The Scientific Process

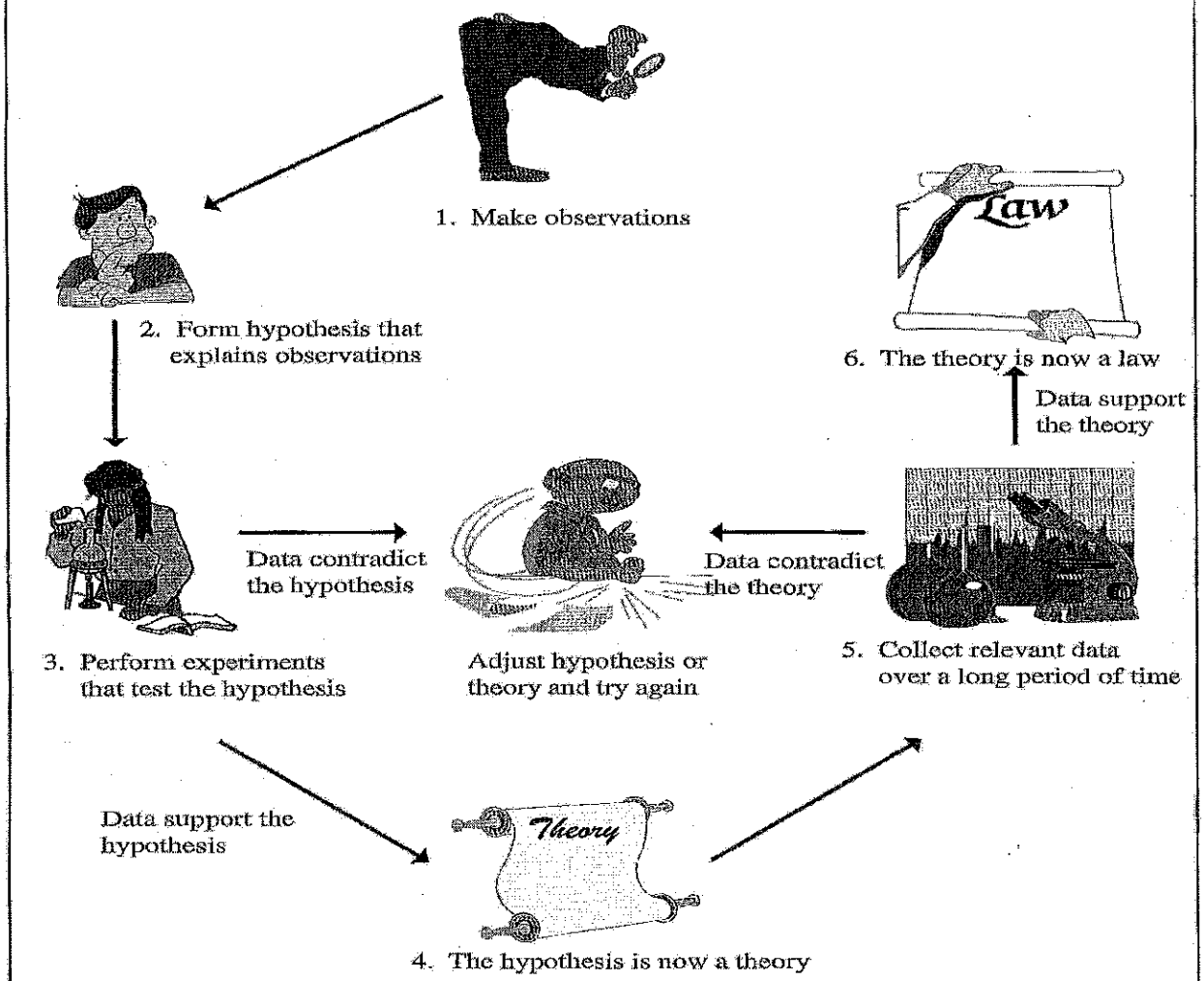
Any logical approach to finding the answer to a testable question is a scientific process or method.

The scientific process usually begins with observations that lead to questions.

To study a question scientifically, the question must be testable.

This means that the question must be phrased in such a way that it is specific and has only one variable.

FIGURE 2.2
The Scientific Method



When the question is tested, there are two types of variables.

- The independent variable in the question is the one that "I" control.
- The dependent variable is the unknown that you measure during the experiment.
- The constants in the experiment are those conditions that must be the same in all the tests that are conducted.

- The hypothesis includes both variables.

- 1. Make a prediction about what will happen.

- 2. Identify the dependent variable

- 3. Identify the independent variable

- 4. Write the hypothesis by stating "If (dv), then (iv)

Write the hypothesis in the following format:

- "If (insert the dependent variable) is related to (insert the independent variable), then

- For example:
  If the size of bubbles is related to the cost of the soap, then the more expensive soaps will produce larger bubbles.