# Geometry Standard Lesson Plan Overview Book 1

This Standard Lesson Plan allocates 90 days for each semester.

Test Packet, supplementary material to the *Student Text* and *Teacher’s Edition Teacher’s Toolkit CD,* included in the *Teacher’s Edition*

Student Activities, included on the *Teacher’s Toolkit CD*

\*covered in the *Teacher’s Edition* or *TTK CD*: Student Activities

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| **Day** | **Topic** | **Pages** | **Support Materials** | **Bible Integration** |
| *Chapter 1: Foundations of Geometry* |
| 1 | Introduction | v–1 |  | * using geometry in architectural feats
* building blocks for Christian living (e.g., Bible study, prayer)\*
 |
| 2–3 | 1.1 Sets | 2–6 | * Sets in Brief: Elements and Subsets
* Sets in Detail: Set Operations
* Math History: Georg Cantor
* *TTK CD*: Visuals
 | * the Great Commission (Mark 16:15)\*
* recognizing the need to witness to the unsaved (John 4:35)\*
 |
| 4 | 1.2 Undefined Terms and Definitions | 6–10 | * *TTK CD*: Visuals
 | * presupposing the Bible is God’s Word (2 Tim. 3:16)\*
* seeing the world as it is meant to be seen (Heb. 11:3)\*
 |
| 5 | 1.3 An Ideal Geometry | 10–15 | • Appendix C, The Hiroshima ofMathematics• Quiz 1 (1.1–1.2)* Geometry and Scripture: God’s Consistency
 | * describing God’s wonderfully created universe adequately is impossible (Gen. 3:14–19; Job 38; Isa. 55:8–9)
* believing the Bible is God’s Word is a Christian cornerstone (Luke 6:47–49; 2 Tim. 3:16)
* accepting Christ’s work on the cross is based on God’s Word (Acts 4:12; 1 Cor. 15:3–4)
* recognizing the sufficiency of God (2 Cor. 12:9)\*
 |
| 6 | Geometry in History—Not Your Usual Math Club | 16–18 |  | * knowing the mind of God through the revelation in the Bible (Job 38–41; Isa. 55:8–9)\*
* pattern recognition and human reasoning are a result of God’s design (Gen. 2:19–20)\*
 |
| 7 | 1.4 Subsets of Lines and Planes | 18–23 | * *TTK CD*: Visuals
 | * Jesus created all things (Col. 1:16)\*
 |
| 8 | Review 1.1–1.4 |  | • Quiz 2 (1.3–1.4)* Terms and Symbols: Sections 1–4
* Practice: Sections 1–4
* Review: Sections 1–4
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| **Day** | **Topic** | **Pages** | **Support Materials** | **Bible Integration** |
| 9 | 1.5 Segment and Angle Measure | 23–29 | * *TTK CD*: Visuals and Resources
 | * measuring our lives by the absolute standards in God’s Word (2 Cor. 10:12–18)
 |
| 10 | Technology Corner— Introduction to The Geometer’s Sketchpad | 30 |  |  |
| 11–12 | 1.6 Two-Dimensional Figures | 31–38 | * Prefixes in Detail
* Math History: Jan Brouwer
* *TTK CD*: Visuals
 | * denying the deity of Christ and the Trinity is characteristic of many false religions\*
 |
| 13 | 1.7 Three-Dimensional Figures | 39–44 | * Appendix D, Flatland

• Quiz 3 (1.5–1.6)* *TTK CD*: Visuals
 |  |
| 14 | 1.8 Sketches, Drawings, and Constructions | 45–49 | * Construction Skills
* The Geometer’s Sketchpad Investigations
* *TTK CD*: Resources
 | * God’s creation of an orderly universe (Gen. 8:22; Col. 1:16–17; 1 Cor. 14:40)
* geometric tools mentioned in Scripture (Isa. 44:13)\*
 |
| 15 | Chapter 1 Review | 50–51 | • Quiz 4 (1.7–1.8)* Terms and Symbols: Sections 5–7
* Practice: Sections 5–8
 |  |
| 16 | Activities or Mathardy |  | * Cumulative Review: Sections 1–7
* *TTK CD*: Resources
* Mathardy: Ch. 1
 |  |
| 17 | Chapter 1 Test |

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| *Chapter 2: Reasoning and Proof* |
| 18 | 2.1 Inductive Reasoning | 52–58 | * Appendix E, Sherlock Holmes
* Math History: Aristotle
* *TTK CD*: Visuals
 | * understanding and reasoning possible since
* God created humans as thinking beings
* importance of striving for understanding
* (Prov. 4:7)
* importance of reasoning (Isa. 1:18;
* 1 Pet. 3:15)
* proclaiming and accepting the gospel
* involves reasoning (Matt. 28:19–20; Acts 24:24–25)
* being wary of deceptive reasoning

(1 Cor. 6:9–10; 15:33; Gal. 6:7; 2 Cor. 11:14) |
| 19 | 2.2 Statements and Truth Values | 60–65 |  | * discerning the validity of statements

through the God of truth and His Word (Eph. 5:6; Ps. 31:5; John 17:17) |
| 20 | Geometry Around Us— Designers and Patterns | 59 | • Quiz 1 (2.1–2.2) | * God’s design in creation declares His glory (Job 37:10; 38:29; Luke 12:27; Ps. 19:1) biomimicry
* learning from God’s creation (Job 12:7–8;

Prov. 6:6–8)\* |
| 21–22 | 2.3 Conditionals and Biconditionals | 65–71 | * Practicing Truth Tables
* Switching Circuits
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| **Day** | **Topic** | **Pages** | **Support Materials** | **Bible Integration** |
| 23 | 2.4 Deductive Reasoning | 71–77 | * Appendix F, Through the Looking Glass
* Appendix G, God and Logic
* *TTK CD*: Resources
 | * sinful man must die (Rom. 3:23; 6:23; Rev. 21:8)
* believing on Jesus brings salvation (Rom. 10:9–13)
* the importance of logic from a Christian perspective\*
* Christ’s resurrection guarantees ours (1 Cor. 15:13–20)
* encouraging sound doctrine (2 Tim. 4:1–5; Titus 1:9–11)
 |
| 24 | Review 2.1–2.4 |  | • Quiz 2 (2.3–2.4)* Geometry and Scripture: Statements
* Fallacies in Advertising
 | * understanding logic statements to discern truth and to avoid deception\*
 |
| 25 | 2.5 Algebraic Reasoning | 78–83 | * Sports Teams as an Equivalence Relation
* Truth Tables in Detail
* *TTK CD*: Visuals
 | * our labor in the work of the Lord is not in vain (1 Cor. 15:58)
* God’s Word guides us (Prov. 6:23; Ps. 119:105)\*
 |
| 26 | 2.6 Proofs Using Segments | 83–87 | * Pasch’s Postulate
* *TTK CD*: Visuals
 | * working diligently at tasks set before us (Gen. 2:15; Eph. 4:28; Col. 3:23; 2 Thess. 3:10–13)
 |
| 27 | Technology Corner— Angle Conjectures | 88 | • Quiz 3 (2.5–2.6) |  |
| 28–29 | 2.7 Proofs Using Angles | 89–96 | * *TTK CD*: Visuals
 |  |
| 30 | 2.8 Bisectors | 97–102 | * The Geometer’s Sketchpad Investigations
* Construction Skills
* *TTK CD*: Visuals and Resources
 |  |
| 31 | Chapter 2 Review | 103–5 | • Quiz 4 (2.7–2.8) |  |
| 32 | Activities or Mathardy |  | * Terms, Symbols, and Proofs
* Cumulative Review
* Mathardy: Ch. 2
 |  |
| 33 | Chapter 2 Test |

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| *Chapter 3: Parallel and Perpendicular Lines* |
| 34 | 3.1 Parallel Lines and Transversals | 106–13 | * Parallel Lines
* *TTK CD*: Visuals and Resources
 | * designing unique buildings geometrically
 |
| 35 | 3.2 Proving Lines Parallel | 114–19 | * Practicing with Transversals
* *TTK CD*: Visuals
 |  |
| 36 | 3.3 Constructing Parallel and Perpendicular Lines | 120–25 | * Appendix H, Learning Math and Learning Truth: Back to Jerusalem and Athens

• Quiz 1 (3.1–3.2)* Construction Skills
* Architecture in Brief
* *TTK CD*: Resources
 | * viewing mathematics and truth from a biblical perspective\*
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| **Day** | **Topic** | **Pages** | **Support Materials** | **Bible Integration** |
| 37 | Geometry in History—A Revolutionary Museum | 126–28 | • Quiz 2 (3.3) | * God’s Word reveals erroneous thinking (Gal. 1:8)\*
* recognizing the true source of knowledge (Prov. 1:7; John 17:17)
* affirming the existence of God (Rom. 1:20; 1 Cor. 8:6; Col. 2:3; Rev. 4:11)\*
 |
| 38 | 3.4 Distances, Midpoints, and Slopes | 129–35 | * Geometry and Scripture:

Distance* *TTK CD*: Visuals
 | * ensuring safety (Deut. 22:8)\*
* understanding measurements in Scripture\*
 |
| 39 | Technology Corner— Midpoints and Slopes | 136 |  |  |
| 40–41 | 3.5 Equations of Lines | 137–42 | * The Geometer’s Sketchpad Investigations
* Math History: Johann Heinrich Lambert
 |  |
| 42 | Chapter 3 Review | 143–45 | • Quiz 3 (3.4–3.5) |  |
| 43 | Activities or Mathardy |  | * Cumulative Review
* Mathardy: Ch. 3
 |  |
| 44 | Chapter 3 Test |
| 45 | Review Chapters 1–3 |
| 46 | First Quarter Exam (Chapters 1–3) |

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| *Chapter 4: Congruent Triangles* |
| 47 | 4.1 Angles in Triangles | 146–55 | * The Geometer’s Sketchpad Investigations
* *TTK CD*: Visuals and Resources
 | * avoiding deception by relying on the Bible (Gal. 1:8–9; 1 John 4:1; Acts 17:11)
* loving God leads to loving others (Luke 10:27)\*
* setting our affections on things above (Col. 3:2; Matt. 6:33)\*
 |
| 48 | 4.2 Congruent Figures | 156–62 | * Design in Detail
* *TTK CD*: Visuals
 |  |
| 49 | 4.3 Congruence Postulates | 163–68 | • Quiz 1 (4.1–4.2)* *TTK CD*: Visuals
 |  |
| 50 | 4.4 Applying Congruence Postulates | 169–75 | * *TTK CD*: Visuals
 | * striving to achieve (Phil. 3:13–17)
* serving God enthusiastically brings His reward (Col. 3:23–24)
 |
| 51 | Review 4.1–4.4 |  |  |  |
| 52 | Technology Corner— Exploring AAA and SSA | 176 | • Quiz 2 (4.3–4.4) |  |
| 53 | 4.5 Conditions for Congruent Triangles | 177–85 | * Math History: Euclid
* *TTK CD*: Visuals
 |  |
| 54 | 4.6 Right Triangle Congruence | 185–91 | * Construction Skills
* Terms and Symbols
* *TTK CD*: Visuals
 |  |
| 55 | Review 4.5–4.6 |  |  |  |
| 56 | Geometry Around Us— Architects and Buildings | 192 | • Quiz 3 (4.5–4.6)* Geometry and Scripture: Architecture
 | * following plans in construction (1 Chron. 28:11–12; 1 Kings 6)
* recognizing God’s involvement in the architecture of the ark, the tabernacle, and the New Jerusalem\*
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| **Day** | **Topic** | **Pages** | **Support Materials** | **Bible Integration** |
| 57 | 4.7 Coordinate Geometry of Triangles | 193–200 | * *TTK CD*: Visuals
 |  |
| 58 | Chapter 4 Review | 201–3 | • Quiz 4 (4.7) |  |
| 59 | Activities or Mathardy |  | * Cumulative Review
* Mathardy: Ch. 4
 |  |
| 60 | Chapter 4 Test |
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| *Chapter 5: Relationships in Triangles* |
| 61–62 | 5.1 Circumcenter and Orthocenter | 204–13 | * Appendix I, Concurrency Proofs
* Conjectures
* *TTK CD*: Visuals
 | * providing geometric beauty in design with triangles
* symbolizing the Trinity with an equilateral triangle (Matt. 28:19; John 10:30)
* Christians encouraged to be like-minded (Phil. 2:2)\*
 |
| 63 | 5.2 Incenter and Centroid | 214–20 | * Appendix I, Concurrency Proofs
* The Geometer’s Sketchpad Investigations
* *TTK CD*: Visuals and Resources
 |  |
| 64 | Technology Corner— Triangle Relationships | 221 | • Quiz 1 (5.1–5.2) |  |
| 65 | 5.3 Inequalities | 221–27 | * Math History: Jean-Victor Poncelet
* *TTK CD*: Visuals
 | * illustrating inequality properties (Gen. 5; 41; Exod. 30; Matt. 25:14–30)
 |
| 66–67 | 5.4 Indirect Proofs | 227–32 | * Indirect Proofs in Detail
* Detectives
 | * illustrating indirect reasoning (2 Kings 7:3–5;
* 1 Cor. 15:12–20; Matt. 7:24–27)
 |
| 68 | Geometry Around Us— Carpentry | 233 | • Quiz 2 (5.3–5.4) | * identifying opportunities for good works (James 2:14–16; Matt. 5:16; 2 Tim. 3:17)\*
* fulfilling the Great Commission (Matt. 28:19–20)\*
 |
| 69 | 5.5 More Inequalities | 234–42 | * *TTK CD*: Visuals and Resources
 |  |
| 70 | Chapter 5 Review | 243–45 | • Quiz 3 (5.4–5.5) |  |
| 71 | Activities or Mathardy |  | * Terms and Proofs
* Cumulative Review
* Mathardy: Ch. 5
 |  |
| 72 | Chapter 5 Test |

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| **Day** | **Topic** | **Pages** | **Support Materials** | **Bible Integration** |
| *Chapter 6: Quadrilaterals* |
| 73 | 6.1 Classifying Quadrilaterals | 246–54 | * *TTK CD*: Visuals and Resources
 | * using geometric relationships in helping others
 |
| 74 | Technology Corner— Exploring Quadrilaterals | 255 |  |  |
| 75 | 6.2 Characteristics of Parallelograms | 256–63 | * Math History: Quadrilaterals
* Geometry and Scripture: Dimensions
* *TTK CD*: Visuals
 | * exploring the dimensions of our universe and understanding that God is not limited by scientific laws\*
 |
| 76–77 | 6.3 Proofs of Parallelograms | 263–69 | • Quiz 1 (6.1–6.2)* *TTK CD*: Visuals and Resources
 |  |
| 78 | 6.4 Rectangles, Rhombi, and Squares | 270–76 | * Construction Skills
* *TTK CD*: Visuals
 |  |
| 79 | Review 6.1–6.4 |  | • Quiz 2 (6.3–6.4) |  |
| 80 | 6.5 Trapezoids and Kites | 277–85 | * Parallelogram Proofs
* Cyclic Quadrilaterals
* The Geometer’s Sketchpad Investigations
* *TTK CD*: Visuals and Resources
 |  |
| 81 | Geometry Around Us— Sports | 286 |  | * presenting our bodies prepared for every good work (1 Cor. 6:19–20; Rom. 12:1; 2 Tim. 2:21)
* competing correctly with grace (2 Tim. 2:5; Matt. 7:12; Phil. 2:3–4)
* learning self-discipline (Eccles. 7:9; Titus 2:12)
* bringing honor to Christ instead of self(Matt. 20:25–28; Prov. 25:27; 1 Cor. 10:31; 2 Cor. 10:17; Jer. 9:23–24)
 |
| 82–83 | 6.6 Coordinate Geometry of Quadrilaterals | 287–92 | * Terms and Proofs
 |  |
| 84 | Chapter 6 Review | 293–95 | • Quiz 3 (6.5–6.6) |  |
| 85 | Activities or Mathardy |  | * Cumulative Review
* Mathardy: Ch. 6
 |  |
| 86 | Chapter 6 Test |
| 87–89 | Review for Second Quarter Exam (Chapters 4–6) or First Semester Exam (Chapters 1–6) |
| 90 | Second Quarter Exam or First Semester Exam |

# Geometry Standard Lesson Plan Overview Book 2

This Standard Lesson Plan allocates 90 days for each semester.

Test Packet, supplementary material to the *Student Text* and *Teacher’s Edition Teacher’s Toolkit CD,* included in the *Teacher’s Edition*

Student Activities, included on the *Teacher’s Toolkit CD*

\*covered in the *Teacher’s Edition* or *TTK CD*: Student Activities

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| **Day** | **Topic** | **Pages** | **Support Materials** | **Bible Integration** |
| *Chapter 7: Area* |
| 91 | 7.1 Areas of Rectangles, Parallelograms, and Triangles | 296–304 | • Geometry and Scripture: Area• Perimeter and Area• The Geometer’s SketchpadInvestigations* *TTK CD*: Visuals
 | * God formed the earth for man to havedominion (Isa. 45:18; Gen. 1:28)\*
* considering the needs of others as farmers improve agricultural techniques (Lev. 19:9– 10; Deut. 24:19–22; Ruth 2:2–3; Matt. 12:1)
* preaching the gospel to all lands(Rom. 15:20–24)
* realizing the importance of evangelism (1 Cor. 9:16)\*
* understanding area in Scripture\*
 |
| 92 | Technology Corner— Center of Gravity | 305 |  |  |
| 93 | 7.2 Areas of Other Quadrilaterals | 306–11 | • *TTK CD*: Visuals |  |
| 94 | 7.3 The Pythagorean Theorem | 312–17 | • Quiz 1 (7.1–7.2)• Math History: Heron of Alexandria* *TTK CD*: Visuals
 | * God’s creation of man’s intellectual ability versus the evolutionary view of the undeveloped intelligence of the caveman\*
 |
| 95–96 | 7.4 Special Right Triangles | 318–24 | • Skills Review: Sections 1–4* *TTK CD*: Visuals
 |  |
| 97 | Geometry in History— Another Purpose | 325–26 | • Quiz 2 (7.3–7.4) | * impact of worldview on vocations (Deut. 18:10–14)\*
* consulting worldly wisdom is fruitless (Dan. 4:6–7)\*
 |
| 98 | 7.5 Areas of Regular Polygons | 327–32 | • Drawing Octagons• *TTK CD*: Visuals |  |
| 99–100 | 7.6 Circles, Sectors, and Segments | 333–38 | • Skills Review: Sections 5–6• Geometric Probability• Terms, Symbols, and Proofs• *TTK CD*: Visuals |  |
| 101 | Chapter 7 Review | 339–41 | • Quiz 3 (7.5–7.6) |  |
| 102 | Activities or Mathardy |  | • Cumulative Review• Mathardy: Ch. 7 |  |
| 103 |  Chapter 7 Test |

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| **Day** | **Topic** | **Pages** | **Support Materials** | **Bible Integration** |
| *Chapter 8: Circles* |
| 104 | 8.1 Circles and Chords | 342–50 | * The Geometer’s Sketchpad Investigations
* *TTK CD*: Visuals
 | * ability to communicate brings responsibility to edify others (James 3:1–12)
* unity of the Trinity (Matt. 28:19; 1 Tim. 2:5)
 |
| 105–6 | 8.2 Tangents | 351–58 | * The Geometer’s Sketchpad Investigations
* Locus Problem Principles
* *TTK CD*: Visuals
 |  |
| 107 | Technology Corner— Constructing Common Tangents | 359 |  |  |
| 108–9 | 8.3 Arc Measure and Length | 360–68 | • Quiz 1 (8.1–8.2)* Math History: Archimedes
* *TTK CD*: Visuals
 |  |
| 110 | Geometry Around Us— Transportation | 369 |  | * fearing and believing the Lord (Exod. 14:25–31)
* preparing to do God’s will (Eph. 5:17)
* using geometry to exercise dominion over
* the earth and meet people’s needs (Gen. 1:28; Gal. 6:2)\*
* biomimicry (Col. 1:16)\*
 |
| 111 | 8.4 Inscribed Angles | 370–75 | * Geometry and Scripture: Pi
* *TTK CD*: Visuals
 | * exploring the value of pi as described in 1 Kings 7:23–26\*
 |
| 112 | Review 8.1–8.4 |  | • Quiz 2 (8.3–8.4) |  |
| 113 | 8.5 Angles and Circles | 376–81 | * *TTK CD*: Visuals
 |  |
| 114–15 | 8.6 Circular Constructions | 382–86 | • Quiz 3 (8.5)* Construction Skills
* Cyclic Quadrilaterals Revisited
* *TTK CD*: Visuals and Resources
 |  |
| 116 | 8.7 Coordinate Geometry of Circles | 387–92 | * Skills Review
 |  |
| 117 | Chapter 8 Review | 393–95 | • Quiz 4 (8.6–8.7)* Terms and Symbols
 |  |
| 118 | Activities or Mathardy |  | * Cumulative Review
* Mathardy: Ch. 8
 |  |
| 119 | Chapter 8 Test |

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| *Chapter 9: Surface Area and Volume* |
| 120 | 9.1 Analyzing Three- Dimensional Figures | 396–404 | * *TTK CD*: Visuals and Resources
 | * applying scripturally derived principles to mathematical methods (2 Tim. 3:16–17)\*
* true wisdom begins with the fear of the Lord (Prov. 9:10)
 |
| 121 | Technology Corner— Platonic Solids | 405 | * Math History: Plato
* Platonic Solids
 |  |
| 122 | 9.2 Surface Areas of Prisms and Cylinders | 406–12 | * *TTK CD*: Visuals
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| **Day** | **Topic** | **Pages** | **Support Materials** | **Bible Integration** |
| 123 | 9.3 Surface Areas of Pyramids and Cones | 412–21 | • Quiz 1 (9.1–9.2)* *TTK CD*: Visuals
 |  |
| 124 | 9.4 Volumes of Prisms and Cylinders | 421–28 | * Geometry and Scripture: Volume
* *TTK CD*: Visuals
 | * using just balances and measures (Ezek. 45:10)\*
* understanding units of volume in Scripture\*
 |
| 125 | Review 9.1–9.4 Geometry Around Us—Engineering | 435 |  | * developing a solid biblical worldview as a means to making wise choices and honoring God in all we do
 |
| 126 | 9.5 Volumes of Pyramids and Cones | 428–34 | • Quiz 2 (9.3–9.4)* *TTK CD*: Visuals and Resources
 |  |
| 127 | 9.6 Surface Areas and Volumes of Spheres | 436–41 | * Skills Review: Surface Area and Volume
 |  |
| 128 | Review 9.5–9.6 |  | • Quiz 3 (9.5–9.6) |  |
| 129 | 9.7 Geometry of Spheres | 441–46 | * Appendix M, Implications and Insights
* Math History: Georg Friedrich Bernhard Riemann
* Hyperbolic Geometry
* *TTK CD*: Visuals
* Any world atlas or globe
 | * faith is not in the wisdom of men (1 Cor. 2:5)
* God’s infallible Word provides a sure foundation (2 Tim. 3:16)
 |
| 130 | 9.8 Drawing Three- Dimensional Figures | 446–52 | * Math History: Gaspard Monge
* The Geometer’s Sketchpad Investigations

*TTK CD*: Visuals and Resources |  |
| 131 | Chapter 9 Review | 453–55 | • Quiz 4 (9.7–9.8)* Terms and Practice
 |  |
| 132 | Activities or Mathardy |  | * Cumulative Review

Mathardy: Ch. 9 |  |
| 133 | Chapter 9 Test |
| 134 | Review Chapters 7–9 |
| 135 | Third Quarter Exam (Chapters 7–9) |

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| *Chapter 10: Transformations and Symmetry* |
| 136 | 10.1 Reflections | 456–65 | * Transformations in Brief
* The Geometer’s Sketchpad Investigations
* *TTK CD*: Visuals and Resources
 | * the earth and its living creatures testify that God created it all (Job 12:7–10)
* biomimicry
 |
| 137 | 10.2 Translations | 465–72 | * Geometry and Scripture: Transformations
* *TTK CD*: Visuals and Resources
 | * exploring translations found in Scripture\*
 |
| 138–39 | 10.3 Rotations | 473–80 | • Quiz 1 (10.1–10.2)* *TTK CD:* Visuals and Resources
 |  |
| 140 | 10.4 Isometries | 481–88 | * Rigid Motion and Isometries
* *TTK CD*: Visuals and Resources
 |  |
| 141 | Review 10.3–10.4 |  | • Quiz 2 (10.3–10.4) |  |

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| **Day** | **Topic** | **Pages** | **Support Materials** | **Bible Integration** |
| 142 | Geometry in History— Computer Graphics | 489–91 | * The Geometer’s Sketchpad Investigations
 | * analyzing and responding to an expressed
* worldview
* the universe was created and is sustained by God (Gen. 1:1–2; Jer. 32:17; Rom. 11:36; Col. 1:16–17; Job 33:4; 1 Cor. 8:6)\*
 |
| 143 | 10.5 Symmetry | 492–98 | * *TTK CD*: Visuals
 | * praising God for His wonderful works of creation (Ps. 139:14)
* humans without excuse before God (Rom. 1:20)
 |
| 144 | 10.6 Dilations | 498–504 | * Math History: Felix Klein
* Möbius Strip and Klein Bottle
* Topological Transformations
* *TTK CD*: Visuals and Resources
 |  |
| 145 | Review 10.5–10.6 |  | • Quiz 3 (10.5–10.6) |  |
| 146 | 10.7 Tessellations | 505–9 | * *TTK CD*: Visuals and Resources
 |  |
| 147 | Technology Corner— Drawing Tessellations | 510 |  |  |
| 148 | Chapter 10 Review | 511–15 | • Quiz 4 (10.7)* Terms, Symbols, and Practice
* *TTK CD*: Resources
 | * worldview analysis essay exercise
 |
| 149 | Activities or Mathardy |  | * Cumulative Review
* Mathardy: Ch. 10
 |  |
| 150 | Chapter 10 Test |

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| *Chapter 11: Similarity* |
| 151 | 11.1 Similar Figures | 516–24 | * Math History: David Hilbert
* *TTK CD*: Visuals
 | * praising God for His wonderful works of creation (Ps. 139:14)
* discussion of the scale model of Jerusalem\*
 |
| 152 | 11.2 Proving Similar Triangles | 524–32 | * Appendix N, Postulate Summary
* The Geometer’s Sketchpad

Investigations* *TTK CD*: Visuals and Resources
 |  |
| 153 | 11.3 Similarity Within Right Triangles | 532–38 | • Quiz 1 (11.1–11.2)* The Geometer’s Sketchpad Investigations
* *TTK CD*: Visuals and Resources
 |  |
| 154 | Technology Corner— Investigating Parallel Partitions | 539 |  |  |
| 155 | 11.4 Proportional Partitions | 540–48 | * *TTK CD*: Visuals
 |  |
| 156 | Review 11.1–11.4 |  | • Quiz 2 (11.3–11.4) |  |
| 157 | 11.5 Lengths, Areas, and Volumes of Similar Figures | 549–54 | * The Geometer’s Sketchpad Investigations
* *TTK CD*: Visuals and Resources
 |  |
| 158 | 11.6 Circles and Proportions | 555–62 | * *TTK CD*: Visuals and Resources
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| **Day** | **Topic** | **Pages** | **Support Materials** | **Bible Integration** |
| 159 | Geometry Around Us—Art | 563 | * Appendix O, Leonardo da Vinci

• Quiz 3 (11.5–11.6)* Geometry and Scripture: Images
 | * recognizing proportions in creation
* using artistic talents in ministry
* understanding God’s view of artistic
* images\*
* understanding that we are created in God’s image\*
 |
| 160 | 11.7 The Golden Ratio | 564–70 | * Appendix P, Spirals
* The Geometer’s Sketchpad

Investigations* *TTK CD*: Visuals
 | * communicating accurately and honestly so personal testimony and integrity are not harmed (2 Cor. 8:21)\*
* intriguing examples of golden spirals in nature from a biblical worldview\*
 |
| 161 | Chapter 11 Review | 571–73 | • Quiz 4 (11.7)* Skills Review
 | * preparing to serve God wherever He may lead\*
 |
| 162 | Activities or Mathardy |  | * Cumulative Review
* Mathardy: Ch. 11
 |  |
| 163 | Chapter 11 Test |
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| *Chapter 12: Trigonometry* |
| 164 | 12.1 Trigonometric Ratios | 574–81 | * Math History: The Development of Trigonometry
* The Geometer’s Sketchpad Investigations
* *TTK CD*: Visuals and Resources
 | * using geometry in surveying, space
* exploration, navigation, and engineering to provide for needs of life on earth (Deut. 19:14; 27:17)
 |
| 165 | 12.2 Solving Right Triangles | 582–88 | * *TTK CD*: Visuals and Resources
 |  |
| 166 | Geometry Around Us— Space Exploration | 589 | • Quiz 1 (12.1–12.2) | * discussion and worldview analysis relating to quotes from astronauts
 |
| 167 | 12.3 Area | 590–95 | * Skills Review: Sections 1–3
* *TTK CD*: Visuals
 |  |
| 168 | 12.4 Vectors | 596–601 | * *TTK CD*: Visuals
 |  |
| 169 | Review 12.3–12.4 |  | • Quiz 2 (12.3–12.4) |  |
| 170 | Technology Corner— Discovering Trigonometric Identities | 602 |  |  |
| 171 | 12.5 Trigonometric Identities | 603–7 | * Golden Rectangle: Proof Construction
 | * Jesus is one with God (John 5:18; 10:30)\*
 |
| 172 | 12.6 Law of Cosines and Law of Sines | 608–13 | * Skills Review: Section 6
* *TTK CD*: Visuals
 | * using trigonometry to better fulfill the Creation Mandate (Gen. 1:28)\*
 |
| 173 | Review 12.5–12.6 |  | • Quiz 3 (12.5–12.6)* Terms and Practice
 |  |
| 174 | Chapter 12 Review | 614–16 | * Cumulative Review
 |  |
| 175 | Activities or Mathardy |  | * Mathardy: Ch. 12
 |  |
| 176 | Chapter 12 Test |
| 177–79 | Review for Fourth Quarter Exam (Chapters 10–12) or Second Semester Exam (Chapters 7–12) |
| 180 | Fourth Quarter Exam or Second Semester Exam |