

<b>Represent and solve problems involving addition and subtraction</b>
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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.
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(A). Add to: Result Unknown Ex. Two bunnies sat on the grass. Three more bunnies hopped there. How many bunnies are on the grass now? $2 + 3 = ?$	Manipulatives/Materials: objects, paper, pencil, flashcards, ; CGI strategies; HC lessons: 8.5, 14.1, 14.4, 29.1, 29.4; Vocabulary: adding to, taking from, putting together, taking apart, comparing with unknowns in all positions, number sentence, symbol; Other Resources: see Common Core Glossary Table 1, HC Mega Math "Carnival Stories"
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(D). Take from: Result Unknown Ex. Five apples were on the table. I ate two apples. How many apples are on the table now? $5 - 2 = ?$	Manipulatives/Materials: objects, paper, pencil, flashcards, ; CGI strategies; HC lessons: 8.5, 14.1, 14.4, 29.1, 29.4; Vocabulary: adding to, taking from, putting together, taking apart, comparing with unknowns in all positions, number sentence, symbol; Other Resources: see Common Core Glossary Table 1, HC Mega Math "Carnival Stories"
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<b>Add and subtract within 20</b>
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1.OA.5 *	Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).
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(A). Addition	Manipulatives/Materials: objects (cubes, teddy bears, counters, etc), flash cards, ten frames, dominoes, number line, 100s chart, rulers, tens/ones workmat, fact triangles; CGI strategies; HC lessons: 1.3, 2.5, 4.5, 5.1, 5.2, 5.3, 6.1, 7.1, 7.2, 7.3, 7.4, 8.1, 8.4, 9.1, 13.2, 14.1, 14.2, 14.3, 14.5, 18.3, 2nd grade lesson 5.1, 5.2, 6.2, 7.1, 9.1 ; Vocabulary: whole numbers, fact family, number sentence, doubles, addition, counting all, counting on, identity property, ten frame, compose, strategy
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Add and subtract within 20	
(B). Subtraction	Manipulatives/Materials: objects (cubes, teddy bears, counters, etc), flash cards, ten frames, dominoes, number line, 100s chart, rulers, tens/ones workmat, fact triangles; CGI strategies; HC lessons: 1.3, 2.5, 4.5, 5.1, 5.2, 5.3, 6.1, 7.1, 7.2, 7.3, 7.4, 8.1, 8.4, 9.1, 13.2, 14.1, 14.2, 14.3, 14.5, 18.3, 2nd grade lesson 5.1, 5.2, 6.2, 7.1, 9.1 ; Vocabulary: whole numbers, fact family, number sentence, subtraction, counting back, identity property, ten frame, decompose, strategy
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 $6 + 6 + 1 = 12 + 1 = 13$ ).	
(A). Addition	Manipulatives/Materials: objects (cubes, teddy bears, counters, etc), flash cards, ten frame, dominoes, number line, 100s chart, rulers, tens/ones workmat, fact triangles; CGI strategies; HC lessons: 1.3, 2.5, 4.5, 5.1, 5.2, 5.3, 6.1, 7.1, 7.2, 7.3, 7.4, 8.1, 8.4, 9.1, 13.2, 14.1, 14.2, 14.3, 14.5, 18.3, 2nd grade lesson 5.1, 5.2, 6.2, 7.1, 9.1 ; Vocabulary: whole numbers, fact family, number sentence, doubles, addition, counting all, counting on, identity property, ten frame, compose, strategy
(B). Subtraction	Manipulatives/Materials: objects (cubes, teddy bears, counters, etc), flash cards, ten frames, dominoes, number line, 100s chart, rulers, tens/ones workmat, fact triangles; CGI strategies; HC lessons: 1.3, 2.5, 4.5, 5.1, 5.2, 5.3, 6.1, 7.1, 7.2, 7.3, 7.4, 8.1, 8.4, 9.1, 13.2, 14.1, 14.2, 14.3, 14.5, 18.3, 2nd grade lesson 5.1, 5.2, 6.2, 7.1, 9.1 ; Vocabulary: whole numbers, fact family, number sentence, subtraction, counting back, identity property, ten frame, decompose, strategy

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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.
	Manipulatives/Materials: geometric figures (triangle, rectangle, square, circle), toothpicks, string, color tiles, pencil, paper, etc.; CGI strategies; HC lessons: 15.3, 15.4; Vocabulary: geometric figures, triangle, rectangle, square, circle, size, characteristics/attributes (defining and nondefining [ie. closed, three sided, etc]), properties, two-dimensional shapes; Other Resources: HC Mega Math "Undersea 3-D"
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 compose new shapes from the composite shape.
(A). 2-D Shapes	Manipulatives/Materials: geometric figures (triangle, rectangle, square, circle), toothpicks, string, color tiles, pencil, paper, etc.; CGI strategies; HC lessons: 15.3, 15.4; Vocabulary: geometric figures, triangle, rectangle, square, trapezoid, circle, half-circle, quarter circle, size, characteristics/attributes, properties, two-dimensional shapes; Other Resources: HC Mega Math "Undersea 3-D"
(B). 3-D Shapes	Manipulatives/Materials: 3-dimensional solids (sphere, cube, rectangular prism, cone, cylinder); CGI strategies; HC lessons: 15.1, 15.2; Vocabulary: three-dimensional solids/shapes, sphere, cube, rectangular prism, cone, cylinder, characteristics/attributes, properties; Other Resources: HC Mega Math "Undersea 3-D", "Sea Cave Sorting"

## ALIGNMENT NOTES

**Review**

Use calendar time or morning meeting time to review Kindergarten skills such as counting, decomposing numbers, and shapes.

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## 1.MD.4

Use graphing at the beginning of the year to engage students in math. Simple graphs with no addition/subtraction. Not assessed in Module 1.

## 1.OA.7 & 1.OA.8

These skills should be embedded in the addition unit, but not assessed until Module 3.

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.	
(B). Add to: Change Unknown Ex. Two bunnies were sitting on the grass. Some more bunnies hopped there. Then there were five bunnies. How many bunnies hopped over to the first two? $2 + ? = 5$	Manipulatives/Materials: objects, paper, pencil, flashcards, ; CGI strategies; HC lessons: 8.5, 14.1, 14.4, 29.1, 29.4; Vocabulary: adding to, taking from, putting together, taking apart, comparing with unknowns in all positions, number sentence, symbol; Other Resources: see Common Core Glossary Table 1, HC Mega Math "Carnival Stories"
(C). Add to: Start Unknown Ex. Some bunnies were sitting on the grass. Three more bunnies hopped there. Then there were five bunnies. How many bunnies were on the grass before? $? + 3 = 5$	Manipulatives/Materials: objects, paper, pencil, flashcards, ; CGI strategies; HC lessons: 8.5, 14.1, 14.4, 29.1, 29.4; Vocabulary: adding to, taking from, putting together, taking apart, comparing with unknowns in all positions, number sentence, symbol; Other Resources: see Common Core Glossary Table 1, HC Mega Math "Carnival Stories"
(E). Take from: Change Unknown Ex. Five apples were on the table. I ate some apples. Then there were three apples. How many apples did I eat? $5 - ? = 3$	Manipulatives/Materials: objects, paper, pencil, flashcards, ; CGI strategies; HC lessons: 8.5, 14.1, 14.4, 29.1, 29.4; Vocabulary: adding to, taking from, putting together, taking apart, comparing with unknowns in all positions, number sentence, symbol; Other Resources: see Common Core Glossary Table 1, HC Mega Math "Carnival Stories"
(F). Take from: Start Unknown Ex. Some apples were on the table. I ate two apples. Then there were three apples. How many apples were on the table before? $? - 2 = 3$	Manipulatives/Materials: objects, paper, pencil, flashcards, ; CGI strategies; HC lessons: 8.5, 14.1, 14.4, 29.1, 29.4; Vocabulary: adding to, taking from, putting together, taking apart, comparing with unknowns in all positions, number sentence, symbol; Other Resources: see Common Core Glossary Table 1, HC Mega Math "Carnival Stories"

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Module 2 - Math	Start: 10/4/2011	Teaching Days: 20	Test: 11/2/2011	Remediation Days: 1	End: 11/3/2011
<b>Common Core Standard</b>				<b>Materials / References</b>	
<b>Understand and apply properties of operations and the relationship between addition and subtraction</b>					
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.	Manipulatives/Materials: objects (cubes, teddy bears, etc); CGI strategies; HC lessons: 14.1, 14.4; Vocabulary: number sentence, addend, symbol; Other Resources: HC Mega Math "Carnival Stories"			
<b>Measure lengths indirectly and by iterating length units</b>					
1.MD.1	Order three objects by length; compare the lengths of two objects indirectly by using a third object.	Manipulatives/Materials: paper clips, teddy bears, pencils, and other non-standard measurement tools to measure with; CGI strategies; HC lessons: 26.2, 26.6, 27.1, 28.1; Vocabulary: length, non-standard units, measurement tools; Other Resources: HC Mega Math "Harrison's Comparisons"			
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.	Manipulatives/Materials: paper clips, teddy bears, pencils, and other non-standard measurement tools to measure with; CGI strategies; HC lessons: 26.2, 26.6, 27.1, 28.1; Vocabulary: length, non-standard units, measurement tools; Other Resources: HC Mega Math "Harrison's Comparisons"			
<b>Tell and write time</b>					
1.MD.3	Tell and write time in hours and half-hours using analog and digital clocks.	Manipulatives/Materials: clocks (analog and digital); CGI strategies; HC lessons: 24.4, 24.5; Vocabulary: time, hour(s), half-hour(s), analog, digital, colon			
<b>8 testable standards</b>					<b>End of Module 2</b>

**ALIGNMENT NOTES**

<b>Subtraction Unit</b>
1.OA.4, 1.OA.5, 1.OA.6, 1.OA.7, and 1.OA.8 are all taught within subtraction and are not skills to be necessarily taught independently or consecutively.
<b>Review</b>
Students should continue solving addition and subtraction problems in context as they are learning about measurement and time.

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

<b>1.OA.1 *</b>	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.	
	(A). Add to: Result Unknown Ex. Two bunnies sat on the grass. Three more bunnies hopped there. How many bunnies are on the grass now? $2 + 3 = ?$	Manipulatives/Materials: objects, paper, pencil, flashcards, ; CGI strategies; HC lessons: 8.5, 14.1, 14.4, 29.1, 29.4; Vocabulary: adding to, taking from, putting together, taking apart, comparing with unknowns in all positions, number sentence, symbol; Other Resources: see Common Core Glossary Table 1, HC Mega Math "Carnival Stories"
	(D). Take from: Result Unknown Ex. Five apples were on the table. I ate two apples. How many apples are on the table now? $5 - 2 = ?$	Manipulatives/Materials: objects, paper, pencil, flashcards, ; CGI strategies; HC lessons: 8.5, 14.1, 14.4, 29.1, 29.4; Vocabulary: adding to, taking from, putting together, taking apart, comparing with unknowns in all positions, number sentence, symbol; Other Resources: see Common Core Glossary Table 1, HC Mega Math "Carnival Stories"
	(G). Put Together/Take Apart: Total Unknown Ex. Three red apples and two green apples are on the table. How many apples are on the table? $3 + 2 = ?$	Manipulatives/Materials: objects, paper, pencil, flashcards, ; CGI strategies; HC lessons: 8.5, 14.1, 14.4, 29.1, 29.4; Vocabulary: adding to, taking from, putting together, taking apart, comparing with unknowns in all positions, number sentence, symbol; Other Resources: see Common Core Glossary Table 1, HC Mega Math "Carnival Stories"
	(H). Put Together/Take Apart: Addend Unknown Ex. Five apples are on the table. Three are red, and the rest are green. How many apples are green? $3 + ? = 5$ , $5 - 3 = ?$	Manipulatives/Materials: objects, paper, pencil, flashcards, ; CGI strategies; HC lessons: 8.5, 14.1, 14.4, 29.1, 29.4; Vocabulary: adding to, taking from, putting together, taking apart, comparing with unknowns in all positions, number sentence, symbol; Other Resources: see Common Core Glossary Table 1, HC Mega Math "Carnival Stories"

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Represent and solve problems involving addition and subtraction	
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(I). Put Together/Take Apart: Both Addends Unknown Ex. Grandma has 5 flowers. How many can she put in her red vase and how many in her blue vase? $5 = 0 + 5$ , $5 = 5 + 0$ ; $5 = 1 + 4$ , $5 = 4 + 1$ ; $5 = 3 + 2$ , $5 = 2 + 3$	Manipulatives/Materials: objects, paper, pencil, flashcards, ; CGI strategies; HC lessons: 8.5, 14.1, 14.4, 29.1, 29.4; Vocabulary: adding to, taking from, putting together, taking apart, comparing with unknowns in all positions, number sentence, symbol; Other Resources: see Common Core Glossary Table 1, HC Mega Math "Carnival Stories"
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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.	Manipulatives/Materials: manipulatives, pictures, other objects; CGI strategies; HC lessons: 1.2,3.1, 3.4, 4.4, 8.3, 14.2, 20.3; Vocabulary: addition, subtraction, join, separate, part-part whole, compare, sum, less than, equal
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Understand and apply properties of operations and the relationship between addition and subtraction	
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1.OA.3 * Apply properties of operations as strategies to add and subtract. 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).	
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(A). Commutative Property	Manipulatives/Materials: objects (cubes, teddy bears, etc.); CGI strategies; HC lessons: 1.3, 2.1, 4.5, 6.2, 7.4, 8.4, 2nd grade lesson 5.4; Vocabulary: fact family, whole number, add, equal, sum, commutative property of addition, identity property of addition, associative property of addition, compose
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(B). Associative Property	Manipulatives/Materials: objects (cubes, teddy bears, etc.); CGI strategies; HC lessons: 1.3, 2.1, 4.5, 6.2, 7.4, 8.4; Vocabulary: fact family, whole number, subtraction, equal, difference, commutative property of subtraction, identity property of subtraction, associative property of subtraction, decompose
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Module 3 - Math	Start: 11/4/2011	Teaching Days: 23	Test: 12/14/2011	Remediation Days: 2	End: 12/16/2011
Common Core Standard					Materials / References
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? $6 = 6$ , $7 = 8 - 1$ , $5 + 2 = 2 + 5$ , $4 + 1 = 5 + 2$ .	Manipulatives/Materials: N/A; CGI strategies; HC lessons: AR-9 p. 553-554; Vocabulary: equal sign (=), addition, subtraction, number sentence, same as, equations, true, false			
1.OA.8	Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations $8 + ? = 11$ , $5 = ? - 3$ , $6 + 6 = ?$ .	Manipulatives/Materials: N/A; CGI strategies; HC lessons: 20.4; Vocabulary: unknown number, true, false, number sentence, addition, subtraction, join, separate, part-part-whole, compare; Other Resources: HC Mega Math "Carnival Stories"			
Reason with shapes and their attributes					
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.	Manipulatives/Materials: pattern blocks; CGI strategies; HC lessons: 2nd grade lesson 18.3, 3rd grade lesson AR-6; Vocabulary: combining, subdivide, properties, partition, equal shares, halves, fourths, quarters, half of, fourth of, quarter of			
11 testable standards					End of Module 3

### ALIGNMENT NOTES

1.OA.1(A), (D)

These two skills are tested again this module, but are not necessary to teach again.

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TEXARKANA SCHOOL DISTRICT - GRADE 1 MATH

2011 - 2012

Module 4 - Math      Start: 1/3/2012    Teaching Days: 26      Test: 2/9/2012      Remediation Days: 1    End: 2/10/2012

Common Core Standard Materials / References

Represent and solve problems involving addition and subtraction

1.OA.1 *	<p>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.</p>	
	<p>(B). Add to: Change Unknown Ex. Two bunnies were sitting on the grass. Some more bunnies hopped there. Then there were five bunnies. How many bunnies hopped over to the first two? <math>2 + ? = 5</math></p>	<p>Manipulatives/Materials: objects, paper, pencil, flashcards, ; CGI strategies; HC lessons: 8.5, 14.1, 14.4, 29.1, 29.4; Vocabulary: adding to, taking from, putting together, taking apart, comparing with unknowns in all positions, number sentence, symbol; Other Resources: see Common Core Glossary Table 1, HC Mega Math "Carnival Stories"</p>
	<p>(E). Take from: Change Unknown Ex. Five apples were on the table. I ate some apples. Then there were three apples. How many apples did I eat? <math>5 - ? = 3</math></p>	<p>Manipulatives/Materials: objects, paper, pencil, flashcards, ; CGI strategies; HC lessons: 8.5, 14.1, 14.4, 29.1, 29.4; Vocabulary: adding to, taking from, putting together, taking apart, comparing with unknowns in all positions, number sentence, symbol; Other Resources: see Common Core Glossary Table 1, HC Mega Math "Carnival Stories"</p>
	<p>(J). Compare: Difference Unknown Ex. ("How many more?" version): Lucy has two apples. Julie has five apples. How many more apples does Julie have than Lucy? Ex. ("How many fewer?" version): Lucy has two apples. Julie has five apples. How many fewer apples does Lucy have than Julie? <math>2 + ? = 5</math>, <math>5 - 2 = ?</math></p>	<p>Manipulatives/Materials: objects, paper, pencil, flashcards, ; CGI strategies; HC lessons: 8.5, 14.1, 14.4, 29.1, 29.4; Vocabulary: adding to, taking from, putting together, taking apart, comparing with unknowns in all positions, number sentence, symbol; Other Resources: see Common Core Glossary Table 1, HC Mega Math "Carnival Stories"</p>
	<p>(K). Compare: Bigger Unknown Ex. (Version with "more"): Julie has three more apples than Lucy. Lucy has two apples. How many apples does Julie have? Ex. (Version with "fewer"): Lucy has 3 fewer apples than Julie. Lucy has two apples. How many apples does Julie have? <math>2 + 3 = ?</math>, <math>3 + 2 = ?</math></p>	<p>Manipulatives/Materials: objects, paper, pencil, flashcards, ; CGI strategies; HC lessons: 8.5, 14.1, 14.4, 29.1, 29.4; Vocabulary: adding to, taking from, putting together, taking apart, comparing with unknowns in all positions, number sentence, symbol; Other Resources: see Common Core Glossary Table 1, HC Mega Math "Carnival Stories"</p>

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# Common Core Math Curriculum Map

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TEXARKANA SCHOOL DISTRICT - GRADE 1 MATH

2011 - 2012

Module 4 - Math      Start: 1/3/2012    Teaching Days: 26      Test: 2/9/2012      Remediation Days: 1    End: 2/10/2012

Common Core Standard Materials / References

Represent and solve problems involving addition and subtraction

<p>(L). Compare: Smaller Unknown          Ex. (Version with "more"): Julie has three more apples than Lucy. Julie has five apples. How many more apples does Lucy have?          Ex. (Version with "fewer"): Lucy has 3 fewer apples than Julie. Julie has five apples. How many apples does Lucy have?  <math>5 - 3 = ?</math>, <math>? + 3 = 5</math></p>	<p>Manipulatives/Materials: objects, paper, pencil, flashcards, ; CGI strategies; HC lessons: 8.5, 14.1, 14.4, 29.1, 29.4; Vocabulary: adding to, taking from, putting together, taking apart, comparing with unknowns in all positions, number sentence, symbol; Other Resources: see Common Core Glossary Table 1, HC Mega Math "Carnival Stories"</p>
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Represent and interpret data

<p>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.</p>	<p>Manipulatives/Materials: examples of different types of graphs; CGI strategies; HC lessons: 9.2, 9.5, 9.6, 9.7, 12.5; Vocabulary: bar graphs, pictographs, Venn diagram, T-chart, data, collection, graph, true statement, key, title, label, how many more or less (in one category than in another); Other Resources: HC Mega Math "White Water Graphing"</p>
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6 testable standards End of Module 4

**ALIGNMENT NOTES**

<b>1.MD.4</b>
Graphs should be used to introduce Compare Problems in real-life context.

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Extend the counting sequence		Materials / References
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.	Manipulatives/Materials: base ten blocks, ten frames, counters, number word cards, 100s chart, number line, calculators; CGI strategies; HC lessons: 2nd grade lessons 1.5, 7.3, 9.3; Vocabulary: tally marks, digit, tens, ones
Understand place value		
1.NBT.2	Understand that the two digits of a two-digit number represent amounts of tens and ones.	Manipulatives/Materials: objects (cubes, counters, teddy bears, etc), CGI strategies; HC lessons: 10.2, 10.3, 10.4, 10.5; Vocabulary: set, grouping, place value, tens, ones, bundle(s), strategy, skip counting by 10
a.	Also understand the following as a special case: 10 can be thought of as a bundle of ten ones -- callen a "ten."	Manipulatives/Materials: objects (cubes, counters, teddy bears, etc), CGI strategies; HC lessons: 10.2; Vocabulary: set, grouping, tens, ones, bundle(s)
b.	Also understand the following as a special case: The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.	Manipulatives/Materials: objects (cubes, counters, teddy bears, etc), CGI strategies; HC lessons: 10.3, 10.4, 10.5; Vocabulary: grouping, place value, tens, ones
c.	Also understand the following as a special case: The numbers 10, 20, 30, 40, 50, 60, 70, 80, and 90 refers to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).	Manipulatives/Materials: objects (cubes, counters, teddy bears, etc), CGI strategies; HC lessons: 10.2, 10.3, 10.4, 10.5; Vocabulary: grouping, place value, tens, ones, strategy,
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 $<$ .	Manipulatives/Materials: 100s chart, number line, number cube, different color connecting cubes; CGI strategies; HC lessons: 11.1, 11.2, 11.3, 2nd grade lessons 3.2, 24.5; Vocabulary: greater than ( $>$ ), less than ( $<$ ), equal to ( $=$ ), same (amount as), compare, sequence; Other Resources: HC Mega Math "Harrison's Comparisons"

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<b>Use place value understanding and properties of operations to add and subtract</b>
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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.	Manipulatives/Materials: base ten blocks, tens/ones workmats, number grid; CGI strategies; HC lessons: 2nd grade lessons AR-7, 7.5, 8.2, 9.1, 10.1, 10.2; Vocabulary: two-digit number, strategies, compose, decompose, place value, compatible number, compensatory number, commutative property of addition, associative property of addition
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.	Manipulatives/Materials: 100s chart, number line, manipulatives, base ten blocks, sets of ten; CGI strategies; HC lessons: 2nd grade lessons 3.4, 7.2, 9.1, 9.2; Vocabulary: ten more, ten less
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.	Manipulatives/Materials: 100s chart, number line, manipulatives, base ten blocks, sets of ten; CGI strategies; HC lessons: 2nd grade lessons 3.4, 7.2, 9.1, 9.2; Vocabulary: ten more, ten less

<b>Represent and solve problems involving addition and subtraction</b>
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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.	
	(C). Add to: Start Unknown Ex. Some bunnies were sitting on the grass. Three more bunnies hopped there. Then there were five bunnies. How many bunnies were on the grass before? $? + 3 = 5$	Manipulatives/Materials: objects, paper, pencil, flashcards, ; CGI strategies; HC lessons: 8.5, 14.1, 14.4, 29.1, 29.4; Vocabulary: adding to, taking from, putting together, taking apart, comparing with unknowns in all positions, number sentence, symbol; Other Resources: see Common Core Glossary Table 1, HC Mega Math "Carnival Stories"
	(F). Take from: Start Unknown Ex. Some apples were on the table. I ate two apples. Then there were three apples. How many apples were on the table before? $? - 2 = 3$	Manipulatives/Materials: objects, paper, pencil, flashcards, ; CGI strategies; HC lessons: 8.5, 14.1, 14.4, 29.1, 29.4; Vocabulary: adding to, taking from, putting together, taking apart, comparing with unknowns in all positions, number sentence, symbol; Other Resources: see Common Core Glossary Table 1, HC Mega Math "Carnival Stories"

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Represent and solve problems involving addition and subtraction	
<p>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.</p>	
<p>(G). Put Together/Take Apart: Total Unknown Ex. Three red apples and two green apples are on the table. How many apples are on the table? <math>3 + 2 = ?</math></p>	<p>Manipulatives/Materials: objects, paper, pencil, flashcards, ; CGI strategies; HC lessons: 8.5, 14.1, 14.4, 29.1, 29.4; Vocabulary: adding to, taking from, putting together, taking apart, comparing with unknowns in all positions, number sentence, symbol; Other Resources: see Common Core Glossary Table 1, HC Mega Math "Carnival Stories"</p>
<p>(H). Put Together/Take Apart: Addend Unknown Ex. Five apples are on the table. Three are red, and the rest are green. How many apples are green? <math>3 + ? = 5</math>, <math>5 - 3 = ?</math></p>	<p>Manipulatives/Materials: objects, paper, pencil, flashcards, ; CGI strategies; HC lessons: 8.5, 14.1, 14.4, 29.1, 29.4; Vocabulary: adding to, taking from, putting together, taking apart, comparing with unknowns in all positions, number sentence, symbol; Other Resources: see Common Core Glossary Table 1, HC Mega Math "Carnival Stories"</p>
<p>(I). Put Together/Take Apart: Both Addends Unknown Ex. Grandma has 5 flowers. How many can she put in her red vase and how many in her blue vase? <math>5 = 0 + 5</math>, <math>5 = 5 + 0</math>; <math>5 = 1 + 4</math>, <math>5 = 4 + 1</math>; <math>5 = 3 + 2</math>, <math>5 = 2 + 3</math></p>	<p>Manipulatives/Materials: objects, paper, pencil, flashcards, ; CGI strategies; HC lessons: 8.5, 14.1, 14.4, 29.1, 29.4; Vocabulary: adding to, taking from, putting together, taking apart, comparing with unknowns in all positions, number sentence, symbol; Other Resources: see Common Core Glossary Table 1, HC Mega Math "Carnival Stories"</p>
<p>(J). Compare: Difference Unknown Ex. ("How many more?" version): Lucy has two apples. Julie has five apples. How many more apples does Julie have than Lucy? Ex. ("How many fewer?" version): Lucy has two apples. Julie has five apples. How many fewer apples does Lucy have than Julie? <math>2 + ? = 5</math>, <math>5 - 2 = ?</math></p>	<p>Manipulatives/Materials: objects, paper, pencil, flashcards, ; CGI strategies; HC lessons: 8.5, 14.1, 14.4, 29.1, 29.4; Vocabulary: adding to, taking from, putting together, taking apart, comparing with unknowns in all positions, number sentence, symbol; Other Resources: see Common Core Glossary Table 1, HC Mega Math "Carnival Stories"</p>

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<b>Represent and solve problems involving addition and subtraction</b>
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<p>(K). Compare: Bigger Unknown          Ex. (Version with "more"): Julie has three more apples than Lucy. Lucy has two apples. How many apples does Julie have?          Ex. (Version with "fewer"): Lucy has 3 fewer apples than Julie. Lucy has two apples. How many apples does Julie have?  <math>2 + 3 = ?</math>, <math>3 + 2 = ?</math></p>	<p>Manipulatives/Materials: objects, paper, pencil, flashcards, ; CGI strategies; HC lessons: 8.5, 14.1, 14.4, 29.1, 29.4; Vocabulary: adding to, taking from, putting together, taking apart, comparing with unknowns in all positions, number sentence, symbol;          Other Resources: see Common Core Glossary Table 1, HC Mega Math "Carnival Stories"</p>
<p>(L). Compare: Smaller Unknown          Ex. (Version with "more"): Julie has three more apples than Lucy. Julie has five apples. How many more apples does Lucy have?          Ex. (Version with "fewer"): Lucy has 3 fewer apples than Julie. Julie has five apples. How many apples does Lucy have?  <math>5 - 3 = ?</math>, <math>? + 3 = 5</math></p>	<p>Manipulatives/Materials: objects, paper, pencil, flashcards, ; CGI strategies; HC lessons: 8.5, 14.1, 14.4, 29.1, 29.4; Vocabulary: adding to, taking from, putting together, taking apart, comparing with unknowns in all positions, number sentence, symbol;          Other Resources: see Common Core Glossary Table 1, HC Mega Math "Carnival Stories"</p>

<b>Add and subtract within 20</b>
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<p>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., <math>8 + 6 = 8 + 2 + 4 = 10 + 4 = 14</math>); decomposing a number leading to a ten (e.g., <math>13 - 4 = 13 - 3 - 1 = 10 - 1 = 9</math>); using the relationship between addition and subtraction (e.g., knowing that <math>8 + 4 = 12</math>, one knows <math>12 - 8 = 4</math>); and creating equivalent but easier or known sums (e.g., adding <math>6 + 7</math> by creating the known equivalent <math>6 + 6 + 1 = 12 + 1 = 13</math>).</p>	
<p>(A). Addition</p>	<p>Manipulatives/Materials: objects (cubes, teddy bears, counters, etc), flash cards, ten frame, dominoes, number line, 100s chart, rulers, tens/ones workmat, fact triangles; CGI strategies; HC lessons: 1.3, 2.5, 4.5, 5.1, 5.2, 5.3, 6.1, 7.1, 7.2, 7.3, 7.4, 8.1, 8.4, 9.1, 13.2, 14.1, 14.2, 14.3, 14.5, 18.3, 2nd grade lesson 5.1, 5.2, 6.2, 7.1, 9.1 ; Vocabulary: whole numbers, fact family, number sentence, doubles, addition, counting all, counting on, identity property, ten frame, compose, strategy</p>

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Add and subtract within 20
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(B). Subtraction	Manipulatives/Materials: objects (cubes, teddy bears, counters, etc), flash cards, ten frames, dominoes, number line, 100s chart, rulers, tens/ones workmat, fact triangles; CGI strategies; HC lessons: 1.3, 2.5, 4.5, 5.1, 5.2, 5.3, 6.1, 7.1, 7.2, 7.3, 7.4, 8.1, 8.4, 9.1, 13.2, 14.1, 14.2, 14.3, 14.5, 18.3, 2nd grade lesson 5.1, 5.2, 6.2, 7.1, 9.1 ; Vocabulary: whole numbers, fact family, number sentence, subtraction, counting back, identity property, ten frame, decompose, strategy
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Work with addition and subtraction equations
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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? $6 = 6$ , $7 = 8 - 1$ , $5 + 2 = 2 + 5$ , $4 + 1 = 5 + 2$ .	Manipulatives/Materials: N/A; CGI strategies; HC lessons: AR-9 p. 553-554; Vocabulary: equal sign (=), addition, subtraction, number sentence, same as, equations, true, false
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Understand place value
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1.NBT.2 Understand that the two digits of a two-digit number represent amounts of tens and ones.	Manipulatives/Materials: objects (cubes, counters, teddy bears, etc), CGI strategies; HC lessons: 10.2, 10.3, 10.4, 10.5; Vocabulary: set, grouping, place value, tens, ones, bundle(s), strategy, skip counting by 10
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Use place value understanding and properties of operations to add and subtract
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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.	Manipulatives/Materials: base ten blocks, tens/ones workmats, number grid; CGI strategies; HC lessons: 2nd grade lessons AR-7, 7.5, 8.2, 9.1, 10.1, 10.2; Vocabulary: two-digit number, strategies, compose, decompose, place value, compatible number, compensatory number, commutative property of addition, associative property of addition
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Reason with shapes and their attributes
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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 compose new shapes from the composite shape.
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(A). 2-D Shapes	Manipulatives/Materials: geometric figures (triangle, rectangle, square, circle), toothpicks, string, color tiles, pencil, paper, etc.; CGI strategies; HC lessons: 15.3, 15.4; Vocabulary: geometric figures, triangle, rectangle, square, trapezoid, circle, half-circle, quarter circle, size, characteristics/attributes, properties, two-dimensional shapes; Other Resources: HC Mega Math "Undersea 3-D"
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(B). 3-D Shapes	Manipulatives/Materials: 3-dimensional solids (sphere, cube, rectangular prism, cone, cylinder); CGI strategies; HC lessons: 15.1, 15.2; Vocabulary: three-dimensional solids/shapes, sphere, cube, rectangular prism, cone, cylinder, characteristics/attributes, properties; Other Resources: HC Mega Math "Undersea 3-D", "Sea Cave Sorting"
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13 testable standards	End of Module 6
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### ALIGNMENT NOTES

Review
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This is all review/solidification of important skills.
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