

Developing a Hypothesis

Goal • Become familiar with the development of hypotheses in science inquiry.

1. Define “hypothesis,” giving an example you have learned from science.

2. An hypothesis statement may start with “if” (referring to cause), followed by the word “then” (referring to an effect). For example. *If* I brush my teeth twice a day, *then* I can protect my teeth from decay.

Complete the following hypothesis statements:

- a. **If** heat is applied to a liquid, **then** _____.
- b. **If** _____, **then** in living things in that ecosystem will be affected.
3. a. Identify the independent variable (cause) and the dependent variable (effect).
- The “if” part of each statement is the _____ variable.
 - The “then” part of each statement is the _____ variable.
- b. Explain how the relationship between cause and effect can be an hypothesis.

4. Develop an hypothesis for what may happen in the following situations.

- a. You have a long distance to travel when your gas needle signals empty.

Hypothesis: _____

Reasoning: _____

- b. The element on top of your stove is a bright red colour.

Hypothesis: _____

Reasoning: _____

- c. The soup you are eating is much too salty.

Hypothesis: _____

Reasoning: _____

Developing a Hypothesis

5. Complete the chart provided with your responses to question 4.

Independent Variable	Dependent Variable	Hypothesis