### Math 4 4ed

#### Lesson Plan Overview

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<td><strong>Chapter 1 · Place Value &amp; Money</strong></td>
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</table>
| 1 | 1, 3–4 | 1–2 | • Identify 10 hundreds as 1 one thousand  
• Identify the Ones, Hundreds, and Thousands periods  
• Identify the number of periods in up to a 6-digit number  
• Identify the value of each digit in a 4-digit number |
| 2 | 5–6 | 3–4 | • Recall that the value of each place is ten times greater than the value of the place immediately to its right  
• Identify the values of the digits in a number with 9 or fewer digits  
• Read and write numbers with 6 or fewer digits |
| 3 | 7–8 | 5–6 | • Recall the repetition of the Ones, Tens, and Hundreds places in each period  
• Read numbers with 9 or fewer digits  
• Write numbers with 9 or fewer digits in standard, expanded, and word form |
| 4 | 9–10 | 7–8 | • Use strategies to compare numbers  
• Use >, <, and = to compare numbers with 7 or fewer digits  
• Compare numbers written in standard, expanded, and word form |
| 5 | 11–12 | 9–10 | • Order numbers from least to greatest  
• Order numbers from greatest to least  
• Identify even and odd numbers |
| 6 | 13–14 | 11–12 | • Identify the numbers that are \( \frac{1}{10} \) of 10; 100; 1,000; 10,000; 100,000; and 1,000,000  
• Round a number to the place with the greatest value  
• Round a number to a given place within the number |
| 7 | 15–16 | 13–14 | • Rename 10 tenths as 1 one  
• Read and write decimals to the Tenths place |
| 8 | 17–18 | 15–16 | • Rename 10 hundredths as 1 tenth  
• Read and write decimals to the Hundredths place |
| 9 | 19–20 | 17–18 | • Write amounts of money that are less than $1.00  
• Determine the value of a set of money  
• Count out amounts of money |
| 10 | 21–22 | 19–20 | • Count out money needed to purchase an item  
• Count back change by counting on coins  
• Count back change by counting on dollars |
| 11 | 23–24 | 21–22 | • Rename to write and represent numbers in 3 different ways |
| 12 | 25–26 | 23–24 | • Review the concepts presented in Chapter 1 in preparation for the Chapter 1 Test |
| 13 | STEAM 1–2 | 25–26 | • Identify the problem that needs to be solved  
• Design a room with furnishings and plants  
• Create a purchase list within a set budget  
• Present a concept design  
• Write a check for a purchase  
• Explain how math can be used to make wise choices |
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<td><strong>Chapter 2 · Addition &amp; Subtraction of Whole Numbers</strong></td>
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| 15 | 27, 29–30 | 27–28 | • Use addition and subtraction properties to solve facts  
• Apply the Associative Property of Addition to make 10  
• Complete a missing-addend equation with a variable  
• Use variables when adding doubles  
• Complete a function table |
| 16 | 31–32 | 29–30 | • Add 2- and 3-digit numbers with renaming  
• Estimate the sum by rounding  
• Solve addition problems with 3 addends |
| 17 | 33–34 | 31–32 | • Identify the number that is 1,000 or 10,000 more or less  
• Add 4- and 5-digit numbers with renaming  
• Estimate the sum by rounding  
• Solve a word problem with 3 addends |
| 18 | 35–36 | 33–34 | • Rename pennies to add money, using manipulatives  
• Round amounts of money to the place with the greatest value  
• Add amounts of money  
• Solve a money word problem and interpret the solution |
| 19 | 37–38 | 35–36 | • Interpret the result of subtracting 0  
• Subtract 2- and 3-digit numbers with renaming  
• Estimate the difference by rounding  
• Solve a missing-addend equation with a variable |
| 20 | 39–40 | 37–38 | • Subtract 4- and 5-digit numbers with renaming  
• Check a subtraction problem with addition  
• Estimate the difference by rounding  
• Solve a multi-step word problem and interpret the solution |
| 21 | 41–42 | 39–40 | • Subtract 3-digit numbers with renaming  
• Rename 1 one thousand and 1 ten thousand  
• Solve a word problem and interpret the solution |
| 22 | 43–44 | 41–42 | • Subtract amounts of money  
• Round amounts of money to the place with the greatest value  
• Solve money word problems  
• Solve a multi-step word problem and interpret the solution |
| 23 | 45–46 | 43–44 | • Estimate the sum of 3 or 4 addends by rounding to the place with the greatest value  
• Estimate the difference by rounding to the place with the greatest value  
• Estimate the sum or difference by rounding to the greatest place in the lesser number |
| 24 | 47–48 | 45–46 | • Solve different types of subtraction problems  
• Identify the type of subtraction  
• Solve a subtraction word problem and interpret the solution |
| 25 | 49–50 | 47–48 | • Solve word problems using a cost chart  
• Solve word problems using variables |
| 26 | 51–52 | 49–50 | • Review the concepts presented in Chapter 2 in preparation for the Chapter 2 Test |
| 27 | STEAM 27–28 | 51–52 | • Identify the problem that needs to be solved  
• Design technology for randomly selecting a 3-digit number, using the digits 1–6  
• Apply rounding and estimation principles collaboratively to reach a target number  
• Evaluate information using estimation principles |
<p>| 28 | 51–52 | | Concept Review |</p>
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| 29     | 53, 55–56      | 53–54            | • Identify 1 whole as being equivalent to 1/7, 1/3, and 1/4  
        |                |                  | • Relate the terms numerator and denominator to their meanings  
        |                |                  | • Identify the fraction that names part of a whole |
| 30     | 57–58          | 55–56            | • Identify part of a set and use the correct numerator and denominator to describe it  
        |                |                  | • Write the fraction that names part of a set  
        |                |                  | • Predict the results of a probability activity |
| 31     | 59–60          | 57–58            | • Determine the fraction of a set  
        |                |                  | • Determine probability |
| 32     | 61–62          | 59–60            | • Compare and order like fractions  
        |                |                  | • Compare unlike fractions |
| 33     | 63–64          | 61–62            | • Add like fractions  
        |                |                  | • Subtract like fractions  
        |                |                  | • Solve a fraction word problem and interpret the solution |
| 34     | 65–66          | 63–64            | • Identify and read a mixed number  
        |                |                  | • Identify an improper fraction  
        |                |                  | • Write an improper fraction as a mixed number  
        |                |                  | • Compare mixed numbers using >, <, or = |
| 35     | 67–68          | 65–66            | • Add mixed numbers  
        |                |                  | • Subtract mixed numbers |
| 36     | 69–70          | 67–68            | • Determine the fractional parts of a whole  
        |                |                  | • Interpret a circle graph |
| 37     | 71–72          | 69–70            | • Review the concepts presented in Chapter 3 in preparation for the Chapter 3 Test |
| 38     | STEAM          | 53–54            | • Identify the problem that needs to be solved  
        | 73–54          |                  | • Design and build a cell phone holder prototype using Lego® bricks  
        |                |                  | • Test that the design is a workable, durable structure  
        |                |                  | • Summarize in whole numbers, mixed numbers, and fractions the number of bricks used  
        |                |                  | • Explain how math helps you do work |
| 39     | 71–72          |                  | Concept Review |

**Chapter 3 · Fractions**

**Chapter 4 · Multiplication & Division Facts**

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| 40     | 73, 75–76      | 73–74            | • Apply the terms factor and product  
        |                |                  | • Create an array to show related multiplication facts  
        |                |                  | • Apply the Identity Property of Multiplication  
        |                |                  | • Apply the Zero Property of Multiplication  
        |                |                  | • Write multiples of 2, 3, and 5 |
| 41     | 77–78          | 75–76            | • Apply the terms dividend, divisor, and quotient  
        |                |                  | • Relate division to multiplication  
        |                |                  | • Complete a division fact with 1 as the divisor  
        |                |                  | • Complete a division fact with 0 as the dividend  
        |                |                  | • Write phrases using numbers and math symbols |
| 42     | 79–80          | 77–78            | • Apply the Commutative Property of Multiplication  
        |                |                  | • Write related multiplication and division facts  
        |                |                  | • Write a division fact, using three different forms  
        |                |                  | • Picture and solve word problems  
<pre><code>    |                |                  | • Solve facts with 9 or 10 as a factor or a divisor, using patterns |
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<td>43</td>
<td>81–82</td>
<td>79–80</td>
<td>• Solve facts with 11 as a factor or a divisor, using patterns &lt;br&gt; • Use the Multiplication-Addition Principle to solve a multiplication fact &lt;br&gt; • Solve a word problem and interpret the solution</td>
</tr>
<tr>
<td>44</td>
<td>83–84</td>
<td>81–82</td>
<td>• Solve facts with 12 as a factor or a divisor, using strategies &lt;br&gt; • Use the Multiplication-Addition Principle to solve a multiplication fact</td>
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<td>45</td>
<td>85–86</td>
<td>83–84</td>
<td>• Apply the Multiplication-Addition Principle &lt;br&gt; • Apply mental math strategies for solving multiplication facts with 6 or 9 as factors &lt;br&gt; • Solve division facts using related multiplication facts &lt;br&gt; • Solve a word problem and interpret the solution</td>
</tr>
<tr>
<td>46</td>
<td>87–88</td>
<td>85–86</td>
<td>• Apply the Associative Property of Multiplication &lt;br&gt; • Solve word problems with 3 factors &lt;br&gt; • Solve a multiplication equation with 3 factors</td>
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<td>47</td>
<td>89–90</td>
<td>87–88</td>
<td>• Solve a missing-factor equation with a variable &lt;br&gt; • Solve math equations with 2 operations</td>
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<td>48</td>
<td>91–92</td>
<td>89–90</td>
<td>• Solve word problems by working backward</td>
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<td>49</td>
<td>93–94</td>
<td>91–92</td>
<td>• Review the concepts presented in Chapter 4 in preparation for the Chapter 4 Test</td>
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<td>50</td>
<td>STEAM 73–74</td>
<td></td>
<td>• Identify the problem that needs to be solved &lt;br&gt; • Identify all the different combinations of 3, 2, and 1 that equal 8, using problem-solving strategies collaboratively &lt;br&gt; • State conclusions numerically, with pictures, or in words &lt;br&gt; • Discuss connections between math and helping others</td>
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<td>52</td>
<td>95, 97–98</td>
<td>95–96</td>
<td>• Rename 10 tenths as 1 one, using manipulatives &lt;br&gt; • Read and write a decimal to the Tenths place &lt;br&gt; • Write a decimal as a fraction or a mixed number</td>
</tr>
<tr>
<td>53</td>
<td>99–100</td>
<td>97–98</td>
<td>• Picture decimals to the Tenths place &lt;br&gt; • Write a mixed number as a decimal &lt;br&gt; • Compare decimals to the Tenths place &lt;br&gt; • Order decimals from least to greatest</td>
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<tr>
<td>54</td>
<td>101–2</td>
<td>99–100</td>
<td>• Rename 100 hundredths as 1 whole &lt;br&gt; • Rename 10 hundredths as 1 tenth &lt;br&gt; • Read and write a decimal to the Hundredths place &lt;br&gt; • Write a mixed number as a decimal</td>
</tr>
<tr>
<td>55</td>
<td>103–4</td>
<td>101–2</td>
<td>• Picture decimals to the Hundredths place &lt;br&gt; • Write a mixed number as a decimal &lt;br&gt; • Compare decimals to the Hundredths place &lt;br&gt; • Order decimals from least to greatest</td>
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<tr>
<td>56</td>
<td>105–6</td>
<td>103–4</td>
<td>• Add decimals &lt;br&gt; • Subtract decimals &lt;br&gt; • Solve a word problem and interpret the solution</td>
</tr>
<tr>
<td>57</td>
<td>107–8</td>
<td>105–6</td>
<td>• Round decimals to the nearest whole number &lt;br&gt; • Estimate the sum by rounding &lt;br&gt; • Solve 3-addend addition problems &lt;br&gt; • Estimate the difference by rounding &lt;br&gt; • Solve a decimal word problem and interpret the solution</td>
</tr>
<tr>
<td>58</td>
<td>109–10</td>
<td>107–8</td>
<td>• Rename to write and represent equivalent values</td>
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<tr>
<td>59</td>
<td>111–12</td>
<td>109–10</td>
<td>• Review the concepts presented in Chapter 5 in preparation for the Chapter 5 Test</td>
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**Chapter 5 · Decimals**

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<td>95, 97–98</td>
<td>95–96</td>
<td>• Rename 10 tenths as 1 one, using manipulatives &lt;br&gt; • Read and write a decimal to the Tenths place &lt;br&gt; • Write a decimal as a fraction or a mixed number</td>
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<td>53</td>
<td>99–100</td>
<td>97–98</td>
<td>• Picture decimals to the Tenths place &lt;br&gt; • Write a mixed number as a decimal &lt;br&gt; • Compare decimals to the Tenths place &lt;br&gt; • Order decimals from least to greatest</td>
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<tr>
<td>54</td>
<td>101–2</td>
<td>99–100</td>
<td>• Rename 100 hundredths as 1 whole &lt;br&gt; • Rename 10 hundredths as 1 tenth &lt;br&gt; • Read and write a decimal to the Hundredths place &lt;br&gt; • Write a mixed number as a decimal</td>
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<tr>
<td>55</td>
<td>103–4</td>
<td>101–2</td>
<td>• Picture decimals to the Hundredths place &lt;br&gt; • Write a mixed number as a decimal &lt;br&gt; • Compare decimals to the Hundredths place &lt;br&gt; • Order decimals from least to greatest</td>
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<tr>
<td>56</td>
<td>105–6</td>
<td>103–4</td>
<td>• Add decimals &lt;br&gt; • Subtract decimals &lt;br&gt; • Solve a word problem and interpret the solution</td>
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<tr>
<td>57</td>
<td>107–8</td>
<td>105–6</td>
<td>• Round decimals to the nearest whole number &lt;br&gt; • Estimate the sum by rounding &lt;br&gt; • Solve 3-addend addition problems &lt;br&gt; • Estimate the difference by rounding &lt;br&gt; • Solve a decimal word problem and interpret the solution</td>
</tr>
<tr>
<td>58</td>
<td>109–10</td>
<td>107–8</td>
<td>• Rename to write and represent equivalent values</td>
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<tr>
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<td>111–12</td>
<td>109–10</td>
<td>• Review the concepts presented in Chapter 5 in preparation for the Chapter 5 Test</td>
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<td>60</td>
<td>STEAM 95–96</td>
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<td>• Identify the problem that needs to be solved&lt;br&gt;• Design an heirloom treasure&lt;br&gt;• Record an ordered inventory list of gems used&lt;br&gt;• Explain that math has limits</td>
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**Chapter 6 · Multiplication: 1-Digit Multipliers**

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<td>113–14</td>
<td>• Multiply a 2-digit factor by a 1-digit factor&lt;br&gt;• Multiply a 3-digit factor by a 1-digit factor&lt;br&gt;• Solve a multiplication word problem and interpret the solution</td>
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<td>63</td>
<td>117–18</td>
<td>115–16</td>
<td>• Multiply a 2-digit factor by a 1-digit factor with renaming, using manipulatives&lt;br&gt;• Multiply a 3-digit factor by a 1-digit factor with renaming, using manipulatives&lt;br&gt;• Multiply a 2- or 3-digit factor by a 1-digit factor with and without renaming&lt;br&gt;• Solve a word problem and interpret the solution</td>
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<tr>
<td>64</td>
<td>119–20</td>
<td>117–18</td>
<td>• Multiply a 2- or 3-digit factor by a 1-digit factor&lt;br&gt;• Multiply multiples of 10 by a 1-digit factor and determine the number of zeros in the product&lt;br&gt;• Multiply multiples of 100 by a 1-digit factor and determine the number of zeros in the product&lt;br&gt;• Multiply multiples of 1,000 by a 1-digit factor and determine the number of zeros in the product</td>
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<tr>
<td>65</td>
<td>121–22</td>
<td>119–20</td>
<td>• Round numbers to the nearest ten or the nearest hundred&lt;br&gt;• Estimate the product by rounding&lt;br&gt;• Multiply a 2- or 3-digit factor by a 1-digit factor</td>
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<td>66</td>
<td>123–24</td>
<td>121–22</td>
<td>• Estimate by rounding&lt;br&gt;• Multiply a 2- or 3-digit factor by a 1-digit factor&lt;br&gt;• Solve a money multiplication word problem and interpret the solution</td>
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<td>67</td>
<td>125–26</td>
<td>123–24</td>
<td>• Multiply a 4-digit factor by a 1-digit factor&lt;br&gt;• Estimate the product by rounding&lt;br&gt;• Solve a word problem and interpret the solution</td>
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<td>127–28</td>
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<td>• Solve money multiplication problems&lt;br&gt;• Solve a multi-step money word problem&lt;br&gt;• Read and complete a table</td>
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<td>127–28</td>
<td><strong>Review the concepts presented in Chapter 6 in preparation for the Chapter 6 Test</strong></td>
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<td>STEAM 113–14</td>
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<td>• Research to gather data&lt;br&gt;• Identify the problem that needs to be solved&lt;br&gt;• Calculate how much food is needed&lt;br&gt;• Design, build, and test a system for accomplishing a task&lt;br&gt;• Evaluate a statement that says that work is not fun</td>
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**Chapter 7 · Geometry: Plane Figures**

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<td>131, 133–34</td>
<td>131–32</td>
<td>• Identify a point, a line, and a line segment&lt;br&gt;• Identify horizontal and vertical lines&lt;br&gt;• Identify and describe parallel and intersecting lines&lt;br&gt;• Read a map&lt;br&gt;• Draw points, lines, and line segments</td>
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<td>73</td>
<td>135–36</td>
<td>133–34</td>
<td>• Identify and name rays&lt;br&gt;• Identify and name angles&lt;br&gt;• Demonstrate and describe a right angle, an acute angle, and an obtuse angle</td>
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| 74     | 137–38         | 135–36          | • Describe regular and irregular polygons  
• Identify regular and irregular polygons  
• Identify a right triangle  
• Identify acute and obtuse angles |
| 75     | 139–40         | 137–38          | • Differentiate between regular and irregular polygons  
• Identify and name quadrilaterals  
• Define perimeter  
• Find the perimeter of a polygon |
| 76     | 141–42         | 139–40          | • Find the perimeter of a figure  
• Count unit squares to find the area of a region  
• Multiply to find the area of a region  
• Solve an area word problem and interpret the solution |
| 77     | 143–44         | 141–42          | • Identify similar and congruent figures  
• Identify symmetrical figures and a line of symmetry  
• Identify a slide, a flip, and a turn |
| 78     | 145–46         | 143–44          | • Measure to find the perimeter of a figure  
• Find the area of a region |
| 79     | 147–48         | 145–46          | • Identify the center point of a circle  
• Identify and name the radius of a circle  
• Identify and name the diameter of a circle  
• Find the length of a radius and a diameter |
| 80     | 149–50         | 147–48          | • Find the area of a complex polygon  
• Find the area of a triangle  
• Identify regular and irregular polygons  
• Identify parallel, intersecting, horizontal, and vertical lines  
• Identify right angles, acute angles, and obtuse angles |
| 81     | 151–52         | 149–50          | • Review the concepts presented in Chapter 7 in preparation for the Chapter 7 Test |
| 82     | STEAM 131–32   |                 | • Identify the problem that needs to be solved  
• Design and create a polygon art picture using triangles  
• Verify that the specifications have been met  
• Explain why people are able to use math to create an orderly design |
| 83     |                | 151–52          | Concept Review |

**Chapter 8 · Division: 1-Digit Divisors**

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| 84     | 153, 155–56   | 153–54          | • Solve partition and measurement division problems  
• Write division word problems |
| 85     | 157–58        | 155–56          | • Divide to find a 1-digit quotient with a remainder  
• Solve a long division problem using facts and near facts |
| 86     | 159–60        | 157–58          | • Solve division facts using long division  
• Divide a 2-digit dividend by a 1-digit divisor  
• Divide a 3-digit dividend by a 1-digit divisor |
| 87     | 161–62        | 159–60          | • Divide to find a 2-digit quotient with a remainder  
• Divide to find a 1-digit quotient with a remainder, renaming in the dividend  
• Divide to find a 2-digit quotient with a remainder, renaming in the dividend |
| 88     | 163–64        | 161–62          | • Divide to find a 3-digit quotient with a remainder  
• Divide to find a 2-digit quotient, renaming in the dividend  
• Divide to find a 3-digit quotient, using the traditional form |
| 89     | 165–66        | 163–64          | • Divide to find a quotient containing 0  
• Check the quotient of a division problem, using multiplication |
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| 90     | 167–68        | 165–66          | • Divide multiples of 10 and 100  
  • Check the quotient of a division problem |
| 91     | 169–70        | 167–68          | • Divide 4-digit dividends  
  • Divide money  
  • Solve a division money word problem |
| 92     | 171–72        | 169–70          | • Find the average of a set of 1-digit numbers  
  • Solve an averaging word problem  
  • Find the average of a set of 2-digit numbers  
  • Find the average of a set of 3-digit numbers |
| 93     | 173–74        | 171–72          | • Determine whether a number is divisible by 2, 5, or 10  
  • Determine the remainder of a division equation |
| 94     | 175–76        | 173–74          | • Review the concepts presented in Chapter 8 in preparation for the Chapter 8 Test |
| 95     | STEAM 153–54  |                 | • Identify the problem that needs to be solved  
  • Calculate the total cost of camp  
  • Develop a monthly savings plan for camp  
  • Track savings and expenses toward a goal  
  • Use math to set and assess goals for living wisely |
| 96     | 175–76        |                 | Concept Review |

### Chapter 9 · Data & Graphs

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| 97     | 177, 179–80   | 177–78          | • Read and interpret a pictograph and a bar graph  
  • Use collected data to create a tally table  
  • Use a tally table to create a bar graph and a pictograph  
  • Find the average (mean) for a set of data  
  • Identify the range, mode, and median for a series of values |
| 98     | 181–82        | 179–80          | • Create a double bar graph from a table  
  • Read and interpret a double bar graph  
  • Create a bar graph and a circle graph from a tally table |
| 99     | 183–84        | 181–82          | • Create a single line graph from a table  
  • Determine mode, range, median, and average (mean)  
  • Interpret a double line graph |
| 100    | 185–86        | 183–84          | • Write ordered pairs to identify points on a coordinate graph  
  • Locate and plot coordinate points on a coordinate graph  
  • Apply the terms scale and interval |
| 101    | 187–88        | 185–86          | • Create and read a line plot  
  • Determine the range for a set of data  
  • Create a stem-and-leaf plot from a line plot |
| 102    | 189–90        | 187–88          | • Use logic to solve an order problem  
  • Use logic to solve an identity problem |
| 103    | 191–92        | 189–90          | • Record survey data on a tally table  
  • Create a bar graph and a pictograph from a tally table  
  • Create a circle graph  
  • Compare a circle graph, bar graph, pictograph, and tally table |
| 104    | 193–94        | 191–92          | • Review the concepts presented in Chapter 9 in preparation for the Chapter 9 Test |
| 105    | STEAM 177–78  |                 | • Identify the problem that needs to be solved  
  • Design and administer a survey  
  • Report survey findings in graphs  
  • Evaluate the idea that math has limits |
<p>| 106    | 193–94        |                 | Concept Review |</p>
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| 107    | 195, 197–98    | 195–96           | • Recognize inches and feet as standard units of measurement  
• Measure objects to the nearest inch and foot  
• Estimate and measure length, width, and height to the nearest half inch or fourth inch  
• Draw a line to the nearest inch, half inch, or fourth inch |
| 108    | 199–200        | 197–98           | • Determine the best measurement: inches, feet, or yards  
• Estimate and measure length and height to the nearest inch, foot, or yard  
• Recognize the mile as a standard unit of measurement for distance  
• Use a map key to determine distance |
| 109    | 201–2          | 199–200          | • Rename yards to feet and feet to yards  
• Rename feet to inches and inches to feet  
• Rename miles to feet and to yards |
| 110    | 203–4          | 201–2            | • Recognize a pound and an ounce as measuring units for weight  
• Read a spring scale  
• Recognize a ton as a measuring unit for weight  
• Determine the appropriate unit of weight: ounce or pound  
• Rename pounds to ounces, tons to pounds, and pounds to tons |
| 111    | 205–6          | 203–4            | • Recognize cups, pints, quarts, and gallons as measuring units for capacity  
• Determine the appropriate unit of capacity: cup, pint, quart, or gallon  
• Compare capacity using >, <, or =  
• Rename units of capacity  
• Solve a capacity word problem |
| 112    | 207–8          | 205–6            | • Recognize a degree as a measuring unit for temperature  
• Read and set a Fahrenheit thermometer  
• Recognize standard Fahrenheit temperatures  
• Use a Fahrenheit thermometer to measure temperature  
• Interpret a line graph |
| 113    | 209–10         | 207–8            | • Tell and write time to the minute  
• Identify the appropriate unit of time measure for activities  
• Rename minutes to seconds, hours to minutes, and days to hours  
• Compare minutes and seconds, hours and minutes, and days and hours |
| 114    | 211–12         | 209–10           | • Tell, write, and show time to the quarter-hour  
• Tell the time before or after the hour  
• Differentiate between a.m. and p.m. and between noon and midnight |
| 115    | 213–14         | 211–12           | • Determine the elapsed time to the hour and minute  
• Determine the future time  
• Solve an elapsed time word problem |
| 116    | 215–16         | 213–14           | • Read a calendar  
• Identify the position of a month in the year and write a date  
• Determine the past or future date |
| 117    | 217–18         | 215–16           | • Write Roman numerals for the numbers 1–12  
• Recognize a pattern in writing Roman numerals  
• Solve a multi-step elapsed time problem |
| 118    | 219–20         | 217–18           | • Review the concepts presented in Chapter 10 in preparation for the Chapter 10 Test |
| 119    | STEAM 195–96   |                  | • Identify the problem that needs to be solved  
• Collaboratively design and build a pasta car  
• Make predictions, conduct tests, and record results  
• Analyze design, construct arguments, and critique reasoning  
• Evaluate how math is not always helpful to people in a fallen world |
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<tr>
<td><strong>Chapter 11 · Multiplication: 2-Digit Multipliers</strong></td>
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| 121    | 221, 223–24    | 221–22           | • Multiply multiples of 10, 100, and 1,000  
• Solve word problems mentally |
| 122    | 225–26         | 223–24           | • Apply the Multiplication-Addition Principle, using manipulatives  
• Apply the Multiplication-Addition Principle, using an array |
| 123    | 227–28         | 225–26           | • Apply the Multiplication-Addition Principle  
• Multiply a 2-digit factor by a 2-digit factor |
| 124    | 229–30         | 227–28           | • Apply the Multiplication-Addition Principle  
• Multiply a 2-digit factor by a 2-digit factor  
• Estimate the product of a multiplication word problem by rounding |
| 125    | 231–32         | 229–30           | • Multiply a 2-digit factor by a 2-digit factor  
• Multiply a 3-digit factor by a 2-digit factor  
• Solve a multiplication word problem and interpret the solution |
| 126    | 233–34         | 231–32           | • Multiply a 2- or 3-digit factor by a 2-digit factor  
• Estimate the product of a multiplication word problem |
| 127    | 235–36         | 233–34           | • Multiply money  
• Estimate the product of a money word problem  
• Use mental math to solve a multi-step word problem |
| 128    | 237–38         | 235–36           | • Review the concepts presented in Chapter 11 in preparation for the Chapter 11 Test |
| 129    | STEAM 221–22   |                  | • Identify the problem that needs to be solved  
• Design a Lego brainteaser puzzle  
• Calculate the total stud value of the puzzle pieces  
• Record a puzzle solution and solve other puzzles  
• Determine how math helps us meet others' needs |
| 130    |                | 237–38           | Concept Review    |
|        |                |                  |                   |
| **Chapter 12 · Fractions: Addition & Subtraction** | |
| 131    | 239, 241–42    | 239–40           | • Identify the fraction that names part of a whole  
• Identify the fraction that names part of a set  
• Compare and order like fractions  
• Compare unlike fractions  
• Write an improper fraction as a mixed number  
• Compare mixed numbers |
| 132    | 243–44         | 241–42           | • Determine whether fractions are less than, greater than, or equal to 1  
• Determine whether fractions are less than, greater than, or equal to \( \frac{1}{2} \)  
• Order unlike fractions with \( \frac{1}{2} \) |
| 133    | 245–46         | 243–44           | • Add like fractions  
• Rename an improper fraction as a mixed number  
• Subtract like fractions  
• Rename 1 as an improper fraction |
| 134    | 247–48         | 245–46           | • Add mixed numbers  
• Rename an improper fraction as a mixed number  
• Subtract mixed numbers  
• Rename 1 as an improper fraction |
| 135    | 249–50         | 247–48           | • Repartition shapes to find equivalent fractions  
• Use number lines to find equivalent fractions  
• Use multiplication to find equivalent fractions |
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| 136    | 251–52         | 249–50          | • Repartition shapes to find equivalent fractions  
|        |                |                 | • Add unlike fractions  
|        |                |                 | • Subtract unlike fractions |
| 137    | 253–54         | 251–52          | • Use multiplication to find equivalent fractions  
|        |                |                 | • Add unlike fractions  
|        |                |                 | • Subtract unlike fractions |
| 138    | 255–56         | 253–54          | • Determine the fractional part of a set  
|        |                |                 | • Solve a word problem and interpret the solution |
| 139    | 257–58         | 255–56          | • Solve fraction word problems |
| 140    | 259–60         | 257–58          | • Review the concepts presented in Chapter 12 in preparation for the Chapter 12 Test |
| 141    | STEAM          |                 | • Assemble an origami figure  
|        | 239–40         |                 | • Recognize fractions and their equivalents in an origami figure  
|        |                |                 | • Use fractions to design a color pattern for an origami figure  
|        |                |                 | • Evaluate the claim that design in our world happened by chance  
|        |                |                 | • Explore origami's connection to STEAM disciplines |
| 142    |                | 259–60          | Concept Review |

**Chapter 13 · Metric Measurement**

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| 143    | 261, 263–64    | 261–62          | • Recognize the meter, centimeter, and millimeter as measuring units for length  
|        |                |                 | • Estimate and measure length, width, and height to the nearest meter, centimeter, and millimeter  
|        |                |                 | • Determine the appropriate linear unit  
|        |                |                 | • Draw a line to the nearest centimeter or millimeter |
| 144    | 265–66         | 263–64          | • Recognize the kilometer as a measuring unit for distance  
|        |                |                 | • Determine the appropriate linear unit  
|        |                |                 | • Rename millimeters, centimeters, or kilometers to meters and meters to kilometers, centimeters, or millimeters  
|        |                |                 | • Compare linear measurements using >, <, or =  
|        |                |                 | • Solve a measurement word problem and interpret the solution |
| 145    | 267–68         | 265–66          | • Recognize the liter and milliliter as measuring units for capacity  
|        |                |                 | • Determine the appropriate unit of capacity  
|        |                |                 | • Determine the best estimate for the capacity of a container  
|        |                |                 | • Rename milliliters to liters and liters to milliliters  
|        |                |                 | • Compare milliliters to liters using >, <, or =  
|        |                |                 | • Solve a measurement word problem and interpret the solution |
| 146    | 269–70         | 267–68          | • Recognize the gram and kilogram as measuring units for mass  
|        |                |                 | • Determine the appropriate unit of mass  
|        |                |                 | • Rename kilograms to grams and grams to kilograms  
|        |                |                 | • Compare grams and kilograms using >, <, or =  
|        |                |                 | • Solve a measurement word problem and interpret the solution |
| 147    | 271–72         | 269–70          | • Recognize degrees as a measuring unit for temperature  
|        |                |                 | • Read and set a Celsius thermometer  
|        |                |                 | • Recognize standard Celsius temperatures  
|        |                |                 | • Determine the temperature 10° warmer or 10° colder  
|        |                |                 | • Determine the amount of temperature increase or decrease  
|        |                |                 | • Measure temperature using a Celsius thermometer |
| 148    | 273–74         | 271–72          | • Apply an understanding of metric units  
|        |                |                 | • Identify the appropriate measurement tool  
<p>|        |                |                 | • Determine the temperature, given the increase or decrease from a given temperature |</p>
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| 149    | 275–76         | 273–74          | • Complete a table  
• Use logic to extend a number sequence  
• Match a set of operations to a sequence of numbers |
| 150    | 277–78         | 275–76          | • Review the concepts presented in Chapter 13 in preparation for the Chapter 13 Test |
| 151    | STEAM 261–62   |                 | • Identify the problem that needs to be solved  
• Make a biodegradable seedling planter and recyclable greenhouse cover  
• Plant a seed and measure and record its growth  
• Apply the principle of sowing and reaping to studying math |
| 152    |                 | 277–78          | Concept Review |

### Chapter 14 · Division: 2-Digit Divisors

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| 153    | 279, 281–82    | 279–80          | • Divide a 2-digit multiple of 10 by a 2-digit multiple of 10  
• Divide a 3-digit multiple of 10 by a 2-digit multiple of 10  
• Solve a division word problem |
| 154    | 283–84         | 281–82          | • Divide by a 2-digit multiple of 10  
• Solve a division word problem |
| 155    | 285–86         | 283–84          | • Divide by rounding the divisor  
• Use multiplication to check division problems  
• Solve a word problem and interpret the solution |
| 156    | 287–88         | 285–86          | • Divide to find a 1-digit quotient  
• Solve a division word problem |
| 157    | 289–90         | 287–88          | • Divide to find a 1- or 2-digit quotient  
• Solve a division word problem and interpret the solution |
| 158    | 291–92         | 289–90          | • Divide to find a 2-digit quotient  
• Solve division word problems  
• Divide money |
| 159    | 293–94         | 291–92          | • Adjust the quotient in a division problem  
• Use multiplication to check a division problem  
• Solve a division word problem |
| 160    | 295–96         | 293–94          | • Adjust the quotient in a division problem  
• Divide to find a quotient containing 0  
• Divide money  
• Solve a money word problem |
| 161    | 297–98         | 295–96          | • Use multiplication and repeated addition to solve a word problem  
• Use division and repeated subtraction to solve a word problem  
• Solve a multi-step word problem and interpret the solution |
| 162    | 299–300        | 297–98          | • Review the concepts presented in Chapter 14 in preparation for the Chapter 14 Test |
| 163    | STEAM 279–80   |                 | • Identify the problem that needs to be solved  
• Design a 3-D model for testing solutions  
• Show equal divisions of a square cake and its frosting  
• Evaluate the reasonableness of a solution  
• Recognize that math cannot determine right and wrong  
• Construct a practical solution to a problem |
| 164    | 299–300        | Concept Review  | |


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| 165    | 301, 303–4     | 301–2           | • Distinguish between 2-dimensional and 3-dimensional objects  
|        |                |                 | • Identify faces, edges, and vertices of 3-dimensional figures  
|        |                |                 | • Identify the characteristics of a sphere  
|        |                |                 | • Identify the characteristics of a cone  
|        |                |                 | • Identify the characteristics of a cylinder  
| 166    | 305–6          | 303–4           | • Identify the characteristics of a rectangular prism  
|        |                |                 | • Identify the characteristics of a square prism (cube)  
|        |                |                 | • Identify the characteristics of a triangular prism  
|        |                |                 | • Construct prisms from nets  
|        |                |                 | • Identify a prism by its net  
| 167    | 307–8          | 305–6           | • Make a model of a prism  
|        |                |                 | • Identify a square pyramid and a triangular pyramid  
|        |                |                 | • Make models of pyramids  
|        |                |                 | • Identify the characteristics of pyramids  
|        |                |                 | • Construct pyramids from nets  
| 168    | 309–10         | 307–8           | • Add the area of each face to find the surface area  
|        |                |                 | • Find the surface area of a square prism  
|        |                |                 | • Find the surface area of a rectangular prism  
| 169    | 311–12         | 309–10          | • Use cubes to picture the volume of a 3-dimensional figure  
|        |                |                 | • Use a formula to determine volume  
| 170    | 313–14         | 311–12          | • Recognize patterns  
|        |                |                 | • Extend patterns  
|        |                |                 | • Determine the missing part in a pattern  
|        |                |                 | • Create a pattern  
|        |                |                 | • Make a Venn diagram  
| 171    | 315–16         | 313–14          | • Review the concepts presented in Chapter 15 in preparation for the Chapter 15 Test  
| 172    | STEAM 301–2    |                 | • Identify the problem that needs to be solved  
|        |                |                 | • Design and build a 3-dimensional structure to withstand an attack  
|        |                |                 | • Test a structure  
|        |                |                 | • Apply an understanding of God’s design  
| 173    |                | 315–16          | Concept Review  

**Chapter 15 · Geometry: 3-Dimensional Figures**

**Chapter 16 · Pre-Algebra**

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| 174    | 317–18         | 317–18          | • Identify positive and negative numbers on a number line  
|        |                |                 | • Identify the opposite of a number  
|        |                |                 | • Determine positive and negative numbers  
| 175    | 319–20         | 319–20          | • Compare and order positive and negative numbers  
|        |                |                 | • Graph positive and negative numbers on a number line  
| 176    | 321–22         | 321–22          | • Graph positive and negative numbers on a number line  
|        |                |                 | • Order positive and negative numbers  
| 177    | 323–24         | 323–24          | • Graph points on a coordinate graph  
|        |                |                 | • Write ordered pairs to identify points on a coordinate graph  
| 178    | 325–26         | 325–26          | • Use variables to represent quantities  
|        |                |                 | • Complete a function table  
|        |                |                 | • Graph points on a coordinate graph  
| 179    | 327–28         | 327–28          | • Review the concepts presented in Chapter 16 in preparation for the Chapter 16 Test  
| 180    |                | 329–30          | Concept Review  

**Lesson Objectives**

- Distinguish between 2-dimensional and 3-dimensional objects
- Identify faces, edges, and vertices of 3-dimensional figures
- Identify the characteristics of a sphere
- Identify the characteristics of a cone
- Identify the characteristics of a cylinder
- Identify the characteristics of a rectangular prism
- Identify the characteristics of a square prism (cube)
- Identify the characteristics of a triangular prism
- Construct prisms from nets
- Identify a prism by its net
- Make a model of a prism
- Identify a square pyramid and a triangular pyramid
- Make models of pyramids
- Identify the characteristics of pyramids
- Construct pyramids from nets
- Add the area of each face to find the surface area
- Find the surface area of a square prism
- Find the surface area of a rectangular prism
- Use cubes to picture the volume of a 3-dimensional figure
- Use a formula to determine volume
- Recognize patterns
- Extend patterns
- Determine the missing part in a pattern
- Create a pattern
- Make a Venn diagram
- Review the concepts presented in Chapter 15 in preparation for the Chapter 15 Test
- Identify the problem that needs to be solved
- Design and build a 3-dimensional structure to withstand an attack
- Test a structure
- Apply an understanding of God’s design
- Identify positive and negative numbers on a number line
- Identify the opposite of a number
- Determine positive and negative numbers
- Compare and order positive and negative numbers
- Graph positive and negative numbers on a number line
- Graph positive and negative numbers on a number line
- Order positive and negative numbers
- Graph points on a coordinate graph
- Write ordered pairs to identify points on a coordinate graph
- Use variables to represent quantities
- Complete a function table
- Graph points on a coordinate graph
- Review the concepts presented in Chapter 16 in preparation for the Chapter 16 Test
- Concept Review