

Name: _____

*The Principles, Theories & Precepts
of Biology
Chapter 1, Section 1*

Date: _____ Grade: _____



EARLY HISTORY OF SCIENCE



You are making progress! Answer the following questions.

Circle the correct answers or fill in the blanks with words, letters or numbers as each question indicates. Check your answers from the Answer Key. Correct all errors, then complete your next goal.

1. The great pyramids of the ancient Egyptians are evidence of: _____

(a) their knowledge concerning biological and medical practices
(b) their knowledge of astronomy and architectural engineering
(c) the success of their medical remedies
(d) their lack of knowledge of astronomy and architectural engineering
2. Ancient Egyptian medical procedures were: _____
(a) based largely on scientific research
(b) sanitary
(c) usually successful
(d) based largely on superstition
3. For hundreds of years, most people believed that the Sun and other planetary bodies revolved around the _____.
4. The **geocentric theory** is a true scientific concept. _____
(a) True or (b) False
5. The theory that every substance contained the “magical” ingredient, _____, which caused combustibility was known as the **phlogiston theory**.
(a) excreta
(b) phlogiston
(c) putrid meat
(d) lizard’s blood
6. The French chemist, Lavoisier, proved that _____ is the key element needed for combustion.
7. Scientists should be viewed as completely objective, detached, and impartial. _____
(a) True or (b) False

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8. The **Dark Ages** were characterized by all of the following, **except**: _____

(a) a decline in scientific learning
(b) lost and forgotten discoveries
(c) superstition and reliance on church dogma
(d) many important discoveries
9. A "scholar" of the so-called Dark Ages would be most likely to: _____

(a) accept the teachings of earlier scholars
(b) question earlier theories
(c) design his or her own experiments
(d) discredit Aristotle
10. Which belief emerged from the period of intellectual awakening (the Renaissance) in Europe? _____
(a) Man has the ability to put scientific laws into existence.
(b) The universe is out of control.
(c) God established the universe and put certain laws into existence.
(d) Man should blindly accept traditional, scientific teachings.
11. Who said, "Cease to be ruled by dogmas and authorities; look at the world!"?

(a) Francis Bacon
(b) Galileo Galilei
(c) Sir Isaac Newton
(d) Roger Bacon
12. Francis Bacon urged men to do all of the following, **except**: _____

(a) use the experimental approach to science
(b) faithfully accept traditional dogmas
(c) trust no statements without verification
(d) test all things with rigor
13. Nicolaus Copernicus announced that the Earth moves around the Sun rather than the Sun around the Earth. _____ (a) True or (b) False
14. Sir Isaac Newton's discovery of the _____ and the movements of the planets brought physical science into a new era.
15. Newton's works were based primarily on: _____
(a) biblical concepts
(b) Galileo's discoveries
(c) the works of Aristotle
(d) tradition & dogma

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Matching:

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|----------------------------------|---|
| 16. _____ Antoni van Leeuwenhoek | (a) discovered the presence of cells in biological material |
| 17. _____ Robert Hooke | (b) described the anatomy of the human body |
| 18. _____ Andreas Vesalius | (c) made contributions to understanding how the embryo develops |
| 19. _____ William Harvey | (d) published books on birds and a treatise on insects |
| 20. _____ John Ray | (e) described many microscopic organisms |
| 21. _____ Carolus Linnaeus | (f) explained fossils as the remains of organisms |
| 22. _____ Marcello Malpighi | (g) discovered the way blood circulates in the body |
| 23. _____ Ulisse Aldrovandi | (h) founded the modern system of classification of living organisms |

24. The book entitled *On The Origin of Species by Means of Natural Selection or the Preservation of Favored Races in the Struggle for Life* was written by _____.

25. Write the **Life Principle**:

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_____."

