

**GRADE 12 BIOLOGY
INTRODUCTION TO SCIENCE
STUDY GUIDE TO 1.2 SCIENCE IN CONTEXT**

Name: _____

Date: _____

Written responses should always be complete and grammatically correct sentence(s).

Multiple choice; circle the one correct answer

15. A skeptical attitude in science

- a. prevents scientists from accepting new ideas.
- b. encourages scientists to readily accept new ideas.
- c. means a new idea will only be accepted if it is backed by evidence.
- d. is unimportant.

16. The purpose of peer review in science is to ensure that

- a. all scientific research is funded.
- b. the results of experiments are correct.
- c. all scientific results are published.
- d. published results meet standards set by the scientific community.

17. A scientific theory is

- a. the same as a hypothesis.
- b. a well-tested explanation that unifies a broad range of observations.
- c. the same as the conclusion of an experiment.
- d. the first step in a controlled experiment.

Open Response. Answer with full sentence(s).

18. Why are scientific theories useful? [answer in complete sentence(s)]

19. Why aren't theories considered absolute truths?

Think Critically

20. Evaluate Why is it misleading to describe science as a collection of facts?

21. Propose a Solution How would having a scientific attitude help you in everyday activities, for example, in trying to learn a new skill?

22. Conduct Peer Review If you were one of the anonymous reviewers of a paper submitted for publication, what criteria would you use to determine whether or not the paper should be published?