



Unleashing Innovation Through STEM Education

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Lesson: The Scientific Method

Name:

Teacher:

Date:

Scientific Method Quiz – STEM Scholars Hub

Instructions: Read each scenario carefully and choose the best answer.

1. Maria notices that some plants in her garden are wilting while others are healthy. What should she do first as a scientist?
 - a) Form a hypothesis
 - b) Ask a question
 - c) Observe and record the problem
 - d) Conduct an experiment
2. Carlos wants to find out why his ice melts faster on the kitchen counter than in the refrigerator. Which statement is a good scientific question?
 - a) Why is ice cold?
 - b) Does temperature affect the melting rate of ice?
 - c) Do I like ice?
 - d) How big is my freezer?
3. Lina predicts: “If I water my plant every day, then it will grow taller because it will have more nutrients.” Which part of the prediction tells the expected outcome?
 - a) If I water my plant every day
 - b) Then it will grow taller
 - c) Because it will have more nutrients
 - d) The whole sentence
4. A student is testing which brand of paper towel absorbs the most water. The independent variable in this experiment is:
 - a) Amount of water absorbed
 - b) Brand of paper towel
 - c) Time waited before measuring
 - d) Size of paper towel
5. Using the same paper towel experiment, the dependent variable is:
 - a) Amount of water absorbed
 - b) Brand of paper towel



- c) Number of students in the class
 - d) Color of paper towel
6. Alex tests if sunlight affects plant growth using the same type of soil, same pots, and same plant species.
Why are these controlled variables important?
- a) To make the experiment fun
 - b) To keep the experiment fair and reliable
 - c) To change the outcome
 - d) To make it easier to water the plants
7. Students measure how far a toy car travels on different surfaces.
Which is an example of quantitative data?
- a) The car rolls smoothly
 - b) The car traveled 25 cm
 - c) The carpet felt rough
 - d) The car was red
8. Sophia observes that her plant grew 3 cm in sunlight and 1 cm in shade.
The next step she should take is:
- a) Change the type of plant
 - b) Draw a conclusion based on her data
 - c) Throw away her plants
 - d) Guess what will happen next time
9. After testing different surfaces, a student finds that the car travels farthest on tile and shortest on sandpaper.
The conclusion that can be drawn is:
- a) The smoother the surface, the farther the car travels
 - b) The car likes tile
 - c) Sandpaper is bad
 - d) The car is broken
10. After completing an experiment, Liam creates a bar graph showing his results and explains them to the class.
This demonstrates which step of the scientific method?
- a) Hypothesis
 - b) Communicating results
 - c) Data collection
 - d) Observation



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Answer Key:

- 1 – c
- 2 – b
- 3 – b
- 4 – b
- 5 – a
- 6 – b
- 7 – b
- 8 – b
- 9 – a
- 10 – b