

Pine Hill Public Schools Curriculum

Content Area:	Mathematics		
Course Title/ Grade Level:	Second Grade (enVisions Program)		
Unit 1:	Understanding Addition and Subtraction	Month:	September
Unit 2:	Addition Strategies	Month:	September/October
Unit 3:	Subtraction Strategies	Month:	October
Unit 4:	Working in Equal Groups	Month:	October
Unit 5:	Place Value to 100	Month:	November
Unit 6:	Mental Addition	Month:	November/December
Unit 7:	Mental Subtraction	Month:	December
Unit 8:	Adding Two Digit Numbers	Month:	December/January
Unit 9:	Subtracting Two-Digit Numbers	Month:	January
Unit 10:	Place Value to 1,000	Month:	February
Unit 11:	Three-Digit Addition and Subtraction	Month:	February/March
Unit 12:	Geometry	Month:	March
Unit 13:	Counting Money	Month:	March
Unit 14:	Money	Month:	April
Unit 15:	Measuring Length	Month:	April
Unit 16:	Time, Graphs, and Data	Month:	May
Date Created or Revised:	11/08/2011		
BOE Approval Date:			

**Pine Hill Public Schools
Mathematics Curriculum**

Unit Title: Understanding Addition and Subtraction		Unit #: 1
Course or Grade Level: Second Grade		Length of Time: 3 weeks
Date Created: 12/2/11		BOE Approval Date:
Pacing	Week #1: 4 days – benchmark assessment administration Week #2 & 3: 10 days – 1 day per lesson + review and topic test 2012-13 Dates: Sept. 6-Sept. 24	
Essential Questions	<ul style="list-style-type: none"> • What are some ways to think about addition and subtraction? 	
Content	<ul style="list-style-type: none"> • Addition: Writing Addition Number Sentences • Addition: Stories About Joining • Subtraction: Writing Subtraction Number Sentences • Subtraction: Stories About Separating • Subtraction: Stories About Comparing • Problem Solving: Use Objects 	
Skills	<ul style="list-style-type: none"> • Join two groups and write addition number sentences to tell how many in all • Model joining stories and write an addition number sentence • Solve problems by writing subtraction number sentences • Write subtraction sentences to solve stories about separating groups • Write subtraction sentences to solve stories about comparing groups • Write related addition and subtraction facts • Use counters to model and solve addition and subtraction problems 	
Assessments	<ul style="list-style-type: none"> • Anecdotal Records • Teacher Observations • Worksheet Pages • Topic Tests (Constructed Response, Multiple Choice) • Performance Tasks • Benchmark Tests at Beginning, Middle and End of Year 	
Interventions / differentiated instruction	<ul style="list-style-type: none"> • 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 ▪ Connecting reading strategies to problem solving 	
Lesson resources / activities	<ul style="list-style-type: none"> • Pearson Website • SmartBoard • enVision Text • Manipulatives as Needed 	
Common Core State Standards		
Grade or Conceptual Category (HS only): Second		
Domain (name and #): 2.OA: Operations and Algebraic Thinking 2.NBT Number and Operations in Base Ten		
Cluster: Represent and solve	#. Standard:	

problems involving addition and subtraction.	2.OA.1. Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.1
Use place value understanding and properties of operations to add and subtract.	2.NBT.5 Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction

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: Addition Strategies		Unit #: 2
Course or Grade Level: Second Grade		Length of Time: 2 weeks
Date Created: 12/2/11		BOE Approval Date:
Pacing	Week #1: Lessons 2-1 through 2-4 Week #2: Lessons 2-5 through 2-7, review, and topic test 2012-13 Dates: Sept. 25 – Oct. 5th	
Essential Questions	<ul style="list-style-type: none"> • What are strategies for finding addition facts? 	
Content	<ul style="list-style-type: none"> • Addition: Adding 0, 1, 2 • Addition: Doubles • Addition: Near Doubles • Addition: Adding in Any Order • Addition: Adding Three Numbers • Addition: Making Ten to Add • Problem Solving: Draw a Picture and Write a Number Sentence 	
Skills	<ul style="list-style-type: none"> • Master addition facts involving 0, 1, or 2 • Master addition facts in which both addends are the same • Master addition facts where the addends are one apart • Use the commutative property to find sums • Find the sum of three addends using any order • Find sums by making ten when adding • Draw a picture and write a numbers sentence to solve a story problem 	
Assessments	<ul style="list-style-type: none"> • Anecdotal Records • Teacher Observations • Worksheet Pages • Topic Tests (Constructed Response, Multiple Choice) • Performance Tasks • Benchmark Tests at Beginning, Middle and End of Year 	
Interventions / differentiated instruction	<ul style="list-style-type: none"> • 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 ▪ Connecting reading strategies to problem solving 	
Lesson resources / activities	<ul style="list-style-type: none"> • Pearson Website • SmartBoard • enVision Text • Manipulatives as Needed 	
Common Core State Standards		
Grade or Conceptual Category (HS only): Second		
Domain (name and #): 2.OA: Operations and Algebraic Thinking 2.NBT: Number and Operations in Base Ten		

Cluster: Represent and solve problems involving addition and subtraction	2.OA.1. Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. 1
Use place value understanding and properties of operations to add and subtract	2.OA.2 Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. 2.NBT.5 Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction
	2.NBT.9 Explain why addition and subtraction strategies work using place value and the properties of operations

- Math Practices:**
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 - 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: Subtraction Strategies		Unit #: 3
Course or Grade Level: Second Grade		Length of Time: 2 weeks
Date Created: 12/2/11		BOE Approval Date:
Pacing	Week #1: Lessons 3-1 through 3-4 Week #2: Lessons 3-5 through 3-6, review, and topic test 2012-13 Dates: Oct. 9 th - Oct. 19 th	
Essential Questions	<ul style="list-style-type: none"> • What are strategies for finding subtraction facts? 	
Content	<ul style="list-style-type: none"> • Subtraction: Subtracting 0, 1,, 2 • Subtraction: Thinking Addition to Subtract Doubles • Subtraction: Thinking Addition to Ten to Subtract • Subtraction: Thinking Addition to Eighteen to Subtract • Subtraction: Making Ten to Subtract • Problem Solving: Two Question Problems 	
Skills	<ul style="list-style-type: none"> • Subtract 0, 1, and 2 from a number by applying the concepts of 0-less than, 1-less than, and 2-less than a number • Use addition doubles facts to subtract • Find differences by using related addition facts to ten • Find differences by using related addition facts to eighteen • Use the make-10 strategy to subtract • Solve two-question problems by using the answer to the first question to answer the second question 	
Assessments	<ul style="list-style-type: none"> • Anecdotal Records • Teacher Observations • Worksheet Pages • Topic Tests (Constructed Response, Multiple Choice) • Performance Tasks • Benchmark Tests at Beginning, Middle and End of Year 	
Interventions / differentiated instruction	<ul style="list-style-type: none"> • 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 ▪ Connecting reading strategies to problem solving 	
Lesson resources / activities	<ul style="list-style-type: none"> • Pearson Website • SmartBoard • enVision Text • Manipulatives as Needed 	
Common Core State Standards		
Grade or Conceptual Category (HS only): Second		
Domain (name and #): 2.OA: Operations and Algebraic Thinking 2.NBT: Number and Operations in Base Ten		
Cluster: Represent and solve problems involving	2.OA.1. Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting	

addition and subtraction	together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. 1
Use place value understanding and properties of operations to add and subtract	2.OA.2 Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.
	2.NBT.5 Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction
	2.NBT.9 Explain why addition and subtraction strategies work using place value and the properties of operations

Math Practices:

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- Reason abstractly and quantitatively.
- Construct viable arguments and critique the reasoning of others.
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- Attend to precision..

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: Working in Equal Groups		Unit #: 4
Course or Grade Level: Second Grade		Length of Time: 1 ½ weeks
Date Created: 12/2/11		BOE Approval Date:
Pacing	Lessons 4-1 through 4-4, review and topic test 2012-13 Dates: Oct. 22 nd – Oct. 31 st	
Essential Questions	<ul style="list-style-type: none"> • What is the relationship between arrays and repeated addition? 	
Content	<ul style="list-style-type: none"> • Addition: Repeated Addition • Addition: Building Arrays • Addition: Practicing Repeated Addition • Problem Solving: Draw a Picture and Write a Number Sentence 	
Skills	<ul style="list-style-type: none"> • Model repeated addition to write number sentences • Build arrays to model repeated addition situations • Use repeated addition to solve problems • Draw pictures and write number sentences to solve addition problems 	
Assessments	<ul style="list-style-type: none"> • Anecdotal Records • Teacher Observations • Worksheet Pages • Topic Tests (Constructed Response, Multiple Choice) • Performance Tasks • Benchmark Tests at Beginning, Middle and End of Year 	
Interventions / differentiated instruction	<ul style="list-style-type: none"> • 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 ▪ Connecting reading strategies to problem solving 	
Lesson resources / activities	<ul style="list-style-type: none"> • Pearson Website • SmartBoard • enVision Text • Manipulatives as Needed 	
Common Core State Standards		
Grade or Conceptual Category (HS only): Second		
Domain (name and #): 2.OA: Operations and Algebraic Thinking		
Cluster: Represent and solve problems involving addition and subtraction Work with equal groups of objects to gain foundations for multiplication	2.OA.1 . Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. 1	
	2.OA.4 Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends	
Math Practices:		
<ul style="list-style-type: none"> • Make sense of problems and persevere in solving them. . 		

- Construct viable arguments and critique the reasoning of others.
- Model with mathematics.
- Use appropriate tools strategically.
- Attend to precision.

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: Place Value to 100		Unit #: 5
Course or Grade Level: Second Grade		Length of Time: 3 weeks
Date Created: 12/2/11		BOE Approval Date:
Pacing	Week #1: Lessons 5-1 through 5-2 Week #2: Lessons 5-3 through 5-4 Week #3: Lessons 5-5 through 5-7, review and topic test 2012-13 Dates: Nov. 1 – Nov. 21 st	
Essential Questions	<ul style="list-style-type: none"> • How can numbers to 100 be shown and compared? 	
Content	<ul style="list-style-type: none"> • Number: Models for Tens and Ones • Number: Reading and Writing Numbers • Number: Using Symbols to Compare Numbers • Number: Counting to 100 • Number: 10 More or 10 Less • Patterns: Even and Odd Numbers • Problem Solving: Use Data from a Chart 	
Skills	<ul style="list-style-type: none"> • Group objects into tens and ones to show 2-digit numbers • Read and write number words for numbers 0 through 99 • Compare 2-digit numbers using symbols • Identify and write numbers that one before and one after given number. Count on and count back to identify missing numbers to 100. • Identify and write numbers that are ten more and ten less than given numbers • Learn to identify even and odd numbers • Use data from a chart to solve problems 	
Assessments	<ul style="list-style-type: none"> • Anecdotal Records • Teacher Observations • Worksheet Pages • Topic Tests (Constructed Response, Multiple Choice) • Performance Tasks • Benchmark Tests at Beginning, Middle and End of Year 	
Interventions / differentiated instruction	<ul style="list-style-type: none"> • 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 ▪ Connecting reading strategies to problem solving 	
Lesson resources / activities	<ul style="list-style-type: none"> • Pearson Website • SmartBoard • enVision Text • Manipulatives as Needed 	
Common Core State Standards		
Grade or Conceptual Category (HS only): Second		
Domain (name and #): 2.NBT: Number and Operations in Base Ten 2.OA: Operations and Algebraic Thinking		

Cluster: Understand Place Value Use place value understanding and properties of operations to add and subtract	2.NBT.1 Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones
	2.NBT.1a 100 can be thought of as a bundle of ten tens-called a “hundred.”
	2.NBT.2 Count within 1000: skip-count by 5s, 10s, and 100s
	2.NBT.3 Read and write numbers to 1000 using base-ten numerals, number names, and expanded form
	2.NBT.4 Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using $>$, $=$, and $<$ symbols to record the results of comparisons
	2.NBT.5 Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction
	2.NBT.6 Add up to four two-digit numbers using strategies based on place value and properties of operations
	2.NBT.9 Explain why addition and subtraction strategies work using place value and the properties of operations
Work with equal groups of objects to gain foundations for multiplication	2.OA.1. Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. 1
	2.OA.3 Read and write numbers to 1000 using base-ten numerals, number names, and expanded form

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[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: Mental Addition		Unit #: 6
Course or Grade Level: Second Grade		Length of Time: 1 ½ weeks
Date Created: 12/2/11		BOE Approval Date:
Pacing	Week #1: Lessons 6-1 through 6-5 Week #2: Lessons 6-6, review and topic test 2012-13 Dates: Nov. 26 – Dec. 5 th	
Essential Questions	<ul style="list-style-type: none"> • How can sums be found mentally? 	
Content	<ul style="list-style-type: none"> • Addition: Adding Tens • Addition: Adding Ones • Addition: Adding Tens and Ones • Addition: Adding on a Hundred Chart • Addition: Adding Multiples of Ten • Problem Solving: Look for a Pattern 	
Skills	<ul style="list-style-type: none"> • Mentally add multiples of ten to a 2-digit number • Mentally add a 2-digit number and 1-digit number • Add a 2-digit number to a 2-digit number using mental math • Use a hundred chart to add two 2-digit numbers • Add using multiples of ten • Use number patterns to solve problems 	
Assessments	<ul style="list-style-type: none"> • Anecdotal Records • Teacher Observations • Worksheet Pages • Topic Tests (Constructed Response, Multiple Choice) • Performance Tasks • Benchmark Tests at Beginning, Middle and End of Year 	
Interventions / differentiated instruction	<ul style="list-style-type: none"> • 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 ▪ Connecting reading strategies to problem solving 	
Lesson resources / activities	<ul style="list-style-type: none"> • Pearson Website • SmartBoard • enVision Text • Manipulatives as Needed 	
Common Core State Standards		
Grade or Conceptual Category (HS only): Second		
Domain (name and #): 2.NBT: Number and Operations in Base Ten		
2.OA: Operations and Algebraic Thinking		
Cluster: Understand place value	2.NBT.2 Count within 1000: skip-count by 5s, 10s, and 100s	
	2.NBT.5 Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction	

Use place value understanding and properties of operations to add and subtract Represent and solve problems involving addition and subtraction	2.NBT.8 Mentally add 10 or 100 to a given number 100-900 and mentally subtract 10 or 100 from a given number 100-900
	2.NBT.9 Explain why addition and subtraction strategies work using place value and the properties of operations
	2.OA.1. Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. 1

Math Practices:

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[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: Mental Subtraction		Unit #: 7
Course or Grade Level: Second Grade		Length of Time: 2 weeks
Date Created: 12/2/11		BOE Approval Date:
Pacing	Week #1: Lessons 7-1 through 7-2 Week #2: 7-3 through 7-5, review and topic test 2012-13 Dates: Dec. 6 th – Dec. 14 th	
Essential Questions	<ul style="list-style-type: none"> • How can differences be found mentally? 	
Content	<ul style="list-style-type: none"> • Subtraction: Subtracting Tens • Subtraction: Finding Parts of 100 • Subtraction: Subtracting on a Hundred Chart • Subtraction: Subtracting Multiples of Ten • Problem Solving: Missing or Extra Information 	
Skills	<ul style="list-style-type: none"> • Subtract multiples of ten from 2-digit numbers using mental math • Find the missing part of 100 by counting up from the given part • Find the difference between 2-digit numbers less than 100 • Subtract using multiples of 10 • Determine whether they can solve problems with missing information or extra information 	
Assessments	<ul style="list-style-type: none"> • Anecdotal Records • Teacher Observations • Worksheet Pages • Topic Tests (Constructed Response, Multiple Choice) • Performance Tasks • Benchmark Tests at Beginning, Middle and End of Year 	
Interventions / differentiated instruction	<ul style="list-style-type: none"> • 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 ▪ Connecting reading strategies to problem solving 	
Lesson resources / activities	<ul style="list-style-type: none"> • Pearson Website • SmartBoard • enVision Text • Manipulatives as Needed 	
Common Core State Standards		
Grade or Conceptual Category (HS only): Second		
Domain (name and #): 2.NBT Number and Operations in Base Ten		
2.OA Operations and Algebraic Thinking		
Cluster: Use place value understanding and properties of operations to add and subtract	2.NBT.5 Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction	
	2.NBT.7 Add and subtract within 1000, 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. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds	

Represent and solve problems involving addition and subtraction	2.NBT.8 Mentally add 10 or 100 to a given number 100-900 and mentally subtract 10 or 100 from a given number 100-900
	2.NBT.9 Explain why addition and subtraction strategies work using place value and the properties of operations
	2.OA.1. Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. 1

Math Practices:

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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: Adding Two Digit Numbers		Unit #: 8
Course or Grade Level: Second Grade		Length of Time: 3 weeks
Date Created: 12/2/11		BOE Approval Date:
Pacing	Week #1: Lessons 8-1 through 8-4 Week #2: review day, Lessons 8-5 through 8-6 Week #3: Lessons 8-7 through 8-9, review and topic test 2012-13 Dates: Dec. 17 th – 21 st and Jan. 2 nd – 11 th	
Essential Questions	<ul style="list-style-type: none"> • What is a standard procedure for adding 2-digit numbers? 	
Content	<ul style="list-style-type: none"> • Addition: Regrouping 10 Ones for 1 Ten • Addition: Models to Add Two- and One-digit Numbers • Addition: Adding Two- and One-digit Numbers • Addition: Models to Add Two-digit Numbers • Addition: Adding Two-digit Numbers • Addition: Adding on a Number Line • Addition: Adding More than Two Numbers • Addition: Ways to Add • Problem Solving: Draw a Picture and Write a Number Sentence 	
Skills	<ul style="list-style-type: none"> • Use models to add a 1-digit number to a 2-digit number • Use concrete models to add a 1-digit number to a 2-digit number and decide if regrouping is needed • Add a 1-digit number to a 2-digit number, regroup if necessary, and record the process in a vertical addition frame • Use place value models and the standard algorithm to add two 2-digit numbers • Use the standard algorithm symbolically to add two-digit number with and without regrouping • Use number lines to model 2-digit addition • Use paper and pencil to add 3 and 4 two-digit numbers • Use different methods to help them solve addition problems • Draw pictures and write number sentences to solve addition problems 	
Assessments	<ul style="list-style-type: none"> • Anecdotal Records • Teacher Observations • Worksheet Pages • Topic Tests (Constructed Response, Multiple Choice) • Performance Tasks • Benchmark Tests at Beginning, Middle and End of Year 	
Interventions / differentiated instruction	<ul style="list-style-type: none"> • 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 ▪ Connecting reading strategies to problem solving 	
Lesson resources / activities	<ul style="list-style-type: none"> • Pearson Website • SmartBoard • enVision Text • Manipulatives as Needed 	
Common Core State Standards		

Grade or Conceptual Category (HS only): Second

Domain (name and #): 2.NBT Number and Operations in Base Ten
2. MD Measurement and Data
2.OA Operations and Algebraic Thinking

Cluster: Understand place value Use place value understanding and properties of operations to add and subtract Relate addition and subtraction to length Represent and solve problems involving addition and subtraction	2.NBT.5 Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction
	2.NBT.6 Add up to four two-digit numbers using strategies based on place value and properties of operations
	2.NBT.9 Explain why addition and subtraction strategies work using place value and the properties of operations
	2. MD.6 Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line diagram
	2.OA.1. Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. 1

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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: Subtracting Two-Digit Numbers		Unit #: 9
Course or Grade Level: Second Grade		Length of Time: 3 weeks
Date Created: 12/2/11		BOE Approval Date:
Pacing	Week #1: Mid-year benchmark review and assessment (Units 1-8), Lessons 9-1 through 9-3 Week #2: Lessons 9-4 through 9-7 Week #3: Lessons 9-8 through 9-9, review and topic test 2012-13 Dates: Jan. 14 th – Jan. 31 st	
Essential Questions	<ul style="list-style-type: none"> • What is a standard procedure for subtracting two-digit numbers? 	
Content	<ul style="list-style-type: none"> • Subtraction: Regrouping 1 Ten for 10 Ones • Subtraction: Models to Subtract 2- and 1-digit Numbers • Subtraction: Subtracting 2- and 1-digit Numbers • Subtraction: Models to Subtract 2-digit Numbers • Subtraction: Subtracting 2-digit Numbers • Subtraction: Subtracting on a Number Line • Subtraction: Using Addition to Check Subtraction • Subtraction: Ways to Subtract • Problem Solving: Two Question Problems 	
Skills	<ul style="list-style-type: none"> • Regroup 1 ten as 10 ones when subtracting • Use models to subtract a 1-digit number from a 2-digit number with and without regrouping • Subtract a 1-digit number from a 2-digit number with and without regrouping using the standard algorithm • Use models to subtract 2-digit numbers with and without regrouping • Use the standard subtraction algorithm to subtract a 2-digit number from another 2-digit number • Use number lines to model 2-digit subtraction • Relate addition to subtraction by using one operation to check the other • Use different methods to solve 2-digit subtraction problems • Solve Two-question problems. Select the operation to solve each question. 	
Assessments	<ul style="list-style-type: none"> • Anecdotal Records • Teacher Observations • Worksheet Pages • Topic Tests (Constructed Response, Multiple Choice) • Performance Tasks • Benchmark Tests at Beginning, Middle and End of Year 	
Interventions / differentiated instruction	<ul style="list-style-type: none"> • 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 ▪ Connecting reading strategies to problem solving 	
Lesson resources / activities	<ul style="list-style-type: none"> • Pearson Website • SmartBoard • enVision Text • Manipulatives as Needed 	
Common Core State Standards		
Grade or Conceptual Category (HS only): Second		

Domain (name and #): 2.NBT Number and Operations in Base Ten
2. MD Measurement and Data
2.OA Operations and Algebraic Thinking

Cluster: Understand place value Use place value understanding and properties of operations to add and subtract Relate addition and subtraction to length Represent and solve problems involving addition and subtraction	2.NBT.5 Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction
	2.NBT.6 Add up to four two-digit numbers using strategies based on place value and properties of operations
	2.NBT.9 Explain why addition and subtraction strategies work using place value and the properties of operations
	2. MD.6 Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line diagram 2.OA.1. Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. 1

- 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 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: Place Value to 1,000		Unit #: 10
Course or Grade Level: Second Grade		Length of Time: 3 weeks
Date Created: 12/2/11		BOE Approval Date:
Pacing	Week #1: Lesson 10-1 Week #2: Lessons 10-2 through 10-6 Week #3: Lessons 10-7 through 10-9, review and topic test 2012-13 Dates: Feb. 1 st – 20 th	
Essential Questions	<ul style="list-style-type: none"> • What number patterns are helpful in reading and writing numbers to 1,000? 	
Content	<ul style="list-style-type: none"> • Number: Building 1,000 • Number: Counting Hundreds, Tens, and Ones • Number: Reading and Writing Numbers to 1,000 • Number: Changing Numbers by Hundreds and Tens • Number: Patterns with Numbers on Hundreds Charts • Number: Skip Counting by 5s, 10s, 100s, to 1,000 • Number: Comparing Numbers • Number: Ordering Numbers • Problem Solving: Look for a Pattern 	
Skills	<ul style="list-style-type: none"> • Count by 100s to 1,000 • Use place value models to show numbers up to 1,000 • Identify and record three-digit numbers in expanded form, standard form, and number word form • Add and subtract multiples of 10 or 100, to and from a three-digit number without regrouping • Find, identify and apply number patterns to numbers on a hundred chart • Skip count by different amounts on the number line and use the patterns to identify the numbers that come next • Compare three-digit numbers using the symbols $<$, $=$, $>$ • Order three 3-digit numbers from the least to greatest and greatest to least • Solve problems by finding number patterns 	
Assessments	<ul style="list-style-type: none"> • Anecdotal Records • Teacher Observations • Worksheet Pages • Topic Tests (Constructed Response, Multiple Choice) • Performance Tasks • Benchmark Tests at Beginning, Middle and End of Year 	
Interventions / differentiated instruction	<ul style="list-style-type: none"> • 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 ▪ Connecting reading strategies to problem solving 	
Lesson resources / activities	<ul style="list-style-type: none"> • Pearson Website • SmartBoard • enVision Text • Manipulatives as Needed 	
Common Core State Standards		

Grade or Conceptual Category (HS only): Second

Domain (name and #): 2.NBT Number and Operations in Base Ten

Cluster: Understand place value Use place value understanding and properties of operations to add and subtract	2.NBT.1 Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones
	2.NBT.1a 100 can be thought of as a bundle of ten tens-called a “hundred.”
	2.NBT.1b The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones)
	2.NBT.2 Count within 1000: skip-count by 5s, 10s, and 100s
	2.NBT.3 Read and write numbers to 1000 using base-ten numerals, number names, and expanded form
	2.NBT.4 Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using $>$, $=$, and $<$ symbols to record the results of comparisons
	2.NBT.8 Mentally add 10 or 100 to a given number 100-900 and mentally subtract 10 or 100 from a given number 100-900

- 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: Three-Digit Addition and Subtraction		Unit #: 11
Course or Grade Level: Second Grade		Length of Time: 3 Weeks
Date Created: 12/2/11		BOE Approval Date:
Pacing	Week #1: Lesson 11-1 through 11-2 Week #2: Lessons 11-3 through 11-4, C30 (from diagnostic and intervention system), 11-5 & 11-6 Week #3: Lessons 11-7, 11-8, C31, & 11-9, review and topic test 2012-13 Dates: Feb. 21 st – Mar. 12 th	
Essential Questions	<ul style="list-style-type: none"> • What are the ways to add and subtract three-digit numbers? 	
Content	<ul style="list-style-type: none"> • Addition: Exploring Adding 3-digit Numbers • Addition: Mental Math • Addition: Models for Adding with 3-digit Numbers • Addition: Adding 3-digit Numbers • Subtraction: Exploring Subtracting 3-digit Numbers • Subtraction: Mental Math: Ways to Find Missing Parts • Subtraction: Models for Subtracting with 3-digit Numbers • Subtraction: Subtracting 3-digit Numbers • Problem Solving: Use Logical Reasoning 	
Skills	<ul style="list-style-type: none"> • Explore different strategies for adding 3-digit numbers • Add 3-digit numbers mentally without regrouping • Use place value blocks to add two 3-digit numbers with regrouping • Use paper and pencil to add two 3-digit numbers with regrouping • Explore different strategies to subtract 3-digit numbers • Given a quantity and one of its parts, find the missing part by counting on or counting back • Use models to subtract 3-digit numbers with regrouping • Subtract 3-digit numbers using a standard algorithm • Use logical reasoning to solve problems 	
Assessments	<ul style="list-style-type: none"> • Anecdotal Records • Teacher Observations • Worksheet Pages • Topic Tests (Constructed Response, Multiple Choice) • Performance Tasks • Benchmark Tests at Beginning, Middle and End of Year 	
Interventions / differentiated instruction	<ul style="list-style-type: none"> • 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 ▪ Connecting reading strategies to problem solving 	
Lesson resources / activities	<ul style="list-style-type: none"> • Pearson Website • SmartBoard • enVision Text • Manipulatives as Needed 	
Common Core State Standards		
Grade or Conceptual Category (HS only): Second		

Domain (name and #): 2.NBT Number and Operations in Base Ten

Cluster: Use place value understanding and properties of operations to add and subtract	2.NBT.7 Add and subtract within 1000, 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. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds
	2.NBT.8 Mentally add 10 or 100 to a given number 100-900 and mentally subtract 10 or 100 from a given number 100-900
	2.NBT.9 Explain why addition and subtraction strategies work using place value and the properties of operations

- Math Practices:**
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 - 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: Geometry		Unit #:12
Course or Grade Level: Second Grade		Length of Time: 1 ½ weeks
Date Created: 12/2/11		BOE Approval Date:
Pacing	Combine lessons 12-1 & 12-2 (1 day), lesson 12-3, combine lessons 12-4 & 12-5 (1 day), combine 12-6 through 12-8 & review/topic test (4 days) 2012-13 Dates: Mar. 13 th – 20 th	
Essential Questions	<ul style="list-style-type: none"> • How can shapes and solids be described, compared, and used to make other shapes? 	
Content	<ul style="list-style-type: none"> • Geometry: Flat Surfaces, Vertices, and Edges • Geometry: Relating Plane Shapes to Solid Figures • Geometry: Polygons and Angles • Geometry: Making New Shapes • Geometry: Cutting Shapes Apart • Geometry: Dividing Rectangles into Equal Squares • Geometry: Wholes and Equal Parts • Problem Solving using Reasoning 	
Skills	<ul style="list-style-type: none"> • Identify solid figures by their faces or flat surfaces, edges, and vertices. • Identify the plane shapes that form the flat surfaces of solid figures. • Identify and draw polygons (triangles, quadrilaterals, pentagons, and hexagons) and list their attributes. • Recognize and name trapezoids, parallelograms, and hexagons, put shapes together to make new shapes, and identify the number of sides and vertices in each shape. • Cut shapes apart to make new shapes. • Divide rectangles into equal squares and count how many squares are needed to completely partition the rectangle. • Determine whether a shape has been divided into equal or unequal parts. If the parts are equal, children will count the number of parts. • Use clues to solve riddles about plane shapes and solid figures. 	
Assessments	<ul style="list-style-type: none"> • Anecdotal Records • Teacher Observations • Worksheet Pages • Topic Tests (Constructed Response, Multiple Choice) • Performance Tasks • Benchmark Tests at Beginning, Middle and End of Year 	
Interventions / differentiated instruction	<ul style="list-style-type: none"> • 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 ▪ Connecting reading strategies to problem solving 	
Lesson resources / activities	<ul style="list-style-type: none"> • Pearson Website • SmartBoard • enVision Text • Manipulatives as Needed 	
Common Core State Standards		
Grade or Conceptual Category (HS only): Second		

Domain (name and #): Geometry

Cluster: Measure and estimate lengths in standard units	2.G.1 Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tape
	2.G.2 Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen
	2.G.3 Estimate lengths using units of inches, feet, centimeters, and meters

- 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: Counting Money		Unit #: 13
Course or Grade Level: Second Grade		Length of Time: 2 weeks
Date Created: 12/2/11		BOE Approval Date:
Pacing	Week #1: Lessons 13-1 through 13-4 Week #2: Lessons 13-4 through 13-5, review and topic test 2012-13 Dates: Mar. 21st – Mar. 28 th	
Essential Questions	<ul style="list-style-type: none"> • What strategies can be used to count money? 	
Content	<ul style="list-style-type: none"> • Money: Coins • Money: Counting Collections of Coins • Money: Ways to Show the Same Amount • Money: One Dollar • Problem Solving making an Organized List 	
Skills	<ul style="list-style-type: none"> • Identify the value of a group of half-dollars, quarters, dimes, nickels, and pennies. • Count collections of coins that include half-dollars, quarters, dimes, nickels, and pennies. • Show the same amount of money using different sets of coins. • Count money amounts greater than one dollar and write the amount with a dollar sign and a decimal point. • Make an organized list to find different combinations of coins. 	
Assessments	<ul style="list-style-type: none"> • Anecdotal Records • Teacher Observations • Worksheet Pages • Topic Tests (Constructed Response, Multiple Choice) • Performance Tasks • Benchmark Tests at Beginning, Middle and End of Year 	
Interventions / differentiated instruction	<ul style="list-style-type: none"> • 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 ▪ Connecting reading strategies to problem solving 	
Lesson resources / activities	<ul style="list-style-type: none"> • Pearson Website • SmartBoard • enVision Text • Manipulatives as Needed 	
Common Core State Standards		
Grade or Conceptual Category (HS only): Second		
Domain (name and #): 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 cents symbols appropriately.	
Math Practices:		
<ul style="list-style-type: none"> • 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: Money		Unit #: 14
Course or Grade Level: Second Grade		Length of Time: 1 ½ week
Date Created: 12/2/11		BOE Approval Date:
Pacing	Week #1: Lessons 14-1 through 14-4 Week #2: review and topic test 2012-13 Dates: Apr. 8 th – Apr. 15 th	
Essential Questions	<ul style="list-style-type: none"> • How can sums and differences be estimated? 	
Content	<ul style="list-style-type: none"> • Money: Adding Money • Money: Subtracting Money • Money: Estimating Sums and Differences • Problem Solving with Try, Check, and Revise. 	
Skills	<ul style="list-style-type: none"> • Complete and record addition problems using two-digit coin amounts. • Subtract using two-digit coin amounts. • Estimate the sum and difference of 2 two-digit numbers. • Solve problems involving adding and subtracting money by using the try, check, and revise strategy. 	
Assessments	<ul style="list-style-type: none"> • Anecdotal Records • Teacher Observations • Worksheet Pages • Topic Tests (Constructed Response, Multiple Choice) • Performance Tasks • Benchmark Tests at Beginning, Middle and End of Year 	
Interventions / differentiated instruction	<ul style="list-style-type: none"> • 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 ▪ Connecting reading strategies to problem solving 	
Lesson resources / activities	<ul style="list-style-type: none"> • Pearson Website • SmartBoard • enVision Text • Manipulatives as Needed 	
Common Core State Standards		
Grade or Conceptual Category (HS only): Second		
Domain (name and #): Measurement and Data		
Cluster: Relate addition and subtraction to length.	2.MD.5 Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g. by using drawings and equations with a symbol for the unknown number to represent the problem	
	Work with Time and Money	
Represent and interpret data.	2.MD.8 Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and cents symbols appropriately	

	2.MD.9 Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units.
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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.
- Attend to precision.

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: Measuring Length		Unit #: 15
Course or Grade Level: Second Grade		Length of Time: 2 ½ weeks
Date Created: 12/2/11		BOE Approval Date:
Pacing	Week #1: Lessons 15-1 through 15-4 Week #2: Lessons 15-5 through 15-9 Week #3: review and topic test 2012-13 Dates: Apr. 16 th – 30 th	
Essential Questions	<ul style="list-style-type: none"> • What is the process for measuring length? 	
Content	<ul style="list-style-type: none"> • Measurement: Exploring Length • Measurement: Inches • Measurement: Centimeters • Measurement: Inches, Feet, and Yards • Measurement: Centimeters and Meters • Measurement: Measuring Length • Measurement: Adding and Subtracting in Measurement • Measurement: Comparing Lengths • Problem Solving using Objects. 	
Skills	<ul style="list-style-type: none"> • Measure the lengths of objects using nonsatandard units. • Estimate and measure items using inches. • Estimate and measure length and height using centimeters. • Estimate and measure items that are about an inch, foot, and yard. • Estimate and measure the lengths and heights of objects in centimeters and meters. • Estimate and measure the lengths and heights of objects using different units. • Use addition and subtraction to solve measurement problems. • Measure to compare length and express the length difference in a standard length unit. • Use string and rulers to measure to the nearest inch the length of paths that are not straight. 	
Assessments	<ul style="list-style-type: none"> • Anecdotal Records • Teacher Observations • Worksheet Pages • Topic Tests (Constructed Response, Multiple Choice) • Performance Tasks • Benchmark Tests at Beginning, Middle and End of Year 	
Interventions / differentiated instruction	<ul style="list-style-type: none"> • 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 ▪ Connecting reading strategies to problem solving 	
Lesson resources / activities	<ul style="list-style-type: none"> • Pearson Website • SmartBoard • enVision Text • Manipulatives as Needed 	
Common Core State Standards		
Grade or Conceptual Category (HS only): Second		

Domain (name and #): Measurement and Data							
Cluster: Measure and estimate lengths in standard units Relate addition and subtraction to length	2.MD.1 Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes						
	2.MD.2 Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen						
	2.MD.3 Estimate lengths using units of inches, feet, centimeters, and meters						
	2.MD.4 Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit						
	2.MD.5 Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g. by using drawings and equations with a symbol for the unknown number to represent the problem						
Math Practices: <ul style="list-style-type: none"> • 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. 							
<u>21st Century Themes</u>							
	Global Awareness	X	Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy
<u>21st Century Skills</u>							
	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: Time, Graphs, and Data		Unit #: 16
Course or Grade Level: Second Grade		Length of Time: 4 weeks
Date Created: 12/2/11		BOE Approval Date:
Pacing	Week #1: Lessons 16-1 through 16-3 Week #2: Lessons 16-4 through 16-6, review and topic test 2012-13 Dates: May 1 st – May 10 th May 13 th to 15 th - End of the year benchmark assessment (3 days) May 16 th & 17 th - Step Up Lesson 2 (division and sharing) and K27 from diagnostic and intervention system (see specialist for materials or refer to blue box) May 20 th – June 7 th - Preparation for 3 rd grade Suggested lessons: TBD based on data analysis outcomes	
Essential Questions	<ul style="list-style-type: none"> • How can clocks, bar graphs, and pictographs be used to show data and answer questions? 	
Content	<ul style="list-style-type: none"> • Time: Telling time to five minutes • Time: Telling time before and after the hour • Graphs: Organizing Data • Graphs: Graphing Lengths • Graphs: Pictographs • Problem Solving: Use a Graph 	
Skills	<ul style="list-style-type: none"> • Learn to associate numerals on an analog clock face with increments of five minutes • Read and express time in terms of quarter and half past an hour and before an hour • Represent a set of data in a tally chart and in a bar graph • Use rulers to measure objects and graph the results • Make and use a pictograph to solve problems • Use picture graphs and bar graphs to solve problems 	
Assessments	<ul style="list-style-type: none"> • Anecdotal Records • Teacher Observations • Worksheet Pages • Topic Tests (Constructed Response, Multiple Choice) • Performance Tasks • Benchmark Tests at Beginning, Middle and End of Year 	
Interventions / differentiated instruction	<ul style="list-style-type: none"> • 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 ▪ Connecting reading strategies to problem solving 	
Lesson resources / activities	<ul style="list-style-type: none"> • Pearson Website • SmartBoard • enVision Text • Manipulatives as Needed 	
Common Core State Standards		
Grade or Conceptual Category (HS only): Second		
Domain (name and #): 2.MD: Measurement and Data		

Cluster: Work with time and money Represent and interpret data	2.MD.7 Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.
	2.MD.9 Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units
	2.MD.10 Draw a picture graph and a bar graph (with single-unit scale) to represent a data set up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph

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		

