Biblical Worldview Scope for *Algebra 2*, 4th ed.

The following document is our attempt to answer the question "What must a student understand and value to see *Algebra 2* from a biblical perspective?" What follows is a list of themes that we believe are essential for *Algebra 2* students to grasp and internalize. We expect that early in the course students will be required to *explain* these themes, sometimes coming back to *recall* them in later chapters. Throughout the course, students will be led to *evaluate* defective ideas within each theme, *formulate* a Christian understanding of the themes, and *apply* what they have learned about these themes. We hope that students will show high levels of internalization whenever they are required to apply what they have learned. Our desire is that they not only understand the biblical worldview reflected in the exposition of these themes, but that they willingly embrace and live out this worldview.

The worldview themes for *Algebra 2* are **foundations**, **reasoning**, **modeling**, **design**, and **ethics**. In the exposition of the themes which follows, we utilize the overarching biblical framework of Creation, Fall, Redemption. In discussing a theme under the heading of Creation, we engage a topic as God meant it to look in His world in terms of creational norms. Our discussion may consider man and his world before the Fall, Jesus Christ as the perfect image of God, biblical teaching on the theme more generally, or other norms wisely discerned in light of Scripture. As we discuss a theme under the heading of Fall, we explore how a topic has been twisted in a fallen world inhabited by sinful humanity. And when we explore a theme under the heading of Redemption, we discuss how God means for Christians to live regarding the topic at hand, each Christian working redemptively in his or her own sphere to understand the topic in light of how it has been twisted and how it can be moved back toward creational norms. The goal of these themes within *Algebra 2* is the formation of a biblically faithful worldview in students that leads to enjoyment of the subject, service to their neighbor, and glorification of God.

1. Foundations—What makes the things students learn in Algebra 2 true?

All legitimate interpretation relies on Scripture.

Creation: God communicates truthfully, honestly, and reliably through His Word. The creation narrative (Gen. 1–2) presents God as the sole Creator and shows creation as being in perfect harmony. The world exists—and is upheld—by the speech of God (Gen. 1; Heb. 1:3). Moreover, God has interpreted the world for us in Scripture. His creation is understandable; humans as His image-bearers have been called to understand creation through their filling, subduing, and ruling over the earth (Gen. 1:28, often called the "Creation Mandate"). The study of algebra can be understood as a creaturely pursuit in describing God's creation. All descriptions rest on God's interpretation of the world in His Word. In other words, *God's Word is the ultimate authority—the foundation—for all things.*

Fall: The serpent twisted God's truthful, honest, and reliable word in the garden (Gen. 3:1, 4). Ever since the Fall, humanity's inclination is to reject God's commands. People turn away from—and outright reject—God and His interpretation of His own creation. Instead of trusting God for understanding, fallen man favors his own ideas (contrary to the instruction of Prov. 3:5–8). In our postmodern world, the rejection of God and His Word has led to the assertion that everyone defines truth in his or her own way.

Humanity's reliance on itself outside of God's Word has implications for every realm of life. For example, for fallen man, the consistency of mathematics does not direct attention to God's consistency and the nature of His creation. Instead, fallen man often uses mathematical principles with no regard for the God who created the world they describe.

Rather than helping describe the world, math is seen and used as a determiner of what the world is. Math, then, provides people with what they view as "absolute truth." This view, however, places a person as the sole interpreter

of the world and leaves out any attempt to include the Creator. Fallen people prefer their own interpretations and opinions to that of God's revelation. People tend to view themselves as the plumb line of their interpretations rather than viewing their interpretations as a wall being built in alignment with Scripture. Here's another way of putting this:

> You could say that the Bible is like a plumb line. A plumb line is a cord with a weight on the end. It's used to determine if a structure (a wall, for example) is vertical. If the wall is parallel to the plumb line, the wall is straight; it's true. If the wall is not parallel to the plumb line, *there's a problem with the wall, not the plumb line*.
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> So, a science (or math or history) statement that's true is true in the same way that a wall is straight: it aligns with a fixed standard. But a Bible statement is true in a way that a plumb line is true. It's true because it is truth. It is the standard by which everything else is judged.[1]

Redemption: Scripture calls believers to look upon God for all things. He alone is our sufficient source (2 Cor. 3:5). Recognizing one's insufficiency isn't easy. It's a challenge. But when people rest on Christ's atoning work and act according to His commands, they are not easily broken down (Matt. 7:24–27). The believer's firm authority is Scripture (2 Tim. 3:16–17).

The ability to describe creation consistently and in an orderly manner—as with mathematics—is a spectacular gift of God. Mathematics, then, points us back to the Creator. Instead of usurping God as Creator and Interpreter of His creation, we place our understanding upon Him as our foundation (Prov. 3:5–6). Put another way, the believer recognizes the usefulness of mathematics while still holding firm that Scripture is the ultimate authority.

2. Reasoning—What's the difference between valid and invalid reasoning?

Valid reasoning is necessary but insufficient to determine truth.

Creation: God created humans with the power to learn. This capacity is one way in which we bear the image of God. God invites us to reason with Him (Isa. 43:26). We reason in a creaturely way, however, as opposed to the way God understands the world (Isa. 55:8–9). Our reasoning skills, similar to our modeling capabilities, can provide insight into God's creation, His work, and His character. As with anything creaturely, human reasoning has limitations. Rather than determining truth, human reasoning demonstrates consistency with assumptions (i.e., validity).

Fall: Because of sin, humanity often twists this power of reasoning. Fallen humanity has come to view reason—mathematical deduction included—as a means of discovering truth. Those who take this view tend to make mathematical reasoning into an idol.

Redemption: A biblical view of reasoning acknowledges reasoning's remarkable strengths while also noting its limitations. There has to be balance. For example, people's reasoning ability helps them flag inconsistencies and contradictions and thus proves to be a chief strength. On the other hand, by that ability, people cannot discover truth but can only demonstrate validity. Real-world problem solving illustrates how valid mathematical deduction can produce untrue conclusions. In such experiences, locating the untrue assumptions that are to blame for the faulty conclusion is crucial for next steps.

3. Modeling—What do our modeling capabilities teach us?

Modeling is a useful, though incomplete, human way of representing creation.

Creation: God created people with the ability to observe His creation and make simplified representations of it. Moreover, from creation, God instructed humanity on what the nature of work is: subduing and ruling over the earth (Gen. 1:28). Humanity's understanding, ability to represent, subduing, and ruling are all subject to *creaturely* limitations. Humanity cannot observe or experience everything in the world, let alone know everything about

1 Bryan Smith, *Biblical Worldview Beyond the Basics*, 2nd ed. (Greenville, SC: BJU Press, 2025), 46, emphasis added.

everything. Therefore, mathematical models, as simplified representations of God's creation, are useful and effective so long as their design's assumptions are known, considered, and valid. Modeling with algebra must coincide with obedience and thankfulness to God.

Fall: Since the Fall, humans continuously view themselves as equal to—or even above—God. For example, mathematical models can be viewed as certain and objective, even considering their limitations. Rebellious mankind uses modeling to deny God and explain the world in their own way.

Redemption: Scripture is the standard against which all things, mathematical models included, are measured—not vice versa. Creation is complex and intricate. Mankind's modeling capabilities can be useful and effective ways to measure, predict, and understand God's creation. It must be understood, though, that they are not perfect tools. Instead, mathematical models are useful, though fallible, ways that people represent God's world. Models cannot provide ethical insight into decision-making. God's Word provides the foundation and the boundaries for our guidance in all of life.

4. Design—What does math tell us about God's creation?

We live in a world with evident design.

Creation: God created and sustains a world that reveals something of what He is like (Ps. 19:1; Rom. 1:20; Heb. 1:3). Mathematical modeling and reasoning are possible because we live in an orderly world and we are image-bearers of its Creator. The order of the world also points out the marvels of God's complex creativity. Math is helpful in describing some of the patterns seen throughout the world. Our use of math ultimately points to the glory of God in His creation as we growingly see and describe His handiwork.

Fall: Fallen humanity suppresses the truth of God's existence and of creation's evidence of a divine Creator (Ps. 14:1). Instead of recognizing that mathematical patterns and proofs point to a Creator, some have argued the world's apparent design is a result of natural processes by chance. People use mathematical laws and principles which describe the order and complexity of the world to explain the world apart from God rather than in worship of Him.

Redemption: The believer's identification of design through various mathematical means should be a cause for pondering the attributes of God. Subsequently, the identification and descriptions of the world's design should lead the believer to praise God. Because of the Fall, there are pitfalls in this pursuit to praise God as Designer. It can be easy to praise the design over and above the Designer, for instance. Yet, believers are called to praise God in all their pursuits (1 Cor. 10:31; Col. 3:17, 23). The world's mathematical patterns and design declare His excellencies (Ps. 19:1; 50:6; 89:5), and believers are called to proclaim those excellencies to the people around the world (1 Pet. 2:9).

5. Ethics—How can we use our mathematical knowledge?

There is a moral aspect to learning and practicing mathematics.

Creation: God desires close communion with His creation and wants His image-bearers to live with Him in accordance with His Word (Mic. 6:8). God has also called humanity to subdue and have dominion over the earth (Gen. 1:28). This dominion, however, is not unlike God's care over His creation. Just as the Lord is gracious and compassionate (Isa. 30:18; James 5:11), He calls believers to love fellow image-bearers as themselves (Lev. 19:18). This, in turn, leads to the pursuit of others' well-being above and beyond their own (1 Cor. 10:24). The study and application of mathematics must keep in mind the moral aspect inherent in the discipline; math equips people to subdue and have dominion over the earth.

Fall: The Fall makes selfish ambition easier and more desirable than the service of others. Unfortunately, this means even mathematics is used as a tool for those sinful ambitions. Mathematics can be studied and applied in a way that undermines the authority of God and doesn't show love to image-bearers of God. Humanity's

undermining of God's authority often comes as people value themselves over against the image of God in all people (Phil. 2:21; 2 Tim. 3:2).

The Fall makes even good endeavors to serve others difficult. Although every human bears the image of God, people value their *personal image.* People often rejoice when others fall, contrary to the instructions of Proverbs 24:17. Although math equips us to do things efficiently and effectively, many use it to glorify themselves above all else. Using math for one's own personal gain is not wrong in and of itself. However, many take advantage of others for the purpose of *selfish* personal gain.

Redemption: The study and application of mathematics must be approached in a way that both honors God and illustrates love to one's neighbor. For the believer, this concept is nonnegotiable. Mathematics equips believers in practical ways to honor God and love their neighbor. The ability to describe God's creation in mathematical ways and use that knowledge in service of others is a gift from God. Although all human endeavors have been marred by the Fall, they should still be pursued with joy because it is from the Lord that one's enjoyment comes (Eccles. 2:24–26).