

Nature of Science and the Scientific Method

Assignment – Teachers Edition

I. Multiple Choice – Select the best answer

1. A series of steps used to solve a scientific problem is called a _____.
 - a) scientific method
 - b) methodology
 - c) scientific theory
 - d) scientific law

2. When counting the number of trees in an experiment you, are _____.
 - a) evaluating result
 - b) drawing conclusion
 - c) making observations
 - d) analyzing data

3. Which of the following is true about a hypothesis?
 - a) A hypothesis is testable.
 - b) A hypothesis cannot be false.
 - c) A hypothesis is not related to the scientific question.
 - d) All the above

4. Which of the following is the first step in a scientific method?
 - a) Formulating a hypothesis
 - b) Drawing a conclusion
 - c) Asking a question
 - d) Evaluating the results

II. Decide if the following are true or false. If false, write the correct answer.

1. The independent variable is the factor that is changed during an experiment.

2. Science is the process by which we can understand the natural world.

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III. Match the term with the meaning.

Hypothesis	a. The average temperature on the plain is 20° C.
Observation	b. Why does it snow in the mountains?
Question	c. Graph showing the change in temperature over time.
Result	d. The temperature decreases with an increase in the altitude.

IV. Arrange the steps from the scientific method into the correct order.

- a) Observation
- b) Question
- c) Interpretation
- d) Hypothesis
- e) Evaluation
- f) Experiment

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1. A series of steps used to solve a scientific problem is called a _____.
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a) evaluating result
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3. Which of the following is true about a hypothesis?
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d) All the above
4. Which of the following is the first step in a scientific method?
a) Formulating a hypothesis
b) Drawing a conclusion
c) Asking a question
d) Evaluating the results

II. Decide if the following are true or false. If false, write the correct answer.

1. The independent variable is the factor that is changed during an experiment.

Answer: True, independent variable depends on the dependent variable and can be changed during an experiment.

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2. Science is the process by which we can understand the natural world.

Answer: True, science is the process by which we can understand the natural world.

III. Match the term with the meaning.

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Answer:

a. Observation	b. Question	c. Result	d. Hypothesis
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IV. Arrange in correct sequence.

- a) Observation
- b) Question
- c) Interpretation
- d) Hypothesis
- e) Evaluation
- f) Experiment

Answer:

- a) Observation**
- b) Question**
- d) Hypothesis**
- f) Experiment**
- e) Evaluation**
- c) Interpretation**