Wilson Area School District
Planned Course Guide

Title of planned course: Mathematics Grade 5

Subject Area: Math

Grade Level: 5th

Course Description: This course is designed to extend a student's knowledge within the areas of numbers and operations, fractions, algebraic thinking, geometry, measurement, and data and probability. Students will develop mathematical reasoning and problem solving skills by means of standards-aligned lessons and assessments, real world applications and through the integration of technology.

Time/Credit for this Course: One Full Academic Year

Curriculum Writing Committee: Rosemarie Reider and Tina Quinn

Curriculum Map

August: Numbers and Operations

- Review of Whole Number Operations

September: Numbers and Operations

- Place Value
- Reading and Writing Whole Numbers
- Ordering Whole Numbers
- Rounding Whole Numbers
- Place Value of Decimals
- Comparing Decimals
- Rounding Decimals
- Estimating to Solve Problems
- Adding and Subtracting Decimals

October: Numbers and Operations

- Exponents
- Multiplication Properties
- Multiplying by two and three digit whole numbers
- Solving Problems with Whole Number Operations
- Multiplying Decimals (Not to exceed hundredths place value)

November: Numbers and Operations/Measurement and Data

- Dividing by a Single Digit Whole Number
- Dividing by a Two Digit Whole Number
- Dividing Decimals to Hundredths Place Value(no decimal divisors)
- Graphs
- Analyzing Data and Charts
- Interpreting Graphs
- Coordinate Grids

December: Numbers and Operations

- Factors and Multiples
- Fractions and Mixed Numbers
- Solving Problems by Adding and Subtracting Fractions

January: Operations and Algebraic Thinking

- Multiplying and Dividing Fractions
- Order of Operations
- Finding Rules for Number Patterns
- Extending Number Patterns
- Interpreting and Solving Equations

February: Geometry

- Quadrilaterals
- Two- Dimensional Figures
- Three-Dimensional Figures
- Volume

March : Measurement

- Choosing the Appropriate Unit
- Converting Measurements

Common Core Review
Common Core Assessment

April: Numbers and Operations

- Prime and Composite Numbers
- Mean, Mode, Range, Median

May: Measurement/Geometry

- Rulers
- Perimeter and Area
- Translations, Rotations, Reflections

June:

Data Analysis and Probability/Geometry

- Probability
- Predicting Outcomes
- Ratios and Rates

Wilson Area School District
Planned Course Materials

Course Title: Mathematics Grade 5

Textbook:

- *envisionMATH*
  Pearson Education, Inc.
  2012
  http://pearsonschool.com

Supplemental Books:

- *Houghton Mifflin Mathematics*
  Houghton Mifflin
  2002
  http://www.eduplace.com/math/mw/practice/lp_5.html

- PSSA Coach Mathematics
  2007

Teacher Resources:

- *envisionMATH*
  Pearson Education, Inc.
  2012
  http://pearsonschool.com

- *Houghton Mifflin Mathematics*
  Houghton Mifflin
  2002
  http://www.eduplace.com/math/mw/practice/lp_5.html

- PSSA Coach Mathematics
  2007

- *Discovery Education*
  http://streaming.discoveryeducation.com/

Curriculum Scope & Sequence

Planned Course: Mathematics Grade 5

Unit: Numbers and Operations: Place Value

- Place Value
- Reading and Writing Whole Numbers
- Ordering Whole Numbers
- Rounding Whole Numbers

Time frame: Two Weeks

State Standards: 2.1.5.B.1

Anchor(s) or adopted anchor: M05.A-T.1.1, M05.A-T.1.2, M05.A-T.1.3, M05.A-T.1.4, M05.A-T.1.5

Essential content/objectives: At end of the unit, students will be able to:

- Read and write whole numbers in standard, word, and expanded form to the hundred billions place value
- Compare, order, and round whole numbers to the hundred billions place value

Core Activities: Students will complete/participate in the following:

- Spiral Review
- Create a place value chart
- Describe and differentiate word form, standard form and expanded form
- Discuss and apply rules for rounding whole numbers

Extensions:

- Integration of Technology-Pearson Interactive Digital Path-
  - https://www.pearsonsuccessnet.com/snpapp/learn/navigateIDP.do?method=toc&newServiceId =10363&product_isbn=0-328-70270-6
- Real world applications- Writing checks in standard and word form

Remediation:

- Differentiated assignments and assessments
- Leveled Centers
- Additional small group instruction
- Reteaching

Instructional Methods:

- Small and large group direct instruction
- Direct Instruction/Modeling
- Guided Practice
- Differentiated Instruction
- Independent Practice
- Small and large group discussion

Materials & Resources:

- *envisionMATH*
  Pearson Education, Inc.
  2012
  http://pearsonschool.com

- PSSA Coach Mathematics
  2007

- *Discovery Education*
  http://streaming.discoveryeducation.com/

- Teacher created worksheets
- Practice books and masters

Assessments:

- Diagnostic
  - Pretest
  - Questioning
  - Small and large group discussion
  - Student observation
  - Teacher created checklist

- Formative
  - Observation of student work
  - Quizzes
  - Practice worksheets

- Summative
  - End-of-Unit assessment
  - Creation of balance sheet and checks

Curriculum Scope & Sequence

Planned Course: Mathematics- Grade 5

Unit: Numbers and Operations: Decimals

- Place Value of Decimals
- Comparing Decimals
- Rounding Decimals
- Estimating to Solve Problems
- Adding and Subtracting Decimals

Time frame: Two Weeks

State Standards: 2.1.5.B.2

Anchor(s) or adopted anchor: M05.A-T.2.1. 1, M05.A-T.2.1.3

Essential content/objectives: At end of the unit, students will be able to:

- Read and write decimals in standard, word, and expanded form to the thousandths place value
- Compare, order, and round decimals to the thousandths place value
- Use estimation to solve problems and check for reasonableness
- Add and subtract decimal numbers

Core Activities: Students will complete/participate in the following:

- Spiral Review
- Create a place value chart
- Describe and differentiate word form, standard form and expanded form
- Discuss and apply rules for rounding decimals
- Compare and contrast adding and subtracting whole numbers and decimals (lining up decimal place values)

Extensions:

- Integration of Technology-Pearson Interactive Digital Path-
  - https://www.pearsonsuccessnet.com/snpapp/learn/navigateIDP.do?method=toc&newServiceId =10363&product_isbn=0-328-70270-6
- Real world applications-
  - Writing checks in standard and word form and create and maintain balance sheet
  - Using a grocery advertisement to create a shopping list and calculate cost of items- Using both estimation and actual cost

Remediation:

- Differentiated assignments and assessments
- Leveled Centers
- Additional small group instruction
- Reteaching

Instructional Methods:

- Small and large group direct instruction
- Direct Instruction/Modeling
- Guided Practice
- Differentiated Instruction
- Independent Practice
- Small and large group discussion

Materials & Resources:

- *envisionMATH*
  Pearson Education, Inc.
  2012
  http://pearsonschool.com

- PSSA Coach Mathematics
  2007

- *Discovery Education*
  http://streaming.discoveryeducation.com/

- Teacher created worksheets
- Practice books and masters
- Calculators
- Newspapers

Assessments:

- Diagnostic
  - Pretest
  - Questioning
  - Small and large group discussion
  - Student observation
  - Teacher created checklist

- Formative
  - Observation of student work
  - Quizzes
  - Practice worksheets

- Summative
  - End-of-Unit assessment
  - Creation of balance sheet and checks
  - Plan and execute a grocery list comparing estimated cost to actual cost

Curriculum Scope & Sequence

Planned Course: Mathematics- Grade 5

Unit: Numbers and Operations: Multiplication
- Exponents
- Multiplication

Time frame: 4 – 5 weeks

State Standards: 2.1.5.B.2

Anchor(s) or adopted anchor: M05.A-T.1.1.2, M05.A-T.2.1.1, M05.A-T.2.1.3

Essential content/objectives: At end of the unit, students will be able to:
- Express the value of exponents to the power of ten
- Identify and define the associative, identity, and zero properties of multiplication
- Multiply by two and three digit whole numbers
- Multiply decimals not to exceed the hundredths place value
- Use estimation to solve multiplication problems using whole numbers and decimals

Core Activities: Students will complete/participate in the following:
- Use mental math exercises to check for reasonableness
- Use calculators to identify patterns relating to the powers of ten
- Discuss the movement of decimal place values in multiplication
- Create multiplication problems using playing cards and dice

Extensions:
- Integration of Technology-Pearson Interactive Digital Path-
  - https://www.pearsonsuccessnet.com/snpapp/learn/navigateIDP.do?method=toc&newServiceId =10363&product_isbn=0-328-70270-6
- Real world applications-
  - Solve problems involving money

Remediation:
- Differentiated assignments and assessments
- Leveled Centers
- Additional small group instruction
- Reteaching

Instructional Methods:
- Small and large group direct instruction
- Direct Instruction/Modeling
- Guided Practice
- Differentiated Instruction
- Independent Practice
- Small and large group discussion

Materials & Resources:

- *envisionMATH*
  Pearson Education, Inc.
  2012
  http://pearsonschool.com

- PSSA Coach Mathematics
  2007

- *Discovery Education*
  http://streaming.discoveryeducation.com/

- Teacher created worksheets
- Practice books and masters
- Calculators

Assessments:

- Diagnostic
  - Pretest
  - Questioning
  - Small and large group discussion
  - Student observation
  - Teacher created checklist

- Formative
  - Observation of student work
  - Quizzes
  - Practice worksheets

- Summative
  - End-of-Unit assessment
  - Building on previous shopping list students will calculate new cost when order is doubled, tripled, etc.

Curriculum Scope & Sequence

Planned Course: Mathematics- Grade 5

Unit: Numbers and Operations: Division
- Division of Whole Numbers and Decimals

Time frame: 2 Weeks

State Standards: 2.1.5.B.2

Anchor(s) or adopted anchor: M05.A-T.2.1.1, M05.A-T.2.1.2, M05.A-T.2.1.3

Essential content/objectives: At end of the unit, students will be able to:
- Dividing by a Single Digit Whole Number
- Dividing by a Two Digit Whole Number
- Dividing Decimals to Hundredths Place Value (no decimal divisors)

Core Activities: Students will complete/participate in the following:
- Spiral review
- Use manipulatives to model division process
- Use estimation to generate a reasonable quotient with a two digit divisor
- Create a division problem using cards and dice

Extensions:
- Integration of Technology-Pearson Interactive Digital Path-
  - https://www.pearsonsuccessnet.com/snpapp/learn/navigateIDP.do?method=toc&newServiceId =10363&product_isbn=0-328-70270-6
- Real world applications-
  - Solve problems involving money
  - Calculating per unit costs
- Using divisibility rules for 2, 3, 4, 5, 9, 10

Remediation:
- Differentiated assignments and assessments
- Leveled Centers
- Additional small group instruction
- Reteaching

Instructional Methods:
- Small and large group direct instruction
- Direct Instruction/Modeling
- Guided Practice
- Differentiated Instruction
- Independent Practice
- Small and large group discussion

Materials & Resources:

- *envisionMATH*
  Pearson Education, Inc.
  2012
  http://pearsonschool.com

- PSSA Coach Mathematics
  2007

- *Discovery Education*
  http://streaming.discoveryeducation.com/

- Teacher created worksheets
- Practice books and masters
- Calculators

Assessments:

- Diagnostic
  - Pretest
  - Questioning
  - Small and large group discussion
  - Student observation
  - Teacher created checklist

- Formative
  - Observation of student work
  - Quizzes
  - Practice worksheets

- Summative
  - End-of-Unit assessment
  - Building on previous shopping list students will calculate the cost of one item out of six (Ex.- six pack of paper towel cost 4.29- What is the cost per roll?)

Curriculum Scope & Sequence

Planned Course: Mathematics- Grade 5

Unit: Measurement and Data: Graphs
- Graphs
- Coordinate Grids

Time frame: 2 Weeks

State Standards: 2.4.5.A.2, 2.3.5.A.1

Anchor(s) or adopted anchor: M05.D-M.2.1.2, M05.C-G.1.1.1, M05.C-G.1.1.2

Essential content/objectives: At end of the unit, students will be able to:
- Display and interpret data shown in tallies, tables, charts, pictographs, bar graphs and line graphs.
- Use a title, appropriate scale and proper labels
- Identify parts of the coordinate plane (x and y axis)
- Identify ordered pairs
- Plot ordered pairs

Core Activities: Students will complete/participate in the following:
- Spiral review
- Create a bar graph using information gathered in a class survey
- Discuss the need for titles, appropriate scales and correct labels
- Create an image by plotting ordered pairs on graph paper

Extensions:
- Integration of Technology
  - -Pearson Interactive Digital Path-
    - https://www.pearsonsuccessnet.com/snpapp/learn/navigateIDP.do?method=toc&newServiceId =10363&product_isbn=0-328-70270-6
  - http://www.scweb4free.com/linegr1.html
  - http://www.ixl.com/math/grade-5/create-bar-graphs
  - http://www.ixl.com/math/grade-5/interpret-line-plots
    (For additional graphing websites go to faculty drive)

Remediation:
- Differentiated assignments and assessments
- Leveled Centers
- Additional small group instruction
- Reteaching

Instructional Methods:

- Small and large group direct instruction
- Direct Instruction/Modeling
- Guided Practice
- Differentiated Instruction
- Independent Practice
- Small and large group discussion

Materials & Resources:

- *envisionMATH*
  Pearson Education, Inc.
  2012
  http://pearsonschool.com

- PSSA Coach Mathematics
  2007

- *Discovery Education*
  http://streaming.discoveryeducation.com/

- Teacher created worksheets
- Practice books and masters
- Calculators

Assessments:

- Diagnostic
  - Pretest
  - Questioning
  - Small and large group discussion
  - Student observation
  - Teacher created checklist

- Formative
  - Observation of student work
  - Quizzes
  - Practice worksheets

- Summative
  - End-of-Unit assessment
  - Students create an image by correctly plotting various coordinates
  - Conduct a survey and create various graphs using the data

Curriculum Scope & Sequence

Planned Course: Mathematics- Grade 5

Unit: Numbers and Operations: Fractions
- Factors and Multiples
- Fractions

Time frame: 4 – 5 weeks

State Standards: 2.1.5.C.1

Anchor(s) or adopted anchor: M05.A-F.1.1.1

Essential content/objectives: At end of the unit, students will be able to:
- Find the Greatest Common Factors of two numbers
- Use the GCF to simplify fractions
- Find the Least Common Multiple of two numbers and/or use the LCM to find the common denominator of two fractions
- Add and subtract fractions (including mixed numbers) with like and unlike denominators within the context of word problems, as well as straight computation

Core Activities: Students will complete/participate in the following:
- Spiral review
- Create factor trees
- Use a number line to identify multiples of a given number
- Create fraction strips
- Use fraction strips and fraction circle to model addition and subtraction of fractions and mixed numbers

Extensions:
- Integration of Technology
    - -Pearson Interactive Digital Path-
        - https://www.pearsonsuccessnet.com/snpapp/learn/navigateIDP.do?method=toc&newServiceId =10363&product_isbn=0-328-70270-6
- Ordering whole numbers, mixed numbers, fractions and decimals

Remediation:
- Integration of manipulatives
- Differentiated assignments and assessments
- Leveled Centers
- Additional small group instruction
- Reteaching
- Use of 100's chart to identify factors

Instructional Methods:

- Incorporation of manipulatives within cooperative learning groups
- Small and large group direct instruction
- Direct Instruction/Modeling
- Guided Practice
- Differentiated Instruction
- Independent Practice
- Small and large group discussion

Materials & Resources:

- *envisionMATH*
  Pearson Education, Inc.
  2012
  http://pearsonschool.com

- PSSA Coach Mathematics
  2007

- *Discovery Education*
  http://streaming.discoveryeducation.com/

- Teacher created worksheets
- Practice books and masters
- Calculators
- Manipulatives such as fractions strips and fraction circles.

Assessments:

- Diagnostic
  - Pretest
  - Questioning
  - Small and large group discussion
  - Student observation
  - Teacher created checklist

- Formative
  - Observation of student work
  - Quizzes
  - Practice worksheets

- Summative
  - End-of-Unit assessment

Curriculum Scope & Sequence

Planned Course: Mathematics- Grade 5

Unit: Operations and Algebraic Thinking: Fractions
- Multiplying and Dividing Fractions
- Patterns
- Expressions and Equations

Time frame: 4 – 5 weeks

State Standards: 2.1.5.C.2, 2.2.5.A.1, 2.2.5.A.4

Anchor(s) or adopted anchor: M05-A-F.2.1.1, M05-A-F.2.1.2, M05-A-F.2.1.3, M05-A-F.2.1.4, M05.B-0.1.1.1, M05.B-0.1.1.2, M05.B-0.2.1.1, M05.B-0.2.1.2

Essential content/objectives: At end of the unit, students will be able to:
- Multiply a fraction (including mixed numbers) by a fraction within the context of word problems, as well as straight computation
- Interpret multiplication as a resizing process
- Divide unit fractions by a whole number and a whole number by a unit fraction
- Create, extend and analyze patterns
- Analyze and complete calculations by applying the order of operations

Core Activities: Students will complete/participate in the following:
- Spiral review
- Use a picture (hundredths grid) to model multiplication and division of fractions
- Create a recipe (2/3 cup, ½ tsp etc) and then double, triple, etc the created recipe
- Create and analyze function tables
- Create a pattern using symbols or numbers
- Describe the rule of the pattern
- Use an acronym to determine order of operations (P.E.M.D.A.S)
- Perform calculations using correct order of operations

Extensions:
- Integration of Technology
  - -Pearson Interactive Digital Path-
    - https://www.pearsonsuccessnet.com/snpapp/learn/navigateIDP.do?method=toc&newServiceId =10363&product_isbn=0-328-70270-6

Remediation:
- Differentiated assignments and assessments
- Leveled Centers
- Additional small group instruction
- Reteaching

Instructional Methods:

- Small and large group direct instruction
- Direct Instruction/Modeling
- Guided Practice
- Differentiated Instruction
- Independent Practice
- Small and large group discussion

Materials & Resources:

- *envisionMATH*
  Pearson Education, Inc.
  2012
  http://pearsonschool.com

- PSSA Coach Mathematics
  2007

- *Discovery Education*
  http://streaming.discoveryeducation.com/

- Teacher created worksheets
- Practice books and masters
- Calculators

Assessments:

- Diagnostic
  - Pretest
  - Questioning
  - Small and large group discussion
  - Student observation
  - Teacher created checklist

- Formative
  - Observation of student work
  - Quizzes
  - Practice worksheets

- Summative
  - End-of-Unit assessment

Curriculum Scope & Sequence

Planned Course: Mathematics- Grade 5

Unit: Geometry and Measurement

Time frame: 4 – 5 weeks

State Standards: 2.3.5.A.2, 2.4.5.A.5

Anchor(s) or adopted anchor: M05.C-G.2.1.1, M05.D-M.3.1.1, M05.D-M.3.1.2

Essential content/objectives: At end of the unit, students will be able to:

- Identify basic properties of two and three dimensional figures
- Use basic properties to classify two and three dimensional figures
- Use, describe, and develop procedures to solve problems involving volume
- Apply the formula V= l x w x h and V = B x h to a variety of three dimensional shapes

Core Activities: Students will complete/participate in the following:

- Spiral review
- Use geoboards to create various geometric figures
- Compare and contrast various geometric figures
- Use base ten blocks to model the concept of volume

Extensions:

- Integration of Technology
    - -Pearson Interactive Digital Path-
        - https://www.pearsonsuccessnet.com/snpapp/learn/navigateIDP.do?method=toc&newServiceId =10363&product_isbn=0-328-70270-6
        - http://teams.lacoe.edu/documentation/classrooms/amy/geometry/6-8/activities/quad_quest/quad_quest.html
- Analyze architecture to identify geometric figures
- Geometry picture walk- students will work in cooperative groups to create a picture book using photographs of geometric figures found within the neighborhood
- Calculating volume of various containers

Remediation:

- Integration of manipulatives
- Differentiated assignments and assessments
- Leveled Centers
- Additional small group instruction
- Reteaching

Instructional Methods:

- Incorporation of manipulatives
- Small and large group direct instruction
- Direct Instruction/Modeling
- Guided Practice
- Differentiated Instruction
- Independent Practice
- Small and large group discussion

Materials & Resources:

- *envisionMATH*
  Pearson Education, Inc.
  2012
  http://pearsonschool.com

- PSSA Coach Mathematics
  2007

- *Discovery Education*
  http://streaming.discoveryeducation.com/

- Teacher created worksheets
- Practice books and masters
- Geometric solids
- Geoboards
- Base ten blocks

Assessments:

- Diagnostic
  - Pretest
  - Questioning
  - Small and large group discussion
  - Student observation
  - Teacher created checklist

- Formative
  - Observation of student work
  - Quizzes
  - Practice worksheets

- Summative
  - End-of-Unit assessment

Curriculum Scope & Sequence

Planned Course: Mathematics- Grade 5

Unit: Measurement

Time frame: 1- 2 weeks

State Standards: 2.5.A.1

Anchor(s) or adopted anchor: M05.D-M.1.1.1

Essential content/objectives: At end of the unit, students will be able to:

- Solve problems using conversions within a given measurement system
- Use conversions to solve multistep real world problems

Core Activities: Students will complete/participate in the following:

- Spiral review
- Create a chart to show metric conversions (ex-decimeters to meters)
- Create a rhyme or a song to memorize the rules of converting units (ex- large to small multiply all, small to big divide the pig)

Extensions:

- Integration of Technology
    - -Pearson Interactive Digital Path-
        - https://www.pearsonsuccessnet.com/snpapp/learn/navigateIDP.do?method=toc&newServiceId =10363&product_isbn=0-328-70270-6
        - http://www.nist.gov/public_affairs/kids/metricfacts.htm

- Destination- Convert distance traveled in miles to various units of length (miles, yards, feet, inches, etc.)

Remediation:

- Integration of manipulatives
- Differentiated assignments and assessments
- Leveled Centers
- Additional small group instruction
- Reteaching
- http://www.eduplace.com/kids/hmm/practice/quiz.html?qzid=hmm07_ep/gr4/1204&qseq=4,2,1,11,0,5,7,10,3,9&at=0&curq=0&score=0&UNIT=5

Instructional Methods:

- Incorporation of manipulatives
- Small and large group direct instruction
- Direct Instruction/Modeling
- Guided Practice
- Differentiated Instruction
- Independent Practice
- Small and large group discussion

Materials & Resources:

- *envisionMATH*
  Pearson Education, Inc.
  2012
  http://pearsonschool.com

- PSSA Coach Mathematics
  2007

- *Discovery Education*
  http://streaming.discoveryeducation.com/

- Teacher created worksheets
- Practice books and masters
- Rulers
- Yardsticks
- Meter stick

Assessments:

- Diagnostic
  - Pretest
  - Questioning
  - Small and large group discussion
  - Student observation
  - Teacher created checklist

- Formative
  - Observation of student work
  - Quizzes
  - Practice worksheets

- Summative
  - End-of-Unit assessment

Curriculum Scope & Sequence

Planned Course: Mathematics- Grade 5

Unit: Numbers and Operations: Statistics
- Prime and Composite
- Mean, Mode, Range, and Median

Time frame: 4 – 5 weeks

State Standards: 2.1.5.B.1, 2.1.6 E. 3

Anchor(s) or adopted anchor: M05.A-T.1.1, M05.A-T.1.2, M05.A-T.1.3, M05.A-T.1.4, M05.A-T.1.5, MO6.A-N.2.2.1, MO6.A-N.2.2.2

Essential content/objectives: At end of the unit, students will be able to:
- Identify prime numbers as having only two factors- 1 and itself
- Identify composite numbers as having more than two factors
- Calculate the mean of a given set of whole numbers without a remainder
- Identify the mode of a given set of whole numbers
- Calculate the range of a given set of whole numbers
- Identify and/or calculate the median of a given set (even or odd amount) of whole numbers

Core Activities: Students will complete/participate in the following:
- Spiral review
- Shade in a hundreds chart to identify prime numbers
- Calculate student averages in various subjects using test scores

Extensions:
- Integration of Technology
  - -Pearson Interactive Digital Path-
    - https://www.pearsonsuccessnet.com/snpapp/learn/navigateIDP.do?method=toc&newServiceId =10363&product_isbn=0-328-70270-6
- Use a calculator to identify larger numbers as prime or composite

Remediation:
- Differentiated assignments and assessments
- Leveled Centers
- Additional small group instruction
- Reteaching

Instructional Methods:
- Small and large group direct instruction
- Direct Instruction/Modeling
- Guided Practice
- Differentiated Instruction
- Independent Practice
- Small and large group discussion

Materials & Resources:

- *envisionMATH*
  Pearson Education, Inc.
  2012
  http://pearsonschool.com

- PSSA Coach Mathematics
  2007

- *Discovery Education*
  http://streaming.discoveryeducation.com/

- Teacher created worksheets
- Practice books and masters
- Calculators

Assessments:

- Diagnostic
  - Pretest
  - Questioning
  - Small and large group discussion
  - Student observation
  - Teacher created checklist

- Formative
  - Observation of student work
  - Quizzes
  - Practice worksheets

- Summative
  - End-of-Unit assessment

Curriculum Scope & Sequence

Planned Course: Mathematics- Grade 5

Unit: Measurement: Perimeter and Area
- Rulers
- Perimeter and Area
- Translations, Rotations, and Reflections

Time frame: 4 weeks

State Standards: 2.1.4.C.1, 2.3.6.A.1, 2.3.8.A.2

Anchor(s) or adopted anchor: M04.A-F.1.1.1, M04.A-F.1.1.2, M06.C-G.1.1.1, M06.C-G.1.1.2, M06.C-G.1.1.3, M08.C-G.1.1.1, M08.C-G.1.1.2, M08.C-G.1.1.3, M08.C-G.1.1.4

Essential content/objectives: At end of the unit, students will be able to:
- Identify 1/2 , 1/4 and 1/8 units on a ruler
- Identify perimeter as the distance around a figure
- Calculate the perimeter of a given figure P= l + w
- Identify the area as the amount of surface it covers
- Calculate the area of a given figure A = l x w
- Identify a transformation as either a translation, rotation or reflection

Core Activities: Students will complete/participate in the following:
- Highlight ½ ¼ and 1/8 inch marks on a paper ruler
- Create a garden on graph paper and measure the perimeter and area
- Transformation Quilt- Create a quilt square by translating, rotating and reflecting geometric shapes

Extensions:
- Integration of Technology
  - -Pearson Interactive Digital Path-
    - https://www.pearsonsuccessnet.com/snpapp/learn/navigateIDP.do?method=toc&newServiceId =10363&product_isbn=0-328-70270-6
    - E.L.M.O
- Measure Hunt-Measure objects around the classroom to the nearest ½, ¼ and or 1/8 as well as perimeter and area of objects such as textbooks and desk

Remediation:
- Differentiated assignments and assessments
- Leveled Centers
- Additional small group instruction
- Reteaching

Instructional Methods:

- Small and large group direct instruction
- Direct Instruction/Modeling
- Guided Practice
- Differentiated Instruction
- Independent Practice
- Small and large group discussion

Materials & Resources:

- *envisionMATH*
  Pearson Education, Inc.
  2012
  http://pearsonschool.com

- PSSA Coach Mathematics
  2007

- *Discovery Education*
  http://streaming.discoveryeducation.com/

- Teacher created worksheets
- Practice books and masters
- Calculators
- Rulers

Assessments:

- Diagnostic
  - Pretest
  - Questioning
  - Small and large group discussion
  - Student observation
  - Teacher created checklist

- Formative
  - Observation of student work
  - Quizzes
  - Practice worksheets

- Summative
  - End-of-Unit assessment

Curriculum Scope & Sequence

Planned Course: Mathematics- Grade 5

Unit: Data Analysis and Probability
- Probability
- Predicting Outcomes
- Ratios and Rates

Time frame: 2 weeks

State Standards: 2.1.6.D.1

Anchor(s) or adopted anchor: M06.A-R.1.1.1, M06.A-R.1.1.2, M06.A-R.1.1.3, M06.A-R.1.1.4, M06.A-R.1.1.5

Essential content/objectives: At end of the unit, students will be able to:
- Determine the outcome of a given event
- Determine/Show possible combinations
- Use of rates and ratios

Core Activities: Students will complete/participate in the following:
- Spiral review
- Probability Roll- Rolling dice to determine the probability of acquiring an even number, odd numbers, rolling various factors, etc.
- Create a chart to show that ratios can be written in three different ways
- Calculate the unit rate of grocery items in a store ad (ex. Six pack of soda- determine price of each can)

Extensions:
- Integration of Technology
    - -Pearson Interactive Digital Path-
        - https://www.pearsonsuccessnet.com/snpapp/learn/navigateIDP.do?method=toc&newServiceId =10363&product_isbn=0-328-70270-6
        - E.L.M.O

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- Teacher created worksheets
- Practice books and masters
- Spinners
- Dice

Assessments:

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- Formative
  - Observation of student work
  - Quizzes
  - Practice worksheets

- Summative
  - End-of-Unit assessment