

## Introduction

This document is an attempt to answer the question, “What must a high school student comprehend and value in order to think about biology in a biblical way?” What follows is a list of the themes that we believe are essential for students to understand and internalize. These are organized under a Creation, Fall, and Redemption paradigm. We anticipate that early in the course students will be asked to *recall* and *explain* these themes. However, as these themes recur, students will also *evaluate* ideas, *formulate* a Christian understanding, and *apply* what they have learned to real-life situations. High levels of internalization result when students apply their learning. Sample objectives are listed in this order of increasing complexity.

### 1. Foundations

***Creation: Like all scientific disciplines, biology requires a narrative to contextualize observations, models, experiments, theories, and conclusions.***

Scientific facts, regardless of their validity, are useless without a foundation. Such facts are like drips of paint outside the confines of an artist’s canvas. A framework is needed for facts to be connected in meaningful ways and to contribute to scientific progress. Postulating hypotheses, developing theories, and creating models all depend on a metanarrative, which is also an essential aspect of a worldview. God has provided this basis for biology in Scripture, describing where life comes from, what it is, what its purpose is, and how to distinguish living things from one another. Fruitful efforts in biological study are maximized when acting in accord with God’s created order as described in His Word.

***Fall: The narrative of evolution in scientific work excludes God and refuses to give Him praise.***

Secular biology replaces a biblical framework with evolutionary theory, providing a nearly antithetical setting for understanding biology. This is often considered a necessary step toward objectivity, as belief systems are considered intrusions in scientific work. Submitting to naturalism, and more specifically evolutionary theory, is thought to be more scientific than admitting to the existence of the supernatural. Yet a commitment to evolutionary theory is a subjective belief intruding upon scientific assumptions and models, one that is intrinsically hostile to the Bible. Many are completely blind to the subjective assumptions undergirding their entire understanding of biology. But others are openly hostile to God and use evolutionary theory to attack the Creator and His Word. Whatever the motivation, building on a bad foundation leads to poor results, and evolutionary biology is regularly stymied by difficulties and a lack of progress.

***Redemption: Christians must build scientific knowledge on the foundation provided by Scripture.***

Because those who approach biology with a biblical foundation are often ostracized or belittled as poor scientists, there is a temptation for Christians to accept evolutionary theory or to compromise or minimize biblical commitments. But believers must hold fast to the scientific foundation provided by God in Scripture, fearing God rather than man (Acts 5:29). They can insist on certain biblical concepts and reject any findings that suggest otherwise. However, they should be careful not to put interpretations of Scripture on this level; the Bible is never wrong, but interpretations of it can be mistaken. Further, scientific understanding is constantly changing, but God’s Word remains the same (Matt. 24:35). This alone is a worthy foundation for understanding creation.

As Christians faithfully address biology according to God’s truth, their work will often pay great scientific dividends. And as they do this work, they can also expose the absurdity of evolutionary thought and its implications.

For instance, one cannot accept a narrative in which impersonal objects have brought about human existence and then assert that human existence is meaningful.

### Sample Objectives

- 7.1.2 Give examples for exercising dominion using the process of photosynthesis.
- 1.1.2 Compare how naturalists and Christians view biology.
- 19.2.6 Formulate a position on the use of evolutionary ecological studies.
- 11.2.4 Create a plan for engaging others in a discussion about evolution.

## 2. Modeling

***Creation: Models in biology are workable if they help explain complex ideas with the available data.***

Like foundations, models provide shape and direction to scientific observation. Models are extremely useful systems for organizing and synthesizing knowledge, helping people to explain why nature operates as it does. God designed humanity with an innate desire to know why things are the way they are, and He gave people the tools to articulate such explanations through modeling.

Modeling is a useful tool to help people subdue and rule over the earth (Gen. 1:28), but no model is perfect. Even the best models entail much trial and error as future experimentation is undertaken. By their nature, models can only approximate reality. People will never understand creation as completely as God does (Isa. 55:8; Job 38–41). Further, new discoveries often require alterations to models or replacing models altogether. This is not disastrous for those who realize that God and His Word provide a suitable foundation for knowledge. On the contrary, they recognize that replacing models with new ones better matching His created order is part of accomplishing God’s purpose for humanity.

***Fall: Models are often presented as giving final answers about the physical world.***

Those who reject the existence of God are left without a source of absolute truth, thus they must invent their own. Many in science turn to models to fill this void, though only in part. The idea of truth is downgraded to workability, and what is “true” is subject to change, depending on available data. Models are considered sources of truth, albeit imperfect (and sometimes competing) ones.

Scientists assume that their senses and observations are totally objective and true, thus anything that follows must also be true. But this fallacy overlooks the fallen nature of man, a depravity that affects every thought (Gen. 6:5). Nevertheless, models are often deemed worthy to define reality and even morality. Despite many models having failed and been replaced in history, current models are hailed as truth in a display of chronological snobbery. Human depravity is also shown in the way scientists often stubbornly cling to increasingly unworkable models because of a high level of personal investment. This betrays a commitment to self-preservation rather than a relentless pursuit of truth.

***Redemption: Models should be scrutinized for validity yet utilized as imperfect tools.***

Because models are as flawed and biased as the people who construct them, Christians must balance appreciation for their usefulness and skepticism regarding their claims. They should learn to evaluate each model, considering their governing purposes and logical constructions. Believers must ask questions: Does this model help to accomplish the Creation Mandate? Does this model have imbedded assumptions that are unbiblical? If there are unbiblical assumptions, are there aspects of the model that remain useful to Christians?

Because every word that God has revealed about the world is true (John 17:17), the Bible is the Christian’s foundation for knowledge and should be used to evaluate a model’s claims. Rather than eliminating the need for biblical truth, good models help humans to apply Scripture’s commands and to rule God’s world effectively. Therefore, a Christian scientist should accept the models that best describe nature while also agreeing with God’s Word.

Additionally, knowing that human knowledge and senses are flawed, a Christian should not dogmatically insist on specific models. The humility to adopt a new model when data reveals such a need is an important trait. God's people must be fully committed to following the truth, regardless of where it leads.

### Sample Objectives

- 1.2.1 Explain the role of modeling in biology.
- 9.1.4 Evaluate the models of genetic change.
- 12.2.6 Evaluate responses to the spread of COVID 19.
- 10.4.4 Defend the special status of man within the biblical creation model.

## 3. Design

### ***Creation: Design in creation reveals the attributes of God.***

Creation testifies of its Designer, one who is eternal, wise, powerful, and good. Indeed, the universe was designed for this very purpose (Ps. 119:1–6). People cannot escape the knowledge that God exists or even the knowledge of His attributes when they view natural revelation (Rom. 1:19–20). Design is evident from the vast expanse of stars to the microscopic operation of cellular life. Thus, biology also has much to teach about its Creator. Living things are designed with incredible intricacy and for specific functions within complex systems.

God is the source of all life. He breathed into Adam the breath of life (Gen. 2:7) and gave all living things their life (Gen.1:30). Further, He has designed His creation to thrive. The intricacies of life defy coincidence and indisputably prove the wisdom of its Maker, who declared all things “very good” (Gen. 1:31).

### ***Fall: Death reigns while design is twisted to support assumptions that do not include God.***

Though people know God as they explore His creation, they refuse to honor Him or thank Him, instead descending into darkness and vain speculation (Rom. 1:21). This speculation is at the center of secular scientific explanations of biology. It is often claimed that the universe merely appears to be designed and that billions of years afford random evolutionary processes enough time to accomplish unthinkable complexity in life.

Also, because of sin (first in Adam and inherited by the rest), the beauty of life has been marred by death, which now reigns (Rom. 5:14). Death is not good in a perfect world, but it has an important purpose in a fallen world. As the penalty for sin, death is sophisticated, complex, and yes, *designed*. The penalty (or curse) is as much designed as any other part of creation. Death is pervasive and there are now many routes that lead to it.

### ***Redemption: Christians must defend the truth of design and give God glory in response to His handiwork.***

Christians must use Scripture to critique secular views of (non)design and their assumptions. Nature appears designed because it *is* designed (John 1:3). The Bible teaches that God, from the beginning, made the world to function beautifully (Jer. 31:35–36). Believers must also guard against compromise that accepts some assumptions of secular thinking while adding the notion of design (e.g., theistic evolution). As students develop a more comprehensive biblical and biological understanding of God's design in creation, the only fitting response is to praise Him.

### Sample Objectives

- 3.1.2 Explain how biotic and abiotic factors work together to sustain life.
- 25.1.3 Explain how the Fall has affected the culture's view of love and human sexuality.
- 9.2.6 Refute the claim that mutation-based diseases are a challenge to the existence of God.
- 7.2.6 Reflect on how God's care for creation is seen in cell processes.

## 4. Ethics

***Creation: The knowledge of God and His commands are not merely theoretical but apply specifically to disciplines like biology.***

God's commands are never burdensome or arbitrary. They are expressions of His love for us, and our obedient response is an expression of our love for God and for others. Even before the Fall, God expected people to obey His laws in specific and even scientific ways. Adam had to avoid the tree of the knowledge of good and evil, name the animals, and care for the garden of Eden. These early commands were predominantly focused on what is now considered the realm of biology. Because all life is valuable and belongs to God (Ezek. 18:4), biology affords many opportunities to serve our neighbors as we honor our God.

***Fall: In a fallen world, ethical considerations in biology are based on secular assumptions and the shifting will of society.***

Today's modern, secular society cannot regulate or develop meaningful ethical principles because it has no moral foundation. A secular view of medical ethics is guided by the principles of autonomy, justice, beneficence, and non-maleficence. Autonomy seeks to respect a patient's freedom of decision over health-care procedures, an unhealthy freedom that knows no limits. Justice requires that treatments be equally accessible to all societal groups, even though there is no objective basis for this assertion. Beneficence requires good intentions toward the patient, but there is no definition of what is good, making this a subjective concept that often defers to whoever is allotted the most "autonomy" (e.g., as in abortion). Non-maleficence aims to avoid harming the patient or others. Yet again, without a biblical definition of "harm," this becomes a moving target that cannot provide clear answers. Relying on these principles often leads to dangerous situations and disastrous results, allowing and affirming many practices that directly contradict God's Word.

***Redemption: Scripture provides the solution for ethical dilemmas in biology.***

Because of the ever-shifting nature of the world's moral code, Christian students of biology cannot conform to it. Rather, they must rely entirely on Scripture. All creation must conform to God's Word, no matter the cultural norms. Christians need to be taught how to use their knowledge of biology in ways that contribute to human flourishing, but also how to regulate its use with the Word of God. This will bring shame and degrading critiques from the secular culture, but such offense will one day be rewarded (Matt. 5:11–12).

Students need to know how to use Scripture as their standard to answer complex ethical questions in biology. To help students with this skill, we plan to use John Frame's three perspectives as a method for making ethical decisions: (1) biblical principles, (2) biblical outcomes, and (3) biblical motives.

### *Sample Objectives*

- 1.3.2 Explain a scientist's obligation to others and the environment.
- 20.3.6 Analyze the use of puberty blockers using the principles of bioethics.
- 6.2.5 Formulate a position on CRISPR technology using the biblical ethics triad.
- 25.3.6 Compare and contrast the conclusions, foundation, and logical consequences of the two frameworks of ethics for this issue.