

What Are Some Types of Investigations?

- 1 The chart shows the steps of a scientific method.

A Scientific Method
Form a hypothesis.
Develop a plan.
Test the hypothesis.
Analyze results.
Communicate results.

Which statement is **true** of this scientific method?

- (A) It should be considered a flexible guide.
- (B) It lists each step according to importance.
- (C) It is the only one that scientists use.
- (D) The results should not be communicated if you don't like them.
- 2 Rosa conducts an experiment. Her results do not support her hypothesis. What should she do?
- (F) Repeat the experiment to check for errors.
- (G) Change the results to support the hypothesis.
- (H) Discard the data because it does not agree with her hypothesis.
- (I) Try to make an experiment that will give her the results she wants.

- 3 Models allow scientists to test things that might be too expensive or difficult to test using the real item. Which of the following would be an investigation that could use a model?

- (A) whether a new spray will repel mosquitoes
- (B) how many times per day a robin leaves her nest
- (C) how much weight can a new bridge support
- (D) how much water a cubic meter of sand can hold

- 4 A hypothesis must be testable. Which hypothesis is testable?

- (F) Blue is the best color.
- (G) Summer is nicer than fall.
- (H) Dogs are better than cats.
- (I) A beagle can jump higher than a Persian cat.

- 5 A scientific method is a way to investigate a scientific problem. Although the order of steps can vary, the tasks performed during each step often stay the same. During which step of the scientific method would a scientist collect data?

- (A) developing a plan
- (B) forming a hypothesis
- (C) testing the hypothesis
- (D) communicating the results