Math 5 4th Edition  
Lesson Plan Overview

| Lesson | | Teacher Edition Pages | | Worktext Pages | | Activities Pages | | Lesson Objectives | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Chapter 1: Number Sense | | | | | | | | | |
| 1 | | 1–7 | | 1–4 | | 1–2 | | * Identify how math helps us serve others BWS * Identify the repetition of the Ones, Tens, and Hundreds places in each period * Read numbers with 9 or fewer digits * Write numbers in standard form, word form, expanded form, and expanded form with multiplication * Identify the value of each digit in a number * Compare numbers | |
| 2 | | 8–11 | | 5–6 | | 3–4 | | * Identify the repetition of the Ones, Tens, and Hundreds places in each period * Read numbers with 12 or fewer digits * Write numbers in standard form, word form, expanded form, and expanded form with multiplication * Identify the value of each digit in a number * Compare numbers * Round numbers to the place of greatest value * Round numbers to a given place | |
| 3 | | 12–15 | | 7–8 | | 5–6 | | * Identify, read, and write decimals to the One Thousandths place * Identify a decimal on a number line * Write decimals in standard form, word form, fraction form, expanded form, and expanded form with multiplication * Identify the value of each digit in a decimal * Explain how math is used to make airplanes safe BWS | |
| 4 | | 16–19 | | 9–10 | | 7–8 | | * Identify equivalent decimals * Compare decimals * Round decimals to a given place | |
| 5 | | 20–23 | | 11–12 | | 9–10 | | * Read, write, and identify positive and negative numbers * Label a number line to show positive and negative numbers * Relate positive and negative numbers to their use in real-life situations | |
| 6 | | 24–27 | | 13–14 | | 11–12 | | * Compare and order positive and negative numbers * Identify the number that is 1 more or 1 less * Plot positive and negative numbers on a number line * Explain how math is used to solve real-life problems BWS | |
| 7 | | 28–29 | | 15–16 | |  | | * Write Roman numerals for 1–100 * Identify a pattern in writing Roman numerals | |
| 8 | | 30–33 | | 17–18 | | 13–14 | | * Review the concepts presented in Chapter 1 in preparation for the Chapter 1 Test | |
| 9 | | 34–36 | |  | | 15–16 | | Concept Review | |
| Chapter 2: Addition & Subtraction | | | | | | | | | |
| 10 | | 37–43 | | 19, 21–22 | | 17–18 | | * Recall that math is a tool for modeling the world around us BWS * Apply the Commutative Property of Addition * Apply the Identity Property of Addition and the Zero Principle of Subtraction * Apply the Associative Property of Addition * Solve addition and subtraction equations with variables * Complete input/output tables | |
| 11 | | 44–47 | | 20, 23–24 | | 19–20 | | * Add 4-, 5-, and 6-digit numbers * Estimate the sum by rounding * Solve addition problems with 3 or more addends * Apply addition and subtraction principles to read a bar graph | |
| 12 | | 48–51 | | 25–26 | | 21–22 | | * Round decimals to the place of greatest value * Estimate the sum by rounding * Add decimals with 3 or fewer decimal places * Solve addition problems with 3 or more addends | |
| 13 | | 52–55 | | 27–28 | | 23–24 | | * Subtract numbers with 6 or fewer digits * Estimate the difference by rounding * Subtract 5- and 6-digit numbers, renaming 0s * Interpret a line graph * Explain how math is useful for modeling the world BWS | |
| 14 | | 56–59 | | 29–30 | | 25–26 | | * Subtract decimals with 3 or fewer decimal places * Estimate the difference by rounding * Solve a subtraction word problem and interpret the solution | |
| 15 | | 60–63 | | 31–32 | | 27–28 | | * Write related addition and subtraction facts * Solve addition and subtraction equations with variables * Complete input/output tables | |
| 16 | | 64–67 | | 33–34 | |  | | * Use compensation to add numbers mentally * Use compensation to subtract numbers mentally * Solve addition and subtraction word problems and interpret the solutions * Explain how math is a tool for modeling the world BWS | |
| 17 | | 68–71 | | STEM  20, 35 | |  | | * Recall the Engineering Design Process * Identify the problem that needs to be solved * Design a route and map it on a grid * Use words to write an algorithm * Explain how a map uses math to model the world BWS | |
| 18 | | 72–75 | | STEM  36 | |  | | * Review the Engineering Design Process * Define terms * Encode 3 commands * Use code to write an algorithm * Make an algorithm decoder * Decipher a coded algorithm and use it to find a location on a map grid * Debug bad code * Explain how codes use math to model the world BWS | |
| 19 | | 76–79 | | 37–38 | | 29–30 | | * Review the concepts presented in Chapter 2 in preparation for the Chapter 2 Test | |
| 20 | | 80–82 | |  | | 31–32 | | Concept Review | |
| Chapter 3: Multiplication | | | | | | | | | |
| 21 | | 83–89 | | 39, 41–42 | | 33–34 | | * Recall that math shows that the world is designed BWS * Identify and use the terms factor and product * Solve multiplication equations with a multiplication dot * Apply properties of multiplication * Write a mathematical expression for a word phrase | |
| 22 | | 90–93 | | 43–44 | | 35–36 | | * Generate multiples of a number * Determine whether a number is prime or composite * Determine whether a product is even or odd | |
| 23 | | 94–97 | | 45–46 | | 37–38 | | * Analyze patterns and use mental math to multiply factors that are multiples of 10 * Apply the Associative and Commutative Properties of Multiplication * Apply the Distributive Property of Multiplication over Addition * Explain how the Creator-designed orderliness of math is useful BWS | |
| 24 | | 98–101 | | 47–48 | | 39–40 | | * Apply the Distributive Property of Multiplication over Addition * Estimate the product by rounding * Solve a multiplication word problem * Multiply a 3- or 4-digit factor by a 1-digit multiplier * Solve money multiplication problems | |
| 25 | | 102–5 | | 49–50 | | 41–42 | | * Multiply a 2-digit factor by a 2-digit multiplier * Estimate the product by rounding * Solve a multiplication word problem * Multiply a 3-digit factor by a 2-digit multiplier | |
| 26 | | 106–9 | | 51–52 | | 43–44 | | * Multiply a 4-digit factor by a 2-digit multiplier * Solve a multiplication problem with a variable | |
| 27 | | 110–13 | | 40, 53–54 | | 45–46 | | * Multiply a 3-digit factor by a 3-digit multiplier * Solve multiplication problems with 0s in the multiplier | |
| 28 | | 114–17 | | 55–56 | | 47–48 | | * Determine whether a number is prime or composite * Write the prime factorization of a number * Determine whether a number is divisible by 2, 5, or 10 | |
| 29 | | 118–21 | | 57–58 | |  | | * Relate repeated addition to multiplication and exponential form * Write powers of 10 in exponential form * Relate exponential notation to prime factorization * Explain how math shows that the world is designed BWS | |
| 30 | | 122–25 | | 59–60 | | 49–50 | | * Review the concepts presented in Chapter 3 in preparation for the Chapter 3 Test | |
| 31 | | 126–28 | |  | | 51–52 | | Concept Review | |
| Chapter 4: Geometry: Lines & Angles | | | | | | | | | |
| 32 | | 129–35 | | 61, 63–64 | | 53–54 | | * Explain that math is useful to us because our minds are patterned after the orderly mind of God BWS * Identify and name points, lines, line segments, and planes * Write ordered pairs to identify points on a coordinate graph * Plot points on a coordinate graph * Use points on a coordinate graph to construct a line | |
| 33 | | 136–39 | | 62, 65–66 | | 55–56 | | * Identify and name rays and angles * Classify right, acute, obtuse, and straight angles * Use a protractor to measure angles | |
| 34 | | 140–43 | | 67–68 | | 57–58 | | * Identify lines as parallel, perpendicular, or intersecting * Identify right, acute, obtuse, and straight angles * Use a protractor to measure angles * Relate angles to real-life situations * Explain how the orderliness of math shows that the world is designed BWS | |
| 35 | | 144–47 | | 69–70 | | 59–60 | | * Use a protractor to measure and draw angles * Write an equation to find the unknown measure of an angle in a pair of supplementary angles | |
| 36 | | 148–51 | | 71–72 | | 61–62 | | * Demonstrate that the sum of the angle measurements of any triangle is 180° * Measure the angles within a triangle * Identify right, acute, and obtuse triangles * Find the unknown measure of an angle in a triangle | |
| 37 | | 152–55 | | 73–74 | | 63–64 | | * Name a circle * Identify, name, and draw a center point, a radius, a diameter, a chord, and a central angle in a circle * Determine the measure of an unknown central angle in a circle * Use a protractor to measure the central angles in a circle * Relate circles to real-life situations | |
| 38 | | 156–59 | | 75–76 | | 65–66 | | * Construct geometric figures on a coordinate graph | |
| 39 | | 160–61 | | STEM  62, 77 | |  | | * Identify the problem that needs to be solved * Research paper airplane design * Choose a paper airplane design * Follow a pattern to make a paper airplane * Predict how the airplane will perform | |
| 40 | | 162–63 | | STEM  78 | |  | | * Measure the distance a paper airplane flies * Record test data in a table * Modify design elements to improve performance * Retest the paper airplane * Record test data in a table * Evaluate the belief that the order and consistency we observe in our world can be explained by chance BWS | |
| 41 | | 164–67 | | 79–80 | | 67–68 | | * Review the concepts presented in Chapter 4 in preparation for the Chapter 4 Test | |
| 42 | | 168–70 | |  | | 69–70 | | Concept Review | |
| Chapter 5: Division: 1-Digit Divisors | | | | | | | | | |
| 43 | | 171–77 | | 81, 83–84 | | 71–72 | | * Recall that math enables us to make wise choices BWS * Solve partition and measurement division problems * Solve a division word problem and interpret the solution * Write related multiplication and division equations | |
| 44 | | 178–81 | | 82, 85–86 | | 73–74 | | * Divide to find a 1-digit quotient * Solve a division word problem * Use multiplication to check the quotient of a division problem | |
| 45 | | 182–85 | | 87–88 | | 75–76 | | * Divide to find 2-digit quotients * Solve a division word problem * Divide to find 1-digit quotients * Interpret a remainder | |
| 46 | | 186–89 | | 89–90 | | 77–78 | | * Divide to find 2- and 3-digit quotients * Solve a division word problem * Interpret a remainder * Determine the average * Explain that humans can solve problems because God made us able to think and reason   BWS | |
| 47 | | 190–93 | | 91–92 | | 79–80 | | * Complete a division input/output table * Divide to find quotients with 0 * Solve a division word problem and interpret the solution | |
| 48 | | 194–97 | | 93–94 | | 81–82 | | * Solve a missing-factor equation with a variable * Divide a 4-digit dividend * Divide money * Explain that humans can solve problems because God made us able to think and reason   BWS * Write and solve a money division word problem | |
| 49 | | 198–201 | | 95–96 | | 83–84 | | * Analyze patterns and use mental math to divide multiples of 10 * Complete a division input/output table * Use compatible numbers to estimate a quotient | |
| 50 | | 202–5 | | 97–98 | | 85–86 | | * Write a mathematical expression for a word phrase * Use the short form of division to find a quotient * Solve a division word problem and interpret the solution | |
| 51 | | 206–9 | | 99–100 | | 87–88 | | * Review the concepts presented in Chapter 5 in preparation for the Chapter 5 Test | |
| 52 | | 210–12 | |  | | 89–90 | | Concept Review | |
| Chapter 6: Fractions | | | | | | | | | |
| 53 | | 213–19 | | 101, 103–4 | | 91–92 | | * Explain how math helps a test pilot make wise choices BWS * Identify and use the terms numerator and denominator * Compare and order like and unlike fractions * Compare fractions to 1 whole * Write equivalent fractions * Compare fractions to  |  | | --- | | 1 | | 2 | | |
| 54 | | 220–23 | | 102, 105–6 | | 93–94 | | * Rename a fraction to higher terms * Rename a fraction to lower terms * Compare and order related fractions | |
| 55 | | 224–27 | | 107–8 | | 95–96 | | * Rename an improper fraction as a mixed number * Rename a mixed number as an improper fraction | |
| 56 | | 228–31 | | 109–10 | | 97–98 | | * Compare mixed numbers and improper fractions * Evaluate information by comparing fractions to make wise choices BWS * Round mixed numbers to the nearest whole number | |
| 57 | | 232–35 | | 111–12 | | 99–100 | | * List the factors of a number * Identify prime and composite numbers * Use a Venn diagram to identify common factors * Determine if a number is divisible by 2, 3, 4, 5, 6, or 10 * Use divisibility rules to identify common factors * Rename a fraction to lowest terms | |
| 58 | | 236–39 | | 113–14 | | 101–2 | | * Identify the common factors of two numbers * Rename fractions to lower terms * Use fractions to evaluate information and make wise choices BWS * Use the greatest common factor to rename a fraction to lowest terms | |
| 59 | | 240–43 | | 115–16 | | 103–4 | | * Use prime factorization to determine the GCF * Use a Venn diagram to determine the GCF * Use exponents to write the prime factorization of a number * Use the GCF to rename a fraction to lowest terms | |
| 60 | | 244–45 | | 117–18 | |  | | * Use the guess-and-check strategy to solve problems | |
| 61 | | 246–49 | | STEM  102, 119 | |  | | * Explain the meaning of stewardship BWS * Discuss the terms budget, income, expense, tithe, and balance * Identify the problem that needs to be solved * Develop a system for keeping and using financial records | |
| 62 | | 250–53 | | STEM  120 | |  | | * Tithe and save according to a budget * Balance a budget * Evaluate budget choices when faced with a financial challenge BWS | |
| 63 | | 254–57 | | 121–22 | | 105–6 | | * Review the concepts presented in Chapter 6 in preparation for the Chapter 6 Test | |
| 64 | | 258–260 | |  | | 107–8 | | Concept Review | |
| Chapter 7: Division: 2-Digit Divisors | | | | | | | | | |
| 65 | | 261–67 | | 123, 125–26 | | 109–10 | | * Explain the importance of using accurate math BWS * Use mental math to divide multiples of 10 * Use compatible numbers to estimate a quotient | |
| 66 | | 268–71 | | 124, 127–28 | | 111–12 | | * Solve a division word problem * Divide to find 1-digit quotients * Use compatible numbers to estimate a quotient * Use multiplication to check division problems | |
| 67 | | 272–75 | | 129–30 | | 113–14 | | * Adjust the quotient in a division problem * Divide to find 1-digit quotients | |
| 68 | | 276–79 | | 131–32 | | 115–16 | | * Divide to find 2-digit quotients * Adjust the quotient in a division problem * Interpret a remainder | |
| 69 | | 280–83 | | 133–34 | | 117–18 | | * Use mental math to complete an input/output table * Divide 4-digit dividends to find 2-digit quotients * Interpret a remainder | |
| 70 | | 284–87 | | 135–36 | | 119–20 | | * Divide to find a 3-digit quotient * Write an equation and solve a division word problem * Write a remainder as a fraction * Determine whether a word problem has too much or not enough information | |
| 71 | | 288–91 | | 137–38 | | 121–22 | | * Divide to find a 3-digit quotient * Divide to find a quotient containing 0 * Analyze a line graph * Use a line graph to solve word problems * Use math to evaluate a choice BWS | |
| 72 | | 292–95 | | 139–40 | | 123–24 | | * Determine the rule for an input/output table * Analyze a pictograph * Use a pictograph to solve a word problem * Write a remainder as a fraction | |
| 73 | | 296–97 | | 141–42 | |  | | * Use the order of operations to solve equations * Use the order of operations to solve multi-step word problems | |
| 74 | | 298–301 | | 143–44 | | 125–26 | | * Review the concepts presented in Chapter 7 in preparation for the Chapter 7 Test | |
| 75 | | 302–4 | |  | | 127–28 | | Concept Review | |
| Chapter 8: Time & Customary Measurement | | | | | | | | | |
| 76 | | 305–11 | | 145, 147–48 | | 129–30 | | * Use math to evaluate a choice BWS * Identify equivalent units of time * Tell and write time to the minute * Differentiate between a.m. and p.m. * Convert units of time to smaller or larger units * Read a calendar and write a date | |
| 77 | | 312–15 | | 146, 149–50 | | 131–32 | | * Determine the elapsed time * Determine the future time * Add and subtract time * Use a timeline to determine elapsed time | |
| 78 | | 316–19 | | 151–52 | | 133–34 | | * Identify inches, feet, yards, and miles as linear measurement units * Use a map key to determine distance * Estimate length to the nearest inch * Measure to the nearest inch, half-inch, fourth-inch, and eighth-inch * Measure the perimeter of a figure | |
| 79 | | 320–23 | | 153–54 | | 135–36 | | * Convert units of linear measurement to smaller units * Identify the symbols for foot and inch * Convert units of linear measurement to larger units * Devise a plan for using math to serve someone BWS | |
| 80 | | 324–27 | | 155–56 | | 137–38 | | * Identify pounds, ounces, and tons as measuring units for weight * Convert units of weight * Identify fluid ounces, cups, pints, quarts, and gallons as measuring units for capacity * Convert units of capacity | |
| 81 | | 328–31 | | 157–58 | | 139–40 | | * Read a Fahrenheit thermometer * Identify standard Fahrenheit temperatures * Use a Fahrenheit thermometer to measure temperature * Interpret a line graph | |
| 82 | | 332–35 | | 159–60 | | 141–42 | | * Add customary measurements * Subtract customary measurements * Multiply customary measurements * Solve rate and distance word problems | |
| 83 | | 336–37 | | STEM  146, 161 | |  | | * Identify the problem to be solved * Identify materials for filtering dirty water * Use provided materials to design a water filter * Measure filter materials * Assemble a water filter | |
| 84 | | 338–39 | | STEM  162 | |  | | * Predict results * Measure and compare dirty water to filtered water * Evaluate and modify filter design * Create a component of a water filter system to provide clean water to those in need BWS | |
| 85 | | 340–43 | | 163–64 | | 143–44 | | * Review the concepts presented in Chapter 8 in preparation for the Chapter 8 Test | |
| 86 | | 344–46 | |  | | 145–46 | | Concept Review | |
| Chapter 9: Fractions: Addition & Subtraction | | | | | | | | | |
| 87 | | 347–53 | | 165, 167–68 | | 147–48 | | * Recall how math helps us in our work BWS * Add like fractions * Rename fractions to lowest terms * Rename improper fractions as mixed numbers * Add mixed numbers * Estimate sums by rounding * Apply addition properties to fractions | |
| 88 | | 354–57 | | 166, 169–70 | | 149–50 | | * Subtract like fractions * Write an equation to solve a word problem * Subtract mixed numbers * Estimate by rounding | |
| 89 | | 358–61 | | 171–72 | | 151–52 | | * Add unlike fractions * Write an equation to solve a fraction word problem * Add mixed numbers * Estimate sums by rounding | |
| 90 | | 362–65 | | 173–74 | | 153–54 | | * Subtract unlike fractions * Subtract mixed numbers * Estimate by rounding * Write an equation to solve a fraction word problem | |
| 91 | | 366–69 | | 175–76 | | 155–56 | | * List multiples to determine the LCM * Use a Venn diagram to determine the LCM * Use the LCD to write equivalent fractions * Add and subtract unlike fractions | |
| 92 | | 370–73 | | 177–78 | | 157–58 | | * Compare unlike fractions * Add and subtract unlike fractions * Apply the LCM to problem solving * Explain how math helps air traffic controllers do their work BWS | |
| 93 | | 374–77 | | 179–80 | | 159–60 | | * Determine the LCD by finding the LCM * Add fractions * Evaluate equations by substituting fractions for variables * Subtract fractions | |
| 94 | | 378–81 | | 181–82 | | 161–62 | | * Add and subtract fractions * Write an equation to solve a fraction word problem | |
| 95 | | 382–85 | | 183–84 | | 163–64 | | * Add and subtract mixed numbers * Estimate by rounding * Compare mixed numbers * Determine the LCD or find a common denominator | |
| 96 | | 386–89 | | 185–86 | | 165–66 | | * Use the LCM to solve a problem * Write a mathematical expression for a word phrase * Add and subtract fractions and mixed numbers * Complete an input/output table * Use math to evaluate a claim BWS | |
| 97 | | 390–93 | | 187–88 | | 167–68 | | * Write the prime factorization of a number * Use prime factorization to determine the LCM * Compare unlike fractions * Use a recipe to solve fraction problems * Follow a recipe (optional) | |
| 98 | | 394–97 | | 189–90 | | 169–70 | | * Review the concepts presented in Chapter 9 in preparation for the Chapter 9 Test | |
| 99 | | 398–400 | |  | | 171–72 | | Concept Review | |
| Chapter 10: Equations | | | | | | | | | |
| 100 | | 401–7 | | 191, 193–94 | | 173–74 | | * Explain how math helps people do work in airports BWS * Write a mathematical expression for a word phrase * Use two equal expressions to write an equation * Evaluate and relate expressions by using >, <, or = | |
| 101 | | 408–11 | | 192, 195–96 | | 175–76 | | * Apply properties and strategies to evaluate and relate equivalent expressions * Write an equation for a part-part-whole model | |
| 102 | | 412–15 | | 197–98 | | 177–78 | | * Use substitution to determine the value of an expression * Use substitution or mental math to determine an unknown value in an equation * Determine the value of objects on a balanced scale | |
| 103 | | 416–19 | | 199–200 | | 179–80 | | * Picture a word problem * Solve word problems with unlike parts * Write an equation for a word problem * Rename parts with unlike labels * Use math to evaluate a choice BWS | |
| 104 | | 420–23 | | STEM  192, 201 | |  | | * Identify the problem that needs to be solved * Recognize food and nutrient groups * Identify appropriate ingredients for an energy snack * Formulate a recipe that meets assigned guidelines * Evaluate a recipe for nutritional content | |
| 105 | | 424–25 | | STEM  202 | |  | | * Work collaboratively to prepare a snack according to a recipe * Evaluate a snack * Adjust a recipe as needed * Sample and rate prepared snacks * Publish a recipe * Explain how math helped you do your work and please God BWS | |
| 106 | | 426–29 | | 203–4 | | 181–82 | | * Review the concepts presented in Chapter 10 in preparation for the Chapter 10 Test | |
| 107 | | 430–32 | |  | | 183–84 | | Concept Review | |
| Chapter 11: Geometry: Perimeter & Area | | | | | | | | | |
| 108 | | 433–39 | | 205, 207–8 | | 185–86 | | * Use math to devise a plan and make a wise choice BWS * Describe and identify regular and irregular polygons * Calculate the perimeter of a polygon * Identify a square, a rectangle, a parallelogram, a trapezoid, and a rhombus as quadrilaterals * Identify the sum of the angle measurements of any quadrilateral as 360° | |
| 109 | | 440–43 | | 206, 209–10 | | 187–88 | | * Relate the diameter of a circle to its circumference * Estimate the circumference of a circle * Identify and describe similar, congruent, and symmetrical figures * Identify, model, and describe translations, rotations, and reflections | |
| 110 | | 444–47 | | 211–12 | | 189–90 | | * Use a protractor to measure the angles in a triangle * Identify the sum of the angle measurements of any triangle as 180° * Classify triangles as right, acute, or obtuse * Classify triangles as equilateral, isosceles, or scalene | |
| 111 | | 448–51 | | 213–14 | | 191–92 | | * Use a formula to calculate the area of a square and of a rectangle * Calculate the area of a complex polygon * Solve geometry word problems | |
| 112 | | 452–55 | | 215–16 | | 193–94 | | * Use a formula to find the area of a triangle * Solve geometry word problems | |
| 113 | | 456–59 | | 217–18 | | 195–96 | | * Calculate the area of a square, a rectangle, a complex figure, and a triangle * Calculate the perimeter of a rectangle * Use math to choose the wiser purchase BWS | |
| 114 | | 460–63 | | 219–20 | | 197–98 | | * Review the concepts presented in Chapter 11 in preparation for the Chapter 11 Test | |
| 115 | | 464–66 | |  | | 199–200 | | Concept Review | |

| Lesson | | Teacher Edition Pages | | Worktext Pages | | Activities Pages | | Lesson Objectives | |
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| Chapter 12: Fractions: Multiplication & Division | | | | | | | | | |
| 116 | | 467–73 | | 221, 223–24 | | 201–2 | | * Solve a repeated-addition equation * Simplify answers * Write a multiplication equation for a repeated-addition equation * Multiply a whole number and a fraction * Use math to evaluate a situation and make a wise decision BWS * Complete an input/output table | |
| 117 | | 474–77 | | 222, 225–26 | | 203–4 | | * Find a fraction of a whole number * Multiply to find a fraction of a whole number * Solve a fraction word problem and interpret the solution | |
| 118 | | 478–81 | | 227–28 | | 205–6 | | * Find a fraction of a fraction * Multiply to find a fraction of a fraction * Apply multiplication properties to fractions | |
| 119 | | 482–85 | | 229–30 | | 207–8 | | * Multiply a whole number and a mixed number * Rename a mixed number as an improper fraction to multiply * Use the Distributive Property to multiply by a mixed number | |
| 120 | | 486–89 | | 231–32 | | 209–10 | | * Write a mathematical expression for a phrase * Estimate the product of mixed numbers by rounding to the nearest whole number * Rename mixed numbers as improper fractions to multiply * Use the Distributive Property to multiply mixed numbers | |
| 121 | | 490–93 | | 233–34 | | 211–12 | | * Use a diagram or a number line to divide a whole number by a fraction * Solve a division word problem and interpret the solution * Use multiplication to check a division problem | |
| 122 | | 494–97 | | 235–36 | | 213–14 | | * Use a diagram or a number line to divide a fraction by a fraction * Divide unlike fractions by renaming * Use multiplication to check a division problem | |
| 123 | | 498–501 | | 237–38 | | 215–16 | | * Write related multiplication and division equations * Identify the reciprocal of a fraction * Divide by multiplying by the reciprocal of the divisor * Use multiplication to check a division problem | |
| 124 | | 502–5 | | 239–40 | | 217–18 | | * Identify the reciprocal of a fraction * Divide by multiplying by the reciprocal of the divisor * Use multiplication to check a division problem * Complete an input/output table * Solve a fraction word problem and interpret the solution * Apply knowledge of fractions to make a wise decision BWS | |
| 125 | | 506–7 | | 241–42 | |  | | * Identify practical uses of fractions * Apply fractions to real-life situations in history * Solve a multi-step word problem * Defend the importance of learning math to worship God through music BWS * Apply fractions to real-life situations in government | |
| 126 | | 508–9 | | STEM  222, 243 | |  | | * Discuss upcycling * Apply math to increase the usefulness of discarded materials BWS * Discuss design principles for strengthening structures * Identify the problem that needs to be solved * Collaboratively design a functional and attractive weight-bearing cardboard chair * Build a cardboard chair | |
| 127 | | 510–11 | | STEM  244 | |  | | * Build a cardboard chair * Test a cardboard chair * Improve the design and construction of a cardboard chair * Decorate a cardboard chair * Apply math to increase the usefulness of discarded materials BWS | |
| 128 | | 512–15 | | 245–46 | | 219–20 | | * Review the concepts presented in Chapter 12 in preparation for the Chapter 12 Test | |
| 129 | | 516–18 | |  | | 221–22 | | Concept Review | |
| Chapter 13: Decimals: Multiplication & Division | | | | | | | | | |
| 130 | | 519–25 | | 247, 249–50 | | 223–24 | | * Explain that math helps us represent real-life information in a simplified way BWS * Read and write decimals to the One Thousandths place * Identify what each digit in a decimal represents * Write decimals as fractions and as mixed numbers * Identify the equivalent fraction for a decimal | |
| 131 | | 526–29 | | 248, 251–52 | | 225–26 | | * Plot decimals on a number line * Round decimals to a given place * Order decimals from least to greatest | |
| 132 | | 530–33 | | 253–54 | | 227–28 | | * Compare decimals * Order decimals from least to greatest * Estimate the product by rounding to the nearest whole number * Multiply a decimal by a whole number * Solve decimal word problems * Explain the usefulness of mathematical models BWS | |
| 133 | | 534–37 | | 255–56 | | 229–30 | | * Multiply a decimal by a multiple of ten * Multiply a decimal by a decimal * Solve decimal word problems | |
| 134 | | 538–41 | | 257–58 | | 231–32 | | * Write a decimal in expanded form with multiplication * Estimate the product by rounding to the nearest whole number * Multiply a decimal by a decimal * Annex 0s in the product * Write a word problem for a multiplication equation | |
| 135 | | 542–45 | | 259–60 | | 233–34 | | * Divide a decimal by a 1-digit whole number * Divide a decimal by a 1-digit whole number by renaming the dividend * Read and interpret a chart | |
| 136 | | 546–49 | | 261–62 | | 235–36 | | * Annex a 0 to rename a decimal * Divide to find a quotient less than 1 * Divide to rename a fraction as a decimal * Write an equation for a word problem * Affirm that there are different ways to model the world mathematically BWS | |
| 137 | | 550–53 | | 263–64 | | 237–38 | | * Divide to find a quotient containing 0 * Divide a decimal by a 1-digit whole number * Divide to rename a fraction as a decimal * Solve a money word problem and interpret the solution | |
| 138 | | 554–57 | | 265–66 | | 239–40 | | * Use mental math to multiply a decimal by a power of 10 * Use mental math to divide a decimal by a power of 10 * Solve a word problem and interpret the solution | |
| 139 | | 558–61 | | 267–68 | | 241–42 | | * Solve problems, working backwards | |
| 140 | | 562–65 | | 269–70 | | 243–44 | | * Review the concepts presented in Chapter 13 in preparation for the Chapter 13 Test | |
| 141 | | 566–68 | |  | | 245–46 | | Concept Review | |
| Chapter 14: Geometry: Surface Area & Volume | | | | | | | | | |
| 142 | | 569–75 | | 271, 273–74 | | 247–48 | | * Distinguish between 2-dimensional and 3-dimensional figures * Identify flat and curved surfaces of 3-dimensional figures * Define polyhedron * Identify faces, edges, and vertices of a polyhedron * Distinguish between prisms and pyramids * Construct 3-dimensional figures from nets * Discuss how geometry is used to model in aviation BWS | |
| 143 | | 576–79 | | 272, 275–76 | | 249–50 | | * Distinguish between prisms and pyramids * Construct 3-dimensional figures from nets * Identify the characteristics of 3-dimensional figures | |
| 144 | | 580–83 | | 277–78 | | 251–52 | | * Define surface area * Find the surface area of a rectangular prism * Find the surface area of a cube | |
| 145 | | 584–87 | | 279–80 | | 253–54 | | * Use cubes to picture the volume of a 3-dimensional figure * Use a formula to determine volume | |
| 146 | | 588–91 | | 281–82 | | 255–56 | | * Explain how perimeter, area, and volume are related * Solve a geometry word problem and interpret the solution * Use a formula to determine volume | |
| 147 | | 592–95 | | 283–84 | | 257–58 | | * Find the surface area of a cube and of a rectangular prism * Use a formula to find volume * Solve a geometry word problem and interpret the solution | |
| 148 | | 596–97 | | STEM  272, 285 | |  | | * Identify the problem that needs to be solved * Define the terms prosthesis and prosthetic device * Design a LEGO® prosthesis * Use provided materials to build a prosthesis * Test the prosthesis | |
| 149 | | 598–99 | | STEM  286 | |  | | * Identify the x-, y-, and z-axes on a 3-D coordinate graph * Locate and describe coordinates on a 3-D coordinate graph * Use 3-D coordinates to describe the LEGO bricks in an object * Model with math to solve a problem BWS | |
| 150 | | 600–603 | | 287–88 | | 259–60 | | * Review the concepts presented in Chapter 14 in preparation for the Chapter 14 Test | |
| 151 | | 604–6 | |  | | 261–62 | | Concept Review | |
| Chapter 15: Metric Measurement | | | | | | | | | |
| 152 | | 607–13 | | 289, 291–92 | | 263–64 | | * Explain why it is important for Christians to be involved in the work of meteorology BWS * Identify the millimeter, centimeter, meter, and kilometer as measuring units for length * Identify 100 cm as 1 m and 1,000 mm as 1 m * Estimate and measure length, width, and height * Draw a line to the nearest centimeter or millimeter * State that 1,000 m equals 1 km * Determine the appropriate linear unit | |
| 153 | | 614–17 | | 290, 293–94 | | 265–66 | | * Convert meters to centimeters and centimeters to meters * Convert meters to millimeters and millimeters to meters * Convert meters to kilometers and kilometers to meters * Convert centimeters to millimeters and millimeters to centimeters * Use >, <, or = to compare linear measurements | |
| 154 | | 618–21 | | 295–96 | | 267–68 | | * Identify the liter and milliliter as measuring units for capacity * Convert milliliters to liters and liters to milliliters * Identify the gram, kilogram, and milligram as measuring units for mass * Convert milligrams and kilograms to grams and grams to milligrams and kilograms * Use >, <, or = to compare metric measurements | |
| 155 | | 622–25 | | 297–98 | | 269–70 | | * Identify degrees as a measuring unit for temperature * Identify standard Celsius temperatures * Read a Celsius thermometer * Determine the temperature 10° warmer or 10° colder * Determine the amount of temperature increase or decrease * Use a Celsius thermometer to measure temperature * Determine the more reasonable temperature * Apply knowledge of metric measurements to serve others BWS | |
| 156 | | 626–29 | | 299–300 | | 271–72 | | * Add metric measurements with and without decimal form * Subtract metric measurements with and without decimal form * Solve a measurement word problem and interpret the solution | |
| 157 | | 630–33 | | 301–2 | | 273–74 | | * Review the concepts presented in Chapter 15 in preparation for the Chapter 15 Test | |
| 158 | | 634–36 | |  | | 275–76 | | Concept Review | |
| Chapter 16: Ratios, Proportions, & Percents | | | | | | | | | |
| 159 | | 637–43 | | 303, 305–6 | | 277–78 | | * Write ratios in word form, ratio form, and fraction form * Write ratios to describe part-to-part, part-to-whole, and whole-to-part comparisons * Solve problems with ratios * Evaluate the claim that efficient patterns in nature developed over millions of years BWS | |
| 160 | | 644–47 | | 304, 307–8 | | 279–80 | | * Write ratios to describe comparisons * Write equivalent ratios * Make equivalent ratios by multiplying and dividing | |
| 161 | | 648–51 | | 309–10 | | 281–82 | | * Write equivalent ratios * Interpret a model, a scale drawing, and a diagram | |
| 162 | | 652–55 | | 311–12 | | 283–84 | | * Define rate * Use ratios to represent real-life situations * Make equivalent ratios to determine the unit rate * Calculate the distance traveled for a given rate and time | |
| 163 | | 656–59 | | 313–14 | | 285–86 | | * Define percent * Write a percent as a ratio with 100 as the second term * Write a percent as a ratio (in fraction form) in lowest terms * Write a ratio (in fraction form) as a percent * Use a ratio to solve a percent problem | |
| 164 | | 660–63 | | 315–16 | | 287–88 | | * Write a percent as a decimal * Write a fraction as a percent * Write a decimal as a percent * Use >, <, or = to compare percents to decimals and fractions * Solve a percent word problem | |
| 165 | | 664–67 | | 317–18 | | 289–90 | | * Use a proportion to find the percent of a number * Solve a percent word problem * Multiply by a decimal to find the percent of a number * Use mental math to find the percent of a number | |
| 166 | | 668–71 | | 319–20 | | 291–92 | | * Define probability * Write probability as a fraction and as a percent * Conduct a probability experiment | |
| 167 | | 672–73 | | STEM  321–22 | |  | | * Defend the claim that the structure of a honeycomb shows that it is designed BWS * Review tessellations * Identify the problem to be solved * Produce a tessellation * Reproduce a tessellation in a proportional size * Write a ratio in ratio form and fraction form and as a decimal and a percent | |
| 168 | | 674–77 | | 323–24 | | 293–94 | | * Review the concepts presented in Chapter 16 in preparation for the Chapter 16 Test | |
| 169 | | 678–80 | |  | | 295–96 | | Concept Review | |
| Chapter 17: Integers | | | | | | | | | |
| 170 | | 681–87 | | 325, 327–28 | | 297–98 | | * Compare and order positive and negative numbers * Use a number line to subtract positive numbers * Use a number line to add negative numbers * Add positive numbers or negative numbers * Use math to evaluate a choice BWS | |
| 171 | | 688–91 | | 326, 329–30 | | 299–300 | | * Add positive and negative numbers * Write an addition equation for a word problem | |
| 172 | | 692–95 | | 331–32 | | 301–2 | | * Subtract positive and negative numbers * Write a subtraction equation for a word problem | |
| 173 | | 696–99 | | 333–34 | | 303–4 | | * Add positive and negative numbers * Subtract positive and negative numbers * Write an equation for a word problem * Use math to make a wise decision BWS | |
| 174 | | 700–703 | | 335–36 | | 305–6 | | * Review the concepts presented in Chapter 17 in preparation for the Chapter 17 Test | |
| 175 | | 704–6 | |  | | 307–8 | | Concept Review | |
| Chapter 18: Data & Graphs | | | | | | | | | |
| 176 | | 707–13 | | 337, 339–40 | | 309–10 | | * Compare and contrast manmade models with God’s greatness BWS * Use given data to complete a tally table * Determine the mean, range, mode, and median * Read and interpret a line plot * Read and interpret a stem-and-leaf plot | |
| 177 | | 714–17 | | 338, 341–42 | | 311–12 | | * Read and interpret a double bar graph * Use given data to complete a double bar graph * Read and interpret a double line graph * Use given data to complete a double line graph | |
| 178 | | 718–21 | | 343–44 | | 313–14 | | * Read and interpret a pictograph * Use a table of data to make a pictograph * Read and interpret a circle graph * Use given data to make a circle graph | |
| 179 | | 722–25 | | 345–46 | | 315–16 | | * Review the concepts presented in Chapter 18 in preparation for the Chapter 18 Test | |
| 180 | | 726–28 | |  | | 317–18 | | Concept Review | |