

# NUMBERS AND OPERATIONS

GRADE	CONTENT	SKILLS	LESSON CORRELATION
<b>Essential Question:</b> What do numbers represent and how do they help us to understand God's world?		<b>Big Idea:</b> Numbers represent an amount that helps us order and compare things in God's world.	
<b>K</b>	Numbers	<p><b>K.NO.1 Know number names and count up to 100 by ones and tens (K.CC.1,2)</b>            A. Solve problems using number names            B. Solve problems by counting up to 100 by ones            C. Solve problems by counting up to 100 by tens            3.0 Items include ALL of the following:</p> <ul style="list-style-type: none"> <li>• Solve problems using number names</li> <li>• Solve problems by counting up to 100 by ones</li> <li>• Solve problems by counting up to 100 by tens</li> </ul> <p>2.0 items include at least one of the following:</p> <ul style="list-style-type: none"> <li>• Solve problems using number names</li> <li>• Solve problems by counting up to 100 by ones</li> <li>• Solve problems by counting up to 100 by tens</li> <li>• Solve problems by counting up to 50 by ones</li> </ul> <p><b>K.NO.2 Read and write numbers 0 to 20 (K.CC.3)</b>            A. Solve problems by reading numbers 0-20            B. Solve problems by writing numbers 0-20            3.0 Items include ALL of the following:</p> <ul style="list-style-type: none"> <li>• Solve problems by reading numbers 0-20</li> <li>• Solve problems by writing numbers 0-20</li> </ul> <p>2.0 items include at least one of the following:</p> <ul style="list-style-type: none"> <li>• Solve problems by reading numbers 0-20</li> <li>• Solve problems by writing numbers 0-20</li> <li>• Solve problems by reading numbers 0-10</li> <li>• Solve problems by writing numbers 0-10</li> </ul> <p><b>K.NO.3 Count to tell the number of objects and be able to represent as a written numeral (K.CC.3,4,5)</b>            A. Solve problems by counting to tell the number of objects            B. Solve problems by writing a numeral for the number of objects counted            3.0 Items include ALL of the following:</p> <ul style="list-style-type: none"> <li>• Solve problems by counting to tell the number of objects</li> <li>• Solve problems by writing a numeral for the number of objects counted</li> </ul> <p>2.0 items include at least one of the following:</p> <ul style="list-style-type: none"> <li>• Solve problems by counting to tell the number of objects</li> <li>• Solve problems by writing a numeral for the number of objects counted</li> <li>• Solve problems by one-to-one matching</li> </ul> <p><b>K.NO.4 Compare number of objects between groups; compare written numerals between 1 and 10 (K.CC.6,7)</b>            A. Solve problems by comparing the number of objects between groups            B. Solve problems by comparing written numerals between 1 and 10            3.0 Items include ALL of the following:</p> <ul style="list-style-type: none"> <li>• Solve problems by comparing the number of objects between groups</li> <li>• Solve problems by comparing written numerals between 1 and 10</li> </ul> <p>2.0 items include at least one of the following:</p> <ul style="list-style-type: none"> <li>• Solve problems by comparing the number of objects between groups</li> <li>• Solve problems by comparing written numerals between 1 and 10</li> <li>• Solve problems by applying the value of numbers to the number</li> <li>• Solve problems by comparing written numerals between 1 and 5</li> </ul>	<p>1.1, 1.3, 1.5, 1.8, 3.1, 3.3, 3.5, 3.7, 3.9, 3.11, 8.2, 8.4, 8.6, 8.8, 8.10, 9.1, 9.2, 9.3, 9.4, 10.1, 10.2, 10.3, 10.4, 10.5, 10.6</p> <p>1.2, 1.4, 1.6, 1.7, 3.2, 3.4, 3.6, 3.8, 3.10, 8.3, 8.5, 8.7, 8.9, 8.11, 9.2</p> <p>1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 2.4, 2.5, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9, 3.10, 3.11, 4.1, 4.2, 4.3, 4.4, 4.5, 6.5, 8.1, 8.2, 8.4, 8.6, 8.8, 8.10, 9.1, 9.2, 9.3, 9.4</p> <p>2.1, 2.2, 2.3, 2.4, 2.5, 4.1, 4.2, 4.3, 4.5, 9.6</p>
	Place Value	<p><b>K.NO.5 Begin to organize objects up to 19 into groups of tens and ones (K.NBT.1)</b>            A. Solve problems by beginning to organize objects up to 19 into groups of tens and ones            3.0 Items include ALL of the following:</p> <ul style="list-style-type: none"> <li>• Solve problems by beginning to organize objects up to 19 into groups of tens and ones</li> </ul> <p>2.0 items include at least one of the following:</p> <ul style="list-style-type: none"> <li>• Solve problems by beginning to organize objects up to 19 into groups of tens and ones</li> <li>• Solve problems by beginning to organize objects up to 10 into a group</li> </ul>	<p>8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 8.7, 8.8, 8.9, 8.10, 8.11</p>
	<b>1</b>	Numbers	<p><b>1.NO.1 Count, read, write, and understand numbers up to 120 (1.NBT.1)</b>            A. Solve problems by counting numbers up to 120            B. Solve problems by reading numbers up to 120            C. Solve problems by writing numbers up to 120            3.0 Items include ALL of the following:</p> <ul style="list-style-type: none"> <li>• Solve problems by counting numbers up to 120</li> <li>• Solve problems by reading numbers up to 120</li> <li>• Solve problems by writing numbers up to 120</li> </ul>

		<p>2.0 items include at least one of the following:</p> <ul style="list-style-type: none"> <li>Solve problems by counting numbers up to 120</li> <li>Solve problems by reading numbers up to 120</li> <li>Solve problems by writing numbers up to 120</li> <li>Solve problems by counting numbers up to 50</li> <li>Solve problems by reading numbers up to 50</li> <li>Solve problems by writing numbers up to 50</li> </ul> <p>1.NO.2 Count by twos, fives, and twenty-fives up to 100</p> <p>A. Solve problems by counting by twos up to 100</p> <p>B. Solve problems by counting by fives up to 100</p> <p>C. Solve problems by counting by twenty-five up to 100</p> <p>3.0 Items include ALL of the following:</p> <ul style="list-style-type: none"> <li>Solve problems by counting by twos up to 100</li> <li>Solve problems by counting by fives up to 100</li> <li>Solve problems by counting by twenty-five up to 100</li> </ul> <p>2.0 items include at least one of the following:</p> <ul style="list-style-type: none"> <li>Solve problems by counting by twos up to 100</li> <li>Solve problems by counting by fives up to 100</li> <li>Solve problems by counting by twenty-five up to 100</li> <li>Solve problems by counting by twos up to 50</li> <li>Solve problems by counting by fives up to 50</li> <li>Solve problems by counting by twenty-five up to 50</li> </ul>	4.1, 6.9, 11.1
	Place Value	<p>1.NO.3 Understand and compare two-digit numbers organized as groups of tens and ones (1.NBT.2,3)</p> <p>A. Solve problems by comparing two-digit numbers organized as groups of tens and ones</p> <p>3.0 Items include ALL of the following:</p> <ul style="list-style-type: none"> <li>Solve problems by comparing two-digit numbers organized as groups of tens and ones</li> </ul> <p>2.0 items include at least one of the following:</p> <ul style="list-style-type: none"> <li>Solve problems by comparing two-digit numbers organized as groups of tens and ones</li> <li>Solve problems by organizing objects up to 19 into groups of tens and ones</li> </ul> <p>1.NO.4 Understand and mentally find ten more or ten less than a given two-digit number (1.NBT.5)</p> <p>A. Solve problems by mentally finding ten more than a given two-digit number</p> <p>B. Solve problems by mentally finding ten less than a given two-digit number</p> <p>3.0 Items include ALL of the following:</p> <ul style="list-style-type: none"> <li>Solve problems by mentally finding ten more than a given two-digit number</li> <li>Solve problems by mentally finding ten less than a given two-digit number</li> </ul> <p>2.0 items include at least one of the following:</p> <ul style="list-style-type: none"> <li>Solve problems by mentally finding ten more than a given two-digit number</li> <li>Solve problems by mentally finding ten less than a given two-digit number</li> <li>Solve problems by organizing objects up to 19 into groups of tens and ones</li> </ul> <p>1.NO.5 Add and subtract multiples of ten within 100 using models or drawings (1.NBT.4,6)</p> <p>A. Solve problems by adding multiples of ten within 100 using models or drawings</p> <p>B. Solve problems by subtracting multiples of ten within 100 using models or drawings</p> <p>3.0 Items include ALL of the following:</p> <ul style="list-style-type: none"> <li>Solve problems by adding multiples of ten within 100 using models or drawings</li> <li>Solve problems by subtracting multiples of ten within 100 using models or drawings</li> </ul> <p>2.0 items include at least one of the following:</p> <ul style="list-style-type: none"> <li>Solve problems by adding multiples of ten within 100 using models or drawings</li> <li>Solve problems by subtracting multiples of ten within 100 using models or drawings</li> <li>Solve problems by adding multiples of ten within 50 using models or drawings</li> <li>Solve problems by subtracting multiples of ten within 50 using models or drawings</li> </ul>	6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 6.9, 7.1, 7.2, 7.3, 7.4, 7.5, 7.6, 8.1, 8.2, 8.8, 9.1, 9.2, 9.3, 9.4, 9.5, 9.6  8.1, 8.2  8.1, 8.2, 8.5, 8.6, 8.7
2	Numbers	<p>2.NO.1 Read, write, and understand numbers up to 1000 using standard, number name, and expanded forms (2.NBT.3)</p> <p>A. Solve problems by reading numbers up to 1000 using standard form</p> <p>B. Solve problems by reading numbers up to 1000 using number name</p> <p>C. Solve problems by reading numbers up to 1000 using expanded form</p> <p>D. Solve problems by writing numbers up to 1000 using standard form</p> <p>E. Solve problems by writing numbers up to 1000 using number name</p> <p>F. Solve problems by writing numbers up to 1000 using expanded form</p> <p>3.0 Items include ALL of the following:</p> <ul style="list-style-type: none"> <li>Solve problems by reading numbers up to 1000 using standard form</li> <li>Solve problems by reading numbers up to 1000 using number name</li> <li>Solve problems by reading numbers up to 1000 using expanded form</li> <li>Solve problems by writing numbers up to 1000 using standard form</li> <li>Solve problems by writing numbers up to 1000 using number name</li> <li>Solve problems by writing numbers up to 1000 using expanded form</li> </ul> <p>2.0 items include at least one of the following:</p> <ul style="list-style-type: none"> <li>Solve problems by reading numbers up to 1000 using standard form</li> <li>Solve problems by reading numbers up to 1000 using number name</li> </ul>	7.2, 7.3, 7.4, 7.5

		<ul style="list-style-type: none"> <li>• Solve problems by reading numbers up to 1000 using expanded form</li> <li>• Solve problems by writing numbers up to 1000 using standard form</li> <li>• Solve problems by writing numbers up to 1000 using number name</li> <li>• Solve problems by writing numbers up to 1000 using expanded form</li> <li>• Solve problems by reading numbers up to 500 using standard form</li> <li>• Solve problems by reading numbers up to 500 using number name</li> <li>• Solve problems by writing numbers up to 500 using standard form</li> <li>• Solve problems by writing numbers up to 500 using number name</li> </ul> <p><b>2.NO.2 Count by ones, fives, tens, and hundreds up to 1000 (2.NBT.2)</b></p> <p>A. Solve problems by counting by ones up to 1000</p> <p>B. Solve problems by counting by fives up to 1000</p> <p>C. Solve problems by counting by tens up to 1000</p> <p>D. Solve problems by counting by hundreds up to 1000</p> <p><b>3.0</b> Items include ALL of the following:</p> <ul style="list-style-type: none"> <li>• Solve problems by counting by ones up to 1000</li> <li>• Solve problems by counting by fives up to 1000</li> <li>• Solve problems by counting by tens up to 1000</li> <li>• Solve problems by counting by hundreds up to 1000</li> </ul> <p><b>2.0</b> items include at least one of the following:</p> <ul style="list-style-type: none"> <li>• Solve problems by counting by ones up to 1000</li> <li>• Solve problems by counting by fives up to 1000</li> <li>• Solve problems by counting by tens up to 1000</li> <li>• Solve problems by counting by hundreds up to 1000</li> <li>• Solve problems by counting by ones up to 500</li> <li>• Solve problems by counting by fives up to 500</li> <li>• Solve problems by counting by tens up to 500</li> <li>• Solve problems by counting by hundreds up to 500</li> </ul>	8.1, 8.2, 8.3, 8.4, 14.6
	Place Value	<p><b>2.NO.3 Understand and compare three-digit numbers organized as groups of hundreds, tens, and ones; use place value to understand addition and subtraction (2.NBT.1,4,9)</b></p> <p>A. Solve problems by comparing three-digit numbers organized as groups of hundreds, tens, and ones</p> <p>B. Solve problems by using place value to understand addition</p> <p>C. Solve problems by using place value to understand subtraction</p> <p><b>3.0</b> Items include ALL of the following:</p> <ul style="list-style-type: none"> <li>• Solve problems by comparing three-digit numbers organized as groups of hundreds, tens, and ones</li> <li>• Solve problems by using place value to understand addition</li> <li>• Solve problems by using place value to understand subtraction</li> </ul> <p><b>2.0</b> items include at least one of the following:</p> <ul style="list-style-type: none"> <li>• Solve problems by comparing three-digit numbers organized as groups of hundreds, tens, and ones</li> <li>• Solve problems by using place value to understand addition</li> <li>• Solve problems by using place value to understand subtraction</li> <li>• Solve problems by comparing two-digit numbers organized as groups of hundreds, tens, and ones</li> </ul> <p><b>2.NO.4 Mentally add and subtract multiples of ten and multiples of a hundred within 1000 (2.NBT.8)</b></p> <p>A. Solve problems by mentally adding multiples of ten within 1000</p> <p>B. Solve problems by mentally adding multiples of a hundred within 1000</p> <p>C. Solve problems by mentally subtracting multiples of ten within 1000</p> <p>D. Solve problems by mentally subtracting multiples of a hundred within 1000</p> <p><b>3.0</b> Items include ALL of the following:</p> <ul style="list-style-type: none"> <li>• Solve problems by mentally adding multiples of ten within 1000</li> <li>• Solve problems by mentally adding multiples of a hundred within 1000</li> <li>• Solve problems by mentally subtracting multiples of ten within 1000</li> <li>• Solve problems by mentally subtracting multiples of a hundred within 1000</li> </ul> <p><b>2.0</b> items include at least one of the following:</p> <ul style="list-style-type: none"> <li>• Solve problems by mentally adding multiples of ten within 1000</li> <li>• Solve problems by mentally adding multiples of a hundred within 1000</li> <li>• Solve problems by mentally subtracting multiples of ten within 1000</li> <li>• Solve problems by mentally subtracting multiples of a hundred within 1000</li> <li>• Solve problems by mentally adding multiples of ten within 500</li> <li>• Solve problems by mentally adding multiples of a hundred within 500</li> <li>• Solve problems by mentally subtracting multiples of ten within 500</li> <li>• Solve problems by mentally subtracting multiples of a hundred within 500</li> </ul> <p><b>2.NO.5 Add and subtract within 1000 with regrouping using models or drawings (2.NBT.7)</b></p> <p>A. Solve problems by adding within 1000 with regrouping using models or drawings</p> <p>B. Solve problems by subtracting within 1000 with regrouping using models or drawings</p> <p><b>3.0</b> Items include ALL of the following:</p> <ul style="list-style-type: none"> <li>• Solve problems by adding within 1000 with regrouping using models or drawings</li> <li>• Solve problems by subtracting within 1000 with regrouping using models or drawings</li> </ul>	7.1, 8.5, 8.6, 9.9, 10.9  8.3, 8.4, 9.1, 9.2, 10.1, 10.2  9.1, 9.2, 9.3, 9.4, 9.5, 9.6, 9.7, 9.8, 9.9, 10.1, 10.2, 10.3, 10.4, 10.5, 10.6, 10.7, 10.8, 10.9

		<p>2.0 items include at least one of the following:</p> <ul style="list-style-type: none"> <li>Solve problems by adding within 1000 with regrouping using models or drawings</li> <li>Solve problems by subtracting within 1000 with regrouping using models or drawings</li> <li>Solve problems by adding within 500 with regrouping using models or drawings</li> <li>Solve problems by subtracting within 500 with regrouping using models or drawings</li> </ul>	
<b>Assessments</b>		Math Interviews; Checklists; Written Assessments; Student Demonstrations; Models and Drawings	
<b>Essential Question:</b> What does numerical reasoning involve and what does it demonstrate about God's world?		<b>Big Idea:</b> Numerical reasoning with whole numbers and fractions demonstrates dependability and order in God's world.	
<b>3</b>	<b>Place Value</b>	<p><b>3.NO.1 Use place value understanding of up to five-digit whole numbers to round to the nearest 10, 100, and 1,000 (3.NBT.1)</b></p> <p>A. Solve problems with up to five-digit whole numbers by rounding to the nearest 10</p> <p>B. Solve problems with up to five-digit whole numbers by rounding to the nearest 100</p> <p>C. Solve problems with up to five-digit whole numbers by rounding to the nearest 1000</p> <p>3.0 Items include ALL of the following:</p> <ul style="list-style-type: none"> <li>Solve problems with up to five-digit whole numbers by rounding to the nearest 10</li> <li>Solve problems with up to five-digit whole numbers by rounding to the nearest 100</li> <li>Solve problems with up to five-digit whole numbers by rounding to the nearest 1000</li> </ul> <p>2.0 items include at least one of the following:</p> <ul style="list-style-type: none"> <li>Solve problems with up to five-digit whole numbers by rounding to the nearest 10</li> <li>Solve problems with up to five-digit whole numbers by rounding to the nearest 100</li> <li>Solve problems with up to five-digit whole numbers by rounding to the nearest 1000</li> <li>Solve problems with up to four-digit whole numbers by rounding to the nearest 10, 100, 1000</li> <li>Solve problems with up to three-digit whole numbers by rounding to the nearest 10 and 100</li> </ul>	<p>7.1, 7.2, 7.3, 7.4, 7.5</p> <p>Also see Big Ideas Math: Modeling Real Life, Grade 4, © 2019 Lessons 1.1, 1.2, 1.3, 1.4</p>
	<b>Addition/Subtraction</b>	<p><b>3.NO.2 Add and subtract up to four digits with and without regrouping (3.NBT.2)</b></p> <p>A. Solve problems using addition of up to four digits with regrouping</p> <p>B. Solve problems using addition of up to four digits without regrouping</p> <p>C. Solve problems using subtraction of up to four digits with regrouping</p> <p>D. Solve problems using subtraction of up to four digits without regrouping</p> <p>3.0 Items include ALL of the following:</p> <ul style="list-style-type: none"> <li>Solve problems using addition of up to four digits with regrouping</li> <li>Solve problems using addition of up to four digits without regrouping</li> <li>Solve problems using subtraction of up to four digits with regrouping</li> <li>Solve problems using subtraction of up to four digits without regrouping</li> </ul> <p>2.0 items include at least one of the following:</p> <ul style="list-style-type: none"> <li>Solve problems using addition of up to four digits with regrouping</li> <li>Solve problems using addition of up to four digits without regrouping</li> <li>Solve problems using subtraction of up to four digits with regrouping</li> <li>Solve problems using subtraction of up to four digits without regrouping</li> <li>Solve problems using addition of up to three digits with regrouping</li> <li>Solve problems using addition of up to three digits without regrouping</li> <li>Solve problems using subtraction of up to three digits with regrouping</li> <li>Solve problems using subtraction of up to three digits without regrouping</li> </ul>	<p>7.4, 7.5, 8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 8.7, 8.8, 8.9, 8.10, 8.11, 12.4</p>
	<b>Fractions</b>	<p><b>3.NO.3 Understand, express, and order fractions between zero and one, simple mixed numbers, and whole numbers as fractions (3.NF.1,2)</b></p> <p>A. Solve problems that express fractions between zero and one</p> <p>B. Solve problems that order fractions between zero and one</p> <p>C. Solve problems that express simple mixed numbers</p> <p>D. Solve problems that order simple mixed numbers</p> <p>E. Solve problems that express whole numbers as fractions</p> <p>F. Solve problems that order whole numbers as fractions</p> <p>3.0 Items include ALL of the following:</p> <ul style="list-style-type: none"> <li>Solve problems that express fractions between zero and one</li> <li>Solve problems that order fractions between zero and one</li> <li>Solve problems that express simple mixed numbers</li> <li>Solve problems that order simple mixed numbers</li> <li>Solve problems that express whole numbers as fractions</li> <li>Solve problems that order whole numbers as fractions</li> </ul> <p>2.0 items include at least one of the following:</p> <ul style="list-style-type: none"> <li>Solve problems that express fractions between zero and one</li> <li>Solve problems that order fractions between zero and one</li> <li>Solve problems that express simple mixed numbers</li> <li>Solve problems that order simple mixed numbers</li> <li>Solve problems that express whole numbers as fractions</li> <li>Solve problems that order whole numbers as fractions</li> <li>Solve problems by describing the whole and its parts using the words half and half of</li> <li>Solve problems by describing the whole and its parts using the words third and third of, etc.</li> <li>Solve problems by comparing equal parts that do not have the same shape</li> </ul>	<p>10.1, 10.2, 10.3, 10.4, 10.5, 14.5, 14.6, 14.7</p>

		<p><b>3.NO.4 Understand and create equivalent fractions with denominators 2,3,4,6,8 using fraction models (3.NF.3)</b></p> <p>A. Solve problems by creating equivalent fractions with the denominator 2 using fraction models  B. Solve problems by creating equivalent fractions with the denominator 3 using fraction models  C. Solve problems by creating equivalent fractions with the denominator 4 using fraction models  D. Solve problems by creating equivalent fractions with the denominator 6 using fraction models  E. Solve problems by creating equivalent fractions with the denominator 8 using fraction models</p> <p>3.0 Items include ALL of the following:</p> <ul style="list-style-type: none"> <li>Solve problems by creating equivalent fractions with the denominator 2 using fraction models</li> <li>Solve problems by creating equivalent fractions with the denominator 3 using fraction models</li> <li>Solve problems by creating equivalent fractions with the denominator 4 using fraction models</li> <li>Solve problems by creating equivalent fractions with the denominator 6 using fraction models</li> <li>Solve problems by creating equivalent fractions with the denominator 8 using fraction models</li> </ul> <p>2.0 items include at least one of the following:</p> <ul style="list-style-type: none"> <li>Solve problems by creating equivalent fractions with the denominator 2 using fraction models</li> <li>Solve problems by creating equivalent fractions with the denominator 3 using fraction models</li> <li>Solve problems by creating equivalent fractions with the denominator 4 using fraction models</li> <li>Solve problems by creating equivalent fractions with the denominator 6 using fraction models</li> <li>Solve problems by creating equivalent fractions with the denominator 8 using fraction models</li> <li>Solve problems by comparing fractions with common denominators using fraction models</li> </ul>	<p>11.1, 11.2, 11.3, 11.4, 11.5, 11.6, 11.7, 11.8</p>
<p style="text-align: center; font-size: 2em; font-weight: bold;">4</p>	<p style="text-align: center;">Place Value</p>	<p><b>4.NO.1 Use place value understanding of multi-digit whole numbers to round to any place up to millions (4.NBT.1,3)</b></p> <p>A. Solve problems using place value understanding of multi-digit whole numbers to round to any place up to millions</p> <p>3.0 Items include ALL of the following:</p> <ul style="list-style-type: none"> <li>Solve problems using place value understanding of multi-digit whole numbers to round to any place up to millions</li> </ul> <p>2.0 items include at least one of the following:</p> <ul style="list-style-type: none"> <li>Solve problems using place value understanding of multi-digit whole numbers to round to any place up to millions</li> <li>Solve problems using place value understanding of up to 5-digit whole numbers to round to any place up to thousands</li> </ul> <p><b>4.NO.2 Read, write, compare, and understand whole numbers using standard, number name, and expanded forms (4.NBT.2)</b></p> <p>A. Solve problems by reading and writing whole numbers using standard form  B. Solve problems by comparing whole numbers using standard form  C. Solve problems by reading and writing whole numbers using number name  D. Solve problems by comparing whole numbers using number name  E. Solve problems by reading and writing whole numbers using expanded form  F. Solve problems by comparing whole numbers using expanded form</p> <p>3.0 Items include ALL of the following:</p> <ul style="list-style-type: none"> <li>Solve problems by reading and writing whole numbers using standard form</li> <li>Solve problems by comparing whole numbers using standard form</li> <li>Solve problems by reading and writing whole numbers using number name</li> <li>Solve problems by comparing whole numbers using number name</li> <li>Solve problems by reading and writing whole numbers using expanded form</li> <li>Solve problems by comparing whole numbers using expanded form</li> </ul> <p>2.0 items include at least one of the following:</p> <ul style="list-style-type: none"> <li>Solve problems by reading and writing whole numbers using standard form</li> <li>Solve problems by comparing whole numbers using standard form</li> <li>Solve problems by reading and writing whole numbers using number name</li> <li>Solve problems by comparing whole numbers using number name</li> <li>Solve problems by reading and writing whole numbers using expanded form</li> <li>Solve problems by comparing whole numbers using expanded form</li> </ul>	<p>1.4, 2.1, 3.3, 4.2</p> <p>1.1, 1.2, 1.3</p>
	<p style="text-align: center;">Basic Operations</p>	<p><b>4.NO.3 Add and subtract multi-digit whole numbers; multiply up to 4 digits X 1 digit and 2 digits X 2 digits; divide using a one-digit divisor and up to a four-digit dividend with and without a remainder (4.NBT.4,5,6)</b></p> <p>A. Solve problems by adding multi-digit whole numbers  B. Solve problems by subtracting multi-digit whole numbers  C. Solve problems by multiplying up to 4 digits X 1 digit  D. Solve problems by multiplying up to 2 digits X 2 digits  E. Solve problems by dividing using a one-digit divisor and up to a four-digit dividend without a remainder  F. Solve problems by dividing using a one-digit divisor and up to a four-digit dividend with a remainder</p> <p>3.0 Items include ALL of the following:</p> <ul style="list-style-type: none"> <li>Solve problems by adding multi-digit whole numbers</li> <li>Solve problems by subtracting multi-digit whole numbers</li> <li>Solve problems by multiplying up to 4 digits X 1 digit</li> <li>Solve problems by multiplying up to 2 digits X 2 digits</li> <li>Solve problems by dividing using a one-digit divisor and up to a four-digit dividend without a remainder</li> <li>Solve problems by dividing using a one-digit divisor and up to a four-digit dividend with a remainder</li> </ul>	<p>2.1, 2.2, 2.3, 2.4, 2.5, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9, 3.10, 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, 4.8, 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.7, 5.8, 5.9</p>

		<p>2.0 items include at least one of the following:</p> <ul style="list-style-type: none"> <li>Solve problems by adding multi-digit whole numbers</li> <li>Solve problems by subtracting multi-digit whole numbers</li> <li>Solve problems by multiplying up to 4 digits X 1 digit</li> <li>Solve problems by multiplying up to 2 digits X 2 digits</li> <li>Solve problems by dividing using a one-digit divisor and up to a four-digit dividend without a remainder</li> <li>Solve problems by dividing using a one-digit divisor and up to a four-digit dividend with a remainder</li> <li>Solve problems by adding two-digit whole numbers</li> <li>Solve problems by subtracting two-digit whole numbers</li> <li>Solve problems by multiplying up to 3 digits X 1 digit</li> <li>Solve problems by dividing a one-digit divisor and up to a three-digit dividend without a remainder</li> </ul>	
Fractions/Decimals		<p><b>4.NO.4 Understand, express, and order fractions with different numerators and denominators; numerically express equivalent fractions (4.NF.1,2)</b>  A. Solve problems by expressing fractions with different numerators and denominators  B. Solve problems by ordering fractions with different numerators and denominators  C. Solve problems by numerically expressing equivalent fractions  3.0 Items include ALL of the following:</p> <ul style="list-style-type: none"> <li>Solve problems by expressing fractions with different numerators and denominators</li> <li>Solve problems by ordering fractions with different numerators and denominators</li> <li>Solve problems by numerically expressing equivalent fractions</li> </ul> <p>2.0 items include at least one of the following:</p> <ul style="list-style-type: none"> <li>Solve problems by expressing fractions with different numerators and denominators</li> <li>Solve problems by ordering fractions with different numerators and denominators</li> <li>Solve problems by numerically expressing equivalent fractions</li> <li>Solve problems by expressing and ordering fractions between zero and one</li> </ul> <p><b>4.NO.5 Add and subtract fractions and mixed numbers with common denominators; multiply fractions by whole numbers (4.NF.3,4)</b>  A. Solve problems that add fractions with common denominators  B. Solve problems that subtract fractions with common denominators  C. Solve problems that add mixed numbers with common denominators  D. Solve problems that subtract mixed numbers with common denominators  E. Solve problems that add fractions and mixed numbers with common denominators  F. Solve problems that subtract fractions and mixed numbers with common denominators  G. Solve problems that multiply fractions by whole numbers  3.0 Items include ALL of the following:</p> <ul style="list-style-type: none"> <li>Solve problems that add fractions with common denominators</li> <li>Solve problems that subtract fractions with common denominators</li> <li>Solve problems that add mixed numbers with common denominators</li> <li>Solve problems that subtract mixed numbers with common denominators</li> <li>Solve problems that add fractions and mixed numbers with common denominators</li> <li>Solve problems that subtract fractions and mixed numbers with common denominators</li> <li>Solve problems that multiply fractions by whole numbers</li> </ul> <p>2.0 items include at least one of the following:</p> <ul style="list-style-type: none"> <li>Solve problems that add fractions with common denominators</li> <li>Solve problems that subtract fractions with common denominators</li> <li>Solve problems that add mixed numbers with common denominators</li> <li>Solve problems that subtract mixed numbers with common denominators</li> <li>Solve problems that add fractions and mixed numbers with common denominators</li> <li>Solve problems that subtract fractions and mixed numbers with common denominators</li> <li>Solve problems that multiply fractions by whole numbers</li> <li>Solve problems by adding fractional parts using fraction models</li> <li>Solve problems by subtracting fractional parts using fraction models</li> </ul>	<p>7.1, 7.2, 7.3, 7.4, 7.5</p> <p>8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 8.7, 8.8, 8.9, 9.1, 9.2, 9.3, 9.4, 9.5</p>
		<p><b>4.NO.6 Understand, compare, and use decimal notation for fractions with denominators of 10 or 100 (4.NF.5,6,7)</b>  A. Solve problems that change fractions with denominators of 10 or 100 into decimal notation  B. Solve problems that compare decimal numbers that were generated from fractions with denominators of 10 or 100  3.0 Items include ALL of the following:</p> <ul style="list-style-type: none"> <li>Solve problems that change fractions with denominators of 10 or 100 into decimal notation</li> <li>Solve problems that compare decimal numbers that were generated from fractions with denominators of 10 or 100</li> </ul> <p>2.0 items include at least one of the following:</p> <ul style="list-style-type: none"> <li>Solve problems that change fractions with denominators of 10 or 100 into decimal notation</li> <li>Solve problems that compare decimal numbers that were generated from fractions with denominators of 10 or 100</li> <li>Solve problems by recognizing the place value of tenths and hundredths</li> </ul>	<p>10.1, 10.2, 10.3, 10.4, 10.5, 10.6</p>



	<p>2.0 items include at least one of the following:</p> <ul style="list-style-type: none"> <li>Solve problems by adding fractions with unlike denominators</li> <li>Solve problems by subtracting fractions with unlike denominators</li> <li>Solve problems by adding mixed numbers with unlike denominators</li> <li>Solve problems by subtracting mixed numbers with unlike denominators</li> <li>Solve problems by multiplying a fraction by a fraction</li> <li>Solve problems by multiplying a fraction by a whole number</li> <li>Solve problems by dividing fractions by whole numbers</li> <li>Solve problems by adding fractions with like denominators</li> <li>Solve problems by subtracting fractions with like denominators</li> <li>Solve problems by adding mixed numbers with like denominators</li> <li>Solve problems by subtracting mixed numbers with like denominators</li> </ul> <p>5.NO.5 Simplify fractions to lowest terms</p> <p>A. Solve problems by simplifying fractions to lowest terms</p> <p>3.0 Items include ALL of the following:</p> <ul style="list-style-type: none"> <li>Solve problems by simplifying fractions to lowest terms</li> </ul> <p>2.0 items include at least one of the following:</p> <ul style="list-style-type: none"> <li>Solve problems by simplifying fractions to lowest terms</li> <li>Solve problems by finding Greatest Common Factor (GCF) of two or more numbers</li> </ul>	8.1
Assessments	Journal Entries; Class Discussions; Written Assessments; Open-ended Projects and Problems; Oral Reports; Virtual Models	

**Essential Question:** How can we use God's gift of the number system to understand the world and all created things?

**Big Idea:** The use of numerical and algebraic expressions help us solve real-world and mathematical problems as well as understand God's creation.

6	Rational Numbers	<p>6.NO.1 Add, subtract, multiply, and divide multi-digit whole numbers and decimals (6.NS.2,3)</p> <p>A. Solve problems by adding multi-digit whole numbers and decimals</p> <p>B. Solve problems by subtracting multi-digit whole numbers and decimals</p> <p>C. Solve problems by multiplying multi-digit whole numbers and decimals</p> <p>D. Solve problems by dividing multi-digit whole numbers and decimals</p> <p>3.0 items include ALL of the following:</p> <ul style="list-style-type: none"> <li>Solve problems by adding multi-digit whole numbers and decimals</li> <li>Solve problems by subtracting multi-digit whole numbers and decimals</li> <li>Solve problems by multiplying multi-digit whole numbers and decimals</li> <li>Solve problems by dividing multi-digit whole numbers and decimals</li> </ul> <p>2.0 items include at least one of the following:</p> <ul style="list-style-type: none"> <li>Solve problems by adding multi-digit whole numbers and decimals</li> <li>Solve problems by subtracting multi-digit whole numbers and decimals</li> <li>Solve problems by multiplying multi-digit whole numbers and decimals</li> <li>Solve problems by dividing multi-digit whole numbers and decimals</li> <li>Solve problems by being fluent in multiplication tables to twelve</li> <li>Solve problems by performing operations with multi-digit whole numbers and decimals to hundredths</li> </ul>	1.1, 1.2, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7
		<p>6.NO.2 Find common factors and multiples (6.NS.4); understand and apply prime factorization and exponents (6.EE.1)</p> <p>A. Solve problems by finding common factors</p> <p>B. Solve problems using prime factorization and exponents</p> <p>C. Solve problems by finding common multiples</p> <p>3.0 items include ALL of the following:</p> <ul style="list-style-type: none"> <li>Solve problems by finding common factors</li> <li>Solve problems using prime factorization and exponents</li> <li>Solve problems by finding common multiples</li> </ul> <p>2.0 items include at least one of the following:</p> <ul style="list-style-type: none"> <li>Solve problems by finding common factors</li> <li>Solve problems using prime factorization and exponents</li> <li>Solve problems by finding common multiples</li> <li>Solve problems by determining the least common multiple and greatest common factor of two numbers</li> <li>Solve problems by finding all factor pairs for a whole number within 100</li> <li>Solve problems by identifying whole numbers as prime or composite</li> </ul>	1.1, 1.2, 1.3, 1.4, 1.5
		<p>6.NO.3 Understand, compare, and order integers; apply integer principles within the four basic operations; graph ordered pairs on a coordinate plane (6.NS.5,6,7,8)</p> <p>A. Solve problems by comparing and ordering integers</p> <p>B. Solve problems by applying integer principles with addition, subtraction, multiplication, and division</p> <p>C. Solve problems by graphing ordered pairs on a coordinate plane</p> <p>3.0 items include ALL of the following:</p> <ul style="list-style-type: none"> <li>Solve problems by comparing and ordering integers</li> <li>Solve problems by applying integer principles with addition, subtraction, multiplication, and division</li> <li>Solve problems by graphing ordered pairs on a coordinate plane</li> </ul> <p>2.0 items include at least one of the following:</p> <ul style="list-style-type: none"> <li>Solve problems by comparing and ordering integers</li> </ul>	8.1, 8.2, 8.3, 8.4, 8.5, 8.6



		<ul style="list-style-type: none"> <li>• Solve problems by applying integer principles with addition, subtraction, multiplication, and division</li> <li>• Solve problems by graphing ordered pairs on a coordinate plane</li> <li>• Solve problems by multiplying multi-digit whole numbers</li> <li>• Solve problems by dividing using a two-digit divisor and up to a four-digit dividend</li> </ul> <p><b>6.NO.4 Divide fractions by fractions; express a remainder as a fraction or decimal; convert within fractions, decimals, and percents; convert fractions to terminating, repeating, or rounded decimals (6.NS.1)</b></p> <p>A. Solve problems by dividing fractions by fractions</p> <p>B. Solve problems by expressing remainder as a fraction or a decimal</p> <p>C. Solve problems by converting within fractions, decimals, and percents</p> <p>D. Solve problems converting fractions to terminating, repeating, or rounded decimals</p> <p>3.0 items include ALL of the following:</p> <ul style="list-style-type: none"> <li>• Solve problems by dividing fractions by fractions</li> <li>• Solve problems by expressing remainder as a fraction or a decimal</li> <li>• Solve problems by converting within fractions, decimals, and percents</li> <li>• Solve problems converting fractions to terminating, repeating, or rounded decimals</li> </ul> <p>2.0 items include at least one of the following:</p> <ul style="list-style-type: none"> <li>• Solve problems by dividing fractions by fractions</li> <li>• Solve problems by expressing remainder as a fraction or a decimal</li> <li>• Solve problems by converting within fractions, decimals, and percents</li> <li>• Solve problems converting fractions to terminating, repeating, or rounded decimals</li> <li>• Solve problems by multiplying a fraction or a whole number by a fraction</li> <li>• Solve problems by dividing fractions by whole numbers</li> <li>• Solve problems by adding, subtracting, multiplying, and dividing decimals up to the hundredths place</li> </ul>	2.2, 2.3
	Ratios/Proportions/ Percentages	<p><b>6.NO.5 Understand and apply ratio concepts and use ratio reasoning to solve problems (6.RP.1,2,3)</b></p> <p>A. Solve problems by applying ratio concepts</p> <p>B. Solve problems by using ratio reasoning</p> <p>3.0 items include ALL of the following:</p> <ul style="list-style-type: none"> <li>• Solve problems by applying ratio concepts</li> <li>• Solve problems by using ratio reasoning</li> </ul> <p>2.0 items include at least one of the following:</p> <ul style="list-style-type: none"> <li>• Solve problems by applying ratio concepts</li> <li>• Solve problems by using ratio reasoning</li> <li>• Solve problems by recognizing a ratio is a relationship between two quantities</li> <li>• Solve problems by calculating unit rates (e.g., mph, price per pound)</li> </ul>	3.1, 3.2, 3.3, 3.4, 3.5, 3.6
7	Rational Numbers	<p><b>7.NO.1 Apply and extend the four basic operations to rational numbers (7.NS.1,2,3)</b></p> <p>A. Solve problems by adding, subtracting, multiplying, and dividing rational numbers</p> <p>3.0 items include ALL of the following:</p> <ul style="list-style-type: none"> <li>• Solve problems by adding, subtracting, multiplying, and dividing rational numbers</li> </ul> <p>2.0 items include at least one of the following:</p> <ul style="list-style-type: none"> <li>• Solve problems by adding, subtracting, multiplying, and dividing rational numbers</li> <li>• Solve problems by adding, subtracting, multiplying, and dividing whole numbers</li> <li>• Solve problems by adding, subtracting, multiplying, and dividing decimals</li> </ul> <p><b>7.NO.2 Understand and apply properties of operations (7.NS.2)</b></p> <p>A. Solve problems by using properties of operations</p> <p>3.0 items include ALL of the following:</p> <ul style="list-style-type: none"> <li>• Solve problems by using properties of operations</li> </ul> <p>2.0 items include at least one of the following:</p> <ul style="list-style-type: none"> <li>• Solve problems by using properties of operations</li> <li>• Solve problems by using Commutative Properties</li> <li>• Solve problems by using Associative Properties</li> <li>• Solve problems by using Distributive Properties</li> </ul> <p><b>7.NO.3 Perform operations with numbers expressed in scientific notation, exponents, and square root</b></p> <p>A. Solve problems with numbers expressed in scientific notation</p> <p>B. Solve problems with numbers expressed in exponents</p> <p>C. Solve problems with numbers expressed in square root</p> <p>3.0 items include ALL of the following:</p> <ul style="list-style-type: none"> <li>• Solve problems with numbers expressed in scientific notation</li> <li>• Solve problems with numbers expressed in exponents</li> <li>• Solve problems with numbers expressed in square root</li> </ul> <p>2.0 items include at least one of the following:</p> <ul style="list-style-type: none"> <li>• Solve problems with numbers expressed in scientific notation</li> <li>• Solve problems with numbers expressed in exponents</li> <li>• Solve problems with numbers expressed in square root</li> <li>• Solve problems by finding common factors and multiples</li> <li>• Solve problems by understanding and applying prime factorization and exponents</li> </ul>	<p>1.1, 1.2, 1.3, 1.4, 1.5, 2.1, 2.2, 2.3, 2.4, 2.5, 6.1</p> <p>1.2, 1.3, 1.4, 1.5, 2.1, 2.4, 2.5</p> <p>2.1, 3.1; Also see <i>Big Ideas Math: Modeling Real Life, Grade 8</i>, © 2019 in Lesson 8.1, 8.6, 8.7.</p>

	Ratios/Proportions/ Percentages	<p>7.NO.4 Analyze and apply proportional relationships (7.RP.1,2,3)</p> <p>A. Solve problems by applying proportional relationships</p> <p>3.0 items include ALL of the following:</p> <ul style="list-style-type: none"> <li>Solve problems by applying proportional relationships</li> </ul> <p>2.0 items include at least one of the following:</p> <ul style="list-style-type: none"> <li>Solve problems by applying proportional relationships</li> <li>Solve problems by applying ratio concepts and ratio reasoning</li> </ul>	5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 6.2, 6.3, 6.4, 6.5, 6.6, 8.1, 8.2
8	Rational/Irrational Numbers	<p>8.NO.1 Informally understand and use number sense for irrational numbers (8.NS.1,2)</p> <p>A. Solve problems using number sense for irrational numbers</p> <p>3.0 items include ALL of the following:</p> <ul style="list-style-type: none"> <li>Solve problems using number sense for irrational numbers</li> </ul> <p>2.0 items include at least one of the following:</p> <ul style="list-style-type: none"> <li>Solve problems using number sense for irrational numbers</li> <li>Solve problems by estimating irrational numbers to the nearest whole number</li> </ul>	9.4, 9.5
Assessments		Journal Entries; Class Discussions; Written Assessments; Open-ended Projects and Problems; Oral Reports; Virtual Models	