WARREN COUNTY SCHOOL DISTRICT
PLANNED INSTRUCTION

COURSE DESCRIPTION

Course Title:  Mathematics- Grade 3

Course Number:  08323

Course Prerequisites:  Completion of Mathematics- Grade 2

Course Description:  (Include “no final exam” or “final exam required”)
This course continues to strengthen and prepare students for real world math applications and to be able to communicate mathematically. Content throughout third grade will also strengthen and build previously learned math skills. Students will be involved in hands-on activities that provide daily challenges to enhance student achievement.

Suggested Grade Level:  ____ Third Grade ____

Length of Course:  _____ One Semester  ____ Two Semesters  _____ Other
(Describe)

Units of Credit:   _______ None _______ (Insert NONE if appropriate.)

PDE Certification and Staffing Policies and Guidelines (CSPG) Required Teacher Certification(s)
(Insert certificate title and CSPG#)  Elementary Education CSPG # 41

Certification verified by WCSD Human Resources Department:

____ X____ Yes  _____ No

Board Approved Textbooks, Software, Materials:

Title:  My Math

Publisher:  McGraw-Hill

ISBN #:  978-0-02-117323-5
Copyright Date:  2014
Date of WCSD Board Approval:  January 12, 2015
SPECIAL EDUCATION AND GIFTED REQUIREMENTS

The teacher shall make appropriate modifications to instruction and assessment based on a student’s Individual Education Plan (IEP) or Gifted Individual Education Plan (GIEP).

SPECIFIC EDUCATIONAL OBJECTIVES/CORRESPONDING STANDARDS AND ELIGIBLE CONTENT WHERE APPLICABLE

(List Objectives, PA Standards #’s, Other Standards (see samples at end))
**Mastery** is defined as the student’s ability to demonstrate the knowledge, skills, and abilities described by an eligible content.

**Introduction** is defined as when grade appropriate instruction pertaining to an eligible content should begin.

**PA Standard: 2.1 Numbers and Operations**

**M03.A-T Numbers and Operations in Base Ten**

<table>
<thead>
<tr>
<th>STD or EC Code</th>
<th>Performance Indicators</th>
<th>Mastery</th>
<th>Introduced</th>
</tr>
</thead>
<tbody>
<tr>
<td>M03.A-T.1.1.1</td>
<td>Round two- and three-digit whole numbers to the nearest ten or hundred, respectively.</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>M03.A-T.1.1.4</td>
<td>Order a set of whole numbers from least to greatest or greatest to least (up through 9,999; limit sets to no more than four numbers).</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>M03.A-T.1.1.2</td>
<td>Add two- and three-digit whole numbers (limit sums from 100 through 1000), and/or subtract two- and three-digit numbers from three-digit whole numbers.</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>M03.A-T.1.1.3</td>
<td>Multiply one-digit whole numbers by two-digit multiples of 10 (from 10-90).</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

**PA Standard: 2.1 Numbers and Operations**

**M03.A-F Numbers and Operations- Fractions**

<table>
<thead>
<tr>
<th>STD or EC Code</th>
<th>Performance Indicators</th>
<th>Mastery</th>
<th>Introduced</th>
</tr>
</thead>
<tbody>
<tr>
<td>M03.A-F.1.1.1</td>
<td>Demonstrate that the numerator represents parts of the whole. (limit the denominators to 2, 3, 4, 6, and 8; limit the numerators to whole numbers less than the denominator; no simplification necessary.)</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>M03.A-F.1.1.2</td>
<td>Represent fractions on a number line (limit the denominators to 2, 3, 4, 6, and 8; limit numerators to whole numbers less than the denominator; no simplification necessary).</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>M03.A-F.1.1.3</td>
<td>Recognize and generate simple equivalent fractions (limit the denominators to 2, 3, 4, 6, and 8; limit numerators to whole numbers less than the denominator; no simplification necessary).</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>M03.A-F.1.1.4</td>
<td>Express whole numbers as fractions, and/or generate fractions that are equivalent to whole numbers (limit the denominators to 1, 2, 3, 4, 6 and 8).</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>M03.A-F.1.1.5</td>
<td>Compare two fractions with the same denominators to 1, 2, 3, 4, 6 and 8, using the symbols &gt;, =, &lt;, and/or justify the conclusions.</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

**PA Standard: 2.2 Algebraic Concepts**

**M03.B-O Operations and Algebraic Thinking**

<table>
<thead>
<tr>
<th>STD or EC Code</th>
<th>Performance Indicators</th>
<th>Mastery</th>
<th>Introduced</th>
</tr>
</thead>
<tbody>
<tr>
<td>M03.B-O.1.1.1</td>
<td>Interpret and/or describe products of whole numbers (up to and including 10 x 10)</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>M03.B-O.1.1.2</td>
<td>Interpret and/or describe whole-number quotients of whole numbers (limit dividends through 50, and limit divisors and quotients through 10.)</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>M03.B-O.1.2.1</td>
<td>Use multiplication (up to and including 10 x10) and/or division (limit dividends through 50, and limit divisors and quotients through 10) to solve word problems in situations involving equal groups, arrays, and/or measurement</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>
Determine the unknown whole number in a multiplication (up to and including 10 x10) or division (limit dividends through 50, an limit divisors and quotients through 10) equation relating three whole numbers.

Solve two-step equations using order of operations (equation is explicitly stated with no grouping symbols).

Apply the commutative property of multiplication (not identification or definition of the property.)

Apply the associative property of multiplication (not identification or definition of the property.)

Interpret and/or model division as a multiplication equation with an unknown factor.

Solve two-step word problem, using the four operations (expressions are not explicitly stated). Limit to problems with whole numbers and having whole-number answers.

Represent two-step word problems using equations with a symbol standing for the unknown quantity. Limit to problems with whole numbers and having whole-number answers.

Assess the reasonableness of answers. Limit problems posed with whole numbers and having whole-number answers.

Create or match a story to a given combination of symbols (+, –, =, <, >) and numbers.

Identify the missing symbol (+, –, =, <, >) that makes a number sentence true.

Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole.

Tell/show and/or write time (analog) to the nearest minute.

Calculate elapsed time to the minute in a given situation (total elapsed time limited to 60 minutes or less).

Use a ruler to measure lengths to the nearest quarter inch or centimeter.

Compare total values of combinations of coins (penny, nickel, dime, quarter) and/or dollar bills less than $5.00.

Make change for an amount up to $5.00 with no more than $2.00 change given (penny, nickel, dime, quarter, dollar).

Round amounts of money to the nearest dollar.

Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real-world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.

Solve real-world and mathematical problems involving perimeters of polygons, including finding the perimeter of a given side lengths finding an unknown side length.

PA Standard: 2.3 Geometry

Geometry

STD or EC Code | Performance Indicators | Mastery | Introduced
--- | --- | --- | ---
M03.C-G.1.1.3 | Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. | X | |

PA Standard: 2.4 Data Analysis and Probability: Measurement and Data

STD or EC Code | Performance Indicators | Mastery | Introduced
--- | --- | --- | ---
M03.D-M.1.1.1 | Tell/show and/or write time (analog) to the nearest minute. | X | |
M03.D-M.1.1.2 | Calculate elapsed time to the minute in a given situation (total elapsed time limited to 60 minutes or less). | X | |
M03.D-M.1.2.3 | Use a ruler to measure lengths to the nearest quarter inch or centimeter. | X | |
M03.D-M.1.3.1 | Compare total values of combinations of coins (penny, nickel, dime, quarter) and/or dollar bills less than $5.00. | X | |
M03.D-M.1.3.2 | Make change for an amount up to $5.00 with no more than $2.00 change given (penny, nickel, dime, quarter, dollar). | X | |
M03.D-M.1.3.3 | Round amounts of money to the nearest dollar. | X | |
M03.D-M.3.1.1 | Measure areas by counting unit squares (square cm, square m, square in, square ft, and non-standard square units) | X | |
M03.D-M.3.1.2 | Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real-world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning. | X | |
M03.D-M.4.1.1 | Solve real-world and mathematical problems involving perimeters of polygons, including finding the perimeter of a given side lengths finding an unknown side length. | X | |
| M03.D-M.1.2.1 | Measure and estimate liquid volumes and masses of objects using standard units (cups [c], pints [pt], quarts [qt], gallons [gal], ounces [oz], and pounds [lb]) and metric units (liters [l], grams [g], and kilograms [kg]) | X |
| M03.D-M.1.2.2 | Add, subtract, multiply, and divide to solve word problems involving masses or liquid volumes that are given in the same units. | X |
| M03.D-M.2.1.2 | Solve one- and two-step problems using information to interpret data presented in the scaled pictographs and scaled bar graphs (scales limited to 1, 2, 5, and 10.) | X |
| M03.D-M.2.1.1 | Complete a scaled pictograph and a scaled bar graph to represent a data set with several categories (scales limited to 1, 2, 3, and 10.) | X |
| M03.D-M.2.1.3 | Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Display the data by making a line plot, where the horizontal scale is marked in appropriate units-whole numbers, halves or quarters. | X |
| M03.D-M.2.1.4 | Translate information from one type of display to another (e.g., convert tally chart to bar graph). Limit to tally charts, bar graphs and tables. | X |
ASSESSMENTS

PSSA Assessment Anchors Addressed: The teacher must be knowledgeable of the PDE Assessment Anchors and/or Eligible Content and incorporate them into this planned instruction. Current assessment anchors can be found at pde@state.pa.us.

Formative Assessments: The teacher will develop and use standards-based assessments throughout the course.

Portfolio Assessment: Yes X No

District-wide Final Examination Required: Yes X No

Course Challenge Assessment (Describe): Not applicable

REQUIRED COURSE SEQUENCE AND TIMELINE
(Content must be tied to objectives)

Highlighted anchors are introductory anchors

<table>
<thead>
<tr>
<th>Content Sequence</th>
<th>Dates</th>
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</thead>
<tbody>
<tr>
<td>Place Value/Number Sense</td>
<td>August/September</td>
</tr>
<tr>
<td>M03.A-T.1.1.1</td>
<td></td>
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<tr>
<td>M03.A-T.1.1.4</td>
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Addition

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<tbody>
<tr>
<td>M03.A-T.1.1.2</td>
<td>October</td>
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<tr>
<td>M03.B-O.3.1.1</td>
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<tr>
<td>M03.B-O.3.1.2</td>
<td></td>
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<tr>
<td>M03.B-O.3.1.3</td>
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<tr>
<td>M03.B-O.3.1.4</td>
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<tr>
<td>M03.B-O.3.1.6</td>
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<tr>
<td>M03.B-O.3.1.7</td>
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Subtraction

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<tr>
<td>M03.A-T.1.1.2</td>
<td>November</td>
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<tr>
<td>M03.B-O.3.1.1</td>
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<tr>
<td>M03.B-O.3.1.2</td>
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<tr>
<td>M03.B-O.3.1.3</td>
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<td>M03.B-O.3.1.4</td>
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<td>M03.B-O.3.1.6</td>
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<tr>
<td>M03.B-O.3.1.7</td>
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</table>

Money

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<tr>
<td>M03.D-M.1.3.1</td>
<td>December</td>
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<tr>
<td>M03.D-M.1.3.2</td>
<td></td>
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<tr>
<td>M03.D-M.1.3.3</td>
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</tbody>
</table>
**Multiplication**

M03.B-O.1.1.1  
M03.B-O.2.1.1  
M03.B-O.2.1.2  
M03.B-O.3.1.1  
M03.B-O.3.1.3  
M03.B-O.3.1.6  
M03.A-T.1.1.3

***Multiplication facts are introduced beginning in December and continued throughout the year until mastered.***

**Division**

M03.B-O.1.2.2  
M03.B-O.1.1.2  
M03.B-O.2.2.1  
M03.B-O.3.1.1

**Fractions**

M03.A-F.1.1.1  
M03.A-F.1.1.2  
M03.A-F.1.1.3  
M03.A-F.1.1.4  
M03.A-F.1.1.5  
M03.C-G.1.1.3

**Measurement**

M03.D-M.1.2.3  
M03.D-M.1.2.1  
M03.D-M.1.2.2

**Data Analysis**

M03.D-M.2.1.2  
M03.D-M.2.1.1  
M03.D-M.2.1.3  
M03.D-M.2.1.4

**Geometry**

M03.D-M.3.1.1  
M03.D-M.3.1.2  
M03.D-M.4.1.1

**Time**

M03.D-M.1.1.1  
M03.D-M.1.1.2
Objectives:

Students will:

- Apply place value understanding and properties of operations to perform multi-digit arithmetic.
- Explore and develop an understanding of fractions as numbers.
- Represent and solve problems involving multiplication and division.
- Understand properties of multiplication and the relationship between multiplication and division.
- Solve problems involving the four operations, and identify and explain patterns in arithmetic.
- Identify, compare, and classify shapes and their attributes.
- Use the understanding of fractions to partition shapes into parts with equal areas and express the area of each part as a unit fraction of the whole.
- Tell time and write time to the nearest minute and solve problems by calculating time intervals.
- Solve problems involving measurement and estimation of temperature, liquid volume, mass or length.
- Solve problems involving money using a combination of coins and bills.
- Represent and interpret data using tally charts, tables, pictographs, line plots, and bar graphs.
- Determine the area of a rectangle and apply the concept to multiplication and division.
- Solve problems involving perimeters of polygons and distinguish between linear and area measures.

WRITING TEAM: Warren County School District Math Teachers

**WCSD STUDENT DATA SYSTEM INFORMATION**

1. Is there a required final examination?  
   - Yes  
   - No
2. Does this course issue a mark/grade for the report card?  
   - Yes
   - No
3. Does this course issue a Pass/Fail mark?  
   - Yes
   - No
4. Is the course mark/grade part of the GPA calculation?  
   - Yes
   - No
5. Is the course eligible for Honor Roll calculation?  
   - Yes
   - No
6. What is the academic weight of the course?  
   - No weight/Non credit
   - Standard weight
   - Enhanced weight (Describe)