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 | STEM20, 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 | STEM62, 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 | STEM102, 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 | STEM146, 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 |
| --- | --- | --- | --- | --- |
| 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 | STEM222, 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 | STEM272, 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 |