

A SCIENTIFIC METHOD “POP QUIZ”

1. What is being controlled in a **controlled experiment**?
2. Differentiate between a **theory** and a **hypothesis**?
3. Why is it so important to provide detailed **apparatus lists** and describe **experimental protocols (AKA procedures or methods)** unambiguously and precisely?
4. Scientific method is often referred to as the “**hypothetico-deductive method.**” What part of the scientific method relies on **induction**? What part relies on **deduction**?
5. What is **peer review** in science?

6. Why is it said that in science “**the data is sacrosanct**”?

7. When analysing and interpreting scientific data why is it important to understand the difference between **correlation** and **causation**?

8. Why do scientists perform **analysis of error**?

9. What is an **anomalous** result?

10.. What is a **null hypothesis**?