

Steps in the Scientific Method

- 1. Defining the Problem**
Selecting a topic for research and defining key concepts.
- 2. Reviewing the Literature**
Familiarizing oneself with the existing theory and research on a topic.
- 3. Forming a Hypothesis**
Defining the relationship between measurable variables so that they can be measured and the hypothesis tested.
- 4. Choosing a Research Design**
Selecting a method for study: experiment, survey, or field observation. To set up an experiment you will need to identify your independent variable, dependent variable, control group, experimental group, and procedure.
- 5. Collecting the Data**
Collecting the information that will test the hypothesis.
- 6. Analyzing the Data**
Working with and examining the data to shed light on the hypothesis.
- 7. Drawing Conclusions (inferring)**
Summarizing the outcome of the study, indicating its significance, relating the findings to existing theory and research, and identifying problems for future research.

Scientific Method:

Principles and procedures for the systematic pursuit of knowledge involving the recognition and formulation of a problem, the collection of data through observation and experiment, and the formulation and testing of hypotheses.
