

Teacher: Core Math Grade 2 Common Core Year: 2013-14
 Course: Math Grade 2 PA Core Month: All Months

September
 Computation and Estimation (Topic 1)

Essential Questions	Content	Skills	Assessments	Lessons	Reporting Category	Standards
What strategies and models can we use to understand how to solve an addition and subtraction problem?	Add and subtract single digit numbers. Ways to make 20. Fact families.	Create and solve addition and subtraction sentences. Recognize facts that have sums up to 20.	Computation and estimation 9/30/2013 Computation and Estimation 9/30/2013		Numbers, Number Systems and Number Relationships	
How can we represent numbers in different ways (skip counting, repeated addition/subtraction)	Even and odd numbers Add and subtract numbers up to 1,000	Provide the related addition and subtraction facts that make a fact family. Identify number words and names up to 1,000 Addition and Subtraction of numbers up to 1,000 Identify even and odd numbers.				

October
 Numbers, Number Systems, and Number Relationships (Topic 4)

Essential Questions	Content	Skills	Assessments	Lessons	Reporting Category	Standards
How do we demonstrate the relationship between numbers and quantities, including place value? How do we compare	Identify the relationship between numbers and quantities and place value. Represent 100 as a bundle of ten tens.	Understand place value of numbers. Students will be able to count by two's five's and ten's and hundreds	Relationship between numbers and quantities 10/31/2013		Number, Number Systems and Number Relationships	

values of whole numbers up to 500?

How do the students count by 2's, 5's, and 10's?

Statistics and Data Analysis (Topic 16)

Essential Questions	Content	Skills	Assessments	Lessons	Reporting Category	Standards
How can information be gathered, recorded, and organized? How does the type of data influence the choice of display? What aspects of a graph help people understand and interpret the data easily?	Organize and display data using pictures, tallies, charts, bar graphs, and pictographs. Describe data displayed in a diagram, graph, or table. Identify patterns and predict trends based on a comparison to data displayed in a graph.	Students will create and interpret bar and pictographs. Students will describe answer, and/or interpret questions based on data shown in tables, charts, and graphs.	Statistics and Data Interpretation 10/31/2013		Statistics and Data Analysis	CC.2.4.2.A.4-Measurement and Data ~ Represent and interpret data using line plots, picture graphs, and bar graphs.

N o v e m b e r Geometry (Topic 11)

Essential Questions	Content	Skills	Assessments	Lessons	Reporting Category	Standards
How do we recognize a shapes attributes? How do we partition shapes into twos, thress, etc. equal shares and describe using the words	Name and describe 2 and 3 dimensional shapes. Identify attributes of a given shapes. Recognize attributes of a given shape.	Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of faces. Identify triangles,	Geometry 11/30/2013		Geometry	CC.2.3.2.A.2-Geometry ~ Use the understanding of fractions to partition shapes into halves, quarters, and thirds.

halves, thirds, etc.

quadrilaterals,
pentagons, hexagons,
and cubes.

Declarative Computation and Estimation (Topic 8 & 9)

Essential Questions	Content	Skills	Assessments	Lessons	Reporting Category	Standards
How do we add or subtract 2 digit numbers with and without regrouping?	Add/subtract multi-digit numbers using mental math Add or subtract up to 2 digit numbers using regrouping. Students will be able to solve word problems using key words to explain what operation to use.	Students will add and subtract numbers with and without regrouping.	Computation and Estimation 12/31/2013		Computation and Estimation	

Mathematical Reasoning and Problem Solving

Essential Questions	Content	Skills	Assessments	Lessons	Reporting Category	Standards
How can using key words help us solve word problems?	Develop a plan to identify the information needed to solve a word problem.	Develop a plan to analyze a problemmmmm, identify the information needed to solve the problem, carry out the plan, check whether an answer makes sense, and explain how the problem was solved in grade appropriate contexts. Use appropriate mathematical	Mathematical Reasoning and Problem Solving 12/31/2013		Mathematical Reasoning and Problem Solving	

vocabulary when explaining how to solve a problem

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Computation and Estimation (Topic 5)

Essential Questions	Content	Skills	Assessments	Lessons	Reporting Category	Standards
How do we add and subtract using money?	See December Add/subtract multi-digit numbers with	See December Use understanding of place value to add and subtract mentally.	Computation and assessment 1/31/2014			
How can we estimate values, sums, and differences of multi-digit numbers?	and without regrouping using money.	Determining the value of the greater coins.				
How do I solve word problems using money?	Make change up to a dollar. Demonstrate the same value of money	Make change for an amount up to a dollar.				
How do we recognize the different coins and values of each?	utilizing different sets of coins. WORK with money to solve word problems.	Solve word problems with money using symbols appropriately.				
What is the total amount when adding up different coins?						

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Measurement and Estimation (Topic 13 & 14)

Essential Questions	Content	Skills	Assessments	Lessons	Reporting Category	Standards
What is the purpose of standard units of measurement?	Use tools to estimate and measure standard units.	Tell time on an analog and digital clock to the nearest minute.	Measurement and Estimation--Telling Time 2/28/2014			CC.2.4.2.A.1- Measurement and Data ~ Measure and estimate lengths in standard units using appropriate tools.
How do units within a system relate to each other?	Measure the length of an object by selecting and using appropriate tools	Use processes to solve problems involving standard measures such as length, inches, feet, yardsticks, meter sticks, and measuring centimeters, and	Measurement 2/28/2014			CC.2.4.2.A.6- Measurement and Data ~ Extend the concepts of addition and subtraction to problems involving
What are the tools for measurement and how are they used?	such as rulers, yardsticks, meter sticks, and measuring					
How do I use						

strategies to estimate length? 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. Estimate lengths using units of inches, feet, centimeters, and meters. Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.

tapes. 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. Estimate lengths using units of inches, feet, centimeters, and meters. Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.

meters. Tell and write time from analog and digital clocks to the nearest 5 mins., using a.m. and p.m. Use appropriate tools for measurement. Measure the length of an object twice, using length units of different lengths. Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points and represent whole-number sums and difference within 100 on a number line. Draw a picture graph and bar graph to represent a data set with up to 4 categories.

length.
CC.2.4.2.A.4-
Measurement and Data
~ Represent and
interpret data using line
plots, picture graphs,
and bar graphs.

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Telling time (Topic 15)

Essential Questions	Content	Skills	Assessments	Lessons	Reporting Category	Standards
How is time on the digital and analog clock different?	Distinguish the difference between an analog and digital clock--how are they similar? How are they different?		Telling time 3/31/2014		Measurement and Data	CC.2.4.2.A.2- Measurement and Data ~ Tell and write time to the nearest five minutes using both analog and digital clocks.
How does counting by 5's help me in telling time?						

What is the difference between a.m. and p.m.?
How can I tell time by the half and quarter hours?

How can I tell time to five minutes?

Practice counting by 5's. Recognize there are 5 minutes between each number on an analog clock.
Review telling time on an analog clock to the hour, half hour, and quarter hour.

Appendix A
Computation and Estimation (Topic 18)

Essential Questions	Content	Skills	Assessments	Lessons	Reporting Category	Standards
What strategies can we use to add or subtract three digit numbers with and without regrouping? How can we use models to help with regrouping? How do we compare 3 digit numbers using greater than and less than?	Fluently add or subtract within 1000 using strategies based on place value, properties of operations, and the relationship between addition and subtraction. Compare 3 digit numbers	Students will add and subtract 3 digit numbers using strategies learned. Compare 3 digit numbers using greater than or less than.	Computation and Estimation 4/30/2014		Computation and Estimation	

Appendix A
Foundations of Multiplication (Topic 19)

Essential Questions	Content	Skills	Assessments	Lessons	Reporting Category	Standards
How is knowing an odd or even number help to write equations? How can we write an equation for an	Determine whether a group of numbers (up to 20) has an odd or even number of members by pairing objects or counting them by 2's.	Recognize odd and even numbers in groups of objects. Arrange objects in an array and write an equation to express the total as a sum of	Multiplication 5/31/2014		Operations and Algebraic Thinking	

array?

Write an equation to express an even number as a sum of two equal addends. 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.