

**Granite School District Elementary Special Education K-5 Math Common Core Scope and Sequence (Draft, June 2011)**

Counting & Cardinality	Operations and Algebraic Thinking	Number and Operations (in Base Ten)	Number & Operations-Fractions	Measurement & Data
<p><b>K-</b> Count to 100 by ones and by tens.</p> <p><b>K-</b> Count forward beginning from a given number within the known sequence (instead of having to begin at 1).</p> <p><b>K-</b> Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20.</p> <p><b>K-</b>When counting objects, say the number names in the standard order, pairing each object with one and only one number name and object.</p> <p><b>K-</b> Understand the last number name tells the number of objects counted.</p> <p><b>K-</b> Understand that each successive number name refers to a quantity that is one larger.</p> <p><b>K-</b> Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group.</p>	<p><b>K-</b> Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps).</p> <p><b>K-</b>Solve addition and subtraction word problems, and add and subtract within 10.</p> <p><b>K-</b>Decompose numbers less than or equal to 10 into pairs in more than one way.</p> <p><b>K-</b>For any number from 1 to 9, find the number that makes 10 when added to the given number.</p> <p><b>K-</b>Fluently add and subtract within 5.</p> <p><b>1<sup>st</sup></b>-Use addition and subtraction within 20 to solve word problems, with unknowns in all positions.</p> <p><b>1<sup>st</sup></b>- Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20.</p> <p><b>1<sup>st</sup></b>- Apply properties of operations as strategies to add and subtract. (Commutative and Associative Property of Addition)</p> <p><b>1<sup>st</sup></b>-Understand subtraction as an unknown-addend problem.</p> <p><b>1<sup>st</sup></b>-Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).</p> <p><b>1<sup>st</sup></b>-Add and subtract within 20, demonstrating fluency within 10.</p> <p><b>1<sup>st</sup></b>-Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false.</p> <p><b>1<sup>st</sup></b>-Determine the unknown whole number in an addition or subtraction equation relating three whole numbers.</p> <p><b>2<sup>nd</sup></b>-Use addition and subtraction within 100 to solve one-and-two-step word problems with unknowns in all positions.</p>	<p><b>K-</b>Compose and decompose numbers from 11-19 into ten ones and some further ones.</p> <p><b>1<sup>st</sup></b>- Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.</p> <p><b>1<sup>st</sup></b>-Understand that the two digits of a two-digit number represent amounts of tens and ones.</p> <p><b>1<sup>st</sup></b>-Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols <math>&gt;</math>, <math>=</math>, and <math>&lt;</math>.</p> <p><b>1<sup>st</sup></b>- Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10.</p> <p><b>1<sup>st</sup></b>-Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.</p> <p><b>1<sup>st</sup></b>-Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90.</p> <p><b>2<sup>nd</sup></b>- Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones, e.g., 706 equals 7 hundreds, 0 tens, and 6 ones.</p> <p><b>2<sup>nd</sup></b>- Count within 1,000; skip-count by 5's, 10's and 100's.</p> <p><b>2<sup>nd</sup></b>- Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.</p> <p><b>2<sup>nd</sup></b>-Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using <math>&gt;</math>, <math>=</math>, and <math>&lt;</math> symbols to record the results of comparisons.</p>	<p><b>3<sup>rd</sup></b>- Understand a fraction <math>1/b</math> as the quantity formed by 1 part when a whole is partitioned into <math>b</math> equal parts; understand a fraction <math>a/b</math> as the quantity formed by <math>a</math> parts of size <math>1/b</math>.</p> <p><b>3<sup>rd</sup></b>- Understand a fraction as a number on the number line; represent fractions on a number line diagram.</p> <p><b>3<sup>rd</sup></b>- Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.</p> <p><b>4<sup>th</sup></b>- Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as <math>1/2</math>. Recognize that comparisons are valid only when the two fractions refer to the same whole.</p> <p><b>4<sup>th</sup></b>- Understand a fraction <math>a/b</math> with <math>a &gt; 1</math> as a sum of fractions <math>1/b</math>.</p> <p><b>4<sup>th</sup></b>- Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.</p> <p><b>4<sup>th</sup></b>- Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100. For example, express <math>3/10</math> as <math>30/100</math>, and add <math>3/10 + 4/100 = 34/100</math>.</p>	<p><b>K-</b>Directly compare two objects with a measurable attribute in common, to see which object has "more of"/"less of" the attribute, and describe the difference.</p> <p><b>1<sup>st</sup></b>- Tell and write time in hours and half-hours using analog and digital clocks.</p> <p><b>1<sup>st</sup></b>-Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.</p> <p><b>2<sup>nd</sup></b>-Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.</p> <p><b>2<sup>nd</sup></b>-solve word problems involving dollar bills, quarters, dimes, nickels, and using \$ and ¢ symbols appropriately. <i>Example: If you have 2 dimes and 3 pennies, how many cents do you have?</i></p> <p><b>3<sup>rd</sup></b>- Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes.</p> <p><b>4<sup>th</sup></b>- Know the relative sizes of measurement within one system of units including</p>

	<p><b>2<sup>nd</sup></b>- Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.</p> <p><b>2<sup>nd</sup></b>- Determine whether a group of objects (up to 20) has an odd or even number of members; write an equation to express and even number as a sum of two equal addends.</p> <p><b>2<sup>nd</sup></b>-Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and 5 columns; write an equation to express the total as a sum of equal addends.</p> <p><b>3<sup>rd</sup></b>- Interpret products of whole numbers, e.g., interpret <math>5 \times 7</math> as the total number of objects in 5 groups of 7 objects each.</p> <p><b>3<sup>rd</sup></b>-Interpret whole-number quotients of whole numbers, e.g., interpret <math>56 \div 8</math> as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each.</p> <p><b>3<sup>rd</sup></b>- use multiplication and division within 100 to solve word problems involving equal groups, arrays, and measurement quantities.</p> <p><b>3<sup>rd</sup></b>-Determine the unknown whole number in a multiplication or division equation relating three whole numbers.</p> <p><b>3<sup>rd</sup></b>- Apply properties of operations as strategies to multiply and divide.</p> <p><b>3<sup>rd</sup></b>- Understand division as an unknown-factor problem. <i>For example, find <math>32 \div 8</math> by finding the number that makes 32 when multiplied by 8.</i></p> <p><b>3<sup>rd</sup></b>- Fluently multiply and divide within 100. By the end of Grade 3, know from memory all products of two one-digit numbers.</p>	<p><b>2<sup>nd</sup></b>- Fluently add and subtract within 100 using strategies based on place-value, properties of operations, and/or the relationship between addition and subtraction.</p> <p><b>2<sup>nd</sup></b>- Add up to four two-digit numbers using strategies based on place value and properties of operations.</p> <p><b>2<sup>nd</sup></b>- Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties, and /or the relationship between subtraction and addition.</p> <p><b>2<sup>nd</sup></b>- Mentally add and subtract 10 or 100 to a given number 100-900.</p> <p><b>2<sup>nd</sup></b>-Explain why addition and subtraction strategies work, using place value and the properties of operations.</p> <p><b>3<sup>rd</sup></b>- Use place-value understanding to round whole numbers to the nearest 10 or 100.</p> <p><b>3<sup>rd</sup></b>- Fluently add and subtract within 1000.</p> <p><b>3<sup>rd</sup></b>- Multiply one-digit whole numbers by multiples of 10 in the range 10-90 (e.g., <math>9 \times 80</math>, <math>5 \times 60</math>).</p> <p><b>4<sup>th</sup></b>- Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right.</p> <p><b>4<sup>th</sup></b>-Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on place value using <math>&gt;</math>, <math>=</math>, and <math>&lt;</math> symbols.</p> <p><b>4<sup>th</sup></b>- Use place value understanding to round multi-digit whole numbers to any place.</p> <p><b>4<sup>th</sup></b>- Fluently add and subtract multi-digit whole numbers using the standard algorithm.</p> <p><b>4<sup>th</sup></b>- Multiply a whole number of up to four digits by a one- digit whole number, and multiply two two-digit</p>	<p><b>4<sup>th</sup></b>-Use decimal notation for fractions with denominators 10 or 100.</p> <p><b>4<sup>th</sup></b>- Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole.</p> <p><b>5<sup>th</sup></b>- Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators.</p> <p><b>5<sup>th</sup></b>- Solve word problems involving addition, subtraction of fractions referring to the same whole, including cases of unlike denominators. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers.</p> <p><b>5<sup>th</sup></b>- Interpret a fraction as division of the numerator by the denominator (<math>a/b = a \div b</math>). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers.</p> <p><b>5<sup>th</sup></b>- Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.</p> <p><b>5<sup>th</sup></b>- solve real world problems involving multiplication of fractions and mixed numbers.</p> <p><b>5<sup>th</sup></b>- Apply and extend previous understandings of division to divide unit fractions</p>	<p>hr, min, sec.</p> <p><b>4<sup>th</sup></b>- Use the four operations to solve word problems involving intervals of time, and money, including problems involving simple fractions or decimals.</p> <p><b>4<sup>th</sup></b>- Solve problems involving addition and subtraction of fractions by using information presented in line plots.</p>
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