: _____