PETERS TOWNSHIP SCHOOL DISTRICT

CORE BODY OF KNOWLEDGE

MATH

GRADE 5

For each of the sections that follow, students may be required to understand, apply, analyze, evaluate or create the particular concepts being taught.

COURSE DESCRIPTION:

The fifth grade enVisionMath course will focus on the Common Core domains of Operations and Algebraic Thinking, Number and Operations in Base Ten and Fractions, Measurement, Data and Geometry. The Standards for Mathematical Practice include making sense of problems and persevering in solving them, reasoning abstractly and quantitatively, constructing viable arguments and critiquing the reasoning of others. Additional Standards for Practice will be modeling with mathematics, using appropriate tools strategically, attending to precision, looking for and making use of structure, and looking for and expressing regularity in repeated reasoning.

STUDY SKILLS
- Maintain organized notes.
- Complete daily guided practice, independent practice, and problem solving classwork to prepare for daily quizzes.
- Consistently complete daily homework in preparation for unit tests.
- Integrate and apply previously learned skills for problem solving, performance assessments, and the Common Core Assessment.

PLACE VALUE
- Place Value Relationships
- Tenths and Hundredths
- Thousandths
- Decimal Place Value
- Compare and Order Decimals
- Look for a Pattern

ADDING AND SUBTRACTING DECIMALS
- Mental Math
- Rounding Decimals
- Estimating Sums and Differences

- Modeling Addition and Subtraction of Decimals
- Adding Decimals
- Subtracting Decimals

MULTIPLYING WHOLE NUMBERS
- Multiplication Properties
- Multiplying by Powers of 10
- Multiplying 2-Digit Numbers by Multiples of 10
- Multiplying 2-Digit by 2-Digit Numbers
- Multiplying Greater Numbers
- Draw a Picture and Write an Equation

DIVIDING BY 1-DIGIT DIVISORS
- Dividing Multiples of 10 and 100
- Estimating Quotients
- Reasonableness
- Dividing by 1-Digit Divisors
- Zeros in the Quotient
- More Dividing by 1-Digit Divisors
- Draw a Picture and Write an Equation

DIVIDING BY 2-DIGIT DIVISORS
- Using Patterns to Divide
- Estimating Quotients with 2-Digit Divisors
- Connecting Models and Symbols
- Dividing by Multiples of 10
- 1-Digit Quotients
- 2-Digit Quotients
- Dividing with Greater Numbers
- Missing or Extra Information

MULTIPLYING DECIMALS
- Multiplying Decimals by 10, 100 or 1,000
- Estimating the Product of a Decimal and a Whole Number
- Number Sense: Decimal Multiplication
- Models for Multiplying Decimals
- Multiplying a Decimal by a Whole Number
- Multiplying Two Decimals
- Multiple-Step Problems

DIVIDING DECIMALS

- Dividing Decimals by 10, 100 or 1,000
- Estimating Decimal Quotients
- Number Sense: Decimal Division
- Dividing by a Whole Number
- Dividing a Whole Number by a Decimal
- Dividing a Decimal by a Decimal
- Multiple-Step Problems

NUMERICAL EXPRESSIONS, PATTERNS AND RELATIONSHIPS

- Variable and Expressions
- Order of Operations
- Evaluating Expressions
- Addition and Subtraction Expressions
- Multiplication and Division Expressions
- Patterns: Extending Tables
- Use Reasoning

ADDING AND SUBTRACTING FRACTIONS

- Writing to Explain
- Estimating Sums and Differences of Fractions
- Adding Fractions with Unlike Denominators
- Subtracting Fractions with Unlike Denominators
- More Adding and Subtracting Fractions
- Solving Problems with Fractions
- Draw and Picture and Write an Equation

ADDING AND SUBTRACTING MIXED NUMBERS

- Estimating Sums and Differences of Mixed Numbers
- Modeling Addition and Subtraction of Mixed Numbers
- Adding Mixed Numbers
- Subtracting Mixed Numbers
- More Adding and Subtracting Mixed Numbers
- Draw a Picture and Write an Equation

MULTIPLYING AND DIVIDING FRACTIONS AND MIXED NUMBERS

- Multiplying Fractions and Whole Numbers
- Multiplication as Scaling
- Estimating Products

- Multiplying Two Fractions
- Area Models
- Multiplying Mixed Numbers
- Multiple-Step Problems
- Fractions and Division
- Fractions, Mixed Numbers, and Decimals as Quotients
- Dividing Whole Numbers by Unit Fractions
- Dividing Unit Fractions by Non-Zero Whole Numbers
- Draw a Picture and Write an Equation

VOLUME OF SOLIDS
- Models and Volume
- Volume
- Combining Volume
- Use Objects and Reasoning

UNITS OF MEASURE
- Converting Customary Units of Length
- Converting Customary Units of Capacity
- Converting Customary Units of Weight
- Converting Metric Units of Length
- Converting Metric Units of Capacity
- Converting Customary Units of Mass
- Multiple-Step Problems

DATA
- Line Plots
- Data from Survey
- Making Line Plots
- Measurement Data
- Writing to Explain

CLASSIFYING PLANE FIGURES
- Polygons
- Triangles
- Attributes of Quadrilaterals
- Special Quadrilaterals
- Classifying Quadrilaterals
- Make and Test Generalizations

COORDINATE GEOMETRY
- Ordered Pairs
- Patterns and Graphing
- More Patterns and Graphing
- Graphing Number Patterns
- Work Backwards

TEXTBOOKS AND SUPPLEMENTAL MATERIALS
- enVisionMath Common Core student textbook
- enVisionMath Common Core Reteaching and Practice Workbook
- enVisionMath Common Core Daily Review and Enrichment worksheets
- enVisionMath Common Core Math Ready-Made Centers for Differentiated Instruction (classroom use only)
- enVisionMath Common Core manipulative kits (classroom use only)
- enVisionMath Assessments
- Common Core Standards Practice worksheets
- PA State Testing Item Sampler Items
- Pearsonrealize.com

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