Lesson 1.1 True or False

Write true if the statement is true or false if the statement is false.

_____ 1. Biology can help us know God through His creation.

_____ 2. A scientific theory is a guess about how or why something happens.

_____ 3. Scientists make predictions that tell what will happen under any and all conditions.

_____ 4. The scientific method includes the steps involved in a scientific investigation.

_____ 5. Things can spontaneously generate (something can come from nothing).

_____ 6. Experiments are performed under controlled conditions.

_____ 7. Scientists can study all aspects of the natural world, including experimenting on an extinct animal.

_____ 8. The dependent variable is always the opposite of the independent variable.

_____ 9. Communicating your results allows others to test your hypothesis.

_____ 10. Experimental evidence that agrees with your prediction supports your hypothesis.

_____ 11. The first step in a scientific investigation is always to develop a hypothesis.

_____ 12. Scientists gradually build an increasingly accurate and detailed understanding of the natural world.

_____ 13. Newton discovered the law of gravity when an apple fell from a tree and hit him on the head. Although this is a common belief, it’s most likely...

_____ 14. Scientific evidence is any type of data that may either agree or disagree with a prediction.

_____ 15. Scientific theories are broad explanations that are widely accepted as true.
Lesson 1.1 Multiple Choice

1. Assumptions scientists make include:
   a. Nature can be understood through systematic study.
   b. Scientific ideas never need to be revised.
   c. Science can provide answers to all questions.
   d. all of the above

2. A hypothesis
   a. is the first step in a scientific investigation.
   b. is based on what a scientist believes.
   c. is a possible question to a scientific answer.
   d. can be proved incorrect.

3. A scientific theory
   a. is based on lots of evidence.
   b. is a guess about how or why something happens.
   c. can never be altered or changed.
   d. none of the above

4. Which is the correct order in a scientific investigation?
   a. ask a question, test the hypothesis, communicate results, draw conclusions
   b. make observations, ask a question, form a hypothesis, test the hypothesis
   c. draw conclusions, ask a question, form a hypothesis, test the hypothesis
   d. ask a question, make observations, test the hypothesis, draw conclusions

5. To test a hypothesis,
   a. a scientist first collects evidence.
   b. a scientist first draws conclusions.
   c. a scientist first makes a prediction.
   d. a scientist first makes observations.

6. An experiment
   a. is performed under controlled conditions.
   b. generally tests how one variable is affected by another.
   c. contributes important evidence that helps scientists better understand the natural world.
   d. all of the above

7. Albert Einstein was a
   a. Christian believer
   b. An atheist
   c. A scientist who realized there must be a god, even though he was not a Christian
   d. none of the above
1.1 Vocabulary

Match the vocabulary word with the proper definition.

Definitions

_____ 1. a statement that describes what always happens under certain conditions in nature

_____ 2. a possible answer to a scientific question

_____ 3. any type of data that may either agree or disagree with a prediction

_____ 4. a plan for asking questions and testing possible answers

_____ 5. a representation of part of the real world

_____ 6. a broad explanation for events that is widely accepted as true

_____ 7. detected either through human senses or with instruments and measuring devices that extend human senses

_____ 8. a special type of scientific investigation that is performed under controlled conditions

_____ 9. developed the laws of motion

_____ 10. a statement that tells what will happen under certain conditions

_____ 11. developed theory of relativity

_____ 12. a distinctive way of gaining knowledge about the natural world

a. Albert Einstein
b. evidence
c. experiment
d. hypothesis
e. Isaac Newton
f. model
g. observation
h. prediction
i. science
j. scientific investigation
k. scientific law
l. scientific theory

I really hope you got the question that is about ME correct. If you didn’t I might bonk you on the head with an apple.

Did that even really happen? I mean, having an apple fall on your head?
1.1 Vocabulary Part 2

Fill in the blank with the appropriate term.

1. An ___________ is anything that is detected either through human senses or with instruments and measuring devices that extend human senses.

2. An ___________ is a special type of scientific investigation that is performed under controlled conditions.

3. A scientific ___________ is a statement that describes what always happens under certain conditions in nature.

4. A model is a representation of part of the real ___________.

5. ___________ is any type of data that may either agree or disagree with a prediction.

6. Scientific investigation are done by following the scientific ___________.

7. The goal of ___________ is to understand the natural world.

8. A hypothesis is a possible answer to a scientific ___________.

9. A scientific ___________ is a broad explanation for events that is widely accepted as true.

10. The last step in a scientific investigation is ___________ what you have learned with others.

11. ___________ is a distinctive way of gaining knowledge about the natural world that starts with a question and then tries to answer the question with evidence and logic.

Use your textbook to fill in the missing words of the Bible verse:

Psalm 19:1-6: The heavens ___________ the glory of ______; the skies proclaim the work of his ______. Day after day they pour forth ______; night after night they display ___________. There is no speech or ___________ where their voice is not heard. Their voice goes out into all the _______, their words to the ends of the _______.