

Student Name: _____

Date: _____

Section 1: Multiple Choice

1. Peer review means:

- Students grade each other
- Experts evaluate research before publication
- Teacher checks the lab
- Data reviewed by one scientist

2. A scientific theory is:

- Just a guess
- Same as hypothesis
- Well-supported explanation for broad phenomena
- Proven fact that cannot change

3. Replication of results means:

- Same scientist repeats
- Independent scientists get similar results
- Data is copied
- Hypothesis was correct

4. What most weakens a scientific conclusion?

- Small sample size
- Using metric units
- Multiple trials
- Defining variables clearly

5. Falsifiability means a hypothesis:

- Is definitely false
- Can potentially be proven wrong
- Has been tested many times
- Was made by expert

Section 2: Short Answer

1. Difference between a scientific theory and a scientific law?

2. Why must scientists share their methods in detail when publishing?

3. Critique: 'Exercise causes better grades.' Use correlation, causation, and confounding variables.

Multiple Choice Answers:

1. B
2. C
3. B
4. A
5. B