**Biology Course Description & Table of Contents**

Master's Class High School Biology brings God’s creation of cells, ecosystems, biomes, the genetic code, and more to life for homeschool students. This science curriculum teaches Christian students to observe and recognize the interactions and interdependencies of organisms in their natural environment. In this 36-week study of biology, the use of a light microscope, dissection skills, and recent advances in modern biology are also taught.

*Master's Class High School Biology* brings the wonder of biblical creation and science together for homeschool students. This homeschool curriculum with labs begins with a review of chemical principles needed for biology, including the biology of water, and concludes with human origins.

This course provides important training and practice in developing skills involved in the study of biology, including observing and recognizing interactions and interdependencies of organisms in their natural environment, the use of a light microscope, dissection skills, and insights and recent advances in modern biology.

Through this study of biology, your high school student will learn how we are created in God’s image with an eternal destiny rather than being the sum product of natural laws acting upon atoms and molecules. This course reveals the variations in humans today had their roots in the DNA of two humans (Adam and Eve) and give glory to God for this wonder of life.

**Course Objectives:**

* Investigate the core concepts of classical and modern biology
* Become familiar with the meaning of key terms in biology
* Explore the fundamental concepts of cell biology and important recent developments
* Study the development of classical genetics and modern concepts in the expression of DNA and how it varies with age and changing environmental conditions
* Learn the coordination and maintenance of the parts of an organism
* Study the variety of life forms and how their roles are integrated in an ecosystem
* Explore varied views of the origin of life and how the biblical narrative is consistent with what is observed in the study of biology
* Conduct laboratory procedures that develop important skills and illustrate important concepts
* Write lab reports each week to further develop writing skills in a scientific context

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* 1. Chemical Principles in Biology
* 2. Water
* 3. Carbohydrates and Lipids
* 4. Proteins and Nucleic Acids
* 5. Nature of Cells
* 6. Cell Membrane and Nucleus
* 7. Movement through Cell Membranes
* 8. Cell Organelles
* 9. Cell Division
* 10. Ecosystems
* 11. Biomes
* 12. Energy Capture — Photosynthesis
* 13. Energy Release — Respiration
* 14. Chromosomes and Genes
* 15. The Genetic Code
* 16. Expression of DNA — Transcription
* 17. Expression of DNA — Translation
* 18. Perpetuation of Life
* 19. Genetic Patterns I
* 20. Genetic Patterns II
* 21. Genetic Mutations and Variations
* 22. Genomcis
* 23. Plant Taxonomy
* 24. Taxonomy — Invertabrates
* 25. Taxonomy — Vertebrates
* 26. Views of Biological Origins
* 27. Evidences of Biological Origins
* 28. Human Origins