

Name: \_\_\_\_\_ Date: \_\_\_\_\_

## Your Blueprint for Discovery: 3rd Grade Scientific Method Quiz

Formulate original hypotheses and synthesize experimental data to solve complex biological and physical puzzles.

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**1. Imagine you see that one side of a hill has green moss, but the other side is bare dirt. What is the most complex 'Question' you could ask to begin a deep investigation?**

- A. Is moss green or brown?
- B. How much does a bag of moss cost?
- C. How does the amount of daily sunlight an area receives affect where moss chooses to grow?
- D. Can I pick the moss up with my hands?

**2. A scientist thinks that birds prefer red birdseed over blue birdseed. To test this, she must keep the \_\_\_\_\_ the same for both feeders so the test is fair.**

- A. Color of the seeds
- B. Location of the feeders
- C. Type of birds
- D. Time of year

**3. True or False: If a scientist's experiment proves their hypothesis was wrong, the entire investigation was a waste of time.**

- A. True
- B. False

**4. You are researching why certain materials block Wi-Fi signals. Which source would provide the most reliable evidence for your 'Research' step?**

- A. A fictional story about a robot
- B. A peer-reviewed article in a technology journal
- C. An old comic book from the drawer
- D. A drawing you made of a computer

**5. After counting how many bubbles a fish blows in cold water versus warm water, you create a bar graph. This step is called \_\_\_\_\_.**

- A. Making a Guess
- B. Data Analysis
- C. Communication
- D. A Hypothesis

**6. Which of these is the most sophisticated hypothesis for why a bridge might be vibrating?**

- A. The bridge is shaking because it is scary.
- B. Bridges always shake when people walk on them.

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- C. If wind speed increases to 40mph, then the bridge will vibrate more because of its narrow design.
- D. I think the bridge will fall down soon.

**7. True or False: Communicating results means only telling people what you did, even if you didn't finish the experiment.**

- A. True
- B. False

**8. When you use your five senses to notice that a chemical reaction is bubbling and turning blue, you are making an \_\_\_\_.**

- A. Inference
- B. Observation
- C. Opinion
- D. Experiment

**9. Why is it important to perform an experiment multiple times (trials) instead of just once?**

- A. To make the science fair poster look bigger.
- B. Because scientists get bored easily.
- C. To ensure that the results are consistent and not just a lucky coincidence.
- D. To use up all the supplies in the lab.

**10. A student concludes that magnetism works through water. To reach this 'Conclusion', look back at your \_\_\_\_ to see if it was supported.**

- A. Supplies
- B. Hypothesis
- C. Mistakes
- D. Research