Curriculum Map September

Name of teacher- Nilofer Mithani
Subject Gr 3 Math
Topic 1: Numeration
Topic 2: Number Sense, addition and subtraction

Enduring Understandings

1. Students will read and write 3 digit numbers
2. Students locate and write numbers on a number line
3. Student identify the pattern on a number line to prepare for rounding
4. Students find the halfway numbers between two consecutive tens, hundred and thousands
5. Students round two- and three-digit numbers to the nearest ten or hundred
6. Students use concepts of addition to model the commutative, Associative, and identity properties
7. Students recognize situations when subtraction and addition is used to solve problems and write number sentences
8. Students solve problems by adding and subtracting with mental math
9. Students will solve problems by estimating sums and differences

Essential Questions

1. How is our number system based on groups of ten?
2. How can a whole number be associated with a unique portion on a number line?
3. How is the rounding process based on knowing the halfway number between multiples of 10,100?
4. How can your round numbers and what is their importance?
5. How can we connect real-world problems which involve estimation?
6. Is there more than one way to do a mental calculation?
7. Is rounding the only way to estimate a sum or difference?
8. How can estimation help you check reasonableness?

Activities

1. Using pictures and place value blocks to model 3 digit numbers
2. Using scales to locate whole numbers
3. Making different number patterns
4. Using a 100s chart to color
5. Making fact family cards for addition and subtraction

Assessments
Formative (throughout)

1. Topic Test
2. Homework- envision test book
3. Classwork- envision workbook
4. Guided practice
5. Explanation of problems

6. Review test and Performance task from textbook

Summative (end of year)

1. Midyear and end of year assessment tests
2. Standardized test (past year state test) and quizzes

Time frame/ Month 25 days
Resources/websites

1. Engage.org/ resource grade 3 math
2. Freetestonline.com
3. Envision assessment tests

Textbook name:
Envision math, common core, topic 1 and 2, page 6-54
Curriculum map October
Name of teacher: Nilofer Mithani
Topic 1: chapter 1 addition and subtraction within 1,000

Enduring Understandings

1. Students use break apart strategy to add 3-digit numbers
2. Using different strategies to add 3 digit numbers, estimation, place value, and break apart
3. Using compatible numbers and rounding to estimate difference
4. Using a number line, friendly numbers, or the break apart strategy to find difference mentally
5. Using place value to subtract 3 digit numbers
6. Using the combine place value strategy to subtract 3 digit numbers and explain the strategies used
7. Solve addition and subtraction problems by using the strategy draw a diagram

Essential questions

1. How can you use the break apart strategy to add 3-digit numbers?
2. How can you use place value to add 3 digit numbers?
3. How can you use compatible numbers and rounding to estimate differences?
4. What mental math strategies can you use to find difference?
5. How can you use the combine place values strategy to subtract 3 digit numbers?
6. How can you use place value to subtract 3 digit numbers?
7. How can you use the strategy draw a diagram to solve one and two-step addition and subtraction problems?

Activities

1. Using the consumable go-math book pictures to model
2. Using 3 step way to unlock problems and guiding students to unlock problems
3. Asking students to explain why a particular strategy is being used

4. Drawing and showing how to regroup one, tens, and hundreds
5. Using a diagram of a Bar model that can help them decide what operation to use to solve a problem
6. Asking questions while reading a problem, guiding them step-by-step to decide whether it is a one step or two step problem
7. Make students recognize clue words in a problem which helps them decide whether to add or subtract. Words like how many more, altogether, combined etc.

Assessments
Formative throughout

1. Homework- go Math Practice and HW sheets
2. Classwork- go math guided practice and independent practice
3. Chapter review test mid chapter and end of chapter to check students understanding
4. Using enrichment and reteaching for intervention

Summative

1. Midyear and end of year assessment tests
2. Standardized test (past year state test) and quizzes

Time Frame, Month 25 days
Resources/ websites

1. Engage.org/resource grade 3 math
2. Freetestonline.com
3. Go math assessment tests

Textbook name:
Go-math, common core topics
47 pages
Curriculum Map November
Name of Teacher: Nilofer Mithani
Subject: Math
 Unit/Theme
Topics 2&3
Chapter 2: Represent and Interpret Data
Chapter 3: Understand Multiplication
Enduring Understandings
Chapter 2

1. Organize data in tables and solve problems using the strategy make a table.
2. Read and interpret data in a scaled picture graph and draw a picture graph to shao data in a table
3. Read and interpret data in scaled bar graph and to draw a bar graph
4. Solve one and two step compare problems using data represented in scaled bar graphs

Chapter 3

1. Model and skip count objects in equal groups to find how many there are
2. Write an addition sentence and a multiplication sentence for a model
3. Model and skip count on a number line to find how many there are
4. Solve one and two step problems using the strategy draw a diagram
5. Use arrays to model products and factors
6. Model commutative property of multiplication to find products

Essential Question
Chapter 2

1. How can you use the strategy make a table to organize data and solve problems?
2. How can you read, interpret, and draw a picture graph to show data in a table?
3. How can you read, interpret, and draw a bar graph to show data in a table or picture graph?
4. How can you solve problems using data represented in all kinds of graphs?

Chapter 3

1. How can you use multiplication to fid how many in all?
2. How can you use a number line to skip count and find how many in all?
3. How can you use the strategy draw a diagram to solve one and two step problems?
4. How can you use arrays to model multiplication and find factors?
5. How can you use the commutative property of multiplication to find products?

Activities
Chapter 2:

1. Use post-it-notes to display, show, and analyze data and ask questions
2. Allow students to do a survey in class to collect data
3. Let students draw a key by using a different shape that signifies the title of the graph
4. Partner students to make their bar-graph horizontal or vertical to show the data
5. Allow the students to write their problems on the graph asking questions and solving it.

Chapter 3

1. Allow students to ra different groups
2. Use counters or beans to make arrays
3. Model to make the groups and show them how to place them in groups and columns
4. Model properties of multiplication with counters showing the commutative Identity and Zero property of multiplication
5. Use this grouping to solve problems

Assessments:
Formative throughout
1. Homework- go Math Practice and HW sheets
2. Classwork- go math guided practice and independent practice
3. Chapter review test mid chapter and end of chapter to check students understanding
4. Using enrichment and reteaching for intervention

Summative
1. Midyear and end of year assessment tests
2. Standardized test (past year state test) and quizzes

Time Frame, Month 30 days

Resources/ websites
1. Engage.org/resource grade 3 math
2. Freetestonline.com
3. Go math assessment tests

Textbook name:

Go-math, common core topics

47 pages

Curriculum Map December

Name of Teacher: Nilofer Mithani
Subject: Math
Unite/ Theme: Topic 4
Chapter 4: Multiplication Facts and Strategies

Enduring Understanding
1. Draw a picture, count by 2's or use doubles to multiply with the factors of 2 and 4
2. Use skip counting, a number line, or a bar model to multiply with the factors of 5 and 10
3. Draw a picture using 5s facts and addition doubles, or a multiplication table to multiply with factor 3 and 6
4. Use the Distributive property to find products by break apart arrays
5. Use the commutative or distributive property or known facts to multiply with the factor 7
6. Use the associative property of multiplication to multiply with three factors
7. Identify and explain patterns on the multiplication table
8. Use doubles, a number line, or the associative property of multiplication to multiply with the factor 8
9. Solve multiplication problems by using the strategy: make a table

Essential Questions
1. How can you multiply with 2 and 4?
2. How can you multiply with 3 and 6?
3. How can you use the distributive property to find products?
4. How can you multiply with 5 and 10?
5. What strategies can you use to multiply with 7?
6. How can you use the associative property of multiplication to find products?
7. How can you use properties to explain patterns of 10 on a multiplication table?
8. What strategies can you use to multiply with 8?
9. What strategies can you use to multiply with 9?
10. How can you use the strategy to make a table to solve multiplication problems?

Activities
1. Drawing arrays to show properties of multiplication
2. Writing down patterns for doubles and multiplying by 5,10, and 9.
3. Working with partners where students discuss how they would explain the answer to the essential questions

4. Use lima beans to make models of multiplication
5. Students also write problems by themselves and allow partners to find the product

Assessment
Formative throughout

5. Homework- go Math Practice and HW sheets
6. Classwork- go math guided practice and independent practice
7. Chapter review test mid chapter and end of chapter to check students understanding
8. Using enrichment and reteaching for intervention

Summative
3. Midyear and end of year assessment tests
4. Standardized test (past year state test) and quizzes
Time Frame, Month 25 days
Resources/ websites
4. Engage.org/resource grade 3 math
5. Freetestonline.com
6. Go math assessment tests

Curriculum map January
Name of Teacher: Nilofer Mithani
Subject Math
Unit/ Theme
Topic 6 and 7

Chapter 6- Understand Division
Chapter 7- Division Facts and Strategies

Enduring Understanding
Chapter 6

1. Solve division problems by using the strategy act it out.
2. Use models to explore the meaning of partition division.
3. Use models to explore the meaning of quotative division
4. Model division by using equal groups and bar models.
5. Use repeated subtraction and a number line that relates subtraction to division.
6. Model division by using arrays
Chapter 7
1. Use models to represent division by two.
2. Use repeated subtraction, a number line, or multiplication table to divide by 10.
3. Count up to five, count back on a number line or use tens facts and doubles to divide by five.
4. Use equal groups, a number line or related multiplication facts and arrays to divide by three, four, five and six.

Essential Questions

1. How can you use the strategy act it out to solve problems with equal group?
2. How can you model a division problem to find how many in each group?
3. How can you use bar models to solve division problems?
4. How is the vision related to subtraction?
5. How can you use arrays to solve division problems?

Chapter 7

1. What strategies can you use to divide by seven, eight, and nine?
2. How can you use the strategy act it out to solve two step problems?
3. Why are there rules such as the order of operations?

Activities
1. Make multiplication puzzles and find the unknown factors
2. Math board and counters to show separation in groups
3. Model physically with students to make groups
4. Take pencils and divide among groups to show how much each group has received
5. Have students name situations in which they may separate into equal groups
6. Allow students to draw diagrams and work in pairs to model division
7. Allow students to use division vocabulary while doing all activities like diviser, the dividend and quotient
8. Allow students to jump physically for jumping on a number line and count the number of jumps
9. Making division cards on an index card and quiz each other on division equations
10. Write their own problems and allowing the partner to solve it

Assessment

Formative (throughout)
7. Topic Test
8. Homework- go math textbook
9. Classwork- go math workbook
10. Guided practice
11. Explanation of problems
12. Review test and Performance task from textbook
Summative (end of year)
3. Midyear and end of year assessment tests
4. Standardized test (past year state test) and quizzes

Time Frame- 1 month

Curriculum Map   **Month of February**
Name of Teacher: Nilofer Mithani
Subject Math
Unit/ Theme

Topic 8 and 9

Chapter 8- Understand Functions

Chapter 9- compare Fractions

Enduring Understanding
Chapter 8

1. Explore and identify equal parts of a whole.
2. Divide models to make equal shares.
3. Use a fraction to name one part of a whole that is divided into equal parts.
4. Read, write, and model fractions that represent more than one part of a whole.
5. represent and locate fractions on a number line.
6. Relate fractions and whole numbers by expressing whole numbers as fractions and recognizing fractions that are equivalent.
7. Model, read, and write fractional parts of a group
8. Find fractional part of a group using unit fractions.
9. Solve fraction problems by using the strategy draw a diagram

Essential Questions
Chapter 8

1. What are equal parts of a whole?
2. Why do you need to know how to make equal shares?
3. What do the top and bottom numbers of a fraction tell?
4. How does a fraction name part of a whole?
5. How can you represent and locate fractions on a number line?
6. When might you use a fraction greater than one or a whole number
7. How can a fraction name part of a group?
8. How can a fraction tell how many are in part of a group?
9. How can you use the strategy draw a diagram to solve fraction problems?

Enduring Understanding chapter 9
1. Solve comparison problems by using the strategy act It out
2. comparing fractions with the same denominator by using models and reasoning strategies
3. Compare fractions with the same numerator by using models and reasoning strategies
4. Compare fractions by using models and strategies involving the size of the pieces in a whole
5. Compare and order fractions by using models and reasoning Strategies
6. Model equivalent fractions by folding paper, using models, and using number lines
7. Generate equivalent fractions by using models

Essential Questions Chapter 9
1. How can you use the strategy act it out to solve comparison problems?
2. How can you compare fractions with the same denominator?
3. How can you compare fractions with the same numerator?
4. What strategies can you use to compare fractions?
5. How can you compare and order fractions?
6. How can you use models to find a name equivalent fractions?
Activities
1. Different color paper strips same size to show fractions
2. Plain paper with circles to divide and shade the circles

3. Plain paper to fold in half and three parts and four and six parts
4. Shading the paper as ½, 1/3, ¼, 1/6, 1/8th to show unit fractions
5. Using math tools a pie and showing different sizes of a pizza
6. Showing groups of objects to understand fractions in a group like colored pencils, crayons, pencils, etc.
7. making equivalence chairs using fraction strips
8. Using paper clips to show equivalent fractions
9. Using a scale for a number line to show greater and lesser fractions

Time frame- 1 month
Assessment:

Formative throughout

9. Homework- go Math Practice and HW sheets
10. Classwork- go math guided practice and independent practice
11. Chapter review test mid chapter and end of chapter to check students understanding
12. Using enrichment and reteaching for intervention

Summative
5. Midyear and end of year assessment tests
6. Standardized test (past year state test) and quizzes

Curriculum Map March
Name of Teacher: Nilofer Mithani
Unit/Theme: Topic 11
Chapter 11- Perimeter and Area
Enduring Understanding

1. Explore perimeter of polygons by counting units on grid paper
2. Estimate and measure perimeter of polygons using inch and centimeter rulers
3. Find the unknown length of a side of a polygon hen you know its perimeter
4. Explore perimeter and area as an attribute of polygons
5. Estimate and measure are area of plane figures by counting unit squares
6. Relate area to addition and multiplication by using area models
7. Solve area problems by using the strategy find a pattern
8. Apply the distributive property to area models to find the area of combined rectangles
9. Compare perimeter of rectangles that have the same perimeter
10. Compare the perimeter of rectangles that have the same area

Essential Questions

1. How can you find perimeter?
2. How can you measure perimeter?
3. How can you find the unknow n length of a side in a plane figure when you know the perimeter?
4. How is finding the area of a figure different from finding the perimeter of the figure?

5. How can you find the area of a plane figure?
6. Why can you multiply to find the area of a rectangle?
7. How can you use the strategy find a pattern to solve area problems?
8. How can you use area to compare rectangles with the same perimeter?
9. How can you use perimeter to compare rectangles with the same area?

Activities

1. Using paper clips to measure all around a figure
2. Have students list words or phrase that are related to the term perimeter as a vocabulary builder
3. To find perimeter by using different objects in a classroom
4. Using a dotted paper/grid paper to draw different shapes and then write the length of each side and add
5. Writing different perimeter on the board and having them draw different shapes
6. Using division to divide the perimeter into 4 sides
7. Estimate the perimeter and then decide how the estimate can be used to help decide the reasonableness of the exact answers
8. Start using a scale to measure perimeter of figures
9. Explain the attributes of a rectangle and square and knowing that they can figure out the unknown value
10. Practice multiplication facts before going into area
11. Discuss real world examples of area such as using square feet to describe the area of a room
12. To show videos to measure area and how it is measured un unit squares
13. Use Square Tiles hands on tiles and allow students to make different shapes and understand area
14. Make arrays as in multiplication to understand area and its relation to multiplication and addition

Time Frame - 1 month
Assessment
Formative (throughout)
1. Homework- go Math Practice and HW sheets
2. Classwork- go math guided practice and independent practice
3. Chapter review test mid chapter and end of chapter to check students understanding
4. Using enrichment and reteaching for intervention
Summative
1. Midyear and end of year assessment tests
2. Standardized test (past year state test) and quizzes

Curriculum Map April
Name of Teacher: Nilofer Mithani
Unit/ Theme: Topic 10

Chapter 10 Time, Length, Liquid, Volume and Mass
Enduring Understanding

1. Read, Write, and tell time on analog and digital clocks to the nearest minute
2. Decide when to use AM and PM when telling time to the nearest minute
3. Use a number line or an analog clock to measure time intervals in minutes
4. Use a number line or an analog clock to add or subtract time intervals to find starting times or ending times
5. Solve problems involving addition and subtraction of time intervals by using the strategy of draw a diagram
6. Measure length to the nearest half or fourth inch and use measurement data to make a line plot
7. Estimate and measure liquid volume in liters
8. Estimate and measure mass in grams and kilograms
9. Add, subtract, multiply, or divide to solve problems involving liquid volumes or masses

Essential Questions
1. How can you tell time to the nearest minute?
2. How can you tell when to use AM or PM with time?
3. How can you measure elapsed time in minutes?
4. How can you find a starting time or ending time when you know the elapsed time?
5. How can use the strategy draw a diagram to solve problems about time?
6. How can you generate measurement data and show the data on a line plot?
7. How can you estimate and measure liquid volume in metric units?
8. How can you estimate and measure mass in metric units?
9. How can you use models to solve liquid volume and mass questions?

Activities
1. Making a clock on a paper plate showing numbers at a 5 min skip count
2. Counting by 5's and drawing to reach the time written on the chalkboard
3. Students demonstrate on an analog clock to answer the essential questions, working in Paris and sharing
4. Labelling time as AM or PM of various activities they do in school
5. Have students work in pairs to understand and complete the T chart
6. Drawing a number line exactly as an analog clock
7. Explain to your partner two different methods to find elapse time
8. Ways to jump on a number line to solve starting and ending time of a problem
9. Using videos to make students understand the different topics on time
10. Introduce the ruler to the students of inches and centimeters
11. Drawing a numbers line like a ruler and solving problems of measurement
12. Showing manually how liquid can take the shape of the container without the volume of the liquid changing.
13. Allowing students to draw models and estimate liquid volume
14. Explaining mass with a scale and weighing different objects
15. Drawing bar models to solve problems on volume and mass
Time Frame: 20 days

Assessments:

Formative (throughout)
13. Topic Test
14. Homework- go math textbook

15. Classwork- go math workbook
16. Guided practice
17. Explanation of problems
18. Review test and Performance task from textbook

Summative (end of year)
5. Midyear and end of year assessment tests
6. Standardized test (past year state test) and quizzes

Curriculum Map- May

Name of Teacher- Nilofer Mithani
Unit/ Theme: Topic 12
Chapter 12- Two dimensional shapes

Enduring Understanding
1. Identity and describe attributes of plane shapes.
2. Describe angles in plane shapes
3. Determine if lines or line segments are intersecting, perpendicular or parallel.
4. Describe and classify, and compare quadrilaterals based on their sides and angles
5. Draw quadrilaterals
6. Describe and compare triangles based on the number of sides that have equal length and by their angles
7. Solve problems by using the strategy draw a diagram to classify plane shapes
8. Partition shapes into parts with equal areas and express the area as a unit fraction of the whole

Essential Questions
1. What are some ways to describe two- dimensional shapes?
2. How cam you describe angles in plane shapes?
3. How can you describe line segments that are sides of polygons?
4. How can you use sides and angles to help you describe quadrilaterals?
5. How can you draw quadrilaterals?
6. How can you use sides and angles to help you describe triangles?
7. How can you use the strategy draw a diagram to classify plane shapes?
8. How can you divide shapes into parts with with equal areas and write the area as a unit fraction of the whole

Activities
1. Allowing students to draws open and closed shapes in their paper
2. Using the videos to show line segments and rays
3. Using straws make right angles, acute and obtuse angles
4. Using a sheet of paper to show right angles and how it forms a square corner and an angle that is smaller than the corner of a sheet of paper is less than a right angle and so on.
5. Showing different shapes around students to help them classify polygons
6. Showing different models of the shapes allow students to recognize parallel sides and perpendicular sides
7. Drawing figures on the board students identify the attributes of a quadrilateral
8. Using a ruler and math-board to show how to draw different quadrilaterals on a grid paper
9. Introducing and teaching how to draw different quadrilaterals on a grid paper
10. Drawing different kinds of triangles on the board and classifying triangles by their angles and sides

11. Students use straws to draw different kinds of triangles
12. Using venn diagram to compare and contrast the attributes of different angles with different shapes
13. Drawing different shapes and dividing the shapes into equal parts

Time Frame- 20 days

Assessments:

Formative (throughout)
19. Topic Test
20. Homework- go math textbook
21. Classwork- go math workbook
22. Guided practice
23. Explanation of problems
24. Review test and Performance task from textbook

Summative (end of year)
7. Midyear and end of year assessment tests
8. Standardized test (past year state test) and quizzes