

Pine Hill Public Schools Curriculum

Content Area:	Mathematics		
Course Title/ Grade Level:	Kindergarten (enVisions Program)		
Unit 1:	One to Five	Month:	September
Unit 2:	Comparing and Ordering 0-5	Month:	September/October
Unit 3:	Six to Ten	Month:	October
Unit 4:	Comparing and Ordering Numbers 0-10	Month:	October/November
Unit 5:	Numbers to 20	Month:	November
Unit 6:	Numbers to 100	Month:	November/December
Unit 7:	Understanding Addition	Month:	December
Unit 8:	Understanding Subtraction	Month:	January
Unit 9:	More Addition and Subtraction	Month:	January/February
Unit 10:	Composing Numbers 11 to 19	Month:	February
Unit 11:	Decomposing Numbers 11 to 19	Month:	February
Unit 12:	Measurement	Month:	February/March
Unit 13:	Sorting, Classifying, Counting, and Categorizing Data	Month:	March
Unit 14:	Identifying and Describing Shapes	Month:	March/April
Unit 15:	Position and Location of Shapes	Month:	April
Unit 16:	Analyzing, Comparing, and Composing Shapes	Month:	April/May
Date Created or Revised:	11/08/2011		
BOE Approval Date:			

Pine Hill Public Schools

Mathematics Curriculum

Unit Title: One to Five

Unit #: 1

Course or Grade Level: Math Kindergarten

Length of Time: 3 weeks

Date Created: 11-8-11

BOE Approval Date:

Pacing

Week #1: 4 days – benchmark assessment administration
 Week #2 & 3: 9 days – 1 day per lesson + review and topic test
 2012-13 Dates: Sept. 6-Sept. 21

Essential Questions

How can numbers from 1 to 5 be counted, read and written?

Content

Number counting 1, 2, 3
 Number counting 1, 2, 3 in different arrangements
 Number reading and writing 1, 2, 3
 Number counting 4, 5
 Number counting 4, 5 in different arrangements
 Number reading and writing 4, 5
 Problem solving: Use objects

Skills

Use objects to represent and count the quantities 1, 2, 3
 Identify whether a set includes 1, 2, or 3 objects, regardless of how objects are arranged.
 Recognize and write the numerals that describe the quantities 1, 2, 3
 Use objects to represent and count the quantities 4, 5
 Identify whether a set includes 4 or 5 objects, regardless of how objects are arranged.
 Recognize and write the numerals that describe the quantities 4, 5
 Solve problems by using objects

Assessments

Formative: Placement test, teacher observation, quick check, quizzes, white board and smart board activities
 Summative: Topic test and benchmarks

Interventions / differentiated instruction

ELL: Use repetition, partner-talk, visual learning animation
 Reteach masters
 On-level masters
 Enrichment masters
 Centers

Inter-disciplinary Connections

- Altering word problems to reflect current classroom themes
- Theme based center activities

Lesson resources / activities

Pearson Website
 Smart Board
 Manipulatives
 Student lesson pages

Common Core State Standards

Grade or Conceptual Category (HS only): Kindergarten

Domain (name and #): K.CC Counting and Cardinality

Cluster: Know number names and the count sequence	K.CC.3 Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).
Cluster: Count to tell the number of objects	<p>K.CC.4 Understand the relationship between numbers and quantities; connect counting to cardinality.</p> <p>K.CC.4.a When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.</p> <p>K.CC.4.b Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.</p> <p>K.CC.5 Count to answer “how many?” questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects.</p>

Math Practices:

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

21st Century Themes

	Global Awareness	X	Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy
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21st Century Skills

	Creativity and Innovation	X	Critical Thinking and Problem Solving	X	Communication and Collaboration		Information Literacy
	Media Literacy		ICT Literacy	X	Life and Career Skills		

Pine Hill Public Schools

Mathematics Curriculum

Unit Title: Comparing and Ordering 0-5

Unit #: 2

Course or Grade Level: Kindergarten Math

Length of Time: 2 ½ weeks

Date Created: 11/8/2011

BOE Approval Date:

Pacing

Week #1: Lessons 2.1 through 2.5
 Week #2: Lessons 2.6 through 2.9
 Week #3: Review and topic test
 2012-13 Dates: Sept. 24-Oct. 9

Essential Questions

How can numbers from 0-5 be compared and ordered?

Content

Number: More, Fewer, and Same As
 Number: 1 and 2 More
 Number: 1 and Two Fewer
 Number: 0
 Number: Reading and Writing 0
 Number: As Many, More, and Fewer
 Number: Ordering Numbers 0-5
 Number: Ordinal Numbers Through Fifth
 Problem Solving with Objects

Skills

Use one-to- one correspondence to compare objects or two groups and decide whether one group has more, fewer, or the same number as the other group.
 Recognize and identify a group of objects that has one more or two more in another group.
 Recognize and identify a group of objects that has one fewer or two fewer than another group.
 Understand that 0 means none.
 Recognize and write the numeral that describes the quantity of 0.
 Use objects to order numbers 0-5 in sequence.
 Use words first through fifth to identify ordinal positions.
 Use objects to show the number in each group, order the number of objects in each group, and identify the group that has the most or fewest number of objects.

Assessments

Formative: Teacher Observation, Placement Test Quick check, Quizzes, white boards/Smart Boards Summative: Topic Test, Benchmark Assessments.

Interventions / differentiated instruction

ELL: Use repetition, Partner Talk, Visual Learning Animation
 Re-teach Masters
 On-level Masters
 Enrichment Masters
 Centers

Inter-disciplinary Connections

- Altering word problems to reflect current classroom themes
- Theme based center activities

Lesson resources / activities

Pearson Website
 Smart Board
 Manipulatives as Needed
 Student lesson page.

Common Core State Standards

Grade or Conceptual Category (HS only): Kindergarten

Domain (name and #): K.CC Counting and Cardinality

Cluster: Know number names and the count sequence. **K.CC.3** Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).

Cluster: Count to tell the number of objects. **K.CC.4** Understand the relationship between numbers and quantities; connect counting to cardinality
K.CC.4.b Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.
K.CC.4.c Understand that each successive number name refers to a quantity that is one larger.
K.CC.5 Count to answer “how many?” questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects.

Cluster:Comparing Numbers **K.CC.6** Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies.

Math Practices:
 Make sense of problems and persevere in solving them.
 Reason abstractly and quantitatively.
 Construct viable arguments and critique the reasoning of others.
 Model with mathematics.
 Use appropriate tools strategically.
 Attend to precision.
 Look for and make use of structure.
 Look for and express regularity in repeated reasoning.

21st Century Themes

	Global Awareness	X	Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy
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21st Century Skills

	Creativity and Innovation	X	Critical Thinking and Problem Solving	X	Communication and Collaboration		Information Literacy
	Media Literacy		ICT Literacy	X	Life and Career Skills		

Pine Hill Public Schools

Mathematics Curriculum

Unit Title: Six to Ten		Unit #: 3
Course or Grade Level: Math Kindergarten		Length of Time: 2 weeks, 1 day
Date Created: 11-8-11		BOE Approval Date:
Pacing	Week #1: Lessons 3.1 through 3.3 Week #2: Lessons 3.4 through 3.7, review Week #3: Topic Test 10/22/12 2012-13 Dates: Oct. 10 through Oct. 22	
Essential Questions	How can numbers from six to ten be counted, read, and written?	
Content	Number counting 6, 7 Number reading and writing 6, 7 Number counting 8, 9 Number reading and writing 8, 9 Number counting 10 Number reading and writing 10 Problem solving: Look for a pattern	
Skills	Use objects to represent and count the quantities 6, 7 Recognize and write the numerals that describe the quantities 6, 7 Use objects to represent and count the quantities 8, 9. Recognize and write the numerals that describe the quantities 8, 9 Use objects to represent and count the quantity 10 Recognize and write the numeral that describes the quantity 10 Solve problems by identifying growing patterns and predicting what comes next.	
Assessments	Formative: Placement test, teacher observation, quick check, quizzes, white board and smart board activities Summative: Topic test and benchmarks	
Interventions / differentiated instruction	ELL: Use repetition, partner-talk, visual learning animation Reteach masters On-level masters Enrichment masters Centers	
Inter-disciplinary Connections	<ul style="list-style-type: none"> ▪ Altering word problems to reflect current classroom themes ▪ Theme based center activities 	
Lesson resources / activities	Pearson Website Smart Board Manipulatives Student lesson pages	
Common Core State Standards		
Grade or Conceptual Category (HS only): Kindergarten		

Domain (name and #): Counting and Cardinality K.CC

Cluster: Know number names and the count sequence	K.CC.3 Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).
Cluster: Count to tell the number of objects	<p>K.CC.4 Understand the relationship between numbers and quantities; connect counting to cardinality.</p> <p>K.CC.4.a When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.</p> <p>K.CC.4.b Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.</p> <p>K.CC.4.c Understand that each successive number name refers to a quantity that is one larger.</p> <p>K.CC.5 Count to answer “how many?” questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects.</p>

Math Practices:

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

21st Century Themes

	Global Awareness	X	Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy
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21st Century Skills

	Creativity and Innovation	X	Critical Thinking and Problem Solving	X	Communication and Collaboration		Information Literacy
	Media Literacy		ICT Literacy	X	Life and Career Skills		

Pine Hill Public Schools

Mathematics Curriculum

Unit Title: Comparing and Ordering Numbers 0-10

Unit #: 4

Course or Grade Level: Kindergarten Math

Length of Time: 3 ½ weeks

Date Created: 11\8\2011

BOE Approval Date:

Pacing

Week #1: Lessons 4.1 through 4.4
 Week #2: Lessons 4.5 through 4.8
 Week #3: Lessons 4.9 and 4.10
 Week #4: Review and test
 2012-13 Dates: Oct. 23 through Nov. 14

Essential Questions

How can numbers 0-10 be compared and ordered?

Content

Number: Comparing and ordering 0-10
 Number: Comparing to 5
 Number: Comparing to 10
 Number: One more
 Number: One fewer
 Number: Two more
 Number: Two fewer
 Number: Ordering through 10
 Number: Ordering on a number line
 Problem Solve with Objects

Skills

Compare two numbers using sets of objects and one-to-one correspondence to determine which number is greater and which number is less.
 Tell if the number is greater or less than 5, given a number from 0-5.
 Decide if the number is greater or less than 10, given a number or set from 0-12.
 Use counting to identify a number that is one more than another number.
 Use counting to identify a number that is one fewer than another number.
 Use counting to identify a number that is two more than another number.
 Use counting to identify a number that is two fewer than another number.
 Order numbers from 0-10 in sequence.
 Use a number line to count number 0-10 in order.
 Solve problems by using counters to show one more and two more.

Assessments

Formative: Teacher Observation, Placement Test Quick check, Quizzes, white boards/Smart Boards Summative: Topic Test, Benchmark Assessments.

Interventions / differentiated instruction

ELL: Use repetition, Partner Talk, Visual Learning Animation
 Re-teach Masters
 On-level Masters
 Enrichment Masters
 Centers

Inter-disciplinary Connections

- Altering word problems to reflect current classroom themes
- Theme based center activities

Lesson resources / activities	Pearson Website Smart Board Manipulative as Needed Student lesson page.
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Common Core State Standards

Grade or Conceptual Category (HS only): Kindergarten

Domain (name and #): K.CC Counting and Cardinality K.CC

Cluster: Know number names and the count sequence.	K.CC.2 Count forward beginning from a given number within the known sequence (instead of having to begin at 1).
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Cluster: Compare Numbers	K.CC.4.c Understand that each successive number name refers to a quantity that is one larger. K.CC.6 Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies.1 K.CC.7 Compare two numbers between 1 and 10 presented as written numerals.
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Domain (name and #): K.OA Operations and Algebraic Thinking

Cluster: Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.	K.OA.1 1. Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.
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Math Practices:
 Make sense of problems and persevere in solving them.
 Reason abstractly and quantitatively.
 Construct viable arguments and critique the reasoning of others.
 Model with mathematics.
 Use appropriate tools strategically.
 Attend to precision.
 Look for and make use of structure.
 Look for and express regularity in repeated reasoning.

21st Century Themes

Global Awareness	X	Financial, Economic, Business, and Entrepreneurial Literacy	Civic Literacy	Health Literacy
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21st Century Skills

Creativity and Innovation	X	Critical Thinking and Problem Solving	X	Communication and Collaboration	Information Literacy
Media Literacy		ICT Literacy	X	Life and Career Skills	

Pine Hill Public Schools

Mathematics Curriculum

Unit Title: Numbers to 20		Unit #: 5
Course or Grade Level: Math Kindergarten		Length of Time: 2 ½ weeks
Date Created: 11-8-11		BOE Approval Date:
Pacing	Week #1: Lessons 5.1 & 5.2 Week #2: Lessons 5.3 & 5.4 Week #3: Lesson 5.5, review and test 2012-13 Dates: Nov. 15 through Nov. 28	
Essential Questions	How can numbers to 20 be counted, read and written?	
Content	Number counting, reading and writing 11, 12 Number counting, reading and writing 13, 14, 15 Number counting, reading and writing 16, 17 Number counting, reading and writing 18, 19, 20 Problem solving: Use logical reasoning	
Skills	Recognize and write the numerals that describe the quantities 11, 12 Recognize and write the numerals that describe the quantities 13, 14, 15 Recognize and write the numeral that describes the quantity 16, 17 Recognize and write the numerals that describe the quantities 18, 19, 20 Solve problems by applying logical reasoning to identify missing numbers in a number sequence.	
Assessments	Formative: Placement test, teacher observation, quick check, quizzes, white board and smart board activities Summative: Topic test and benchmarks	
Interventions / differentiated instruction	ELL: Use repetition, partner-talk, visual learning animation Reteach masters On-level masters Enrichment masters Centers	
Inter-disciplinary Connections	<ul style="list-style-type: none"> ▪ Altering word problems to reflect current classroom themes ▪ Theme based center activities 	
Lesson resources / activities	Pearson Website Smart Board Manipulatives Student lesson pages	
Common Core State Standards		
Grade or Conceptual Category (HS only): Kindergarten		
Domain (name and #): K.CC Counting and Cardinality		

Cluster: Know number names and the count sequence	K.CC.2 Count forward beginning from a given number within the known sequence (instead of having to begin at 1). K.CC.3 Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).
Cluster: Count to tell the number of objects	K.CC.4.b Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted

Math Practices:

Make sense of problems and persevere in solving them.

Reason abstractly and quantitatively.

Construct viable arguments and critique the reasoning of others.

Model with mathematics.

Use appropriate tools strategically.

Attend to precision.

Look for and make use of structure.

Look for and express regularity in repeated reasoning.

21st Century Themes

	Global Awareness	X	Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy
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21st Century Skills

	Creativity and Innovation	X	Critical Thinking and Problem Solving	X	Communication and Collaboration		Information Literacy
	Media Literacy		ICT Literacy	X	Life and Career Skills		

**Pine Hill Public Schools
Mathematics Curriculum**

Unit Title: Numbers to 100

Unit #: 6

Course or Grade Level: Math Kindergarten

Length of Time: 2 weeks, 1 day

Date Created: 11-8-11

BOE Approval Date:

Pacing

Week #1: Lessons 6.1 & 6.2
Week #2: Lessons 6.3 through 6.6, review
Week #3: Test 12/10/12
2012-13 Dates: Nov. 29 through Dec. 10

Essential Questions

How can numbers to 100 be counted using a hundred chart?

Content

Number counting to 30
Estimation: About How Many?
Number counting to 100
Number counting groups of 10
Patterns on a hundred chart: Skip-counting
Problem solving: Look for a pattern

Skills

Count to 30 objects
Use benchmarks to estimate quantities of groups
Count and write numbers to 100 on the hundred chart
Count groups of 10 up to 10 tens, and write how many
Use a hundred chart to recognize patterns when counting by 2's, 5's, and 10's
Solve problems by looking for a pattern

Assessments

Formative: Placement test, teacher observation, quick check, quizzes, white board and smart board activities
Summative: Topic test and benchmarks

Interventions / differentiated instruction

ELL: Use repetition, partner-talk, visual learning animation
Reteach masters
On-level masters
Enrichment masters
Centers

Inter-disciplinary Connections

- Altering word problems to reflect current classroom themes
- Theme based center activities

Lesson resources / activities

Pearson Website
Smart Board
Manipulatives
Student lesson pages

Common Core State Standards

Grade or Conceptual Category (HS only): Kindergarten

Domain (name and #): K.CC Counting and Cardinality

Cluster: Know number names and the counting sequence	K.CC.1 Count to 100 by ones and by tens K.CC.2 Count forward beginning from a given number within the known sequence (instead of having to begin at 1).
Cluster: Count to tell the number of objects	K.CC.4.b Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted K.CC.4.c Understand that each successive number name refers to a quantity that is one larger. K.CC.5 Count to answer “how many?” questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects.

Math Practices:

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

21st Century Themes

	Global Awareness	X	Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy
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21st Century Skills

	Creativity and Innovation	X	Critical Thinking and Problem Solving	X	Communication and Collaboration		Information Literacy
	Media Literacy		ICT Literacy	X	Life and Career Skills		

**Pine Hill Public Schools
Mathematics Curriculum**

Unit Title: Understanding Addition

Unit #: 7

Course or Grade Level: Kindergarten Math

Length of Time: 2 weeks

Date Created: 11/8/2011

BOE Approval Date:

Pacing

Week #1: Lessons 7.1 through 7.3
Week #2: Lessons 7.4 through 7.7, review and test
2012-13 Dates: Dec. 12 through Dec. 21

Essential Questions

How can numbers from 0-20 be counted, read, and written?

Content

Addition: Stories about joining
Addition: More joining
Addition: Using the plus sign
Addition: Finding sums
Addition: Addition Sentences
Problem Solving: Draw a picture

Skills

Act out number stories that involve joining two groups
Interpret illustrations that show joining groups and write the corresponding numbers.
Determine how many there are altogether when two groups are joined.
Use the plus sign to represent joining groups when recording addition.
Identify and use the equal sign; add and write the sum.
Write and solve addition sentences to represent joining situations.
Solve problems by drawing pictures about joining two groups

Assessments

Formative: Teacher Observation, Placement Test Quick check, Quizzes, white boards/Smart Boards Summative: Topic Test, Benchmark Assessments.

Interventions / differentiated instruction

ELL: Use repetition, Partner Talk, Visual Learning Animation
Re-teach Masters
On-level Masters
Enrichment Masters
Centers

Inter-disciplinary Connections

- Altering word problems to reflect current classroom themes
- Theme based center activities

Lesson resources / activities

Pearson Website
Smart Board
Manipulatives as needed
Student lesson page.

Common Core State Standards

Grade or Conceptual Category (HS only): Kindergarten

Domain (name and #): K.OA Operations and Algebraic Thinking

Cluster: Understanding addition as putting together and adding to and understand subtraction as taking apart and taking from	K.OA.1 Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.
	K.OA.2 Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.
	K.OA.5 Fluently add and subtract within 5. Include groups with up to ten objects

Math Practices:
 Make sense of problems and persevere in solving them.
 Reason abstractly and quantitatively.
 Construct viable arguments and critique the reasoning of others.
 Model with mathematics.
 Use appropriate tools strategically.
 Attend to precision.
 Look for and make use of structure.
 Look for and express regularity in repeated reasoning.

21st Century Themes

	Global Awareness	X	Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy
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21st Century Skills

	Creativity and Innovation	X	Critical Thinking and Problem Solving	X	Communication and Collaboration		Information Literacy
	Media Literacy		ICT Literacy	X	Life and Career Skills		

Pine Hill Public Schools

Mathematics Curriculum

Unit Title: Understanding Subtraction

Unit #: 8

Course or Grade Level: Math Kindergarten

Length of Time: 2 ½ weeks

Date Created: 11-8-11

BOE Approval Date:

Pacing

Week #1: Lessons 8.1 through 8.3
 Week #2: Lessons 8.4 through 8.8
 Week #3: Review and test
 2012-13 Dates: Jan. 2 through Jan. 15
Mid-year benchmark: Jan. 16 and Jan. 17

Essential Questions

What types of situations involve subtraction?

Content

Subtraction: Stories about separating
 Subtraction: Stories about take-away
 Subtraction: Stories about comparing
 Problem solving: Act it out
 Subtraction: Minus sign usage
 Subtraction: Differences
 Subtraction: Subtraction sentences
 Problem solving: Use objects

Skills

Act out number stories that involve separating two groups
 Determine how many are left when some objects in a group are taken away
 Compare two groups to find how many more or fewer
 Solve problems by acting out subtraction word problems and record the answers
 Use the minus sign to represent “take-away” situations when recording subtraction
 Use the equal sign, subtract, and write the difference
 Write and solve subtraction sentences to represent take-away situations
 Solve problems by choosing addition or subtraction

Assessments

Formative: Placement test, teacher observation, quick check, quizzes, white board and smart board activities
 Summative: Topic test and benchmarks

Interventions / differentiated instruction

ELL: Use repetition, partner-talk, visual learning animation
 Reteach masters
 On-level masters
 Enrichment masters
 Centers

Inter-disciplinary Connections

- Altering word problems to reflect current classroom themes
- Theme based center activities

Lesson resources / activities

Pearson Website
 Smart Board
 Manipulatives
 Student lesson pages

Common Core State Standards

Grade or Conceptual Category (HS only): Kindergarten

Domain (name and #): K.OA Operations and Algebraic Thinking

Cluster: Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.	K.OA.1 Represent addition and subtraction with objects, fingers, mental images, drawings ² , sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.
	K.OA.2 Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.
	K.OA.5 Fluently add and subtract within 5. Include groups with up to ten objects

Math Practices:
 Make sense of problems and persevere in solving them.
 Reason abstractly and quantitatively.
 Construct viable arguments and critique the reasoning of others.
 Model with mathematics.
 Use appropriate tools strategically.
 Attend to precision.
 Look for and make use of structure.
 Look for and express regularity in repeated reasoning.

21st Century Themes

	Global Awareness	X	Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy
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21st Century Skills

	Creativity and Innovation	X	Critical Thinking and Problem Solving	X	Communication and Collaboration		Information Literacy
	Media Literacy		ICT Literacy	X	Life and Career Skills		

**Pine Hill Public Schools
Mathematics Curriculum**

Unit Title: More Addition and Subtraction

Unit #: 9

Course or Grade Level: Kindergarten

Length of Time: 3 weeks, 1 day

Date Created: 11/8/11

BOE Approval Date:

Pacing

Week #1: Lesson 9.1
 Week #2: Lessons 9.2 through 9.5
 Week #3: Lessons 9.6 through 9.9, review
 Week #4: Test 2/4/13
 2012-13 Dates: Jan. 18 through Feb. 4

Essential Questions

What are the different ways to make a number?

Content

Numbers 4 and 5
 Numbers 6 and 7
 Numbers 8 and 9
 Number 10

Skills

Use objects to show number 4 through 10 in two parts.
 Write number sentences to show decomposition of numbers 4 through 10.

Assessments

Formative: Anecdotal Records, Teacher Observations, Worksheet Pages
 Summative: Topic Test (Constructed response, Multiple Choice), Benchmark Test at Beginning, Middle, and End of Year, Performance Task

Interventions / differentiated instruction

Re-teach Masters
 On-level Masters
 Enrichment Maters
 Centers
 ELL Mini -Lessons

Inter-disciplinary Connections

- Altering word problems to reflect current classroom themes
- Theme based center activities

Lesson resources / activities

Pearson Website
 Smartboard
 enVision Test
 Manipulatives (As Needed)

Common Core State Standards

Grade or Conceptual Category (HS only): Kindergarten

Domain (name and #): K.OA Operations and Algebraic Thinking

Cluster: Understand addition as putting together and adding to.	<p>K.OA.3 Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., $5 = 2 + 3$ and $5 = 4 + 1$).</p> <p>K.OA.4 For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g. by using objects or drawings, and record the answer with a drawing or equation</p>
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Math Practices:

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

21st Century Themes

	Global Awareness	X	Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy
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21st Century Skills

	Creativity and Innovation	X	Critical Thinking and Problem Solving	X	Communication and Collaboration		Information Literacy
	Media Literacy		ICT Literacy	X	Life and Career Skills		

Pine Hill Public Schools

Mathematics Curriculum

Unit Title: Composing Numbers 11 to 19

Unit #: 10

Course or Grade Level: Kindergarten

Length of Time: 1 ½ weeks

Date Created: 11/8/11

BOE Approval Date:

Pacing

Week #1: Lessons 10.1 through 10.4
 Week #2: Review and test
 2012-13 Dates: Feb. 5 through Feb. 12

Essential Questions

How can you add 1 ten and some ones to make the numbers 11 to 19?

Content

Numbers 11 to 19

Skills

Represent 11 to 19 as the composition of 10 plus a number.

Assessments

Formative: Anecdotal Records, Teacher Observations, Worksheet Pages
 Summative: Topic Test (Constructed response, Multiple Choice), Benchmark Test at Beginning, Middle, and End of Year, Performance Task

Interventions / differentiated instruction

Re-teach Masters
 On-level Masters
 Enrichment Maters
 Centers
 ELL Mini -Lessons

Inter-disciplinary Connections

- Altering word problems to reflect current classroom themes
- Theme based center activities

Lesson resources / activities

Pearson Website
 Smartboard
 enVision Test
 Manipulatives (As Needed)

Common Core State Standards

Grade or Conceptual Category (HS only): Kindergarten

Domain (name and #): Number and Operations in Base Ten

Cluster: Work with numbers 11-19 to gain foundations for place value

K.NBT.1 1. Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (e.g., $18 = 10 + 8$); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.

Math Practices:

Make sense of problems and persevere in solving them.

Reason abstractly and quantitatively.

Construct viable arguments and critique the reasoning of others.

Model with mathematics.

Use appropriate tools strategically.

Attend to precision.

Look for and make use of structure.

Look for and express regularity in repeated reasoning.

21st Century Themes

	Global Awareness	X	Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy
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21st Century Skills

	Creativity and Innovation	X	Critical Thinking and Problem Solving	X	Communication and Collaboration		Information Literacy
	Media Literacy		ICT Literacy	X	Life and Career Skills		

Pine Hill Public Schools

Mathematics Curriculum

Unit Title: Decomposing Numbers 11 to 19

Unit #: 11

Course or Grade Level: Kindergarten

Length of Time: 2 weeks, 1 day

Date Created: 11/8/11

BOE Approval Date:

Pacing

Week #1: Lessons 11.1 and 11.2
 Week #2: Lessons 11.3 through 11.5, review
 Week #3: Test 2/25/13
 2012-13 Dates: Feb. 13 through Feb. 25

Essential Questions

How can we break the numbers 11-19 into parts?

Content

Sets to 19
 Parts of 11 - 19

Skills

Use objects to create sets to 19.
 Represent the decomposition of 11 – 19 as tens and ones.

Assessments

Formative: Anecdotal Records, Teacher Observations, Worksheet Pages
 Summative: Topic Test (Constructed response, Multiple Choice), Benchmark Test at Beginning, Middle, and End of Year, Performance Task

Interventions / differentiated instruction

Re-teach Masters
 On-level Masters
 Enrichment Maters
 Centers
 ELL Mini -Lessons

Inter-disciplinary Connections

- Altering word problems to reflect current classroom themes
- Theme based center activities

Lesson resources / activities

Pearson Website
 Smartboard
 enVision Test
 Manipulative (As Needed)

Common Core State Standards

Grade or Conceptual Category (HS only): Kindergarten

Domain (name and #): Number and Operations in Base Ten

Cluster: Work with numbers 11-19 to gain foundations for place value

#. Standard: **K.NBT.1** 1. Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (e.g., $18 = 10 + 8$); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.

Math Practices:

Make sense of problems and persevere in solving them.

Reason abstractly and quantitatively.

Construct viable arguments and critique the reasoning of others.

Model with mathematics.

Use appropriate tools strategically.

Attend to precision.

Look for and make use of structure.

Look for and express regularity in repeated reasoning.

21st Century Themes

	Global Awareness	X	Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy
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21st Century Skills

	Creativity and Innovation	X	Critical Thinking and Problem Solving	X	Communication and Collaboration		Information Literacy
	Media Literacy		ICT Literacy	X	Life and Career Skills		

Pine Hill Public Schools

Mathematics Curriculum

Unit Title: Measurement

Unit #: 12

Course or Grade Level: Kindergarten

Length of Time: 2 weeks, 1 day

Date Created: 11/8/11

BOE Approval Date:

Pacing

Week #1: Lessons 12.1 through 12.4
 Week #2: Lessons 12.5 through 12.8, review
 Week #3: Test 3/11/13
 2012-13 Dates: Feb. 26 through Mar. 11

Essential Questions

How can objects be compared and ordered by length, height, and weight?

Content

Length Comparison
 Height Comparison
 Weight Comparison

Skills

Recognize and describe measurable attributes of objects.
 Compare and order objects by length, height, and weight.

Assessments

Formative: Anecdotal Records, Teacher Observations, Worksheet Pages
 Summative: Topic Test (Constructed response, Multiple Choice), Benchmark Test at Beginning, Middle, and End of Year, Performance Task

Interventions / differentiated instruction

Re-teach Masters
 On-level Masters
 Enrichment Masters
 Centers
 ELL Mini -Lessons

Inter-disciplinary Connections

- Altering word problems to reflect current classroom themes
- Theme based center activities

Lesson resources / activities

Pearson Website
 Smartboard
 enVision Test
 Manipulative (As Needed)

Common Core State Standards

Grade or Conceptual Category (HS only): Kindergarten

Domain (name and #): K.MD Measurement and Data

Cluster: Describe and compare measurable attributes.

K.MD.1 Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.

	K.MD.2 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. <i>For example, directly compare the heights of two children and describe one child as taller/shorter.</i>
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Math Practices:
 Make sense of problems and persevere in solving them.
 Reason abstractly and quantitatively.
 Construct viable arguments and critique the reasoning of others.
 Model with mathematics.
 Use appropriate tools strategically.
 Attend to precision.
 Look for and make use of structure.
 Look for and express regularity in repeated reasoning.

21st Century Themes

	Global Awareness	X	Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy
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21st Century Skills

	Creativity and Innovation	X	Critical Thinking and Problem Solving	X	Communication and Collaboration		Information Literacy
	Media Literacy		ICT Literacy	X	Life and Career Skills		

Pine Hill Public Schools

Mathematics Curriculum

Unit Title: Sorting, Classifying, Counting, and Categorizing Data

Unit #: 13

Course or Grade Level: Kindergarten

Length of Time: 2 weeks

Date Created: 11/8/11

BOE Approval Date:

Pacing

Week #1: Lessons 13.1 through 13.4
 Week #2: Lessons 13.5 through 13.7, review and test
 2012-13 Dates: Mar. 12 through Mar. 22

Essential Questions

What are different ways objects can be grouped?

Content

Same and Different

Skills

Identify same and different by various attributes – color, shape, size, and kind
 Sort objects by one attribute
 Sort the same set in different ways

Assessments

Formative: Anecdotal Records, Teacher Observations, Worksheet Pages
 Summative: Topic Test (Constructed response, Multiple Choice), Benchmark Test at Beginning, Middle, and End of Year, Performance Task

Interventions / differentiated instruction

Re-teach Masters
 On-level Masters
 Enrichment Masters
 Centers
 ELL Mini -Lessons

Inter-disciplinary Connections

- Altering word problems to reflect current classroom themes
- Theme based center activities

Lesson resources / activities

Pearson Website
 Smartboard
 enVision Test
 Manipulatives (As Needed)

Common Core State Standards

Grade or Conceptual Category (HS only): Kindergarten

Domain (name and #): K.MD Measurement and Data; K.G Geometry

Cluster: Classify objects and count the number of objects in each category.

K.MD.3 Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.

Cluster: Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).	K.G.1 Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as <i>above</i> , <i>below</i> , <i>beside</i> , <i>in front of</i> , <i>behind</i> , and <i>next to</i> .
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Math Practices:
 Make sense of problems and persevere in solving them.
 Reason abstractly and quantitatively.
 Construct viable arguments and critique the reasoning of others.
 Model with mathematics.
 Use appropriate tools strategically.
 Attend to precision.
 Look for and make use of structure.
 Look for and express regularity in repeated reasoning.

21st Century Themes

	Global Awareness		Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy
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21st Century Skills

	Creativity and Innovation	X	Critical Thinking and Problem Solving	X	Communication and Collaboration		Information Literacy
	Media Literacy		ICT Literacy	X	Life and Career Skills		

**Pine Hill Public Schools
Mathematics Curriculum**

Unit Title: Identifying and Describing Shapes

Unit #: 14

Course or Grade Level: Kindergarten

Length of Time: 2 weeks, 1 day

Date Created: 11/8/11

BOE Approval Date:

Pacing

Week #1: Lessons 14.1 through 14.4
Week #2: Lessons 14.5 through 14.8, review
Week #3: Test 4/15/13
2012-13 Dates: Mar. 25 through Apr. 15

Essential Questions

How can shapes be named and described?

Content

Flat Shapes and Solid Figures

Skills

Identify and describe flat shapes and solid shapes.
Identify three dimensional figures and describe the shape of flat surfaces.

Assessments

Formative: Anecdotal Records, Teacher Observations, Worksheet Pages
Summative: Topic Test (Constructed response, Multiple Choice), Benchmark Test at Beginning, Middle, and End of Year, Performance Task

Interventions / differentiated instruction

Re-teach Masters
On-level Masters
Enrichment Masters
Centers
ELL Mini -Lessons

Inter-disciplinary Connections

- Altering word problems to reflect current classroom themes
- Theme based center activities

Lesson resources / activities

Pearson Website
Smartboard
enVision Test
Manipulatives (As Needed)

Common Core State Standards

Grade or Conceptual Category (HS only): Kindergarten

Domain (name and #): K.G Geometry

Cluster: Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).

K.G.2 Correctly name shapes regardless of their orientations or overall size

K.G.3. Identify shapes as two-dimensional (lying in a plane, “flat”) or three dimensional (“solid”).

Math Practices:

Make sense of problems and persevere in solving them.

Reason abstractly and quantitatively.

Construct viable arguments and critique the reasoning of others.

Model with mathematics.

Use appropriate tools strategically.

Attend to precision.

Look for and make use of structure.

Look for and express regularity in repeated reasoning.

21st Century Themes

	Global Awareness		Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy
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21st Century Skills

	Creativity and Innovation	X	Critical Thinking and Problem Solving	X	Communication and Collaboration		Information Literacy
	Media Literacy		ICT Literacy	X	Life and Career Skills		

**Pine Hill Public Schools
Mathematics Curriculum**

Unit Title: Position and Location of Shapes		Unit #: 15
Course or Grade Level: Kindergarten		Length of Time: 1 ½ weeks
Date Created: 11/8/ 11		BOE Approval Date:
Pacing	Week #1: Lessons 15.1 through 15.4 Week #2: Lessons 15.5, review and test 2012-13 Dates: Apr. 16 through Apr. 24	
Essential Questions	What words can be used to describe the position and location of shapes?	
Content	Locations and Positions	
Skills	Describe an object's location and position.	
Assessments	Formative: Anecdotal Records, Teacher Observations, Worksheet Pages Summative: Topic Test (Constructed response, Multiple Choice), Benchmark Test at Beginning, Middle, and End of Year, Performance Task	
Interventions / differentiated instruction	Re-teach Masters On-level Masters Enrichment Masters Centers ELL Mini -Lessons	
Inter-disciplinary Connections	<ul style="list-style-type: none"> ▪ Altering word problems to reflect current classroom themes ▪ Theme based center activities 	
Lesson resources / activities	Pearson Website Smartboard enVision Test Manipulatives (As Needed)	
Common Core State Standards		
Grade or Conceptual Category (HS only):		
Domain (name and #): K.G Geometry		
Cluster: Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).	K.G.1 Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as <i>above</i> , <i>below</i> , <i>beside</i> , <i>in front of</i> , <i>behind</i> , and <i>next to</i> .	

Math Practices:

Make sense of problems and persevere in solving them.

Reason abstractly and quantitatively.

Construct viable arguments and critique the reasoning of others.

Model with mathematics.

Use appropriate tools strategically.

Attend to precision.

Look for and make use of structure.

Look for and express regularity in repeated reasoning.

21st Century Themes

	Global Awareness		Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy
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21st Century Skills

	Creativity and Innovation	X	Critical Thinking and Problem Solving	X	Communication and Collaboration		Information Literacy
	Media Literacy		ICT Literacy	X	Life and Career Skills		

**Pine Hill Public Schools
Mathematics Curriculum**

Unit Title: Analyzing, Comparing, and Composing Shapes

Unit #: 16

Course or Grade Level: Kindergarten

Length of Time: 2 weeks

Date Created: 11/8/11

BOE Approval Date:

Pacing

Week #1: Lessons 16.1 and 16.2
Week #2: Lessons 16.3 through 16.5, review and test
2012-13 Dates: Apr. 25 through May 3
End-of-Year Benchmark: 5/6 & 5/7

Essential Questions

How can shapes be named, described, compared, and composed?

Content

Shape Comparison
Solid Figure Composing

Skills

Identify and draw figures that are the same size and shape.
Recognize that shapes can be combined to make other shapes.
Identify solid figures that roll, stack, and/or slide

Assessments

Formative: Anecdotal Records, Teacher Observations, Worksheet Pages
Summative: Topic Test (Constructed response, Multiple Choice), Benchmark Test at Beginning, Middle, and End of Year, Performance Task

Interventions / differentiated instruction

Re-teach Masters
On-level Masters
Enrichment Masters
Centers
ELL Mini -Lessons

Inter-disciplinary Connections

- Altering word problems to reflect current classroom themes
- Theme based center activities

Lesson resources / activities

Pearson Website
Smartboard
enVision Test
Manipulatives (As Needed)

Common Core State Standards

Grade or Conceptual Category (HS only): Kindergarten

Domain (name and #): K.G Geometry

Cluster: Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and

K.G.2 Correctly name shapes regardless of their orientations or overall size.

K.G.3 Identify shapes as two-dimensional (lying in a plane, "flat") or three dimensional ("solid").

cubes, cones, cylinders, and spheres).	K.G.4 Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/“corners”) and other attributes (e.g., having sides of equal length).
	K.G.5 Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes
Cluster: Analyze, compare, create, and compose shapes	K.G.6 Compose simple shapes to form larger shapes. <i>For example, “Can you join these two triangles with full sides touching to make a rectangle?”</i> Limit category counts to be less than or equal to 10.

Math Practices:

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

21st Century Themes

	Global Awareness		Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy
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21st Century Skills

	Creativity and Innovation	X	Critical Thinking and Problem Solving	X	Communication and Collaboration		Information Literacy
	Media Literacy		ICT Literacy	X	Life and Career Skills		

**Pine Hill Public Schools
Mathematics Curriculum**

Unit Title: Money		Unit #: 13 (Supplemental Lesson from EnVision 2009)
Course or Grade Level: Kindergarten		Length of Time: 4 weeks
Date Created: 1/17/12		BOE Approval Date:
Pacing	Week #1: Lessons 16.1 and 16.2 Week #2: Lessons 16.3 through 16.5, review and test 2012-13 Dates: May 8 through May 17 Supplemental Lessons: May 20 through June 3 (From Step Up and EnVision Math Diagnosis and Intervention System) A31; SL(Step Up)6; SL3; D2; D3; D7; SL9; SL10; A68)	
Essential Questions	What is the name and value of a given coin?	
Content	Penny Nickel Dime Quarter and Dollar Comparing Money Problem Solving: Act it Out	
Skills	Identify the value of a given set of pennies. Identify a nickel and its value, and find the value of a nickel and some pennies Identify a dime and its value, find the value of a given set of coins Identify a quarter and its value, and identify a dollar bill Compare the values of individual coins and combinations of coins through 10 cents Use coins to act out purchasing situations and show prices in different ways	
Assessments	Formative: Anecdotal Records, Teacher Observations, Worksheet Pages Summative: Topic Test (Constructed response, Multiple Choice), Benchmark Test at Beginning, Middle, and End of Year, Performance Task	
Interventions / differentiated instruction	Re-teach Masters On-level Masters Enrichment Maters Centers ELL Mini -Lessons	
Inter-disciplinary Connections	<ul style="list-style-type: none"> ▪ Altering word problems to reflect current classroom themes ▪ Theme based center activities 	
Lesson resources / activities	Pearson Website Smartboard enVision Test Manipulatives (As Needed)	

Common Core State Standards

Grade or Conceptual Category (HS only): Kindergarten**Domain (name and #): 2.MD Measurement and Data**

Cluster: Work with time and money	2.MD.8 Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and cent symbols appropriately.
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Math Practices:

Make sense of problems and persevere in solving them.
 Reason abstractly and quantitatively.
 Construct viable arguments and critique the reasoning of others.
 Model with mathematics.
 Use appropriate tools strategically.
 Attend to precision.
 Look for and make use of structure.
 Look for and express regularity in repeated reasoning.

21st Century Themes

	Global Awareness	X	Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy
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21st Century Skills

	Creativity and Innovation	X	Critical Thinking and Problem Solving	X	Communication and Collaboration		Information Literacy
	Media Literacy		ICT Literacy	X	Life and Career Skills		

