



Westside Consolidated School District  
*Common Core State Standards*  
Curriculum Guide for Grade 1 Mathematics

**DRAFT June, 2014**

## Grade 1 Overview

- **Operations and Algebraic Thinking**
  - Represent and solve problems involving addition and subtraction – *within 20*.
  - Understand and apply properties of operations and the relationship between addition and subtraction.
  - Add and subtract within 20.
  - Work with addition and subtraction equations.
- **Number and Operations in Base Ten**
  - Extend the counting sequence – *to 120*.
  - Understand place value – *tens and ones*.
  - Use place value understanding and properties of operations to add and subtract.
- **Measurement and Data**
  - Measure lengths indirectly and by iterating length units – *limit to whole number of length units*.
  - Tell and write time – *in hours and half-hours using analog and digital clocks*.
  - Represent and interpret data – *with up to 3 categories*.
- **Geometry**
  - Reason with shapes and their attributes – *2-D shapes* (rectangles, squares, trapezoids, triangles, half-circles, quarter-circles) *and 3-D shapes* (cubes, right rectangular prisms, right circular cones, right circular cylinders).

Note: Students do not need to learn formal names such as “right rectangular prism”.

## Resources:

Textbook Series: enVision Math, © 2011, Scott Foresman-Addison Wesley

### Investigations in Number, Data, and Space, Pearson Publishing

*Investigations and the Common Core State Standards in Math* Home Page: <http://investigations.terc.edu/components/CCSS/CommonCore.cfm>

*Math Common Core State Standards* Kindergarten Correlation: [http://investigations.terc.edu/library/common\\_core/GK\\_InvCCSS\\_Corr.pdf](http://investigations.terc.edu/library/common_core/GK_InvCCSS_Corr.pdf)

The Common Core State Standards Home Page: <http://www.corestandards.org/>

The Common Core State Standards for Mathematics: [http://www.corestandards.org/assets/CCSSI\\_Math%20Standards.pdf](http://www.corestandards.org/assets/CCSSI_Math%20Standards.pdf)

Common Core Unpacking resource: C2 Collaborative, Inc.: <http://ccstudio.org/Home.aspx>

## **CCSS: Standards for Mathematical Practice**

- 1. Make sense of problems and persevere in solving them.**
- 2. Reason abstractly and quantitatively.**
- 3. Construct viable arguments and critique the reasoning of others.**
- 4. Model with mathematics.**
- 5. Use appropriate tools strategically.**
- 6. Attend to precision.**
- 7. Look for and make use of structure.**
- 8. Look for and express regularity in repeated reasoning.**



# Grade 1 Mathematics • Unpacked Content

## ***At A Glance:** Comparing the new *Common Core State Standards* to the old *Arkansas Frameworks**

This page provides a snapshot of the mathematical concepts that are **NEW** or have been **MOVED** from this grade level.

### **NEW to 1<sup>st</sup> Grade:**

Use of a symbol for the unknown number in an equation (1.OA.1)

Properties of Operations – Commutative and Associative (1.OA.3)

Counting sequence to 120; writing numerals to 120 (1.NBT.1)

*Unitizing* a ten (10 can be thought of as a bundle of ten ones, called a “ten”) (1.NBT.2.a)

Comparison Symbols (<, >) (1.NBT.3)

Defining and non-defining attributes of shapes (1.G.1)

Half-circles, quarter-circles, cubes (1.G.2)

Partitioning circles and rectangles; Relationships among halves, fourths and quarters (1.G.3)

### **MOVED from 1<sup>st</sup> Grade:**

Estimation

Groupings of 2’s, 5’s, and 10’s to count collections

Fair Shares

Specified types of data displays

Certain, impossible, more likely or less likely to occur

Venn Diagrams

Extending patterns

### **Note:**

**For more information on deconstructed standards and performance based assessments visit [ccstudio.org](http://ccstudio.org)**

## Directions:

**This is a live document that will be the foundation for math instruction. The next four pages outline what should be taught during each nine-week period for Common Core Standards and vocabulary as a pacing guide. The fifth page is all of the nine-week periods on one page for all the information at-a-glance.**

**The Pacing Guide- In the last column write in the Topic and lesson number from envisionMATH 2011 edition. This will allow you to decide what Topics best fit the standard. You can also add the Big Ideas if you would like to. Add any more information as necessary. Since this is a working document, feel free to make comments for adjustments in the future.**

**The At-A-Glance - Add page numbers, Topics, or lesson numbers next to the standard listed. At the bottom of each nine-weeks section list any projects, resources, or manipulatives to supplement the text.**

**Westside Consolidated School District    Common Core State Standards – Mathematics    1<sup>st</sup> Grade Pacing Guide**

**1<sup>st</sup> Nine Weeks**

Domain	<i>Common Core State Standards</i>	Major Topics/Concepts	Textbook Alignment <i>enVision Math</i> ©2011	Resources
<b>Operations and Algebraic Thinking</b> <ul style="list-style-type: none"> <li>● Word Problems: Addition &amp; Subtraction within 20</li> <li>● Unknown Addends</li> <li>● Addition and Subtraction Fluency</li> <li>● Equations.</li> <li>● Commutative &amp; Associative Property</li> </ul>	1.OA.1	<b>Represent and solve problems involving addition and subtraction.</b> <ul style="list-style-type: none"> <li>● <b>1. OA.1</b> – Represent and solve word problems using addition and subtraction within 20 – be able to show work using objects, drawings and equations. This includes but is not limited to the use of symbols to represent a missing number include situations of: <i>adding to; taking from; putting together; taking apart; comparing; unknowns in all positions.</i></li> </ul>	Lesson 1-1 Lesson 1-2 Lesson 1-3 Lesson 1-4 Lesson 2-11 Lesson 1-5 Lesson 1-6 Lesson 1-8 Lesson 2-4 Lesson 2-5	*Envision video *Smart Board Activities *Manipulatives *CGI problems *End of Topic Assessments
	1.OA.3	<b>Understand and apply properties of operations and the relationship between addition and subtraction.</b> <ul style="list-style-type: none"> <li>● <b>1. OA.3</b> – Commutative and Associative properties of addition and subtraction. Check standard for examples. <i>Note: Students need not use formal terms for these properties.</i></li> </ul>	Lesson 1-7 Lesson 4-1	
	1.OA.4	<b>Understand and apply properties of operations and the relationship between addition and subtraction.</b> <ul style="list-style-type: none"> <li>● <b>1. OA.4</b> – Understand subtraction as an unknown-addend problem. For example, subtract 10 - by finding the number that makes 10 when added to 8 ---- (<math>\underline{\quad} + 8 = 10</math>)</li> </ul>	Lesson 2-1 Lesson 2-2 Lesson 2-3 Lesson 3-4 Lesson 4-7 Lesson 4-8 Lesson 4-9	
<b>Operations and Algebraic Thinking</b> <ul style="list-style-type: none"> <li>● Problem solving to 10</li> <li>● Count on/back</li> <li>● Add &amp; Subtract within 20</li> </ul>	1.OA.6	<b>Add and subtract within 20.</b> <ul style="list-style-type: none"> <li>● <b>1. OA.6</b> -- Add and subtract within 20, demonstrating fluency for addition and subtraction within 10.</li> </ul> <p>Check standard for examples. Meeting the requirements of this standard requires multiple strategies including <i>counting on; making ten; decomposing a number leading to a ten; using the relationship between addition and subtraction; and creating equivalent but easier or known sums.</i></p>	Lesson 2-9 Lesson 3-3 Lesson 3-5 Lesson 4-2 Lesson 4-3 Lesson 4-4 Lesson 4-5	

<p><b>Operational and Algebraic Thinking</b></p> <ul style="list-style-type: none"> <li>• Work with addition &amp; subtraction equations.</li> <li>• Add &amp; subtract within 20</li> </ul>	<p><b>1.OA.7</b></p> <p><b>1.OA.5</b></p> <p><b>1.OA.2</b></p>	<p><b>Work with addition and subtraction equations.</b></p> <ul style="list-style-type: none"> <li>• <b>1. OA.7</b> – Focus on the = sign and its meaning. Work with addition and subtraction equations to find a balance on each side of the = sign.</li> </ul> <p><b>Add and subtract within 20.</b></p> <ul style="list-style-type: none"> <li>• <b>1.OA.5</b> – Relate counting to addition and subtraction by <i>counting on/back</i></li> </ul> <p><b>Represent and solve problems involving addition and subtraction.</b></p> <ul style="list-style-type: none"> <li>• <b>1.OA.2</b> – Represent and solve word problems using addition of whole numbers whose sum is less than or equal to 20 – be able to show work using objects, drawings and equations with a symbol for the unknown number to represent the problem.</li> </ul>	<p><b>Lesson 2-10</b> <b>Lesson 4-6</b></p> <p><b>Lesson 3-1</b> <b>Lesson 3-2</b></p>	
<p><b>Measurement and Data</b></p> <ul style="list-style-type: none"> <li>• Interpreting Data</li> </ul>	<p><b>1.MD.4</b></p>	<p><b>Represent and interpret data.</b></p> <ul style="list-style-type: none"> <li>• <b>1.MD.4</b> – Collect, organize, represent, analyze and interpret data using picture graphs, bar graphs, tally tables, and line plots</li> </ul>		
<p><b>Geometry</b></p> <ul style="list-style-type: none"> <li>• Shapes and their attributes</li> </ul>	<p><b>1.G.1</b></p>	<p><b>Reason with shapes and their attributes.</b></p> <ul style="list-style-type: none"> <li>• <b>1. G.1</b> – Plane Shapes - Distinguish between defining attributes (open and closed; symmetry; number of sides, vertices, faces) <i>versus</i> non-defining attributes (color, orientation, overall size).</li> </ul>		

**2<sup>nd</sup> Nine Weeks**

Domain	<i>Common Core State Standards</i>	Major Topics/Concepts	Textbook Alignment <i>enVision Math</i> ©2011	Resources
<p><b>Operations and Algebraic Thinking</b></p> <ul style="list-style-type: none"> <li>• Add &amp; subtract within 20.</li> <li>• Understand &amp; apply properties of operations &amp; the relationship between + &amp; -.</li> </ul>	1.OA.6	<p><b>Add and subtract within 20.</b></p> <ul style="list-style-type: none"> <li>• 1. OA.6 -- Add and subtract within 20, demonstrating fluency for addition and subtraction within 10.</li> </ul> <p>Check standard for examples. Meeting the requirements of this standard requires multiple strategies including <i>counting on; making ten; decomposing a number leading to a ten; using the relationship between addition and subtraction; and creating equivalent but easier or known sums.</i></p>	<p><b>Lesson 5-1</b>  <b>Lesson 5-2</b>  <b>Lesson 5-3</b>  <b>Lesson 5-5</b>  <b>Lesson 5-6</b>  <b>Lesson 5-7</b>  <b>Lesson 6-1</b>  <b>Lesson 6-2</b></p>	
<p><b>Operations and Algebraic Thinking</b></p> <ul style="list-style-type: none"> <li>• Represent &amp; solve problems involving addition &amp; subtract.</li> </ul>	1.OA.1	<p><b>Represent and solve problems involving addition and subtraction.</b></p> <ul style="list-style-type: none"> <li>• 1. OA.1 – Represent and solve word problems using addition and subtraction within 20 – be able to show work using objects, drawings and equations. This includes but is not limited to the use of symbols to represent a missing number include situations of: <i>adding to; taking from; putting together; taking apart; comparing; unknowns in all positions.</i></li> </ul>	<p><b>Lesson 5-4</b>  <b>Lesson 6-7</b></p>	



<b>Operations &amp; Algebraic Thinking</b> <ul style="list-style-type: none"> <li>• Understand &amp; apply properties of operations &amp; relationship between addition &amp; subtraction</li> <li>• Represent &amp; solve problems involving + &amp; -</li> <li>• Work with addition &amp; subtraction equations.</li> </ul>	1.OA.3	<b>Understand and apply properties of operations and the relationship between addition and subtraction.</b> <ul style="list-style-type: none"> <li>• <b>1. OA.3</b> – Commutative and Associative properties of addition and subtraction. Check standard for examples. <i>Note: Students need not use formal terms for these properties.</i></li> </ul>	Lesson 5-8	
	1.OA.2	<b>Represent and solve problems involving addition and subtraction.</b> <ul style="list-style-type: none"> <li>• <b>1.OA.2</b> – Represent and solve word problems using addition of whole numbers whose sum is less than or equal to 20 – be able to show work using objects, drawings and equations with a symbol for the unknown number to represent the problem.</li> </ul>	Lesson 5-9	
	1.OA.4	<b>Understand and apply properties of operations and the relationship between addition and subtraction.</b> <ul style="list-style-type: none"> <li>• <b>1. OA.4</b> – Understand subtraction as an unknown-addend problem. For example, subtract 10 - by finding the number that makes 10 when added to 8 ----- (<math>\underline{\quad} + 8 = 10</math>)</li> </ul>	Lesson 6-3 Lesson 6-4 Lesson 6-5	
	1.OA.8	<b>Work with addition and subtraction equations.</b> <ul style="list-style-type: none"> <li>• <b>1. OA.8</b> – Work with addition and subtraction equations. Find the unknown or missing whole number that will make the equation true.</li> </ul>	Lesson 6-6	

<p><b>Number &amp; Operations in Base Ten</b></p> <ul style="list-style-type: none"> <li>Oral Counting to 100</li> <li>Place Value</li> <li>Compare and Order Numbers</li> <li>Mental Math</li> </ul>	<p>1.NBT.2.b 1.NBT.1 1.NBT.2c 1.NBT.2.a 1.NBT.2 1.NBT.4</p>	<p><b>Extend the counting sequence.</b></p> <ul style="list-style-type: none"> <li>1.NBT.1 - Extend the counting sequence to 100</li> </ul> <p><b>Understand place value.</b></p> <ul style="list-style-type: none"> <li>1.NBT.2 - Understand Place Value of two-digit numbers – “tens” and “ones”.</li> <li>1.NBT.3 - Use symbols (&lt;, &gt;, =) to compare and order two-digit numbers based on meanings of the tens and ones digits.</li> </ul> <p><b>Use place value understanding and properties of operations to add and subtract.</b></p> <ul style="list-style-type: none"> <li>1.NBT.4 – two-digit addition within 100 – using concrete models, drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Remember 1.NBT.1 -- Mastery of numbers to 120</li> <li>1.NBT.5 – Given a two-digit number, mentally find one more, one less, ten more and ten less (explain reasoning)</li> </ul>	<p>Lesson 7-1    Lesson 10-1 Lesson 7-2    Lesson 10-2 Lesson 7-3    Lesson 10-3 Lesson 7-4    Lesson 10-4 Lesson 7-5    Lesson 10-5 Lesson 7-6    Lesson 10-6 Lesson 8-1 Lesson 8-2 Lesson 8-3 Lesson 8-4 Lesson 8-5 Lesson 8-6 Lesson 9-1 Lesson 9-2 Lesson 9-3 Lesson 9-4 Lesson 9-5</p>	
	<p>1.OA.4 1.OA.6 1.OA.7 1.OA.8</p>	<p><b>Understand and apply properties of operations and the relationship between addition and subtraction.</b></p> <ul style="list-style-type: none"> <li>1.OA.4 – Understand subtraction as an unknown-addend problem. For example, subtract 10 - by finding the number that makes 10 when added to 8 ----- (<math>\_ + 8 = 10</math>)</li> </ul> <p><b>Work with addition and subtraction equations.</b></p> <ul style="list-style-type: none"> <li>1.OA.7 – Focus on the = sign and its meaning. Work with addition and subtraction equations to find a balance on each side of the = sign.</li> </ul> <p><b>Understand and apply properties of operations and the relationship between addition and subtraction.</b></p> <ul style="list-style-type: none"> <li>1.OA.4 – Understand subtraction as an unknown-addend problem. For example, subtract 10 - by finding the number that makes 10 when added to 8 ----- (<math>\_ + 8 = 10</math>)</li> <li></li> </ul>		
<p><b>Measurement and Data</b></p> <ul style="list-style-type: none"> <li>Tell and Write Time</li> </ul>	<p>1.MD.3</p>	<p><b>Tell and write time.</b></p>		

		<ul style="list-style-type: none"> <li>● <b>1. MD.3</b> – Tell and write time in <i>hours</i> and <i>half-hours</i> using analog and digital clocks. (Note:<b>1.G.3</b> requires partition of circles into 2 &amp; 4 equal shares, using halves, fourths and quarters to describe the shares)</li> </ul>		
<p><b>Geometry</b></p> <ul style="list-style-type: none"> <li>● Shapes (2D, 3D)</li> </ul>	<b>1.G.2</b>	<p><b>Reason with shapes and their attributes.</b></p> <ul style="list-style-type: none"> <li>● <b>1. G.2</b> – Compose (build) 2-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles).</li> <li>● <b>1. G.2</b> – Compose (build) 3-dimensional objects (cubes, right rectangular prisms, right circular cones, and right circular cylinders to create a composite shape).</li> <li>● <b>1. G.2</b> - Compose new shapes from the composite shapes created.</li> </ul>		

**3<sup>rd</sup> Nine Weeks**

Domain	<i>Common Core State Standards</i>	Major Topics/Concepts	Textbook Alignment <i>enVision Math</i> ©2011	Resources
<p><b>Number &amp; Operations in Base Ten</b></p> <ul style="list-style-type: none"> <li>● Oral Counting to 120</li> <li>● Place Value</li> <li>● Mental Math</li> </ul>	<p>1.NBT.1 (to 120) 1.NBT.2 1.NBT.5 1.NBT.6</p>	<p><b>Extend the counting sequence.</b></p> <ul style="list-style-type: none"> <li>● 1.NBT.1 - Extend the counting sequence to 120</li> </ul> <p><b>Understand place value.</b></p> <ul style="list-style-type: none"> <li>● 1. NBT.2 - Understand Place Value of two-digits numbers. – “tens” and “ones”.</li> </ul> <p><b>Use place value understanding and properties of operations to add and subtract.</b></p> <ul style="list-style-type: none"> <li>● 1.NBT.5- Given a two-digit number, mentally find one more, one less, ten more and ten less (explain reasoning).</li> <li>● 1.NBT.6 – two-digit subtraction of multiples of 10 in the range 10-90 using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.</li> </ul>	<p><b>Lesson 11-1</b> <b>Lesson 11-2</b> <b>Lesson 11-3</b> <b>Lesson 11-4</b> <b>Lesson 11-5</b> <b>Lesson 11-6</b></p>	
<p><b>Operations and Algebraic Thinking</b></p> <ul style="list-style-type: none"> <li>● Word Problems: Addition and Subtraction within 20.</li> <li>● Commutative &amp; Associative Property</li> </ul>	<p>1. OA.1 <i>Continue to teach – refer to previous alignment notes in this pacing guide.</i></p> <p>1.OA.3 1.OA.7 1.OA.8</p>	<p><b>Represent and solve problems involving addition and subtraction.</b></p> <ul style="list-style-type: none"> <li>● 1. OA.1 – Use addition and subtraction within 20 to solve word problems, be able to show work using objects, drawings and equations. This includes but is not limited to the use of symbols to represent a missing number; include situations of: <i>adding to; taking from; putting together; taking apart; comparing; unknowns in all positions.</i></li> </ul> <p><b>Understand and apply properties of operations and the relationship between addition and subtraction.</b></p> <ul style="list-style-type: none"> <li>● 1. OA.3 – Commutative and Associative properties of addition and subtraction. Check standard for examples. <i>Note: Students need not use formal terms for these properties.</i></li> </ul> <p><b>Work with addition and subtraction equations.</b></p> <ul style="list-style-type: none"> <li>● 1. OA.7 – Focus on the = sign and its meaning. Work with addition and subtraction equations to find a balance on each side of the = sign.</li> <li>●</li> </ul>		

		<ul style="list-style-type: none"> <li>● <b>1. OA.8</b> – Work with addition and subtraction equations. Find the unknown or missing whole number that will make the equation true.</li> </ul>		
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<b>Measurement and Data</b> <ul style="list-style-type: none"> <li>● Non-Standard Units of Measurement</li> </ul>	<b>1.MD.1</b> <b>1.MD.2</b>	<b>Measure lengths indirectly and by iterating length units.</b> <ul style="list-style-type: none"> <li>● <b>1. MD.1</b> – Order 3 objects by lengths; compare the lengths of two objects indirectly by using a third object.</li> <li>●</li> <li>● <b>1.MD.2</b> – Measure the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end -- (<i>iteration</i>)</li> </ul> <p><i>Note: Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.</i></p>	<b>Lesson 12-1</b> <b>Lesson 12-2</b>  <b>Lesson 12-3</b> <b>Lesson 12-4</b> <b>Lesson 12-5</b> <b>Lesson 12-6</b>	
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<b>Measurement and Data</b> <ul style="list-style-type: none"> <li>● Tell and Write Time</li> </ul>	<b>1.MD.3</b>	<b>Tell and write time.</b> <ul style="list-style-type: none"> <li>● <b>1. MD.3</b> – Tell and write time in <i>hours</i> and <i>half-hours</i> using analog and digital clocks. (Note:<b>1.G.3</b> requires partition of circles into 2 &amp; 4 equal shares, using halves, fourths and quarters to describe the shares)</li> </ul>	<b>Lesson 13-1</b> <b>Lesson 13-2</b> <b>Lesson 13-3</b> <b>Lesson 13-4</b>	
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<b>Measurement and Data</b> <ul style="list-style-type: none"> <li>● Interpreting Data</li> </ul>	<b>1.MD.4</b>	<b>Represent and interpret data.</b> <ul style="list-style-type: none"> <li>● <b>1.MD.4</b> – Collect, organize, represent, analyze and interpret data using picture graphs, bar graphs, tally tables, and line plots</li> </ul>	<b>Lesson 14-1</b> <b>Lesson 14-2</b> <b>Lesson 14-3</b> <b>Lesson 14-4</b> <b>Lesson 14-5</b> <b>Lesson 14-6</b> <b>Lesson 14-7</b>	
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Westside Consolidated School District *Common Core State Standards – Mathematics* 1<sup>st</sup> Grade Pacing Guide

4<sup>th</sup> Nine Weeks

Domain	<i>Common Core State Standards</i>	Major Topics/Concepts	Textbook Alignment <i>enVision Math</i> ©2011	Resources/ Assessments
<p><b>Number &amp; Operations in Base Ten</b></p> <ul style="list-style-type: none"> <li>• Number Sense Mastery to 120</li> <li>• 2 Digit Addition &amp; Subtraction</li> </ul>	<p>1.NBT.1 1.NBT.4 1.NBT.5 1.NBT.6</p>	<p><b>Extend the counting sequence.</b></p> <ul style="list-style-type: none"> <li>• 1.NBT.1 -- Mastery of numbers to 120</li> </ul> <p><b>Use place value understanding and properties of operations to add and subtract.</b></p> <ul style="list-style-type: none"> <li>• 1.NBT.4 – two-digit addition within 100 – using concrete models, drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Remember 1.NBT.1 -- Mastery of numbers to 120.</li> <li>• 1.NBT.5 -- Given a two-digit number, mentally find one more, one less, ten more, ten less (explain reasoning).</li> <li>• 1.NBT.6 – two-digit subtraction of multiples of 10 in the range 10-90 using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.</li> </ul>		
<p><b>Operations and Algebraic Thinking</b></p> <ul style="list-style-type: none"> <li>• Addition and Subtraction</li> </ul>	<p>1.OA (all)  <i>Continue to Teach/Review</i></p>	<p><b>1.OA Domain (0 to 120) <i>Continue to Teach/Review</i></b>  <b>Represent/solve problems involving addition &amp; subtraction. <u>1.OA.1&amp;2</u></b>  <b>Understand and apply properties of operations and the relationship between addition and subtraction. <u>1.OA.3&amp;4</u></b>  <b>Add and subtract within 20. <u>1.OA.5&amp;6</u></b>  <b>Work with addition and subtraction equations. <u>1.OA.7&amp;8</u></b></p>	<p><i>Continue to Teach/Review</i></p> <p><i>See previous alignment notes in this pacing guide for 1.OA.1 - 8.</i></p>	
<p><b>Measurement and Data</b></p> <ul style="list-style-type: none"> <li>• Non-Standard Units of Measurement</li> </ul>	<p>1.MD.1 1.MD.2</p>	<p><b>Measure lengths indirectly and by iterating length units.</b></p> <ul style="list-style-type: none"> <li>• 1. MD.1 – Order 3 objects by lengths; compare the lengths of two objects indirectly by using a third object.</li> <li>• 1.MD.2 – Measure the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end -- (<i>iteration</i>)</li> </ul> <p><i>Note: Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.</i></p>		

<p><b>Geometry</b></p> <ul style="list-style-type: none"> <li>• Shapes and their attributes</li> </ul>	<p><b>1.G.1</b></p>	<p><b>Reason with shapes and their attributes.</b></p> <ul style="list-style-type: none"> <li>• <b>1. G.1</b> – Plane Shapes - Distinguish between defining attributes (open and closed; symmetry; number of sides, vertices, faces) <i>versus</i> non-defining attributes (color, orientation, overall size).</li> </ul>	<p><b>Lesson 15-1</b>  <b>Lesson 15-3</b>  <b>Lesson 15-6</b>  <b>Lesson 15-7</b>  <b>Lesson 15-8</b>  <b>Lesson 15-10</b></p>	
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<p><b>Geometry</b></p> <ul style="list-style-type: none"> <li>• Shapes (2D, 3D)</li> </ul>	<p><b>1.G.2</b></p>	<p><b>Reason with shapes and their attributes.</b></p> <ul style="list-style-type: none"> <li>• <b>1. G.2</b> – Compose (build) 2-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles).</li> <li>• <b>1. G.2</b> – Compose (build) 3-dimensional objects (cubes, right rectangular prisms, right circular cones, and right circular cylinders to create a composite shape).</li> <li>• <b>1. G.2</b> - Compose new shapes from the composite shapes created.</li> </ul>	<p><b>Lesson 15-2</b>  <b>Lesson 15-4</b>  <b>Lesson 15-5</b>  <b>Lesson 15-9</b></p>	
	<p><b>1.G.3</b></p>	<ul style="list-style-type: none"> <li>• <b>1.G.3- Partition circles and rectangles into two and four equal shares, describe the shares using the words halves, fourths, and quarters, and use the phrases half of, fourth of and quarter of. Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares.</b></li> </ul>	<p><b>Lesson 16-1</b>  <b>Lesson 16-2</b>  <b>Lesson 16-3</b>  <b>Lesson 16-4</b></p>	

# Westside Consolidated School District *Common Core State Standards* – Mathematics 1<sup>st</sup> Grade At-A-Glance-Guide

*Essential Questions should be incorporated into daily math activities in order to engage students in real life problem solving.*

Domain	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
<b>Number and Operations in Base Ten</b>	1.NBT.1 <i>(to 50)</i> 1.NBT.2a 1.NBT.2b 1.NBT.2c 1.NBT.5	1.NBT.1 <i>(to 100)</i> 1.NBT.2 1.NBT.3 1.NBT.5	1.NBT.1 <i>(to 120)</i> 1.NBT.2 1.NBT.5	1.NBT.1 1.NBT.4 1.NBT.5 1.NBT.6
<b>Operations and Algebraic thinking</b>	1.OA.2 1.OA.5	1.OA.1 1.OA.4 1.OA.6 1.OA.7 1.OA.8	1. OA.1 <i>Continue to teach – refer to previous alignment notes in this pacing guide.</i>  1.OA.3 1.OA.7 1.OA.8	1.OA <i>(all)</i>  <i>Continue to Teach/Review</i>
<b>Measurement and Data</b>	1.MD.4	1.MD.3		1.MD.1 1.MD.2
<b>Geometry</b>	1.G.1	1.G.2		1.G.3
Document resources/ Page numbers in textbooks/ links to sites/ projects				



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Westside Consolidated School District    *Common Core State Standards – Mathematics*    1<sup>st</sup> Grade Pacing Guide  
Textbook Resource: [Grade 1 enVision Math](#), © 2011, Scott Foresman- Addison Wesley, Pearson Education, Inc.

Alignment of Textbook Topic Content to the *Math CCSS*:

**NOTE: Not all sections of each Topic are aligned to the *Math CCSS* – be sure to use *ONLY* the sections that are aligned to the *Math CCSS*.**

Table of Topics

### **Critical Areas**

- 1. Developing understanding of addition, subtraction, and strategies for addition and subtraction within 20** – Students develop strategies for adding and subtracting whole numbers based on their prior work with small numbers. They use a variety of models, including discrete objects and length-based models (e.g., cubes connected to form lengths), to model add-to, take-from, put-together, take-apart, and compare situations to develop meaning for the operations of addition and subtraction, and to develop strategies to solve arithmetic problems with these operations. Students understand connections between counting and addition and subtraction (*e.g., adding two is the same as counting on two*). They use properties of addition to add whole numbers and to create and use increasingly sophisticated strategies based on these properties (e.g., “making tens”) to solve addition and subtraction problems within 20. By comparing a variety of solution strategies, children build their understanding of the relationship between addition and subtraction.
- 2. Developing understanding of whole number relationship and place value, including grouping in tens and ones** – Students develop, discuss, and use efficient, accurate, and generalizable methods to add within 100 and to subtract multiples of 10. They compare whole numbers (at least to 100) to develop understanding of and to solve problems involving their relative sizes. They think of whole numbers between 10 and 100 in terms of tens and ones (especially recognizing the numbers 11 to 19 as composed of a ten and some ones). Through activities that build number sense, they understand the order of the counting numbers and their relative magnitudes.
- 3. Developing understanding of linear measurement and measuring lengths as iterating length units** – Students develop an understanding of the meaning and processes of measurement, including underlying concepts such as iterating (*the mental activity of building up the length of an object with equal-sized units*) and the transitivity principle for indirect measurement. (Note: Students should apply the principle of transitivity of measurement to make direct comparisons, but they need not use this technical term.)
- 4. Reasoning about attributes of, and composing and decomposing geometric shapes**– Students compose and decompose plane or solid figures (*e.g., put two triangles together to make a quadrilateral*) and build understanding of part-whole relationships as well as the properties of the original and composite shapes. As they combine shapes, they recognize them from different perspectives and orientations, describe their geometric attributes, and determine how they are alike and different, to develop the background for measurement and for initial understandings of properties such as congruence and symmetry.

### **Mathematical Practices**

- 1. Make sense of problems and persevere in solving them.**
- 2. Reason abstractly and quantitatively.**
- 3. Construct viable arguments and critique the reasoning of others.**
- 4. Model with mathematics.**
- 5. Use appropriate tools strategically.**
- 6. Attend to precision.**
- 7. Look for and make use of structure.**
- 8. Look for and express regularity in repeated reasoning.**

## **Operations and Algebraic Thinking**

### **1.OA**

#### **Represent and solve problems involving addition and subtraction.**

- 1.OA.1** Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. (Note: See *CCSS Glossary & Table 1*.)
- 1.OA.2** Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

#### **Understand and apply properties of operations and the relationship between addition and subtraction.**

- 1.OA.3** Apply properties of operations as strategies to add and subtract. (Note: Students need not use formal terms for these properties.) *Examples: If  $8 + 3 = 11$  is known, then  $3 + 8 = 11$  is also known. (Commutative property of addition.) To add  $2 + 6 + 4$ , the second two numbers can be added to make a ten, so  $2 + 6 + 4 = 2 + 10 = 12$ . (Associative property of addition.)*
- 1.OA.4** Understand subtraction as an unknown-addend problem. *For example, subtract  $10 - 8$  by finding the number that makes 10 when added to 8.*

#### **Add and subtract within 20.**

- 1.OA.5** Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).
- 1.OA.6** Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g.,  $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$ ); decomposing a number leading to a ten (e.g.,  $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$ ); using the relationship between addition and subtraction (e.g., knowing that  $8 + 4 = 12$ , one knows  $12 - 8 = 4$ ); and creating equivalent but easier or known sums (e.g., adding  $6 + 7$  by creating the known equivalent  $6 + 6 + 1 = 12 + 1 = 13$ ).

#### **Work with addition and subtraction equations.**

- 1.OA.7** Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. *For example, which of the following equations are true and which are false?  $6 = 6$ ,  $7 = 8 - 1$ ,  $5 + 2 = 2 + 5$ ,  $4 + 1 = 5 + 2$ .*
- 1.OA.8** Determine the unknown whole number in an addition or subtraction equation relating to three whole numbers. *For example, determine the unknown number that makes the equation true in each of the equations  $8 + ? = 11$ ,  $5 = \square - 3$ ,  $6 + 6 = \square$ .*

## **Number and Operations in Base Ten**

### **1.NBT**

#### **Extend the counting sequence.**

- 1.NBT.1** 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.

#### **Understand place value.**

- 1.NBT.2** Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases:
- 10 can be thought of as a bundle of ten ones – called a “ten”... *unitizing a ten.*
  - The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.
  - The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).
- 1.NBT.3** Compare two two-digit numbers based on meanings of the tens and ones digits,

recording the results of comparisons with the symbols  $>$ ,  $=$ , and  $<$ .

**Use place value understanding and properties of operations to add and subtract.**

- 1.NBT.4** 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, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.
- 1.NBT.5** Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.
- 1.NBT.6** Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

**Measurement and Data**

**1.MD**

**Measure lengths indirectly and by iterating length units.**

- 1.MD.1** Order three objects by length; compare the lengths of two objects indirectly by using a third object.
- 1.MD.2** Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. *Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.*

**Tell and write time.**

**1.MD.3** Tell and write time in hours and half-hours using analog and digital clocks.

**Represent and interpret data.**

**1.MD.4** 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.

**Geometry**

**1.G**

**Reason with shapes and their attributes.**

**1.G.1** Distinguish between defining attributes (e.g., triangles are closed and three-sided) *versus* non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes.

**1.G.2** Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and to compose new shapes from the composite shape. (Note: Students do not need to learn formal names such as “right rectangular prism.”)

**1.G.3** Partition circles and rectangles into two and four equal shares, describe the shares using the words *halves*, *fourths*, and *quarters*, and use the phrases *half of*, *fourth of*, and *quarter of*. Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares..