

# Math 5 4<sup>th</sup> Edition

## Lesson Plan Overview

Lesson	Teacher Edition Pages	Worktext Pages	Activities Pages	Lesson Objectives
<b>Chapter 1: Number Sense</b>				
1	1–7	1–4	1–2	<ul style="list-style-type: none"> <li>• Identify how math helps us serve others <b>BWS</b></li> <li>• Identify the repetition of the Ones, Tens, and Hundreds places in each period</li> <li>• Read numbers with 9 or fewer digits</li> <li>• Write numbers in standard form, word form, expanded form, and expanded form with multiplication</li> <li>• Identify the value of each digit in a number</li> <li>• Compare numbers</li> </ul>
2	8–11	5–6	3–4	<ul style="list-style-type: none"> <li>• Identify the repetition of the Ones, Tens, and Hundreds places in each period</li> <li>• Read numbers with 12 or fewer digits</li> <li>• Write numbers in standard form, word form, expanded form, and expanded form with multiplication</li> <li>• Identify the value of each digit in a number</li> <li>• Compare numbers</li> <li>• Round numbers to the place of greatest value</li> <li>• Round numbers to a given place</li> </ul>
3	12–15	7–8	5–6	<ul style="list-style-type: none"> <li>• Identify, read, and write decimals to the One Thousandths place</li> <li>• Identify a decimal on a number line</li> <li>• Write decimals in standard form, word form, fraction form, expanded form, and expanded form with multiplication</li> <li>• Identify the value of each digit in a decimal</li> <li>• Explain how math is used to make airplanes safe <b>BWS</b></li> </ul>
4	16–19	9–10	7–8	<ul style="list-style-type: none"> <li>• Identify equivalent decimals</li> <li>• Compare decimals</li> <li>• Round decimals to a given place</li> </ul>
5	20–23	11–12	9–10	<ul style="list-style-type: none"> <li>• Read, write, and identify positive and negative numbers</li> <li>• Label a number line to show positive and negative numbers</li> <li>• Relate positive and negative numbers to their use in real-life situations</li> </ul>
6	24–27	13–14	11–12	<ul style="list-style-type: none"> <li>• Compare and order positive and negative numbers</li> <li>• Identify the number that is 1 more or 1 less</li> <li>• Plot positive and negative numbers on a number line</li> <li>• Explain how math is used to solve real-life problems <b>BWS</b></li> </ul>
7	28–29	15–16		<ul style="list-style-type: none"> <li>• Write Roman numerals for 1–100</li> <li>• Identify a pattern in writing Roman numerals</li> </ul>
8	30–33	17–18	13–14	<ul style="list-style-type: none"> <li>• Review the concepts presented in Chapter 1 in preparation for the Chapter 1 Test</li> </ul>
9	34–36		15–16	<b>Concept Review</b>
<b>Chapter 2: Addition &amp; Subtraction</b>				
10	37–43	19, 21–22	17–18	<ul style="list-style-type: none"> <li>• Recall that math is a tool for modeling the world around us <b>BWS</b></li> <li>• Apply the Commutative Property of Addition</li> <li>• Apply the Identity Property of Addition and the Zero Principle of Subtraction</li> <li>• Apply the Associative Property of Addition</li> <li>• Solve addition and subtraction equations with variables</li> <li>• Complete input/output tables</li> </ul>

Lesson	Teacher Edition Pages	Worktext Pages	Activities Pages	Lesson Objectives
11	44–47	20, 23–24	19–20	<ul style="list-style-type: none"> <li>• Add 4-, 5-, and 6-digit numbers</li> <li>• Estimate the sum by rounding</li> <li>• Solve addition problems with 3 or more addends</li> <li>• Apply addition and subtraction principles to read a bar graph</li> </ul>
12	48–51	25–26	21–22	<ul style="list-style-type: none"> <li>• Round decimals to the place of greatest value</li> <li>• Estimate the sum by rounding</li> <li>• Add decimals with 3 or fewer decimal places</li> <li>• Solve addition problems with 3 or more addends</li> </ul>
13	52–55	27–28	23–24	<ul style="list-style-type: none"> <li>• Subtract numbers with 6 or fewer digits</li> <li>• Estimate the difference by rounding</li> <li>• Subtract 5- and 6-digit numbers, renaming 0s</li> <li>• Interpret a line graph</li> <li>• Explain how math is useful for modeling the world <b>BWS</b></li> </ul>
14	56–59	29–30	25–26	<ul style="list-style-type: none"> <li>• Subtract decimals with 3 or fewer decimal places</li> <li>• Estimate the difference by rounding</li> <li>• Solve a subtraction word problem and interpret the solution</li> </ul>
15	60–63	31–32	27–28	<ul style="list-style-type: none"> <li>• Write related addition and subtraction facts</li> <li>• Solve addition and subtraction equations with variables</li> <li>• Complete input/output tables</li> </ul>
16	64–67	33–34		<ul style="list-style-type: none"> <li>• Use compensation to add numbers mentally</li> <li>• Use compensation to subtract numbers mentally</li> <li>• Solve addition and subtraction word problems and interpret the solutions</li> <li>• Explain how math is a tool for modeling the world <b>BWS</b></li> </ul>
17	68–71	<b>STEM</b> 20, 35		<ul style="list-style-type: none"> <li>• Recall the Engineering Design Process</li> <li>• Identify the problem that needs to be solved</li> <li>• Design a route and map it on a grid</li> <li>• Use words to write an algorithm</li> <li>• Explain how a map uses math to model the world <b>BWS</b></li> </ul>
18	72–75	<b>STEM</b> 36		<ul style="list-style-type: none"> <li>• Review the Engineering Design Process</li> <li>• Define terms</li> <li>• Encode 3 commands</li> <li>• Use code to write an algorithm</li> <li>• Make an algorithm decoder</li> <li>• Decipher a coded algorithm and use it to find a location on a map grid</li> <li>• Debug bad code</li> <li>• Explain how codes use math to model the world <b>BWS</b></li> </ul>
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	<b>Concept Review</b>
<b>Chapter 3: Multiplication</b>				
21	83–89	39, 41–42	33–34	<ul style="list-style-type: none"> <li>• Recall that math shows that the world is designed <b>BWS</b></li> <li>• Identify and use the terms <i>factor</i> and <i>product</i></li> <li>• Solve multiplication equations with a multiplication dot</li> <li>• Apply properties of multiplication</li> <li>• Write a mathematical expression for a word phrase</li> </ul>
22	90–93	43–44	35–36	<ul style="list-style-type: none"> <li>• Generate multiples of a number</li> <li>• Determine whether a number is prime or composite</li> <li>• Determine whether a product is even or odd</li> </ul>

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23	94–97	45–46	37–38	<ul style="list-style-type: none"> <li>Analyze patterns and use mental math to multiply factors that are multiples of 10</li> <li>Apply the Associative and Commutative Properties of Multiplication</li> <li>Apply the Distributive Property of Multiplication over Addition</li> <li>Explain how the Creator-designed orderliness of math is useful <b>BWS</b></li> </ul>
24	98–101	47–48	39–40	<ul style="list-style-type: none"> <li>Apply the Distributive Property of Multiplication over Addition</li> <li>Estimate the product by rounding</li> <li>Solve a multiplication word problem</li> <li>Multiply a 3- or 4-digit factor by a 1-digit multiplier</li> <li>Solve money multiplication problems</li> </ul>
25	102–5	49–50	41–42	<ul style="list-style-type: none"> <li>Multiply a 2-digit factor by a 2-digit multiplier</li> <li>Estimate the product by rounding</li> <li>Solve a multiplication word problem</li> <li>Multiply a 3-digit factor by a 2-digit multiplier</li> </ul>
26	106–9	51–52	43–44	<ul style="list-style-type: none"> <li>Multiply a 4-digit factor by a 2-digit multiplier</li> <li>Solve a multiplication problem with a variable</li> </ul>
27	110–13	40, 53–54	45–46	<ul style="list-style-type: none"> <li>Multiply a 3-digit factor by a 3-digit multiplier</li> <li>Solve multiplication problems with 0s in the multiplier</li> </ul>
28	114–17	55–56	47–48	<ul style="list-style-type: none"> <li>Determine whether a number is prime or composite</li> <li>Write the prime factorization of a number</li> <li>Determine whether a number is divisible by 2, 5, or 10</li> </ul>
29	118–21	57–58		<ul style="list-style-type: none"> <li>Relate repeated addition to multiplication and exponential form</li> <li>Write powers of 10 in exponential form</li> <li>Relate exponential notation to prime factorization</li> <li>Explain how math shows that the world is designed <b>BWS</b></li> </ul>
30	122–25	59–60	49–50	<ul style="list-style-type: none"> <li>Review the concepts presented in Chapter 3 in preparation for the Chapter 3 Test</li> </ul>
31	126–28		51–52	<b>Concept Review</b>

## Chapter 4: Geometry: Lines & Angles

32	129–35	61, 63–64	53–54	<ul style="list-style-type: none"> <li>Explain that math is useful to us because our minds are patterned after the orderly mind of God <b>BWS</b></li> <li>Identify and name points, lines, line segments, and planes</li> <li>Write ordered pairs to identify points on a coordinate graph</li> <li>Plot points on a coordinate graph</li> <li>Use points on a coordinate graph to construct a line</li> </ul>
33	136–39	62, 65–66	55–56	<ul style="list-style-type: none"> <li>Identify and name rays and angles</li> <li>Classify right, acute, obtuse, and straight angles</li> <li>Use a protractor to measure angles</li> </ul>
34	140–43	67–68	57–58	<ul style="list-style-type: none"> <li>Identify lines as parallel, perpendicular, or intersecting</li> <li>Identify right, acute, obtuse, and straight angles</li> <li>Use a protractor to measure angles</li> <li>Relate angles to real-life situations</li> <li>Explain how the orderliness of math shows that the world is designed <b>BWS</b></li> </ul>
35	144–47	69–70	59–60	<ul style="list-style-type: none"> <li>Use a protractor to measure and draw angles</li> <li>Write an equation to find the unknown measure of an angle in a pair of supplementary angles</li> </ul>
36	148–51	71–72	61–62	<ul style="list-style-type: none"> <li>Demonstrate that the sum of the angle measurements of any triangle is <math>180^\circ</math></li> <li>Measure the angles within a triangle</li> <li>Identify right, acute, and obtuse triangles</li> <li>Find the unknown measure of an angle in a triangle</li> </ul>

Lesson	Teacher Edition Pages	Worktext Pages	Activities Pages	Lesson Objectives
37	152–55	73–74	63–64	<ul style="list-style-type: none"> <li>Name a circle</li> <li>Identify, name, and draw a center point, a radius, a diameter, a chord, and a central angle in a circle</li> <li>Determine the measure of an unknown central angle in a circle</li> <li>Use a protractor to measure the central angles in a circle</li> <li>Relate circles to real-life situations</li> </ul>
38	156–59	75–76	65–66	<ul style="list-style-type: none"> <li>Construct geometric figures on a coordinate graph</li> </ul>
39	160–61	<b>STEM</b> 62, 77		<ul style="list-style-type: none"> <li>Identify the problem that needs to be solved</li> <li>Research paper airplane design</li> <li>Choose a paper airplane design</li> <li>Follow a pattern to make a paper airplane</li> <li>Predict how the airplane will perform</li> </ul>
40	162–63	<b>STEM</b> 78		<ul style="list-style-type: none"> <li>Measure the distance a paper airplane flies</li> <li>Record test data in a table</li> <li>Modify design elements to improve performance</li> <li>Retest the paper airplane</li> <li>Record test data in a table</li> <li>Evaluate the belief that the order and consistency we observe in our world can be explained by chance <b>BWS</b></li> </ul>
41	164–67	79–80	67–68	<ul style="list-style-type: none"> <li>Review the concepts presented in Chapter 4 in preparation for the Chapter 4 Test</li> </ul>
42	168–70		69–70	<b>Concept Review</b>
<b>Chapter 5: Division: 1-Digit Divisors</b>				
43	171–77	81, 83–84	71–72	<ul style="list-style-type: none"> <li>Recall that math enables us to make wise choices <b>BWS</b></li> <li>Solve partition and measurement division problems</li> <li>Solve a division word problem and interpret the solution</li> <li>Write related multiplication and division equations</li> </ul>
44	178–81	82, 85–86	73–74	<ul style="list-style-type: none"> <li>Divide to find a 1-digit quotient</li> <li>Solve a division word problem</li> <li>Use multiplication to check the quotient of a division problem</li> </ul>
45	182–85	87–88	75–76	<ul style="list-style-type: none"> <li>Divide to find 2-digit quotients</li> <li>Solve a division word problem</li> <li>Divide to find 1-digit quotients</li> <li>Interpret a remainder</li> </ul>
46	186–89	89–90	77–78	<ul style="list-style-type: none"> <li>Divide to find 2- and 3-digit quotients</li> <li>Solve a division word problem</li> <li>Interpret a remainder</li> <li>Determine the average</li> <li>Explain that humans can solve problems because God made us able to think and reason <b>BWS</b></li> </ul>
47	190–93	91–92	79–80	<ul style="list-style-type: none"> <li>Complete a division input/output table</li> <li>Divide to find quotients with 0</li> <li>Solve a division word problem and interpret the solution</li> </ul>
48	194–97	93–94	81–82	<ul style="list-style-type: none"> <li>Solve a missing-factor equation with a variable</li> <li>Divide a 4-digit dividend</li> <li>Divide money</li> <li>Explain that humans can solve problems because God made us able to think and reason <b>BWS</b></li> <li>Write and solve a money division word problem</li> </ul>

Lesson	Teacher Edition Pages	Worktext Pages	Activities Pages	Lesson Objectives
49	198–201	95–96	83–84	<ul style="list-style-type: none"> <li>Analyze patterns and use mental math to divide multiples of 10</li> <li>Complete a division input/output table</li> <li>Use compatible numbers to estimate a quotient</li> </ul>
50	202–5	97–98	85–86	<ul style="list-style-type: none"> <li>Write a mathematical expression for a word phrase</li> <li>Use the short form of division to find a quotient</li> <li>Solve a division word problem and interpret the solution</li> </ul>
51	206–9	99–100	87–88	<ul style="list-style-type: none"> <li>Review the concepts presented in Chapter 5 in preparation for the Chapter 5 Test</li> </ul>
52	210–12		89–90	<b>Concept Review</b>

## Chapter 6: Fractions

53	213–19	101, 103–4	91–92	<ul style="list-style-type: none"> <li>Explain how math helps a test pilot make wise choices <b>BWS</b></li> <li>Identify and use the terms <i>numerator</i> and <i>denominator</i></li> <li>Compare and order like and unlike fractions</li> <li>Compare fractions to 1 whole</li> <li>Write equivalent fractions</li> <li>Compare fractions to <math>\frac{1}{2}</math></li> </ul>
54	220–23	102, 105–6	93–94	<ul style="list-style-type: none"> <li>Rename a fraction to higher terms</li> <li>Rename a fraction to lower terms</li> <li>Compare and order related fractions</li> </ul>
55	224–27	107–8	95–96	<ul style="list-style-type: none"> <li>Rename an improper fraction as a mixed number</li> <li>Rename a mixed number as an improper fraction</li> </ul>
56	228–31	109–10	97–98	<ul style="list-style-type: none"> <li>Compare mixed numbers and improper fractions</li> <li>Evaluate information by comparing fractions to make wise choices <b>BWS</b></li> <li>Round mixed numbers to the nearest whole number</li> </ul>
57	232–35	111–12	99–100	<ul style="list-style-type: none"> <li>List the factors of a number</li> <li>Identify prime and composite numbers</li> <li>Use a Venn diagram to identify common factors</li> <li>Determine if a number is divisible by 2, 3, 4, 5, 6, or 10</li> <li>Use divisibility rules to identify common factors</li> <li>Rename a fraction to lowest terms</li> </ul>
58	236–39	113–14	101–2	<ul style="list-style-type: none"> <li>Identify the common factors of two numbers</li> <li>Rename fractions to lower terms</li> <li>Use fractions to evaluate information and make wise choices <b>BWS</b></li> <li>Use the greatest common factor to rename a fraction to lowest terms</li> </ul>
59	240–43	115–16	103–4	<ul style="list-style-type: none"> <li>Use prime factorization to determine the GCF</li> <li>Use a Venn diagram to determine the GCF</li> <li>Use exponents to write the prime factorization of a number</li> <li>Use the GCF to rename a fraction to lowest terms</li> </ul>
60	244–45	117–18		<ul style="list-style-type: none"> <li>Use the guess-and-check strategy to solve problems</li> </ul>
61	246–49	<b>STEM</b> 102, 119		<ul style="list-style-type: none"> <li>Explain the meaning of stewardship <b>BWS</b></li> <li>Discuss the terms <i>budget</i>, <i>income</i>, <i>expense</i>, <i>tithe</i>, and <i>balance</i></li> <li>Identify the problem that needs to be solved</li> <li>Develop a system for keeping and using financial records</li> </ul>
62	250–53	<b>STEM</b> 120		<ul style="list-style-type: none"> <li>Tithe and save according to a budget</li> <li>Balance a budget</li> <li>Evaluate budget choices when faced with a financial challenge <b>BWS</b></li> </ul>
63	254–57	121–22	105–6	<ul style="list-style-type: none"> <li>Review the concepts presented in Chapter 6 in preparation for the Chapter 6 Test</li> </ul>

Lesson	Teacher Edition Pages	Worktext Pages	Activities Pages	Lesson Objectives
64	258–260		107–8	<b>Concept Review</b>
<b>Chapter 7: Division: 2-Digit Divisors</b>				
65	261–67	123, 125–26	109–10	<ul style="list-style-type: none"> <li>• Explain the importance of using accurate math <b>BWS</b></li> <li>• Use mental math to divide multiples of 10</li> <li>• Use compatible numbers to estimate a quotient</li> </ul>
66	268–71	124, 127–28	111–12	<ul style="list-style-type: none"> <li>• Solve a division word problem</li> <li>• Divide to find 1-digit quotients</li> <li>• Use compatible numbers to estimate a quotient</li> <li>• Use multiplication to check division problems</li> </ul>
67	272–75	129–30	113–14	<ul style="list-style-type: none"> <li>• Adjust the quotient in a division problem</li> <li>• Divide to find 1-digit quotients</li> </ul>
68	276–79	131–32	115–16	<ul style="list-style-type: none"> <li>• Divide to find 2-digit quotients</li> <li>• Adjust the quotient in a division problem</li> <li>• Interpret a remainder</li> </ul>
69	280–83	133–34	117–18	<ul style="list-style-type: none"> <li>• Use mental math to complete an input/output table</li> <li>• Divide 4-digit dividends to find 2-digit quotients</li> <li>• Interpret a remainder</li> </ul>
70	284–87	135–36	119–20	<ul style="list-style-type: none"> <li>• Divide to find a 3-digit quotient</li> <li>• Write an equation and solve a division word problem</li> <li>• Write a remainder as a fraction</li> <li>• Determine whether a word problem has too much or not enough information</li> </ul>
71	288–91	137–38	121–22	<ul style="list-style-type: none"> <li>• Divide to find a 3-digit quotient</li> <li>• Divide to find a quotient containing 0</li> <li>• Analyze a line graph</li> <li>• Use a line graph to solve word problems</li> <li>• Use math to evaluate a choice <b>BWS</b></li> </ul>
72	292–95	139–40	123–24	<ul style="list-style-type: none"> <li>• Determine the rule for an input/output table</li> <li>• Analyze a pictograph</li> <li>• Use a pictograph to solve a word problem</li> <li>• Write a remainder as a fraction</li> </ul>
73	296–97	141–42		<ul style="list-style-type: none"> <li>• Use the order of operations to solve equations</li> <li>• Use the order of operations to solve multi-step word problems</li> </ul>
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	<b>Concept Review</b>
<b>Chapter 8: Time &amp; Customary Measurement</b>				
76	305–11	145, 147–48	129–30	<ul style="list-style-type: none"> <li>• Use math to evaluate a choice <b>BWS</b></li> <li>• Identify equivalent units of time</li> <li>• Tell and write time to the minute</li> <li>• Differentiate between a.m. and p.m.</li> <li>• Convert units of time to smaller or larger units</li> <li>• Read a calendar and write a date</li> </ul>
77	312–15	146, 149–50	131–32	<ul style="list-style-type: none"> <li>• Determine the elapsed time</li> <li>• Determine the future time</li> <li>• Add and subtract time</li> <li>• Use a timeline to determine elapsed time</li> </ul>

Lesson	Teacher Edition Pages	Worktext Pages	Activities Pages	Lesson Objectives
78	316–19	151–52	133–34	<ul style="list-style-type: none"> <li>Identify inches, feet, yards, and miles as linear measurement units</li> <li>Use a map key to determine distance</li> <li>Estimate length to the nearest inch</li> <li>Measure to the nearest inch, half-inch, fourth-inch, and eighth-inch</li> <li>Measure the perimeter of a figure</li> </ul>
79	320–23	153–54	135–36	<ul style="list-style-type: none"> <li>Convert units of linear measurement to smaller units</li> <li>Identify the symbols for foot and inch</li> <li>Convert units of linear measurement to larger units</li> <li>Devise a plan for using math to serve someone <b>BWS</b></li> </ul>
80	324–27	155–56	137–38	<ul style="list-style-type: none"> <li>Identify pounds, ounces, and tons as measuring units for weight</li> <li>Convert units of weight</li> <li>Identify fluid ounces, cups, pints, quarts, and gallons as measuring units for capacity</li> <li>Convert units of capacity</li> </ul>
81	328–31	157–58	139–40	<ul style="list-style-type: none"> <li>Read a Fahrenheit thermometer</li> <li>Identify standard Fahrenheit temperatures</li> <li>Use a Fahrenheit thermometer to measure temperature</li> <li>Interpret a line graph</li> </ul>
82	332–35	159–60	141–42	<ul style="list-style-type: none"> <li>Add customary measurements</li> <li>Subtract customary measurements</li> <li>Multiply customary measurements</li> <li>Solve rate and distance word problems</li> </ul>
83	336–37	<b>STEM</b> 146, 161		<ul style="list-style-type: none"> <li>Identify the problem to be solved</li> <li>Identify materials for filtering dirty water</li> <li>Use provided materials to design a water filter</li> <li>Measure filter materials</li> <li>Assemble a water filter</li> </ul>
84	338–39	<b>STEM</b> 162		<ul style="list-style-type: none"> <li>Predict results</li> <li>Measure and compare dirty water to filtered water</li> <li>Evaluate and modify filter design</li> <li>Create a component of a water filter system to provide clean water to those in need <b>BWS</b></li> </ul>
85	340–43	163–64	143–44	<ul style="list-style-type: none"> <li>Review the concepts presented in Chapter 8 in preparation for the Chapter 8 Test</li> </ul>
86	344–46		145–46	<b>Concept Review</b>

## Chapter 9: Fractions: Addition & Subtraction

87	347–53	165, 167–68	147–48	<ul style="list-style-type: none"> <li>Recall how math helps us in our work <b>BWS</b></li> <li>Add like fractions</li> <li>Rename fractions to lowest terms</li> <li>Rename improper fractions as mixed numbers</li> <li>Add mixed numbers</li> <li>Estimate sums by rounding</li> <li>Apply addition properties to fractions</li> </ul>
88	354–57	166, 169–70	149–50	<ul style="list-style-type: none"> <li>Subtract like fractions</li> <li>Write an equation to solve a word problem</li> <li>Subtract mixed numbers</li> <li>Estimate by rounding</li> </ul>
89	358–61	171–72	151–52	<ul style="list-style-type: none"> <li>Add unlike fractions</li> <li>Write an equation to solve a fraction word problem</li> <li>Add mixed numbers</li> <li>Estimate sums by rounding</li> </ul>

Lesson	Teacher Edition Pages	Worktext Pages	Activities Pages	Lesson Objectives
90	362–65	173–74	153–54	<ul style="list-style-type: none"> <li>Subtract unlike fractions</li> <li>Subtract mixed numbers</li> <li>Estimate by rounding</li> <li>Write an equation to solve a fraction word problem</li> </ul>
91	366–69	175–76	155–56	<ul style="list-style-type: none"> <li>List multiples to determine the LCM</li> <li>Use a Venn diagram to determine the LCM</li> <li>Use the LCD to write equivalent fractions</li> <li>Add and subtract unlike fractions</li> </ul>
92	370–73	177–78	157–58	<ul style="list-style-type: none"> <li>Compare unlike fractions</li> <li>Add and subtract unlike fractions</li> <li>Apply the LCM to problem solving</li> <li>Explain how math helps air traffic controllers do their work <b>BWS</b></li> </ul>
93	374–77	179–80	159–60	<ul style="list-style-type: none"> <li>Determine the LCD by finding the LCM</li> <li>Add fractions</li> <li>Evaluate equations by substituting fractions for variables</li> <li>Subtract fractions</li> </ul>
94	378–81	181–82	161–62	<ul style="list-style-type: none"> <li>Add and subtract fractions</li> <li>Write an equation to solve a fraction word problem</li> </ul>
95	382–85	183–84	163–64	<ul style="list-style-type: none"> <li>Add and subtract mixed numbers</li> <li>Estimate by rounding</li> <li>Compare mixed numbers</li> <li>Determine the LCD or find a common denominator</li> </ul>
96	386–89	185–86	165–66	<ul style="list-style-type: none"> <li>Use the LCM to solve a problem</li> <li>Write a mathematical expression for a word phrase</li> <li>Add and subtract fractions and mixed numbers</li> <li>Complete an input/output table</li> <li>Use math to evaluate a claim <b>BWS</b></li> </ul>
97	390–93	187–88	167–68	<ul style="list-style-type: none"> <li>Write the prime factorization of a number</li> <li>Use prime factorization to determine the LCM</li> <li>Compare unlike fractions</li> <li>Use a recipe to solve fraction problems</li> <li>Follow a recipe (optional)</li> </ul>
98	394–97	189–90	169–70	<ul style="list-style-type: none"> <li>Review the concepts presented in Chapter 9 in preparation for the Chapter 9 Test</li> </ul>
99	398–400		171–72	<b>Concept Review</b>

## Chapter 10: Equations

100	401–7	191, 193–94	173–74	<ul style="list-style-type: none"> <li>Explain how math helps people do work in airports <b>BWS</b></li> <li>Write a mathematical expression for a word phrase</li> <li>Use two equal expressions to write an equation</li> <li>Evaluate and relate expressions by using <math>&gt;</math>, <math>&lt;</math>, or <math>=</math></li> </ul>
101	408–11	192, 195–96	175–76	<ul style="list-style-type: none"> <li>Apply properties and strategies to evaluate and relate equivalent expressions</li> <li>Write an equation for a part-part-whole model</li> </ul>
102	412–15	197–98	177–78	<ul style="list-style-type: none"> <li>Use substitution to determine the value of an expression</li> <li>Use substitution or mental math to determine an unknown value in an equation</li> <li>Determine the value of objects on a balanced scale</li> </ul>

Lesson	Teacher Edition Pages	Worktext Pages	Activities Pages	Lesson Objectives
103	416–19	199–200	179–80	<ul style="list-style-type: none"> <li>• Picture a word problem</li> <li>• Solve word problems with unlike parts</li> <li>• Write an equation for a word problem</li> <li>• Rename parts with unlike labels</li> <li>• Use math to evaluate a choice <b>BWS</b></li> </ul>
104	420–23	<b>STEM</b> 192, 201		<ul style="list-style-type: none"> <li>• Identify the problem that needs to be solved</li> <li>• Recognize food and nutrient groups</li> <li>• Identify appropriate ingredients for an energy snack</li> <li>• Formulate a recipe that meets assigned guidelines</li> <li>• Evaluate a recipe for nutritional content</li> </ul>
105	424–25	<b>STEM</b> 202		<ul style="list-style-type: none"> <li>• Work collaboratively to prepare a snack according to a recipe</li> <li>• Evaluate a snack</li> <li>• Adjust a recipe as needed</li> <li>• Sample and rate prepared snacks</li> <li>• Publish a recipe</li> <li>• Explain how math helped you do your work and please God <b>BWS</b></li> </ul>
106	426–29	203–4	181–82	<ul style="list-style-type: none"> <li>• Review the concepts presented in Chapter 10 in preparation for the Chapter 10 Test</li> </ul>
107	430–32		183–84	<b>Concept Review</b>
<b>Chapter 11: Geometry: Perimeter &amp; Area</b>				
108	433–39	205, 207–8	185–86	<ul style="list-style-type: none"> <li>• Use math to devise a plan and make a wise choice <b>BWS</b></li> <li>• Describe and identify regular and irregular polygons</li> <li>• Calculate the perimeter of a polygon</li> <li>• Identify a square, a rectangle, a parallelogram, a trapezoid, and a rhombus as quadrilaterals</li> <li>• Identify the sum of the angle measurements of any quadrilateral as <math>360^\circ</math></li> </ul>
109	440–43	206, 209–10	187–88	<ul style="list-style-type: none"> <li>• Relate the diameter of a circle to its circumference</li> <li>• Estimate the circumference of a circle</li> <li>• Identify and describe similar, congruent, and symmetrical figures</li> <li>• Identify, model, and describe translations, rotations, and reflections</li> </ul>
110	444–47	211–12	189–90	<ul style="list-style-type: none"> <li>• Use a protractor to measure the angles in a triangle</li> <li>• Identify the sum of the angle measurements of any triangle as <math>180^\circ</math></li> <li>• Classify triangles as right, acute, or obtuse</li> <li>• Classify triangles as equilateral, isosceles, or scalene</li> </ul>
111	448–51	213–14	191–92	<ul style="list-style-type: none"> <li>• Use a formula to calculate the area of a square and of a rectangle</li> <li>• Calculate the area of a complex polygon</li> <li>• Solve geometry word problems</li> </ul>
112	452–55	215–16	193–94	<ul style="list-style-type: none"> <li>• Use a formula to find the area of a triangle</li> <li>• Solve geometry word problems</li> </ul>
113	456–59	217–18	195–96	<ul style="list-style-type: none"> <li>• Calculate the area of a square, a rectangle, a complex figure, and a triangle</li> <li>• Calculate the perimeter of a rectangle</li> <li>• Use math to choose the wiser purchase <b>BWS</b></li> </ul>
114	460–63	219–20	197–98	<ul style="list-style-type: none"> <li>• Review the concepts presented in Chapter 11 in preparation for the Chapter 11 Test</li> </ul>
115	464–66		199–200	<b>Concept Review</b>

Lesson	Teacher Edition Pages	Worktext Pages	Activities Pages	Lesson Objectives
<b>Chapter 12: Fractions: Multiplication &amp; Division</b>				
116	467–73	221, 223–24	201–2	<ul style="list-style-type: none"> <li>• Solve a repeated-addition equation</li> <li>• Simplify answers</li> <li>• Write a multiplication equation for a repeated-addition equation</li> <li>• Multiply a whole number and a fraction</li> <li>• Use math to evaluate a situation and make a wise decision <b>BWS</b></li> <li>• Complete an input/output table</li> </ul>
117	474–77	222, 225–26	203–4	<ul style="list-style-type: none"> <li>• Find a fraction of a whole number</li> <li>• Multiply to find a fraction of a whole number</li> <li>• Solve a fraction word problem and interpret the solution</li> </ul>
118	478–81	227–28	205–6	<ul style="list-style-type: none"> <li>• Find a fraction of a fraction</li> <li>• Multiply to find a fraction of a fraction</li> <li>• Apply multiplication properties to fractions</li> </ul>
119	482–85	229–30	207–8	<ul style="list-style-type: none"> <li>• Multiply a whole number and a mixed number</li> <li>• Rename a mixed number as an improper fraction to multiply</li> <li>• Use the Distributive Property to multiply by a mixed number</li> </ul>
120	486–89	231–32	209–10	<ul style="list-style-type: none"> <li>• Write a mathematical expression for a phrase</li> <li>• Estimate the product of mixed numbers by rounding to the nearest whole number</li> <li>• Rename mixed numbers as improper fractions to multiply</li> <li>• Use the Distributive Property to multiply mixed numbers</li> </ul>
121	490–93	233–34	211–12	<ul style="list-style-type: none"> <li>• Use a diagram or a number line to divide a whole number by a fraction</li> <li>• Solve a division word problem and interpret the solution</li> <li>• Use multiplication to check a division problem</li> </ul>
122	494–97	235–36	213–14	<ul style="list-style-type: none"> <li>• Use a diagram or a number line to divide a fraction by a fraction</li> <li>• Divide unlike fractions by renaming</li> <li>• Use multiplication to check a division problem</li> </ul>
123	498–501	237–38	215–16	<ul style="list-style-type: none"> <li>• Write related multiplication and division equations</li> <li>• Identify the reciprocal of a fraction</li> <li>• Divide by multiplying by the reciprocal of the divisor</li> <li>• Use multiplication to check a division problem</li> </ul>
124	502–5	239–40	217–18	<ul style="list-style-type: none"> <li>• Identify the reciprocal of a fraction</li> <li>• Divide by multiplying by the reciprocal of the divisor</li> <li>• Use multiplication to check a division problem</li> <li>• Complete an input/output table</li> <li>• Solve a fraction word problem and interpret the solution</li> <li>• Apply knowledge of fractions to make a wise decision <b>BWS</b></li> </ul>
125	506–7	241–42		<ul style="list-style-type: none"> <li>• Identify practical uses of fractions</li> <li>• Apply fractions to real-life situations in history</li> <li>• Solve a multi-step word problem</li> <li>• Defend the importance of learning math to worship God through music <b>BWS</b></li> <li>• Apply fractions to real-life situations in government</li> </ul>

Lesson	Teacher Edition Pages	Worktext Pages	Activities Pages	Lesson Objectives
126	508–9	STEM 222, 243		<ul style="list-style-type: none"> <li>• Discuss upcycling</li> <li>• Apply math to increase the usefulness of discarded materials <b>BWS</b></li> <li>• Discuss design principles for strengthening structures</li> <li>• Identify the problem that needs to be solved</li> <li>• Collaboratively design a functional and attractive weight-bearing cardboard chair</li> <li>• Build a cardboard chair</li> </ul>
127	510–11	STEM 244		<ul style="list-style-type: none"> <li>• Build a cardboard chair</li> <li>• Test a cardboard chair</li> <li>• Improve the design and construction of a cardboard chair</li> <li>• Decorate a cardboard chair</li> <li>• Apply math to increase the usefulness of discarded materials <b>BWS</b></li> </ul>
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	<b>Concept Review</b>
<b>Chapter 13: Decimals: Multiplication &amp; Division</b>				
130	519–25	247, 249–50	223–24	<ul style="list-style-type: none"> <li>• Explain that math helps us represent real-life information in a simplified way <b>BWS</b></li> <li>• Read and write decimals to the One Thousandths place</li> <li>• Identify what each digit in a decimal represents</li> <li>• Write decimals as fractions and as mixed numbers</li> <li>• Identify the equivalent fraction for a decimal</li> </ul>
131	526–29	248, 251–52	225–26	<ul style="list-style-type: none"> <li>• Plot decimals on a number line</li> <li>• Round decimals to a given place</li> <li>• Order decimals from least to greatest</li> </ul>
132	530–33	253–54	227–28	<ul style="list-style-type: none"> <li>• Compare decimals</li> <li>• Order decimals from least to greatest</li> <li>• Estimate the product by rounding to the nearest whole number</li> <li>• Multiply a decimal by a whole number</li> <li>• Solve decimal word problems</li> <li>• Explain the usefulness of mathematical models <b>BWS</b></li> </ul>
133	534–37	255–56	229–30	<ul style="list-style-type: none"> <li>• Multiply a decimal by a multiple of ten</li> <li>• Multiply a decimal by a decimal</li> <li>• Solve decimal word problems</li> </ul>
134	538–41	257–58	231–32	<ul style="list-style-type: none"> <li>• Write a decimal in expanded form with multiplication</li> <li>• Estimate the product by rounding to the nearest whole number</li> <li>• Multiply a decimal by a decimal</li> <li>• Annex 0s in the product</li> <li>• Write a word problem for a multiplication equation</li> </ul>
135	542–45	259–60	233–34	<ul style="list-style-type: none"> <li>• Divide a decimal by a 1-digit whole number</li> <li>• Divide a decimal by a 1-digit whole number by renaming the dividend</li> <li>• Read and interpret a chart</li> </ul>
136	546–49	261–62	235–36	<ul style="list-style-type: none"> <li>• Annex a 0 to rename a decimal</li> <li>• Divide to find a quotient less than 1</li> <li>• Divide to rename a fraction as a decimal</li> <li>• Write an equation for a word problem</li> <li>• Affirm that there are different ways to model the world mathematically <b>BWS</b></li> </ul>

Lesson	Teacher Edition Pages	Worktext Pages	Activities Pages	Lesson Objectives
137	550–53	263–64	237–38	<ul style="list-style-type: none"> <li>• Divide to find a quotient containing 0</li> <li>• Divide a decimal by a 1-digit whole number</li> <li>• Divide to rename a fraction as a decimal</li> <li>• Solve a money word problem and interpret the solution</li> </ul>
138	554–57	265–66	239–40	<ul style="list-style-type: none"> <li>• Use mental math to multiply a decimal by a power of 10</li> <li>• Use mental math to divide a decimal by a power of 10</li> <li>• Solve a word problem and interpret the solution</li> </ul>
139	558–61	267–68	241–42	<ul style="list-style-type: none"> <li>• Solve problems, working backwards</li> </ul>
140	562–65	269–70	243–44	<ul style="list-style-type: none"> <li>• Review the concepts presented in Chapter 13 in preparation for the Chapter 13 Test</li> </ul>
141	566–68		245–46	<b>Concept Review</b>
<b>Chapter 14: Geometry: Surface Area &amp; Volume</b>				
142	569–75	271, 273–74	247–48	<ul style="list-style-type: none"> <li>• Distinguish between 2-dimensional and 3-dimensional figures</li> <li>• Identify flat and curved surfaces of 3-dimensional figures</li> <li>• Define <i>polyhedron</i></li> <li>• Identify faces, edges, and vertices of a polyhedron</li> <li>• Distinguish between prisms and pyramids</li> <li>• Construct 3-dimensional figures from nets</li> <li>• Discuss how geometry is used to model in aviation <b>BWS</b></li> </ul>
143	576–79	272, 275–76	249–50	<ul style="list-style-type: none"> <li>• Distinguish between prisms and pyramids</li> <li>• Construct 3-dimensional figures from nets</li> <li>• Identify the characteristics of 3-dimensional figures</li> </ul>
144	580–83	277–78	251–52	<ul style="list-style-type: none"> <li>• Define <i>surface area</i></li> <li>• Find the surface area of a rectangular prism</li> <li>• Find the surface area of a cube</li> </ul>
145	584–87	279–80	253–54	<ul style="list-style-type: none"> <li>• Use cubes to picture the volume of a 3-dimensional figure</li> <li>• Use a formula to determine volume</li> </ul>
146	588–91	281–82	255–56	<ul style="list-style-type: none"> <li>• Explain how perimeter, area, and volume are related</li> <li>• Solve a geometry word problem and interpret the solution</li> <li>• Use a formula to determine volume</li> </ul>
147	592–95	283–84	257–58	<ul style="list-style-type: none"> <li>• Find the surface area of a cube and of a rectangular prism</li> <li>• Use a formula to find volume</li> <li>• Solve a geometry word problem and interpret the solution</li> </ul>
148	596–97	<b>STEM</b> 272, 285		<ul style="list-style-type: none"> <li>• Identify the problem that needs to be solved</li> <li>• Define the terms <i>prosthesis</i> and <i>prosthetic device</i></li> <li>• Design a LEGO® prosthesis</li> <li>• Use provided materials to build a prosthesis</li> <li>• Test the prosthesis</li> </ul>
149	598–99	<b>STEM</b> 286		<ul style="list-style-type: none"> <li>• Identify the x-, y-, and z-axes on a 3-D coordinate graph</li> <li>• Locate and describe coordinates on a 3-D coordinate graph</li> <li>• Use 3-D coordinates to describe the LEGO bricks in an object</li> <li>• Model with math to solve a problem <b>BWS</b></li> </ul>
150	600–603	287–88	259–60	<ul style="list-style-type: none"> <li>• Review the concepts presented in Chapter 14 in preparation for the Chapter 14 Test</li> </ul>
151	604–6		261–62	<b>Concept Review</b>

Lesson	Teacher Edition Pages	Worktext Pages	Activities Pages	Lesson Objectives
<b>Chapter 15: Metric Measurement</b>				
152	607–13	289, 291–92	263–64	<ul style="list-style-type: none"> <li>• Explain why it is important for Christians to be involved in the work of meteorology <b>BWS</b></li> <li>• Identify the millimeter, centimeter, meter, and kilometer as measuring units for length</li> <li>• Identify 100 cm as 1 m and 1,000 mm as 1 m</li> <li>• Estimate and measure length, width, and height</li> <li>• Draw a line to the nearest centimeter or millimeter</li> <li>• State that 1,000 m equals 1 km</li> <li>• Determine the appropriate linear unit</li> </ul>
153	614–17	290, 293–94	265–66	<ul style="list-style-type: none"> <li>• Convert meters to centimeters and centimeters to meters</li> <li>• Convert meters to millimeters and millimeters to meters</li> <li>• Convert meters to kilometers and kilometers to meters</li> <li>• Convert centimeters to millimeters and millimeters to centimeters</li> <li>• Use &gt;, &lt;, or = to compare linear measurements</li> </ul>
154	618–21	295–96	267–68	<ul style="list-style-type: none"> <li>• Identify the liter and milliliter as measuring units for capacity</li> <li>• Convert milliliters to liters and liters to milliliters</li> <li>• Identify the gram, kilogram, and milligram as measuring units for mass</li> <li>• Convert milligrams and kilograms to grams and grams to milligrams and kilograms</li> <li>• Use &gt;, &lt;, or = to compare metric measurements</li> </ul>
155	622–25	297–98	269–70	<ul style="list-style-type: none"> <li>• Identify degrees as a measuring unit for temperature</li> <li>• Identify standard Celsius temperatures</li> <li>• Read a Celsius thermometer</li> <li>• Determine the temperature 10° warmer or 10° colder</li> <li>• Determine the amount of temperature increase or decrease</li> <li>• Use a Celsius thermometer to measure temperature</li> <li>• Determine the more reasonable temperature</li> <li>• Apply knowledge of metric measurements to serve others <b>BWS</b></li> </ul>
156	626–29	299–300	271–72	<ul style="list-style-type: none"> <li>• Add metric measurements with and without decimal form</li> <li>• Subtract metric measurements with and without decimal form</li> <li>• Solve a measurement word problem and interpret the solution</li> </ul>
157	630–33	301–2	273–74	<ul style="list-style-type: none"> <li>• Review the concepts presented in Chapter 15 in preparation for the Chapter 15 Test</li> </ul>
158	634–36		275–76	<b>Concept Review</b>
<b>Chapter 16: Ratios, Proportions, &amp; Percents</b>				
159	637–43	303, 305–6	277–78	<ul style="list-style-type: none"> <li>• Write ratios in word form, ratio form, and fraction form</li> <li>• Write ratios to describe part-to-part, part-to-whole, and whole-to-part comparisons</li> <li>• Solve problems with ratios</li> <li>• Evaluate the claim that efficient patterns in nature developed over millions of years <b>BWS</b></li> </ul>
160	644–47	304, 307–8	279–80	<ul style="list-style-type: none"> <li>• Write ratios to describe comparisons</li> <li>• Write equivalent ratios</li> <li>• Make equivalent ratios by multiplying and dividing</li> </ul>
161	648–51	309–10	281–82	<ul style="list-style-type: none"> <li>• Write equivalent ratios</li> <li>• Interpret a model, a scale drawing, and a diagram</li> </ul>
162	652–55	311–12	283–84	<ul style="list-style-type: none"> <li>• Define <i>rate</i></li> <li>• Use ratios to represent real-life situations</li> <li>• Make equivalent ratios to determine the unit rate</li> <li>• Calculate the distance traveled for a given rate and time</li> </ul>

Lesson	Teacher Edition Pages	Worktext Pages	Activities Pages	Lesson Objectives
163	656–59	313–14	285–86	<ul style="list-style-type: none"> <li>• Define <i>percent</i></li> <li>• Write a percent as a ratio with 100 as the second term</li> <li>• Write a percent as a ratio (in fraction form) in lowest terms</li> <li>• Write a ratio (in fraction form) as a percent</li> <li>• Use a ratio to solve a percent problem</li> </ul>
164	660–63	315–16	287–88	<ul style="list-style-type: none"> <li>• Write a percent as a decimal</li> <li>• Write a fraction as a percent</li> <li>• Write a decimal as a percent</li> <li>• Use <math>&gt;</math>, <math>&lt;</math>, or <math>=</math> to compare percents to decimals and fractions</li> <li>• Solve a percent word problem</li> </ul>
165	664–67	317–18	289–90	<ul style="list-style-type: none"> <li>• Use a proportion to find the percent of a number</li> <li>• Solve a percent word problem</li> <li>• Multiply by a decimal to find the percent of a number</li> <li>• Use mental math to find the percent of a number</li> </ul>
166	668–71	319–20	291–92	<ul style="list-style-type: none"> <li>• Define <i>probability</i></li> <li>• Write probability as a fraction and as a percent</li> <li>• Conduct a probability experiment</li> </ul>
167	672–73	<b>STEM</b> 321–22		<ul style="list-style-type: none"> <li>• Defend the claim that the structure of a honeycomb shows that it is designed <b>BWS</b></li> <li>• Review tessellations</li> <li>• Identify the problem to be solved</li> <li>• Produce a tessellation</li> <li>• Reproduce a tessellation in a proportional size</li> <li>• Write a ratio in ratio form and fraction form and as a decimal and a percent</li> </ul>
168	674–77	323–24	293–94	<ul style="list-style-type: none"> <li>• Review the concepts presented in Chapter 16 in preparation for the Chapter 16 Test</li> </ul>
169	678–80		295–96	<b>Concept Review</b>
<b>Chapter 17: Integers</b>				
170	681–87	325, 327–28	297–98	<ul style="list-style-type: none"> <li>• Compare and order positive and negative numbers</li> <li>• Use a number line to subtract positive numbers</li> <li>• Use a number line to add negative numbers</li> <li>• Add positive numbers or negative numbers</li> <li>• Use math to evaluate a choice <b>BWS</b></li> </ul>
171	688–91	326, 329–30	299–300	<ul style="list-style-type: none"> <li>• Add positive and negative numbers</li> <li>• Write an addition equation for a word problem</li> </ul>
172	692–95	331–32	301–2	<ul style="list-style-type: none"> <li>• Subtract positive and negative numbers</li> <li>• Write a subtraction equation for a word problem</li> </ul>
173	696–99	333–34	303–4	<ul style="list-style-type: none"> <li>• Add positive and negative numbers</li> <li>• Subtract positive and negative numbers</li> <li>• Write an equation for a word problem</li> <li>• Use math to make a wise decision <b>BWS</b></li> </ul>
174	700–703	335–36	305–6	<ul style="list-style-type: none"> <li>• Review the concepts presented in Chapter 17 in preparation for the Chapter 17 Test</li> </ul>
175	704–6		307–8	<b>Concept Review</b>
<b>Chapter 18: Data &amp; Graphs</b>				

Lesson	Teacher Edition Pages	Worktext Pages	Activities Pages	Lesson Objectives
176	707–13	337, 339–40	309–10	<ul style="list-style-type: none"> <li>• Compare and contrast manmade models with God’s greatness <b>BWS</b></li> <li>• Use given data to complete a tally table</li> <li>• Determine the mean, range, mode, and median</li> <li>• Read and interpret a line plot</li> <li>• Read and interpret a stem-and-leaf plot</li> </ul>
177	714–17	338, 341–42	311–12	<ul style="list-style-type: none"> <li>• Read and interpret a double bar graph</li> <li>• Use given data to complete a double bar graph</li> <li>• Read and interpret a double line graph</li> <li>• Use given data to complete a double line graph</li> </ul>
178	718–21	343–44	313–14	<ul style="list-style-type: none"> <li>• Read and interpret a pictograph</li> <li>• Use a table of data to make a pictograph</li> <li>• Read and interpret a circle graph</li> <li>• Use given data to make a circle graph</li> </ul>
179	722–25	345–46	315–16	<ul style="list-style-type: none"> <li>• Review the concepts presented in Chapter 18 in preparation for the Chapter 18 Test</li> </ul>
180	726–28		317–18	<b>Concept Review</b>