# **Somers Point School District**



# Curriculum

Mathematics
Grade Three
July 2012

**Board Approved: September 2012** 

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Somers Point School District

Third Grade Math

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#### SOMERS POINT SCHOOL DISTRICT

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# Acknowledgments

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# **Somers Point Schools**

This document reflects the collaboration of teachers, staff, students, parents, and the Board of Education to define our mission, vision and beliefs to guide our work.

#### **Our Mission**

Empower each student to make responsible choices, meet challenges, achieve personal success, and contribute to a global society as they apply the New Jersey Core Curriculum Standards to become autonomous, lifelong learners who are literate problem solvers across all disciplines. This is accomplished through:

- Offering diverse, challenging, effective and progressive programs in a safe, nurturing environment
- Providing optimal facilities and resources
- Mastering the skills and tools needed for success
- Facilitating an educational partnership with home, school and community

#### **Our Beliefs**

Beliefs: We believe that our empowered learners:

- Participate in educational programs that are designed to meet the needs of learners while providing challenging activities in the context of real life situations
- Are aware of community issues and take part in activities to better their community
- Acquire basic skills in obtaining information, thinking critically, solving problems and communicating effectively
- Develop intellectual curiosity and the ability to access information as needed
- Become reflective learners who have an understanding of their own strengths and weaknesses
- Develop the aptitudes and skills to adjust to a changing world and an unpredictable future
- Are lifetime learners who value and accept learning as a continuing and dynamic process affecting all aspects of life
- Value the integrity of all individuals and recognize their own ability to progress academically, socially, and emotionally

#### **Our Vision**

The students of the Somers Point School District will demonstrate personal growth over time in relation to individualized goals aligned to the New Jersey Core Content Curriculum Standards. Achievement is evident when students:

- Take academic risks
- Transfer or extend content area knowledge
- Are intrinsically motivated life-long learners
- Are global learners who collaborate beyond the confines of the classroom or school
- Demonstrate social growth
- Are meta-cognitive thinkers
- Solve real-world problems

#### To foster student achievement Somers Point Educators:

- Promote student-centered learning
- Explicitly communicate the purpose of the lesson and how it fits into students' broader learning
- Provide hands-on learning activities
- Encourage collaboration
- Cultivate a safe environment and a strong classroom community
- Differentiate instruction
- Know the content area, curriculum, and their students
- Integrate technology
- Uncover and capitalize on student interests
- Use assessment data to make instructional decisions
- Commit to life-long learning to improve their practice

# INTRODUCTION, PHILOSOPHY OF EDUCATION, AND EDUCATIONAL GOALS Philosophy

Somers Point Schools will enable **ALL** of our students to acquire the mathematical skills, understandings, and attitudes that they will need to be successful in their careers and daily lives.

#### **Educational Goals & Beliefs**

#### **Overarching Goals:**

- (1) Communicate mathematical ideas in clear, concise, organized language that varies in content, format and form for different audiences and purposes.
- (2) Comprehend, understand, analyze, evaluate, critique, solve, and respond to a variety of real-life, meaningful problems.
  - (3) Investigate, research, and synthesize various information from a variety of media sources.
- **Equity**: We will achieve excellence in mathematics education through policies that promote equity, high expectations, and strong support for all students.
- **Curriculum**: We believe a curriculum is more than a collection of activities; it must be coherent, focused on important mathematics, and well articulated across the grades.
- **Learning**: We will work diligently to ensure all students learn mathematics with understanding, actively building new knowledge from experience and prior knowledge.
- **Assessment**: We will use assessment to support the learning of important mathematics and furnish useful information to our students.
- **Teaching**: We know effective mathematics teaching requires an understanding of what students know and need to learn, challenging and supporting them to apply and extend their knowledge.
- **Technology**: We believe technology is essential in teaching and learning mathematics; it influences the mathematics that is and enhances students' learning.

# New Jersey State Department of Education Core Curriculum Content Standards

#### A note about Mathematics Standards and Cumulative Progress Indicators:

The New Jersey Core Curriculum Content Standards for Mathematics were revised in 2009. The Cumulative Progress Indicators (CPI's) referenced in this curriculum guide refer to these new standards and may be found in the Curriculum folder on the district servers. A complete copy of the new Core Curriculum Content Standards for Mathematics may also be found at:

http://www.corestandards.org/the-standards/mathematics

The Standards for Mathematical practice specify the following varieties of expertise that mathematics educators at all levels should seek to develop in their students:

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

# **Grade 3 Mathematics**

# **Scope and Sequence**

	Quarter I	
Timeline	Big Idea Topic	Text Correlation Page Number
Day 1 & 2	Operations and Algebraic Thinking Solve problems involving four operations, and identify and explain patterns in arithmetic. 3.OA.9 Number and Operations in Base Ten Use place value understanding and properties of operations to perform multi-digit arithmetic. 3.NBT.2	Day 1 - 1.1 & 1.2  Add number line to number grid.  Day 2 - 1.3
Day 3 - 6	Measurement and Data Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects. 3. MD.1 Represent and interpret data. 3.MD.3 3.MD.4	Day 3 & 4 - 1.4 Supplement Time Day 5 & 6 - 1.5 Begin students determining scales.
Day 7 & 8	Operations and Algebraic Thinking Solve problems involving four operations, and identify and explain patterns in arithmetic. 3.OA.8 3.OA.9 Number and Operations in Base Ten Use place value understanding and properties of operations to perform multi-digit arithmetic. 3.NBT.2	Day 7 - 1.6 Day 8 - 1.8

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Day 9 & 10	Progress Check	
Day 11 & 12	Centers, Enrichment, Interventions	
Day 13 - 15	Operations and Algebraic Thinking Understand properties of multiplication and the relationship between multiplication and division. 3.OA.5 Number and Operations in Base Ten Use place value understanding and properties of operations to perform multi-digit arithmetic. 3.NBT.2	Day 13 - 15 - 2.1, 2.2, & 2.9
Day 16	Operations and Algebraic Thinking Solve problems involving four operations, and identify and explain patterns in arithmetic. 3.OA.9	Day 16 - 2.3
Day 17 - 21	Operations and Algebraic Thinking Understand properties of multiplication and the relationship between multiplication and division. 3.OA.5 Solve problems involving four operations, and identify and explain patterns in arithmetic. 3.OA.9 Number and Operations in Base Ten Use place value understanding and properties of operations to perform multi-digit arithmetic. 3.NBT.2	Day 17 - 21 - 2.4, 2.5, & 2.6
Day 22 & 23	Number and Operations in Base Ten Use place value understanding and properties of operations to perform multi-digit arithmetic. 3.NBT.2	Day 22 & 23 - 2.7

Day 24 & 25	Progress Check	2.10 Note: Ballpark estimates and 2.8 are moved to unit 5 with base 10 and place value.
Day 26 & 27	Centers, Enrichment, and Interventions	
Day 28 - 31	Measurement and Data Represent and interpret data. 3.MD.4	Day 28 & 29 - 3.2  Fix rulers - white out other lines.  Focus on US measurement.  Add line plot of measurements.  Day 30 & 31 - 3.3  Focus on metric measurement.
Introduce Rocket Math	Must begin with multiplication as per Common Core	(addition / subtraction practice can be done as an intervention)
Day 32 - 33	Progress Check and Enrichment	3.5 & 3.9
Day 35- 40	Centers, Enrichment, and Interventions	
Day 41	Benchmark Testing	
	Quarter II	
Timeline	Big Idea Topic	Text Correlation Page Number
Day 1 & 2	Operations and Algebraic Thinking Represent and solve problems involving multiplication and division. 3.OA.1 3.OA.2 3.OA.3 3.OA.4 - Determine the unknown whole number in a multiplication or division equation relating three whole numbers. Understand properties of multiplication and the relationship between multiplication and division. 3.OA.6 Number and Operations in Base Ten Use place value understanding and properties of operations to perform	Day 1 & 2 - 4.1 & 4.3

	multi-digit arithmetic. 3.NBT.2	
Day 2 & 3	Operations and Algebraic Thinking Represent and solve problems involving multiplication and division. 3.OA.1 3.OA.3 Measurement and Data Geometric measurement: understand concepts of area and relate area to multiplication and to addition. 3.MD.7a 3.MD.7b	Day 2 & 3 - 4.2
Day 4 - 9	Operations and Algebraic Thinking Represent and solve problems involving multiplication and division. 3.OA.1 3.OA.3 3.OA.4 - Determine the unknown whole number in a multiplication or division equation relating three whole numbers. Understand properties of multiplication and the relationship between multiplication and division. 3.OA.6 Multiply and divide within 100. 3.OA.7 Solve problems involving the four operations, and identify and explain patterns in arithmetic. 3.OA.9 3.MD.7c	Day 4 - 6 - 4.4 & 4.6 Day 7 & 8 - 4.5 & 4.6 Day 9 - 4.8
Day 10 & 11	Progress Check	4.10 enrichment
Day 12 & 13  Note: The above should be completed before winter break.	Centers, Enrichment, and Interventions	
Day 14 & 15 Day 16 & 17	Review - Centers, Enrichment, and Intervention  Geometry  Reason with shapes and their attributes.	Day 16 & 17 - 8.1
	3.G.2  Number and Operations - Fractions  Develop understanding of fractions as numbers.  3.NF.1	
Day 18	Operations and Algebraic Thinking Represent and solve problems involving multiplication and division. 3.OA.3	Day 18 - 8.2

Day 19 - 25	Geometry Reason with shapes and their attributes. 3.G.2 Number and Operations - Fractions Develop understanding of fractions as numbers. 3.NF.1 3.NF.2 3.NF.2a 3.NF.2b 3.NF.3 3.NF.3 3.NF.3a 3.NF.3a 3.NF.3b 3.NF.3c 3.NF.3c	Day 19 & 20 - 8.3 Day 21 - 23 - 8.4 Day 24 & 25 - 8.5
Day 26 & 27		Day 26 & 27 - 8.6
Day 28 & 29	Number and Operations - Fractions Develop understanding of fractions as numbers. 3.NF.2 3.NF.2a 3.NF.2b	Day 28 & 29 - 8.8
Day 30 & 31	Review and Progress Check	Day 30 & 31 - 8.9 Note 8.7 enrichment
Day 32 - 35	Centers, Enrichment, and Intervention	
	BENCHMARK Testing	

	Quarter III	
Timeline	<b>Big Idea</b> <i>Topic</i>	Page Number
Days 1 - 3	Operations and Algebraic Thinking Represent and solve problems involving multiplication and division	Days 1 - 3 7.1, 7.2, 7.3
	3.OA.4: Determine the unknown whole number in a multiplication or division equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations 8X ?=48  3.OA.6: Understand division as an unknown-factor problem	
Day 4	Operations and Algebraic Thinking Represent and solve problems involving multiplication and division  3.OA.3; 3.OA.8	Day 4 7.4
Days 5 & 6	Number and Operations in Base Ten Use place value understanding and properties of operations to perform multi-digit arithmetic  3.NBT.1; 3.NBT.3; 3.OA.3; 3.OA.8	Days 5 & 6 7.6 and 7.8
Day 7	Number and Operations in Base Ten Use place value understanding and properties of operations to perform multi-digit arithmetic  3.NBT.1; 3.OA.8	Day 7 7.7
Days 8 & 9		Days 8 & 9 Review and Progress Check

Day 10		Centers, Enrichments and Interventions
Days 11 - 13	Number and Operations in Base Ten Use place value understanding and properties of operations to perform multi-digit arithmetic  3.OA.3; 3.OA.8; 3.NBT.3	Days 11 - 13 9.1, 9.2 (2 days)
Day 14	Measurement and Data Prelude to Area and Perimeter 3.MD.7a Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.	Day 14 Lsn 3.6 Aspects of 9.3 can also be used
Days 15 - 18	Measurement and Data Geometric measurement: understand concepts of area and relate are to multiplication and addition  3.MD.7a; 3.MD.7b; 3.MD.7c	Days 15 - 18 3.7, 3.8, 3.4
Day 19-25	Measurement and Data Geometric measurement: understand concepts of area and relate area to multiplication and to addition. 3.MD.5 3.MD.5a 3.MD.5b 3.MD.7a Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures. 3.MD.8 Operations and Algebraic Thinking Multiply and divide within 100. 3.OA.7	Day 19-25  NJCTL Lessons: Units 2(latter half) and 7 <a href="http://njctl.org/courses/math/3rd-grade-math/">http://njctl.org/courses/math/3rd-grade-math/</a> Georgia Lessons: Use the Fence of the Yard through Guess Who's Coming to Dinner: <a href="https://www.georgiastandards.org/Common-Core/Common%20Core%20Frameworks/CCGPS_Math_3_Unit4FrameworkSE.pdf">https://www.georgiastandards.org/Common-Core/Common%20Core%20Frameworks/CCGPS_Math_3_Unit4FrameworkSE.pdf</a>

Review and Assessment	
Centers, Interventions, and Enrichments	Lessons 9.4, 9.6, and 9.9 enrichments
BENCHMARK TESTING	
Quarter IV	
<b>Big Idea</b> <i>Topic</i>	Page Number
Geometry Reason with shapes	Days 1 - 3 6.4, 6.5, 6.6
Geometry	Day 4 revisit 8.1
3.G.2	
Geometry	Day 5 revisit 8.1
3.G.2	
	Days 7 & 8 Review and Progress Check
*4.G.3	Days 9 & 10 Centers, Enrichments (6.1, 6.2, 6.3), Interventions
Measurement and Data Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects	Days 11 & 12 10.2, 10.5
Measurement and Data Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects	Days 13 & 14 10.3, 10.4
	Centers, Interventions, and Enrichments  BENCHMARK TESTING  Quarter IV  Big Idea Topic  Geometry Reason with shapes 3.G.1 Geometry  3.G.2  Geometry  *4.G.3  Measurement and Data Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects 3.MD.2  Measurement and Data Solve problems involving measurement and estimation of intervals of time, liquid volumes, and

	3.MD.2	
Day 15	Number and Operations Develop understanding of fractions as numbers  3.NF.3a: Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.  3.NF.3b: Recognize and generate simple equivalent fractions e.g., ½ = 2/4; 4/6 = ½). Explain why the fractions are equivalent by using a visual fraction model	Day 15 10.6
Day 16	Operations and Algebraic Thinking Solve problems involving the four operations, and identify and explain patterns in arithmetic  3.OA.8	Day 16 10.7
Day 17	Operations and Algebraic Thinking Solve problems involving the four operations, and identify and explain patterns in arithmetic  3.OA.8 3.MD.3	Day 17 10.9
Day 18	Number and Operations- Fractions Develop understanding of fractions as numbers  3.NF.3a: Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.	Day 18 10.10
Days 19 & 20		Days 19 & 20 Review and Progress Check 10
Day 21		Day 21 Enrichment, Centers, Interventions

Note to Self:

Money, Coordinate Graphing, Probability, Symmetry

ENRICHMENT TOPICS

Suggested days of Instruction - Q1 Day 1 & 2	Big Idea:Operations and Algebraic Thinking; Number and Operations in Base Ten	<b>Topic:</b> Solve problems involving four operations, and identify and explain patterns in arithmetic.  Use place value understanding and properties of operations to perform multi-digit arithmetic.
Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's) The student will be able to:	Essential Questions, Enduring Understandings	Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
3.OA.9 Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.  3.NBT.2	Essential Questions: Why do I need mathematical operations?  Enduring Understandings: Operations create relationships between numbers.	Learning Activities: Everyday Math:  Hunting for Numbers, pg 20, TE Numbers All Around Museum, pg 19, TE Number Grid Puzzle and Class Number Grid, pg 24 & 25, TE Looking Up Information in Student Reference Book, pg 30, TE Discussing Rules for Working with Others, pg 30, TE Playing Less Than You!, pg 31, TE  Materials: Working with Others Rules Chart Number Cards 0 - 10 Student Reference Book Class Number Grid Number Grid Puzzles (Math Journal, pg 3) Presentation Board  Assessment Models: Homelinks Journal Pages Progress Check Informal Assessments  Supplemental Resources: Student Number Grids Number Lines

		Diass Number Ond
Suggested days of Instruction - Q1	Big Idea:Measurement and Data	<b>Topic:</b> Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.
Day 3 - 6		Represent and interpret data.
Concepts / Cumulative Progress	Essential Questions, Enduring Understandings	Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
Indicators (CPI's)		
The student will be able to:		
3. MD.1		Learning Activities:
3.MD.3 3.MD.4	Essential Questions:	Everyday Math:
5.IVID.4	How do units within a system relate to each other?	Review Telling Time, pg 33, TE
		Using Mathematical Tools, pg 34, TE
		Comparing Two Sets of Data (use first names), pg 38, TE
	Enduring Understandings:	Tally Chart and Bar Graph, pg 39, TE
	The choice of measurement tools depends on the	Math Boxes, pg 40, TE
	measurable attribute and the degree of precision	Making a Math Bank, pg 41, TE
	desired.	Sunrise and Sunset, pg 80
		Materials:
		Class Blank Bar Graph
		Class Blank Tally Chart
		Class Clock
		Chart Paper
	<u>:</u>	Class Sunrise and Sunset Chart
		Sunrise/Sunset Graph, Math Journal pg 27
		Assessment Models:
		Homelinks
		Journal Pages
		Informal Assessment
		Math Boxes
		Supplemental Resources:

Class Number Grid

	Number line
	Clocks from Math Masters
	Pattern-block Templates
}	Judy Clocks
	http://classroom.jc-schools.net/basic/math-time.html
	http://math.pppst.com/tellingtime.html
	http://www.gamequarium.com/data.html

Suggested days of Instruction: Q1 Day 7 & 8	Big Idea: <b>Operations and</b> Algebraic Thinking Number and Operations in Base Ten	<b>Topic:</b> Solve problems involving four operations, and identify and explain patterns in arithmetic.  Use place value understanding and properties of operations to perform multi-digit arithmetic.
Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's) The student will be able to:	Essential Questions, Enduring Understandings	Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
3.OA.8 Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.  3.OA.9 Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.  3.NBT.2	Essential Questions:  How do I determine the best numerical representation for a given situation?  Enduring Understandings:  Number sense develops through experience.	Learning Activities:  Everyday Math:  Name Collection Boxes, pg 43, TE  Name-Collection Boxes (as whole class activity - put 4 pieces of chart paper around room for 4 different numbers) pg 44, TE  Sorting Dominoes, pg 46, TE  Math Boxes, pg 45, TE  Math Message Follow Up, pg 52, TE  Playing the Number Grid Difference Game, pg 53, TE  Skip Counting on the Number Grid, pg 54, TE  Materials: Chart Paper Dominoes Class Number Grid  Assessment Models: Home Links Informal Assessment Math Boxes  Supplemental Resources: Dominoes Student Number Grids <a href="http://www.ixl.com/math/grade-3">http://www.ixl.com/math/grade-3</a>

Suggested days of	Big Idea: <b>Progress Check</b>	Topic: Progress Check
Instruction:		
Q1		
9 & 10		
Objectives / Cluster Concepts /	Essential Questions, Enduring Understandings	Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
Cumulative Progress Indicators (CPI's)		
The student will be able to:		
		Review and Progress Check

Big Idea:Centers, Enrichment, Interventions	Topic: Centers, Enrichment, Interventions
Essential Questions, Enduring Understandings	Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
	Learning Activities:
Essential Questions:	
How does finding the common characteristics among similar problems help me to be a more efficient problem solver?	Everyday Math: Enrichment: 1.10 & 1.11
	Introduce Rocket Math
En Andrea Ha Landon Para	Centers: ie. from formal assessments what interventions students need
The problem in front of you is a member of a larger class of	Possible Centers: Math Games, Dominoes, Websites, Time and Math Box review
	Materials:
	Assessment Models:
	Supplemental Resources:
	Essential Questions, Enduring Understandings  Essential Questions:  How does finding the common characteristics among similar problems help me to be a more efficient problem solver?  Enduring Understandings:

Suggested days of Instruction:	Big Idea: Operations	Topic: Understand properties of multiplication
Q1	and Algebraic Thinking	and the relationship between multiplication and
Day 13 - 15	Number and	division.
Day 10 - 10	Operations in Base Ten	
	ren	Use place value understanding and properties
		of operations to perform multi-digit arithmetic.
Objectives / Cluster Concepts /	Essential Questions,	Instructional Tools / Materials / Technology
Cumulative Progress Indicators (CPI's)	Enduring	/ Resources / Learning Activities /
The student will be able to:	Understandings	Interdisciplinary Activities / Assessment
		Model
3.OA.5 Apply properties of operations as strategies to multiply and divide.2 Examples: If		Learning Activities:
$6 \times 4 = 24$ is known, then $4 \times 6 = 24$ is also known. (Commutative property of	Essential Questions:	Everyday Math:
multiplication.) $3 \times 5 \times 2$ can be found by $3 \times 5 = 15$ , then $15 \times 2 = 30$ , or by $5 \times 2 = 10$ , then $3 \times 10 = 30$ . (Associative property of multiplication.) Knowing that $8 \times 5 = 40$ and $8 \times 5 = 40$	What are properties of	Introduce Commutative and Associative
2 = 16, one can find $8 \times 7$ as $8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56$ . (Distributive	whole numbers?	Properties through Brain Pop (These properties
property.)		also work for multiplication - just mention it, don't teach it)
	Enduring	Review Fact Family Concepts, pg 101, TE
3.NBT.2	Understandings:	Fact Family Triangles, pg 101, TE
	Numbers can be classified by	Reviewing the Addition/Subtraction Facts Table, pg 102, TE
	attributes.	Completing Fact Families and Number Families, pg 103, TE
		Practicing Basic Fact with Families, pg 101, TE
		Modeling Fact Shortcuts with Manipulatives, pg 104, TE
		Playing Roll to 100, pg 105, TE
		Practicing Fact Extensions, pg 108, TE
		Playing Name that Number, pg 111, TE
		Math Boxes, pg 110 & 104, TE
		Introduce Parts and Total Diagram (math message) pg 148, TE
		Adding three for Four Numbers in any Order, pg 149, TE
		Using the Guide to Solving Number Stories, pg 149, TE
		Math Boxes, pg 151, TE

Materials:
Fact Triangles, MM pg 36
Student Reference Book
Math Journal
Class Number Grid
Dice
Number Cards (math game kit)
Student Number Grids
Example of part-total diagram
Brain Pop
Assessment Models:
Homelinks
Math Journal
Math Boxes
Supplemental Resources:
Adding with Base-10 Blocks and Addition and Subtraction Puzzles, pg 151, TE
Class Part-Total Diagram Chart Laminated
Base 10 Blocks
White-Boards
I Pad Addition Games

Suggested days of Instruction Q1 Day 16	Algebraic Thinking	<b>Topic:</b> Solve problems involving four operations, and identify and explain patterns in arithmetic.
Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's) The student will be able to:	Essential Questions, Enduring Understandings	Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
3.OA.9 Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.	Essential Questions: What are the properties of whole numbers?  Enduring Understandings: Numbers can be classified by attributes.	Learning Activities:  Everyday Math: Teaching the Lesson, pg 113, TE Follow Up Review Complete Math Masters, pg 116, TE Creating "What's My Rule?" Tables, pg 116, TE  Materials: Class Input Output Box  Assessment Models: Homelinks MathBox Math Journal  Supplemental Resources: Class Input Output Box  Creating "What's My Rule?" Tables Number Cards for Addition and Subtraction Fact Triangles

Suggested days of Instruction:  Q1  Day 17 - 21	Big Idea: Operations and Algebraic Thinking Number and Operation s in Base Ten	Topic: Understand properties of multiplication and the relationship between multiplication and division. Solve problems involving four operations, and identify and explain patterns in arithmetic.  Use place value understanding and properties of operations to perform multi-digit arithmetic.
Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's) The student will be able to:	Essential Questions, Enduring Understandings	Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
<ul> <li>3.OA.5 Apply properties of operations as strategies to multiply and divide.2 Examples: If 6 × 4 = 24 is known, then 4 × 6 = 24 is also known. (Commutative property of multiplication.) 3 × 5 × 2 can be found by 3 × 5 = 15, then 15 × 2 = 30, or by 5 × 2 = 10, then 3 × 10 = 30. (Associative property of multiplication.) Knowing that 8 × 5 = 40 and 8 × 2 = 16, one can find 8 × 7 as 8 × (5 + 2) = (8 × 5) + (8 × 2) = 40 + 16 = 56. (Distributive property.)</li> <li>3.OA.9 Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.</li> <li>3.NBT.2</li> <li>3.MD. 7C</li> </ul>	Enduring Understandings: Numbers can represent relationships.	Learning Activities:  Everyday Math:  Using the Guide to Solving Number Stories, pg 113, TE Introduce Guide to Solving Number Stories, pg 119, TE, pg 406 MM Solving a Change-to-More/Less Number Story, pg 124, TE Solving Comparison Number Stories, pg 132, TE Math Boxes Make Work Bank Chart for Vocabulary  Materials: Class Part-Part-Total Chart Class Start-Change-End Diagram Class Quantity Difference Diagram Student Reference Book Chart Paper  Assessment Models: Homelinks Mathboxes Math Journal Number Story  Supplemental Resources: Wipe off Boards

Counters
MM, pg 409
MM, pg 407
http://www.mathplayground.com/GrandSlamMath1.html

Suggested days of Instruction Q1 Day 22 & 23	Big Idea:Number and Operations in Base Ten	<b>Topic:</b> Use place value understanding and properties of operations to perform multi-digit arithmetic.
Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's) The student will be able to:	Essential Questions, Enduring Understandings	Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
3.NBT.2	Essential Questions: In what ways can numbers be composed or decomposed?  Enduring Understandings: Place Value is based on groups of ten.	Learning Activities:  Everyday Math:  Vocabulary Math Bank Chart, pg 136 and 140, TE  Modeling the Partial Sums Method for 3-Digits, pg 137, TE  Practicing Partial Sums, pg 138, TE  Modeling 2-Digit Numbers with Base-10 Blocks (partners)  Math Boxes 1- 5, pg 139  Materials  Base-10 Blocks  Place Value Wipe-off Boards  Assessment Models:  Homelinks  Mathbox  Math Journal  Supplemental Resources:  Base-10 Blocks  Place Value Wipe-off Boards (See Bentivegna)  MM pg 53

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Suggested days of Instruction	Big Idea: Progress Check	Topic: Unit Test
Q1		
Day 24 & 25		
Objectives / Cluster Concepts /	Essential Questions, Enduring Understandings	Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
Cumulative Progress Indicators (CPI's)		
The student will be able to:		
		Review and Progress Check

Suggested days of Instruction Q1 Day 26 & 27	Big Idea: Centers, Enrichment, and Interventions	Topic:
Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's) The student will be able to:	Essential Questions, Enduring Understandings	Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
	Essential Questions:  How does finding the common characteristics among similar problems help me to be a more efficient problem solver?  Enduring Understandings:  The problem in front of you is a member of a larger class of problems.	Learning Activities:  Enrichments/Centers:  FACEing Math Create #2  Create a face with word problems (SEE BENTIVEGNA)

Suggested days of Instruction Q1 Day 28-31	Big Idea: Measurement and Data	Topic: Represent and interpret data.
Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)		Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
The student will be able to:		
3.MD.4	measurement?	Learning Activities:  Everyday Math:  Math Message pg 177, TE  Reading a Ruler and Measuring to the Nearest to an Inch and ½ Inch, pg 177, TE, MM pg 413  (Don't teach ¼ inch)  Ruler A and B on pg 178, TE
	Enduring Understandings:  Standard units of measure enable people to interpret results or data.	Playing Addition Top-It, pg 180, TE Ruler Number Line, pg 181, TE Add to Word Bank, pg 181, TE Math box pg 181, TE Review Customary Units and Metric, pg 184, TE Measure Hunt, pg 184, TE Estimating Lengths, #1, pg 185, TE Math Box pg 187, TE  Materials: Ruler MM pg 413 Paper Number Cards Word Bank Chart Yard Stick Tape Measure 12" ruler Math Journal pg 60 & 61

	Assessment Models:
	Math Journal
	Math Boxes
	Supplemental Resources:
	Rulers
	Tape Measure
	Number Cards
	http://www.pbs.org/parents/earlymath/grades_games_timetomove.html

Suggested days of Instruction Q1 Day 32-34	Big Idea: Measurement and Data	<b>Topic:</b> Geometric measurement: understand concepts of area and relate area to multiplication and to addition.  Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.
	Essential Questions, Enduring Understandings	Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
3.MD.56 3.MD.7a 3.MD.7d 3.MD.8	Essential Questions: What types of problems are solved with measurement?  Enduring Understandings: Objects have distinct attributes that can be measured.	Learning Activities:  Everyday Math:  Making Polygons out of Straws, pg 189, TE  Student Reference page 109  Revisiting the Concept of Perimeter, pg 191, TE  Exploring Perimeter, pg 193, TE  Perimeter, MM pg 68  Exploration A, B & C, pg 203, TE  (Exploration A use pennies to count square, pg 216)  Straw Triangles, MM pg 70  Math Box pg 204, TE  Materials:  Straws  Twist-ties  Student Reference Book  Centimeter Grid Paper, MM 416  Geoboards  Pattern Blocks  Pennies  Assessment Models:  Homelinks  Mathboxes  Journals
		<u> </u>

	Supplemental Resources:
	Straws
	Twist-ties
	Geoboards
	Pattern Blocks
	Grid Paper

Suggested days of Instruction: Q1 Day 35 & 36	Data Operations and Algebraic	<b>Topic:</b> Geometric measurement: understand concepts of area and relate area to multiplication and to addition.  Multiply and divide within 100.
Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's) The student will be able to:	Enduring Understandings	Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
3.MD.5a 3.MD.6a 3.MD.7a 3.MD.7b 3.OA.7 Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 × 5 = 40, one knows 40 ÷ 5 = 8) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.	What types of problems are solved with measurement?  Enduring Understandings: Objects have distinct attributes that can be measured.	Learning Activities:  Everyday Math:  Finding the Areas of Rectangles by Counting Squares, pg 209, TE  Subtraction Top-It, pg 209, TE  Exploring Cube Configurations, pg 210, TE  Mathbox, pg 209, TE  Finding the Areas of Rectangles, pg 214, TE  Practicing Finding the Areas of Rectangles, pg 215, TE  Mathboxes, pg 216, TE  Materials:  Number Cards  Base-10 Blocks  Centimeter Grid Paper, MM pg 416 & 417  Pennies  Assessment Models:  Homelinks  Mathboxes  Math Journal  Supplemental Resources:  Base-10 Blocks  Grip Paper  Pennies

Suggested days of Instruction: Q1 Day 37 & 38	Big Idea: Progress Check & Enrichment	Topic:
Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's) The student will be able to:	Essential Questions, Enduring Understandings	Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
		Review and Progress Check

Suggested days of Instruction Q1 Day 39 & 40	Big Idea: Centers, Enrichment, and Interventions	Topic:
Objectives / Cluster Concepts /	Essential Questions, Enduring Understandings	Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
Cumulative Progress Indicators (CPI's)		
The student will be able to:		
	Essential Questions:	Learning Activities:
	How do I determine the best numerical representation for a given situation?	Enrichment: 3.5, 3.9
	Enduring Understandings	Centers:
	Enduring Understandings: The problem in front of you is a member of a	Area and Perimeter
	larger class of problems.	Making Polygons with Twist-ties

Suggested days of Instruction Q1 Day 41 & 42	Big Idea: Benchmark Testing	Topic:
Objectives / Cluster Concepts /	Essential Questions, Enduring Understandings	Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
Cumulative Progress Indicators (CPI's)		
The student will be able to:		
		Benchmark Test

	Big Idea: Operations and Algebraic Thinking  Determine the unknown whole number in a multiplication or division equation relating three whole numbers.  Number and Operations in Base Ten	Topic: Represent and solve problems involving multiplication and division.  Understand properties of multiplication and the relationship between multiplication and division.  Use place value understanding and properties of operations to perform multi-digit arithmetic.
		Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
	The relationships among the operations and their properties promote	Learning Activities:  Everyday Math:  Add Vocabulary to Word Bank  Math Message Follow-Up & Using Multiplication/Division Diagrams, pg 243, TE  Solving Number Stories about Equal Groups, pg 245, TE  Solving Multiplication Stories, pg 246, TE  Math Message Follow-Up, pg 255, TE  Solving Equal-Sharing Number Stories with Counters, pg 256, TE  Solving Equal-Grouping Number Stories, pg 256, TE  Mathbox, pg 258, TE
<ul> <li>3.OA.3 Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.</li> <li>3.OA.4 Determine the unknown whole number in a multiplication or division equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations 8 x ? = 48, 5 = _ ÷ 3, 6 x 6 = ?</li> </ul>		Materials:  MM pg 419 Class Multiplication/Division Diagram Student Reference Books Math Journal pg 79 Counters  Assessment Models: Homelinks

3.OA.6 Understand division as an unknown-factor problem. For example, find 32 ÷ 8 by finding the number that makes 32 when multiplied by 8. 3.NBT.2	Math Boxes Math Journal
0.1451.2	Supplemental Resources:
	Counters
	Coordinate Grid
	http://multiplication.com/interactive_games.htm
	http://www.mathcats.com/grownupcats/ideabankmultiplication.html

Suggested days of Instruction Q2 Day 2 & 3	Big Idea: Operations and Algebraic Thinking Measurement and Data	<b>Topic:</b> Represent and solve problems involving multiplication and division.  Geometric measurement: understand concepts of area and relate area to multiplication and to addition.
Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)	Essential Questions, Enduring Understandings	Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
The student will be able to:  3.OA.1 Interpret products of whole numbers, e.g., interpret 5 × 7 as the total number of objects in 5 groups of 7 objects each. For example, describe a context in which a total number of objects can be expressed as 5 × 7.  3.OA.3 Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.  3.MD.7a 3.MD.7b	Essential Questions: How do I know which computational method to use?  Enduring Understandings: Operations create relationships between numbers.	Learning Activities:  Math Message Follow-Up, pg 249, TE  Building Arrays, pg 253, TE  Solving Multiplication Number Stories Using Arrays, pg 250, TE  Representing Multiplication Situations with Arrays, pg 250, TE  Solving More Multiplication Number Stories, pg 251, TE  Math Boxes, pg 252, TE  Materials  Counters  Egg Carton  Box of Crayons  Arrays  Math Journal, pg 419  Assessment Models:  Homelinks  Mathboxes  Math Journal  Supplemental Resources:  Counters  Arrays  Egg Carton  http://multiplication.com/interactive_games.htm  http://www.mathcats.com/grownupcats/ideabankmultiplication.html

Suggested days of Instruction Q2 Day 4-9	Big Idea: Operations and Algebraic Thinking  Determine the unknown whole number in a multiplication or division equation relating three whole numbers.	Topic: Represent and solve problems involving multiplication and division.  Understand properties of multiplication and the relationship between multiplication and division.  Multiply and divide within 100.  Solve problems involving the four operations, and identify and explain patterns in arithmetic.
Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's) The student will be able to:	Essential Questions, Enduring Understandings	Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
<ul> <li>3.OA.1 Interpret products of whole numbers, e.g., interpret 5 × 7 as total number of objects in 5 groups of 7 objects each. For example, describe a context in which a total number of objects can be express as 5 × 7.</li> <li>3.OA.3 Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with symbol for the unknown number to represent the problem.</li> <li>3.OA.4 Determine the unknown whole number in a multiplication or division equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each the equations 8 × ? = 48, 5 = _ ÷ 3, 6 × 6 = ?</li> <li>3.OA.6 Understand division as an unknown-factor problem. For example, find 32 ÷ 8 by finding the number that makes 32 when multiplied by 8.</li> <li>3.OA.7 Fluently multiply and divide within 100, using strategies such the relationship between multiplication and division (e.g., knowing that 8 × 5 = 40, one knows 40 ÷ 5 = 8) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.</li> </ul>	How do mathematical operations relate to each other?  Enduring Understandings: The relationships among the operations and their properties promote computational fluency.	Learning Activities:
3.OA.9 Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two	ю	Math Message Follow-Up, pg 267, TE Reviewing the Importance of Fact Power, pg 276, TE Reviewing Shortcuts for Multiplication Facts,

Introducing Multiplication/Division Fact Families, pg 274, TE  Using Fact Table and Fact Families, pg 274, TE  Math Box, pg 276, TE  Multiplication Baseball (Everyday Math Game) 4.7  Math Boxes and Homelink, pg 281, TE  Day 9  Math Message Follow-Up, pg 284, TE  Exploration B & C, pg 284, TE  Materials  MM pg 419  Class Multiplication/Division Diagram  Counters  MM pg 407  Students Addition/Subtraction Fact Families  Fact Triangles, Math Journal 1, Activity Sheet 1  MM pg 421  MM pg 421  MM pg 421  MM pg 98  Dice  MM pg 106  Math Journal pg 93  Fact Platters  Assessment Models:  Homelinks  Math Doxes  Math Journal  Supplemental Resources:  Counters  Counters	equal addends.	pg 267, TE
Families, pg 274, TE  Using Fact Table and Fact Families, pg 274, TE  Math Box, pg 276, TE  Multiplication Baseball (Everyday Math Game) 4.7  Math Boxes and Homelink, pg 281, TE  Day 9  Math Message Follow-Up, pg 284, TE  Exploration 8 & C, pg 286, TE  Materials  MM pg 419  Class Multiplication/Division Diagram  Counters  MM pg 407  Students Addition/Subtraction Fact Families  Fact Triangles, Math Journal 1, Activity Sheet 1  MM pg 421  MM pg 98  Dice  MM pg 96  MM pg 96  MM pg 96  MM pg 106  Math Journal pg 93  Fact Platters  Assessment Models:  Homelinks  Math Doxes  Math Journal  Supplemental Resources:  Counters  Counters		Taking the Fact Power Challenge, pg 269, TE
Using Fact Table and Fact Families, pg 274, TE Math Box, pg 276, TE Multiplication Baseball (Everyday Math Game) 4.7 Math Boxes and Homelink, pg 281, TE Day 9 Math Message Follow-Up, pg 284, TE Exploration B & C, pg 284, TE Exploration B & C, pg 284, TE Materials MM pg 419 Class Multiplication/Division Diagram Counters MM pg 407 Students Addition/Subtraction Fact Families Fact Triangles, Math Journal 1, Activity Sheet 1 MM pg 427 MM pg 98 Dice MM pg 98 Dice MM pg 95 MM pg 106 Math Journal pg 93 Fact Platters  Assessment Models: Homelinks Math Doxes Math Journal Supplemental Resources: Counters		Introducing Multiplication/Division Fact
274, TE Math Box, pg 276, TE Multiplication Baseball (Everyday Math Game) 4.7 Math Boxes and Homelink, pg 281, TE Day 9 Math Message Follow-Up, pg 284, TE Exploration B & C, pg 284, TE Math Boxes, pg 286, TE  Materials MM pg 419 Class Multiplication/Division Diagram Counters MM pg 407 Students Addition/Subtraction Fact Families Fact Triangles, Math Journal 1, Activity Sheet 1 MM pg 421 MM pg 98 Dice MM pg 95 MM pg 106 Math Journal pg 93 Fact Platters  Assessment Models: Homelinks Math boxes Math Journal Supplemental Resources: Counters		Families, pg 274, TE
Math Box, pg 276, TE Multiplication Baseball (Everyday Math Game) 4.7 Math Boxes and Homelink, pg 281, TE Day 9 Math Message Follow-Up, pg 284, TE Exploration B & C, pg 284, TE Math Boxes, pg 286, TE Materials MM pg 419 Class Multiplication/Division Diagram Counters MM pg 407 Students Addition/Subtraction Fact Families Fact Triangles, Math Journal 1, Activity Sheet 1 MM pg 421 MM pg 98 Dice MM pg 96 MM pg 106 Math Journal pg 93 Fact Platters  Assessment Models: Homelinks Math boxes Math Journal Supplemental Resources: Counters		
Multiplication Baseball (Everyday Math Game) 4.7 Math Boxes and Homelink, pg 281, TE Day 9 Math Message Follow-Up, pg 284, TE Exploration B & C, pg 284, TE Math Boxes, pg 286, TE  Materials MM pg 419 Class Multiplication/Division Diagram Counters MM pg 407 Students Addition/Subtraction Fact Families Fact Triangles, Math Journal 1, Activity Sheet 1 MM pg 421 MM pg 98 Dice MM pg 95 MM pg 106 Math Journal pg 93 Fact Platters  Assessment Models: Homelinks Math Journal Supplemental Resources: Counters		
Game) 4.7 Math Boxes and Homelink, pg 281, TE Day 9 Math Message Follow-Up, pg 284, TE Exploration B & C, pg 284, TE Math Boxes, pg 286, TE  Materials MM pg 419 Class Multiplication/Division Diagram Counters MM pg 407 Students Addition/Subtraction Fact Families Fact Triangles, Math Journal 1, Activity Sheet 1 MM pg 421 MM pg 98 Dice MM pg 98 Dice MM pg 106 Math Journal pg 93 Fact Platters  Assesment Models: Homelinks Math boxes Math Journal Supplemental Resources: Counters		
Day 9 Math Message Follow-Up, pg 284, TE Exploration B & C, pg 284, TE Math Boxes, pg 286, TE  Materials MM pg 419 Class Multiplication/Division Diagram Counters MM pg 407 Students Addition/Subtraction Fact Families Fact Triangles, Math Journal 1, Activity Sheet 1 MM pg 421 MM pg 98 Dice MM pg 96 MM pg 96 MM pg 106 Math Journal pg 93 Fact Platters  Assessment Models: Homelinks Math boxes Math boxes Math Journal Supplemental Resources: Counters		
Math Message Follow-Up, pg 284, TE Exploration B & C, pg 284, TE Math Boxes, pg 286, TE  Materials  MM pg 419 Class Multiplication/Division Diagram Counters MM pg 407 Students Addition/Subtraction Fact Families Fact Triangles, Math Journal 1, Activity Sheet 1  MM pg 421  MM pg 98 Dice MM pg 95  MM pg 106 Math Journal pg 93 Fact Platters  Assessment Models: Homelinks Math boxes Math Journal Supplemental Resources: Counters		Math Boxes and Homelink, pg 281, TE
Exploration B & C, pg 284, TE Math Boxes, pg 286, TE  Materials MM pg 419 Class Multiplication/Division Diagram Counters MM pg 407 Students Addition/Subtraction Fact Families Fact Triangles, Math Journal 1, Activity Sheet 1 MM pg 421 MM pg 98 Dice MM pg 95 MM pg 106 Math Journal pg 93 Fact Platters  Assessment Models: Homelinks Math boxes Math Journal Supplemental Resources: Counters		Day 9
Materials MM pg 419 Class Multiplication/Division Diagram Counters MM pg 407 Students Addition/Subtraction Fact Families Fact Triangles, Math Journal 1, Activity Sheet 1 MM pg 421 MM pg 98 Dice MM pg 95 MM pg 106 Math Journal pg 93 Fact Platters  Assessment Models: Homelinks Math boxes Math Journal Supplemental Resources: Counters		Math Message Follow-Up, pg 284, TE
Materials MM pg 419 Class Multiplication/Division Diagram Counters MM pg 407 Students Addition/Subtraction Fact Families Fact Triangles, Math Journal 1, Activity Sheet 1 MM pg 421 MM pg 98 Dice MM pg 95 MM pg 95 MM pg 106 Math Journal pg 93 Fact Platters  Assessment Models: Homelinks Math boxes Math Journal Supplemental Resources: Counters		Exploration B & C, pg 284, TE
MM pg 419 Class Multiplication/Division Diagram Counters MM pg 407 Students Addition/Subtraction Fact Families Fact Triangles, Math Journal 1, Activity Sheet 1 MM pg 421 MM pg 98 Dice MM pg 95 MM pg 106 Math Journal pg 93 Fact Platters  Assessment Models: Homelinks Math boxes Math Journal Supplemental Resources: Counters		Math Boxes, pg 286, TE
Class Multiplication/Division Diagram Counters MM pg 407 Students Addition/Subtraction Fact Families Fact Triangles, Math Journal 1, Activity Sheet 1 MM pg 421 MM pg 98 Dice MM pg 95 MM pg 106 Math Journal pg 93 Fact Platters  Assessment Models: Homelinks Math boxes Math Journal Supplemental Resources: Counters		Materials
Counters MM pg 407 Students Addition/Subtraction Fact Families Fact Triangles, Math Journal 1, Activity Sheet 1 MM pg 421 MM pg 98 Dice MM pg 95 MM pg 106 Math Journal pg 93 Fact Platters  Assessment Models: Homelinks Math boxes Math Journal Supplemental Resources: Counters		MM pg 419
MM pg 407 Students Addition/Subtraction Fact Families Fact Triangles, Math Journal 1, Activity Sheet 1 MM pg 421 MM pg 98 Dice MM pg 95 MM pg 106 Math Journal pg 93 Fact Platters  Assessment Models: Homelinks Math boxes Math Journal Supplemental Resources: Counters		Class Multiplication/Division Diagram
Students Addition/Subtraction Fact Families Fact Triangles, Math Journal 1, Activity Sheet 1 MM pg 421 MM pg 98 Dice MM pg 95 MM pg 106 Math Journal pg 93 Fact Platters  Assessment Models: Homelinks Math boxes Math Journal Supplemental Resources: Counters		Counters
Fact Triangles, Math Journal 1, Activity Sheet 1 MM pg 421 MM pg 98 Dice MM pg 95 MM pg 106 Math Journal pg 93 Fact Platters  Assessment Models: Homelinks Math boxes Math Journal Supplemental Resources: Counters		MM pg 407
MM pg 421 MM pg 98 Dice MM pg 95 MM pg 106 Math Journal pg 93 Fact Platters  Assessment Models: Homelinks Math boxes Math Journal Supplemental Resources: Counters		Students Addition/Subtraction Fact Families
MM pg 98 Dice MM pg 95 MM pg 106 Math Journal pg 93 Fact Platters  Assessment Models: Homelinks Math boxes Math Journal Supplemental Resources: Counters		Fact Triangles, Math Journal 1, Activity Sheet 1
Dice MM pg 95 MM pg 106 Math Journal pg 93 Fact Platters  Assessment Models: Homelinks Math boxes Math boxes Math Journal Supplemental Resources: Counters		MM pg 421
MM pg 95 MM pg 106 Math Journal pg 93 Fact Platters  Assessment Models: Homelinks Math boxes Math boxes Math Journal Supplemental Resources: Counters		MM pg 98
MM pg 106 Math Journal pg 93 Fact Platters  Assessment Models: Homelinks Math boxes Math Journal Supplemental Resources: Counters		Dice
Math Journal pg 93 Fact Platters  Assessment Models: Homelinks Math boxes Math Journal Supplemental Resources: Counters		MM pg 95
Fact Platters  Assessment Models: Homelinks Math boxes Math Journal Supplemental Resources: Counters		MM pg 106
Assessment Models: Homelinks Math boxes Math Journal Supplemental Resources: Counters		Math Journal pg 93
Homelinks Math boxes Math Journal Supplemental Resources: Counters		Fact Platters
Math boxes  Math Journal  Supplemental Resources:  Counters		Assessment Models:
Math boxes  Math Journal  Supplemental Resources:  Counters		Homelinks
Supplemental Resources: Counters		
Counters		Math Journal
Counters		Supplemental Resources:
Multiplication/Division Diagram		
		Multiplication/Division Diagram

Fact Platters

Suggested days of Instruction Q2 Day 10 & 11	Big Idea: Progress Check	Topic:
Objectives / Cluster Concepts /	Essential Questions, Enduring Understandings	Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
Cumulative Progress Indicators (CPI's)		
The student will be able to:		
		Review and Progress Check

Suggested days of Instruction Q2 Day 12 & 13	Big Idea: Centers, Enrichment, and Interventions	Topic: Unit 4 needs to be completed before Winter Break
Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's) The student will be able to:		Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
	evidence.  Enduring Understandings:	Learning Activities:  Enrichment: Writing Multiplication and Division Number Stories Practicing Multiplication Facts, i.e. games, cards, fact platters, computer  Centers: Websites, Fact Triangles, Multiplication Wars

Suggested days of Instruction Q2 Day 14 & 15	Big Idea: Review - Centers, Enrichment, and Intervention	Topic: Centers, Enrichment, and Intervention
Objectives / Cluster Concepts /	Essential Questions, Enduring Understandings	Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
Cumulative Progress Indicators (CPI's)		
The student will be able to:		
	Essential Questions:  What is the relationship between solving problems and computation?	Learning Activities:  Review any and all Units needed  Use Websites, Centers, and other enrichments
	Enduring Understandings: The ability to solve problems is the heart of mathematics.	

Objectives / Cluster Concepts / Essential Questions, Enduring Understandings Instructional Tools	
Cumulative Progress Indicators (CPI's)The student will be able to:  Learning Activities Model	ing of fractions as numbers.
3.G.2 Essential Questions: Learning Activit	/ Materials / Technology / Resources / / Interdisciplinary Activities / Assessment
3.NF.1  What are efficient methods for working with fractions?  Math Message F Start a new Voca Reviewing Fractions Computation involves taking apart and combining numbers using a variety of approaches.  Solving Fractions to Nath Boxes, pg 652 Practice with Fact Tri  Materials: Magnetic Bars (SMM pg 247 Class Fraction St	follow-Up, pg 649, TE abulary Chart ons as Names for Parts of Regions, pg 650, TE as Names for Parts of Sets, pg 651, TE ames Parts of Regions and Sets, pg 651, TE zles (Use fraction worksheets from Bentivegna) iangles See Bentivegna) trips umberline Poster

Fraction Circles
Fraction Strips
Fraction Puzzle Worksheeet

Suggested days of Instruction Q2 Day 18	Big Idea: Operations and Algebraic Thinking	<b>Topic:</b> Represent and solve problems involving multiplication and division.
Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's) The student will be able to:	Essential Questions, Enduring Understandings	Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
3.OA.3Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.	Essential Questions: How do I decide what strategy I will use to problem solve?  Enduring Understandings: The context of a problem determines the reasonableness of a solution.	Learning Activities: Everyday Math: Math Message Follow-Up, pg 655, TE Making Predictions in a Random-Draw Experiment (using multiplication), pg 655, TE Math Journal, pg 656, TE Math Boxes, pg 657, TE Exploring Dice Data, pg 658, TE No Homelinks  Materials: Dice MM pg 241 Different Color Cubes  Assessment Models: Math Boxes Math Journal  Supplemental Resources: Different Color Cubes

Suggested days of Instruction	Big Idea: Geometry	Topic: Reason with shapes and their attributes.
Q2 Day 19-25	Number and Operations - Fractions	Develop understanding of fractions as numbers.
Objectives / Cluster Concepts /	Essential Questions, Enduring Understandings	Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
Cumulative Progress Indicators (CPI's)		
The student will be able to:		
3.G.2	Essential Questions:	Learning Activities:
3.NF.1 3.NF.2 3.NF.2a 3.NF.3 3.NF.3a 3.NF.3b 3.NF.3c 3.NF.3d	How can fractions be modeled, compared, and ordered?  Enduring Understandings: Fractions, decimals, and percents express a relationship between two numbers.	Everyday Math:  Day 19 & 20  Math Message Follow-Up, pg 660, TE  Exploration A, B, & C  Play Multiplication Bingo, pg 662  Math Boxes, pg 663, TE  Day 21 & 23  Math Message Follow-Up, pg 666, TE  Making Numberline Poster, pg 667, TE  Reviewing Concepts, pg 668, TE  Solving Frames and Arrows, pg 669  Math Boxes, pg 669, TE  Day 24 & 25  Build to Vocabulary Word Bank  Math Message Follow-Up, pg 672, TE  Fraction Cards to Extend Concepts, pg 673, TE  Investigating Equivalent Fractions, pg 673, TE  Identifying Fractions, pg 673, TE

Game: Equivalent Fractions (MM pg 253,254,255)

Game: Web (In supplemental resources)

Math Boxes, pg 675, TE

## Materials:

Crayons

Glue

Scissors

Pattern Blocks

Multiplication Bingo Cards

Bingo Chips

Student Reference Book

Paper

Class Fraction Strip Poster

MM, pg 247

MJ, pg 191

MJ, pg 192

MJ, pg Activity 5

Ruler

## **Assessment Models:**

Homelinks

Math Journal

Math Boxes

## **Supplemental Resources:**

Pattern Blocks

**Equivalent Fraction Cards** 

Fraction Strips

Paper

http://pbskids.org/cyberchase/games/equivalentfractions/

Suggested days of Instruction Q2 Day 26 & 27	Big Idea: Fractions	Topic: Fractions
	Essential Questions, Enduring Understandings	Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
The student will be able to:		
	Essential Questions:  How can fractions be modeled, compared, and ordered?  Enduring Understandings:  Fractions, decimals, and percents express a relationship between two numbers.	Comparing Fractions to ½, 0, and 1, pg 678, TE Fraction Top-It, pg 679, TE Equivalent Fraction Game, pg 679, TE Comparing and Ordering Fractions, (use post-its) pg 681, TE Math Boxes, pg 680
		Supplemental Resources: Fraction Cards Post-its <a href="http://www.bbc.co.uk/skillswise/numbers/fractiondecimalpercentage/fractions/comparingfractions/game.shtml">http://www.bbc.co.uk/skillswise/numbers/fractiondecimalpercentage/fractions/comparingfractions/game.shtml</a>

Suggested days of Instruction Q2 Days 28 & 29	Big Idea: Number and Operations - Fractions	<b>Topic:</b> Develop understanding of fractions as numbers.
Objectives / Cluster Concepts /	Essential Questions, Enduring Understandings	Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
Cumulative Progress ndicators (CPI's)		
he student will be able to:		
3.NF.2a 3.NF.2b	Essential Questions:  How are common fractions, decimals, and percents alike and different?	Learning Activities:  Everyday Math:  Math Message Follow-Up/Mental Math, pg 689, TE  Writing and Solving Number Stories, pg 689, TE
	Enduring Understandings:	Solving Fraction Stories, pg 691, TE  Math Journal Pages, pg 691
	Fractions, decimals, and percents express a relationship between two numbers.	Reviewing the Line Plot Routine, pg 692, TE Read "Math Curse" by Jon Scieszka, Lane Smith in Books, pg 693, TE Math Boxes, pg 693, TE
		Materials:
		Post-its
		Fraction Strips
		Fraction Number-Line "Math Curse" by Jon Scieszka
		Assessment Models:
		Homelinks
		Math Boxes  Math Journal
		Supplemental Resources:
		Visual Line Plot Graph

Fraction Strips

Suggested days of Instruction Q2 Days 30 & 31	Big Idea: Review and Progress Check	Topic:
Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's) The student will be able to:	Essential Questions, Enduring Understandings	Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
		Review and Progress Check

Suggested days of Instruction Day 32 - 35	Big Idea: Centers/Enrichment/Interventions	Topic:
Objectives / Cluster Concepts /	,	Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary

Cumulative Progress Indicators (CPI's) The student will be able to:		Activities / Assessment Model
	Essential Questions:	Learning Activities:
	How do I decide what strategy will work best in a given problem situation.	Enrichment:
		8.7
		Fraction Games
	Enduring Understandings:	Websites
	A problem solver understands what has been done, knows why the process	
	was appropriate, and can support it with reasons and evidence.	Centers:
		Fraction Top-It
		Equivalent Fractions Game
		Websites

Suggested days of Instruction Q3 Days 1 - 3		<b>Topic:</b> Represent and solve problems involving multiplication and division
Objectives / Cluster Concepts /	Essential Questions,	Instructional Tools / Materials / Technology /

Cumulative Progress Indicators (CPI's)	Enduring Understandings	Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
The student will be able to:		Activities / Assessment Model
3.OA.2;	Essential Questions:	Learning Activities:
3.OA.4: Determine the unknown whole number in a multiplication or	How do mathematical	Everyday Math:
division equation relating three whole numbers. For example, determine	operations relate to each other?	Math Message Follow-Up, pg 577, TE
the unknown number that makes the equation true in each of the equations 8X ?=48		Finding Patterns in the Multiplication/Division Facts Table, pg 578, TE
2 OA 6: Understand division on an unknown factor problem		Exploring Multiplication Patterns, pg 579, TE
3.OA.6: Understand division as an unknown-factor problem	Enduring	Playing Name that Number (IPad), pg 579, TE
	Understandings:	Math Message Follow-Up, pg 583, TE
	Operations create relationships between numbers.	Identify the Multiplication Facts to Be Learned, pg 584, TE
	numbers.	Cutting Out and Practicing Fact Triangles, 585, TE
		Finding Patterns in the 9s Facts, pg 587, TE (whole group then small group)
		Math Message Follow-Up, pg 589, TE
		Solving Multiplication and Division Facts, pg 591, TE
		Solving Problems with Multiplication Diagrams, pg 592, TE
		Materials:
		MM pg 207, 208
		Counters
		Student Reference Book
		l pad
		MJ pg 159
		MJ, Activity Sheet 3
		MM pg 214
		Assessment Models:
		Homelink
		Math Boxes
		Math Journal
		Supplemental Resources:
		Supplemental Resources:
	<u> </u>	I pad

Fact Triangles Multiplication Fact Table

Suggested days of Instruction Q3 Day 4	Big Idea:Operations and Algebraic Thinking Represent and solve problems involving multiplication and division	<b>Topic:</b> Represent and solve problems involving multiplication and division
Objectives / Cluster Concepts / Cumulative Progress	Essential Questions, Enduring Understandings	Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
Indicators (CPI's)		
The student will be able to:		
3.OA.3; 3.OA.8	Essential Questions:	Learning Activities:
	What kinds of experiences help develop number sense?	Everyday Math:
	Humber sense!	Math Message Follow-Up, pg 595, TE
		Build on Vocabulary Word Bank
	Enduring Understandings:	Comparing Punctuation Marks to Parentheses, pg 595, TE
	Number sense develops through experience.	Writing Number Models with Parentheses, pg 597, TE  Math Boxes, pg 598, TE
		Materials:
		MM pg 406
		MJ2, pg 164
		Cut outs of operation cards and parentheses
		Number Cards
		Assessment Models:
		Homelinks
		Math Boxes
		Math Journal
		Supplemental Resources:
		Tactile Center

Suggested days of Instruction Q3 Days 5 & 6	Big Idea:Number and Operations in Base Ten	<b>Topic:</b> Use place value understanding and properties of operations to perform multi-digit arithmetic
Concepts /	Essential Questions, Enduring Understandings	Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
Cumulative Progress Indicators (CPI's)		
The student will be able to:		
3.NBT.1; 3.NBT.3; 3.OA.3; 3.OA.8	Essential Questions:  How does finding patterns help in counting and/or computation?  Enduring Understandings: Patterns can grow and repeat.	Learning Activities:  Everyday Math:  Multiplying by Multiples of 10, 100, and 1000s, pg 608, TE  Dividing Multiples of 10, 100, and 100s, pg 609, TE  Solving Extended Multiplication and Division Facts, pg 610, TE  Math Boxes, pg 610, TE  Math Message Follow-Up, pg 619, TE  Introducing Products of Multiples of 10, pg 619, TE  Finding Products of Multiples of 10, pg 620, TE  Line Graph of Sunrise/Sunset  Playing Baseball Multiplication with Tens, pg 623, TE  Materials:  MM, pg 221  MM, pg 445  Base ten blocks  Assessment Models: Homelinks Math Boxes Math Journal  Supplemental Resources: Dominoes  Base Ten Blocks

Suggested days of Instruction Q3 Day 7	Big Idea:Number and Operations in Base Ten	<b>Topic:</b> Use place value understanding and properties of operations to perform multi-digit arithmetic
Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's) The student will be able to:	Essential Questions, Enduring Understandings	Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
3.NBT.1; 3.OA.8	Estimation is a way to get an approximate answer.	Learning Activities:  Everyday Math:  Mental Math/Math Message, pg 613, TE Reviewing the Meaning of Estimation, pg 613, TE Estimating Costs, pg 614, TE Solving Problems by Estimation, pg 615, TE Rounding Numbers, pg 617, TE Math Boxes, pg 616, TE  Materials: Objects for examples MM pg. 222 Student Reference Book  Assessment Models: Homelinks Math Boxes Math Journal  Supplemental Resources: http://pbskids.org/itsmylife/games/mad_money_flash.html

Suggested days of Instruction Q3 8 & 9	Big Idea: Review and Progress Check	Topic:
Objectives / Cluster Concepts /		Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
Cumulative Progress Indicators (CPI's)		
The student will be able to:		
		Review and Progress Check

Suggested days of Instruction Q3 Day 10	Big Idea: Centers/Enrichment/Interventions	Topic:
Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's) The student will be able to:		Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
	Essential Questions: What are the tools of measurement and how are they used?  Enduring Understandings: Standard units provide common language for communication of measurements.	Learning Activities: Enrichment 7.9, High and Low Temperatures, pg 621, 7.5  Centers Baseball Multiplication, Websites

Suggested days of Instruction Q3 Days 11 - 13	Big Idea: Number and Operations in Base Ten	<b>Topic:</b> Use place value understanding and properties of operations to perform multi-digit arithmetic
Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's) The student will be able to:		Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
	Essential Questions:  How does finding the common characteristics among similar problems help me to be a more efficient problem solver?  Enduring Understandings:  The problem in front of you is a member of a class of problems.	

Suggested days of Instruction Q3 Day 14	Big Idea:Number and Operations in Base Ten	<b>Topic:</b> Use place value understanding and properties of operations to perform multi-digit arithmetic
Objectives / Cluster Concepts /	Essential Questions, Enduring Understandings	Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
Cumulative Progress Indicators (CPI's)		
The student will be able to:		
3.OA.3	Essential Questions:  How do I need mathematical operations?  Enduring Understandings:  There are many ways to represent a number.	Learning Activities:  Everyday Math:  Math Message Follow-Up, pg 725, TE  Modeling Multiplication with Base-10 Blocks, pg 725, TE  Exploration A, B, & C  Math Boxes, pg 728, TE   Materials:  MM pg. 273  MJ2 pg 211  MM pg 272  MJ2 pg 212  MM pg 277  Geoboards
		Assessment Models: Homelinks Math Journal Math Boxes  Supplemental Resources: Base-10 Blocks Geoboards  Graphic Organizer of Grids

Suggested days of Instruction Q3 Days 15 - 18	Big Idea:Measurement and Data	<b>Topic:</b> Geometric measurement: understand concepts of area and relate are to multiplication and addition
Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)	Essential Questions, Enduring Understandings	Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
The student will be able to:		
3.MD.7a; 3.MD.7b; 3.MD.7c	Essential Questions: What types of problems are solved with measurement?  Enduring Understandings: Objects have distinct attributes that can be measured.	Learning Activities:  Everyday Math:  Mental Math/Follow-Up pg 761, TE  Exploring the Lattice Method of Multiplication(enrichment), pg 761, TE  Add to Vocabulary Word Bank  Practicing Lattice Multiplication(enrichment), pg 763, TE  Playing Factor Bingo, pg 763, TE  Math Boxes, pg 764, TE  Multiplying and Dividing Multiples of 10 In Music, pg 765, TE  Extending the Partial-Products Algorithm, pg 774, TE (Focusing on tiling and area, as well)  Extending the Partial-Products Algorithm (Focus on tiling and area, as well)  Mathboxes, pg 781 & 776  Practice Fact Triangles and Lattice, pgs 782 & 783, TE
		Materials: MJ2 pg 226 Class Lattice Outline (on Page 762) MJ2 pg 227 MM pg 448 Student Reference Book MM pg 311 MM pg 307 MJ2 pg 230 MM pg 304

NJ2 pg 233 MJ 2 229 Class Visual of Steps of a Partial-Product Algorithm  Assessment Models: Homelinks Math Boxes
Math Journals  Supplemental Resources:
Tiles Grid Paper Graphic Organizer of Lattice Visual Example of Breakdown for Partial-Product Algorithm

Suggested days of Instruction Q3 Day 19	Big Idea:Operations and Algebraic Thinking	<b>Topic:</b> Represent and solve problems involving multiplication and division
Objectives / Cluster Concepts /	Essential Questions, Enduring Understandings	Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
Cumulative Progress Indicators (CPI's)		
The student will be able to:		
3.OA.2	Essential Questions: How do mathematical operations relate to each other?  Enduring Understandings: Operations create relationships between numbers.	Learning Activities:  Everyday Math:  Math Message Follow-Up/Mental Math, pg 743, TE Identifying Factors of a Whole Number, pg 744, TE Introducing and Playing Factor Bingo, 745, TE Using The Partial-Product Algorithm(enrichment), pg 246, TE Play Finding Factors, pg 747, TE Math Boxes, pg 746, TE  Materials: Egg Cartons MJ2 pg 219 MJ2 pg 220 MM pg 287
		Factor Bingo Cards  Assessment Models: Homelinks Math Boxes Math Journals  Supplemental Resources: Objects in Egg Cartons Factor Bingo Class Graphic Organizer of Partial-Product Algorithm Multiplication and Division Fact Table

Suggested days of Instruction Q3 Days 20 - 23	Big Idea: Enrichment/Centers/Interventions	Topic:
Objectives / Cluster Concepts /		Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
Cumulative Progress Indicators (CPI's)		
The student will be able to:		
	Essential Questions:	Learning Activities:
	How do I know where to begin solving a problem?	
		9.10, Writing Multiplication and Division Number Stories, Finding All Possible Areas pg 729, Fraction Top-It
	Enduring Understandings:	
		Centers: Using Multiplication/Division Diagrams pg 723, Websites, Practice with Lattice or Partial-Product Algorithms, Multiplication Top-It,

Suggested days of Instruction Q3 Days 25 & 25	Big Idea: Review and Progress Check	Topic:
Objectives / Cluster Concepts /		Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
Cumulative Progress Indicators (CPI's)		
The student will be able to:		
		Review and Progress Check 9

Suggested days of Instruction Q4 Days 1 - 3	Big Idea:Geometry	Topic: Reason with shapes
Objectives / Cluster Concepts /	Essential Questions, Enduring Understandings	Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
Cumulative Progress Indicators (CPI's)		
The student will be able to:		
3.G.1	Essential Questions: How are geometric shapes and objects classified?  Enduring Understandings: Analyzing geometric relationships develops reasoning and justification skills.	Learning Activities:  Everyday Math:  Math Message Follow-Up, pg 421, 427 & 433, TE  Vocabulary Word Bank, pg 431  Naming Triangles/Quadrangles/Polygons, pg 422 & 428TE  Constructing Triangles /Quadrangles/Polygons with Straws, pg 422, 428 & 433, TE  Measuring and Estimating the Perimeter the Side of a  Triangle/Quadrangles/Polygons pg 423, 429 & 435 TE  Brain Pop Video on Polygons  Discussing Characteristics of Polygons: Introducing Regular Polygons  Playing Touch and Match Quadrangles, pg 430, TE  Playing Shading Shapes, pg 431, TE  Sorting Geometry Vocabulary, pg 437, TE  Math Boxes, pg 424, 435 &430, TE  Materials:  Straws  Twist-ties  MJ1 pg 134  Student Reference Book  MM pg 174  MJ1 pg 136  Venn Diagram  MM pg 177

MM pgs 457 & 458 MJ 1 pg 138 Class Vocabulary Meaning Chart MM pg 179  Assessment Models: Homelinks Math Boxes Math Journals
Supplemental Resources: Venn Diagram Sorting Geometry Vocabulary Straws and Twist-ties Brain Pop Video and Questions

Suggested days of Instruction Q4 Day 4	Big Idea:Geometry	Topic: Fractional Geometry
Cluster Concepts /	Essential Questions, Enduring Understandings	Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
Cumulative Progress Indicators (CPI's)		
The student will be able to:		
3.G.2	Essential Questions:	Learning Activities:
	How are geometric figures constructed?  Enduring	Everyday Math:  Math Message Follow-Up, pg 451, TE  Use the following as a basis, but add fractional parts:  Exploring Properties of Symmetric Figures, pg 451, TE  Completing Symmetric Figures, pg 452, TE
	Understandings: Points, lines, and planes are the foundation of geometry.	Math Boxes, pg 147, TE  Materials:  MM pg 185  MJ 1 pg 146  MM pg 186  MM pg 187  Symmetric Pictures and Objects
		Assessment Models:  Math Journal  Math Boxes
		Supplemental Resources: Hands on Actions of making a Picture Symmetrical <a href="http://www.innovationslearning.co.uk/subjects/maths/activities/year3/symmetry/shape_game.asp">http://www.innovationslearning.co.uk/subjects/maths/activities/year3/symmetry/shape_game.asp</a> <a href="http://www.boowakwala.com/kids/boowakwala-adventures-fingerpaint-symmetrypaint.html">http://www.boowakwala.com/kids/boowakwala-adventures-fingerpaint-symmetrypaint.html</a> <a href="http://pbskids.org/cyberchase/games/symmetry/">http://pbskids.org/cyberchase/games/symmetry/</a>

Suggested days of Instruction Q4 Day 5	Big Idea:Geometry	Topic:Fractional Geometry
Objectives / Cluster Concepts /	Essential Questions, Enduring Understandings	Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
Cumulative Progress Indicators (CPI's)		
The student will be able to:		
3.G.2	Essential Questions:	Learning Activities:
	How can plane and solid shapes be	Everyday Math:
	described?	Math Message Follow-Up, pg 457, TE
		Exploration A, B, & C, pgs 458 & 459
		Counting Line Segments, pg 461, TE
Enduring Understandings:  Points, lines, and planes are the foundation of geometry.	Math Boxes, pg 460, TE	
	Materials:	
		MM pg 193
		MM pg 188
		MM pg 190
		MJ1 pg 148
		MJ1 pg 149
		Pattern Blocks
		Fraction Circles
		Assessment Models:
		Homelinks
		Math Boxes
		Math Journals
		Supplemental Resources:
		Pattern Blocks
		MM pg 190

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	Coordinate Grids
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Suggested days of Instruction Q4 Days 7 & 8	Big Idea: Review and Progress Check	Topic:
Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's) The student will be able to:	Essential Questions, Enduring Understandings	Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
		Review and Progress Check

Suggested days of Instruction Q4 Days 9 & 10	Big Idea: Enrichments/Centers/Interventions	Торіс:
Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's) The student will be able to:	Essential Questions, Enduring Understandings	Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
	Essential Questions:  How do I decide what strategy will work best in a given situation?  Enduring Understandings:  The context of a problem determines the reasonableness of a solution.	Learning Activities:  Enrichment: Playing Angle Race, Solving Pattern-Block Symmetry Riddles, pg 455 TE Counting Triangles, pg 425 TE  Centers: Practice Sorting Geometry Vocabulary, pg 437 Counting Triangles, pg 425, TE Fact Triangles Multiplication Flash Cards

	ic: Solve problems involving measurement and estimation of vals of time, liquid volumes, and masses of objects
	ructional Tools / Materials / Technology / Resources / Learning vities / Interdisciplinary Activities / Assessment Model
What are the tools of measurement and how are they used?  Enduring Understandings:  The choice of measurement tools depends on the measurable attribute and the degree of precision desired.  As in the process of the measurement tools depends on the measurable attribute and the degree of precision desired.  Su bit to the measurement and how are they used?	Learning Activities:  Everyday Math:  math message follow up p. 815TE introducing the volume of a rectangular prism p.815 TE playing Fraction Top-it build on vocabulary word bank follow up on pg. 831 TE math journal pgs. 816, 817, 818, 832, 833  Assessment Models: mathboxes homelinks journal pages  Supplemental Resources: base 10 blocks graphing data

Suggested days of Instruction Q4 Days 13 & 14	Big Idea:Measurement and Data	<b>Topic:</b> Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects
Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's) The student will be able to:	Essential Questions, Enduring Understandings	Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
3.MD.2	Essential Questions:  What are the tools of measurement and how are they used?  Enduring Understandings:  The choice of measurement tools depends on the measurable attribute and the degree of precision desired.	Learning Activities:     Everyday Math     message follow up p. 820 TE, 826 TE reading scales p. 822 TE     Factor Bingo p. 822 TE     Explorations: A,B,C pgs. 826, 827 TE     follow up p. 831 TE     discussing info on food labels p. 832 TE  Assessment Models:     mathboxes     homelinks     journal pages  Supplemental Resources:     practicing with fact triangles     finding different units of measurements

Suggested days of Instruction Q4 Day 15	Big Idea:Number and Operations  Essential Questions, Enduring Understandings	Topic: Develop understanding of fractions as numbers  Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.  Recognize and generate simple equivalent fractions e.g., ½ = 2/4; 4/6 = ½). Explain why the fractions are equivalent by using a visual fraction model  Instructional Tools / Materials / Technology / Resources / Learning
Concepts /		Activities / Interdisciplinary Activities / Assessment Model
Cumulative Progress Indicators (CPI's)		
The student will be able to:		
3.NF.3a:	Essential Questions:	Learning Activities:
3.NF.3b:	How is computation with rational numbers similar and different to whole number computation?  Enduring Understandings: Fractions, decimals, and percents express a relationship between two numbers.	Everyday Math math follow up pg. 836 TE finding the median of sets of data pg. 838 TE graphing dice rolls p. 839 TE mathboxes pg. 838 TE MM pg. 838, 839
		Assessment Models: mathboxes homelinks journal pages  Supplemental Resources: graphing the number of lunches served each day

Suggested days of Instruction Q4 Day 16	Big Idea:Operations and Algebraic Thinking	<b>Topic:</b> Solve problems involving the four operations, and identify and explain patterns in arithmetic
Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's) The student will be able to:	Essential Questions, Enduring Understandings	Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
3.OA.8	Essential Questions:  How do the four operations relate to one another?  Enduring Understandings:  Proficiency with basic facts aids estimation and computation of larger and smaller numbers.	Learning Activities: Everyday Math message follow up pg. 841 TE finding the median of arm span in class pg. 841 TE finding the mean of arm span in class pg. 842 TE finding the mean pg. 843 TE journal pgs. 842, 844 TE
		Assessment Models: mathboxes homelinks journal pages
		Supplemental Resources: graph and calculate all spelling grades

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Suggested days of Instruction Q4 Day 17	Big Idea:Operations and Algebraic Thinking	<b>Topic:</b> Solve problems involving the four operations, and identify and explain patterns in arithmetic
Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)	Essential Questions, Enduring Understandings	Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
The student will be able to:		
3.OA.8 3.MD.3	Essential Questions: What questions can be answered using addition and/or subtraction.  Enduring Understandings: Flexible methods of computation involve grouping numbers in strategic ways.	Learning Activities: Everyday Math message follow up pg. 853 TE making a frequency table of waist to floor measurements pg. 853 TE finding the mean and median of data pg. 854 TE reviewing the mode the set of data pg. 855 TE making a bar graph pg. 855 TE
		Assessment Models: mathboxes homelinks journal pages
		Supplemental Resources:

Suggested days of Instruction Q4 Day 18	Big Idea:Number and Operations- Fractions	<b>Topic:</b> Develop understanding of fractions as numbers  Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.
Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's) The student will be able to:	Essential Questions, Enduring Understandings	Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
3.NF.3a:  ***Check this- doesn't match learning activities***	Essential Questions: How is the location of a point described?  Enduring Understandings: Ordered pairs show an exact location on a coordinate plane.	Learning Activities:  Everyday Math  follow up pg. 859 TE  using ordered pairs to locate points pg. 859 TE  Plotting points on a coordinate grid pg. 860 TE  connecting the dots on a coordinate grid pg. 861 TE  mathboxes pg. 860 TE  Assessment Models:
		mathboxes homelink journal pages  Supplemental Resources:

Suggested days of Instruction Q4 Days 19 & 20	Big Idea: Review and Progress Check	Topic:
		Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
Cumulative Progress Indicators (CPI's)		
The student will be able to:		
		Review and Progress Check 10
		slate and written check

Suggested days of Instruction Q4 Day 21	Big Idea: Enrichment/Centers/Interventions	Topic:
Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's) The student will be able to:	Understandings	Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
		Learning Activities:  Enrichments: Place value, double-digit multiplication (lattice),  Centers:

## 3rd Grade

## COURSE BENCHMARKS

- 1. Operations create relationships between numbers.
- 2. Number sense develops through experience.
- 3. The problem in front of you is a member of a larger class of problems.
- 4. Place Value is based on groups of ten.
- 5. Standard units of measure enable people to interpret results or data.
- 6. Objects have distinct attributes that can be measured.
- 7. The relationships among the operations and their properties promote computational fluency.
- 8. Fractions, decimals, and percents express a relationship between two numbers.
- 9. The relationships among the operations and their properties promote computational fluency.
- 10. Flexible methods of computation involve grouping numbers in strategic ways.
- 11. Analyzing geometric relationships develops reasoning and justification skills.
- 12. The context of a problem determines the reasonableness of a solution.
- 13. Points, lines, and planes are the foundation of geometry.
- 14. Proficiency with basic facts aids estimation and computation of larger and smaller numbers.