

The Scientific Method

How do scientists make discoveries? They follow the five steps of the **scientific method**:

1. Make **observations**. Check out the world around you to find out everything you can about a problem you want to solve.
2. Form a **hypothesis**, or predict what you think will happen when you do the experiment.
3. Perform **experiments**, or tests, that will prove your hypothesis is right or wrong.
4. Collect **results**. What happened when you did your experiment? What information can you collect?
5. Draw **conclusions**, or answers, about your hypothesis by taking a good look at your results.

Name: _____ Date: _____

1. Which step of the scientific method involves performing tests?

- A Step 1
- B Step 2
- C Step 3
- D Step 4

2. How does the author organize the information in this passage?

- A The author describes the steps of a process in the order they take place.
- B The author describes the most important features of an experiment, from most important to least important.
- C The author provides multiple pieces of evidence for the usefulness of a process.
- D The author compares and contrasts the steps of a process.

3. Which sentence below could be added to **Step 5** to explain the importance of this step?

- A Whether or not your hypothesis is correct, you now have your answer!
- B The answer may even be evident in the observations that you make!
- C This is the most scientific step because you are performing experiments.
- D Information collection is a crucial step; answers will begin to emerge as the results come in.

4. Read the sentence:

"Draw conclusions, or answers, about your hypothesis by taking a **good** look at your results."

As used in this sentence, which meaning of **good** does the author most likely mean?

- A good (*noun*): help or advantage
- B good (*adjective*): respectable and nice
- C good (*noun*): item for sale
- D good (*adjective*): high-quality

5. What is this passage mostly about?

- A safety in science
- B steps to become a scientist
- C steps to make a discovery
- D appropriate experiments

6. What is a hypothesis and during which steps is it important?

7. Considering the steps of the scientific method, what can be concluded about the character of successful scientists?

8. The question below is an incomplete sentence. Choose the answer that best completes the sentence.

If you follow the scientific method, you must form a hypothesis _____ performing experiments.

- A after
- B initially
- C before
- D while

9. Read the following sentence.

While following the scientific method, scientists perform experiments to make discoveries.

Answer the following questions based on the information provided in the sentence you just read. One of the questions has already been answered for you.

Who is the main subject of the sentence? scientists

What do scientists do? _____

When? _____

Why? _____

10. **Vocabulary Word:** prove (*verb*): to demonstrate that something is true or right.

Use the vocabulary word in a sentence: _____
