

## Writing a testable hypothesis

### What Is a Real Hypothesis?

A hypothesis is a tentative statement that proposes a **possible explanation** to some phenomenon or event. A useful hypothesis is a **testable statement**, which may include a prediction.

### When Are Hypotheses Used?

The key word is testable. That is, you will perform a test of how two variables might be related. This is when you are doing a real experiment. You are testing variables. Usually, a hypothesis is based on some previous observation.

### How to Write a Good Hypothesis

Use the “If..., then..., because...” format.

#### Example:

**Experimental/Problem Question:** How does fertilizer affect plant growth?

**Hypothesis:** If I increase the amount of fertilizer on grass plants, **then** the grass *plants will grow taller*, **because** plants will have more nutrients to grow taller provided by the fertilizer increase.

Amount of fertilizer = independent variable

Plant growth = *dependent variable*

Controlled variables in this experiment would be the amount of water and light the plants the would receive, and the overall growing environment.

**Practice: Experimental/Problem Question** – How does the amount of water given affect plant growth?