Moon Area School District Curriculum Map

Course: Math 3
Grade Level: 3
Content Area: Math, Topic 8
Frequency: Full-Year Course

Big Ideas

1. Solve read-world problems using properties of addition.
2. Identify patterns in the addition table and explain them using algebraic thinking.
3. Use mental math to add.
4. Use mental math to subtract.
5. Use place value and a number line to round numbers.
6. Use rounding or compatible numbers to estimate a sum.
7. Use rounding or compatible numbers to estimate a difference.
8. Solve one-step and multi-step problems by modeling with math.

Essential Questions

1. What are some properties of addition?
2. How can you find additions patterns?
3. How can you add with mental math?
4. How can you subtract with mental math?
5. How can you round numbers?
6. How can you estimate sums?
7. How can you estimate differences?
8. How can you model with math?

Primary Resource(s) & Technology:

Envisions Textbook Series, IXL online software, PSSA Performance Coach Mathematics, 2nd Edition
Microsoft Teams, Promethean Boards, Student Laptops/iPads

Pennsylvania and/or focus standards referenced at:

www.pdesas.org
www.education.pa.gov

Big Ideas/ EQs	Focus Standard(s)	Assessed Competencies (Key content and skills)	Timeline
1,3,4,5 ,6,7,8	C.2.1.3.B.1	• Use place value understanding and properties of operations to perform multi-digit arithmetic.	August-September

	Eligible Content: M03.A-T.1 M03.A-T.1.1 M03.A-T1.1.1 M03.A-T.1.1.2 M03.A-T1.1.4	• Appley place value strategies to solve problems. • Round two-digit and three-digit whole numbers to the nearest ten or hundred, respectively • Add two and three digit whole numbers(limit sums from 100 through 1,000) and/or subtract tow and three digit numbers from three digit whole numbers. • Order a set of whole numbers from least to greatest or greatest to least(up through 9,999, and limit sets to no more than four numbers).	*Coach, Lesson 10* *Coach,, Lesson 11 & 12* *Coach, Lesson 14*
1,2,3,4 ,5,7,8	CC.2.2.3A.4 Eligible content: M03B-O.3 M03B-O.3.1 M03B-O.3.1.1 M03B-O.3.1.2 M03B-O.3.1.3 M03B-O.3.1.5	• Solve problems involving the four operations, and identify and explain patterns in arithmetic. • Use operations, patterns, and estimation strategies to solve problems(may include word problems). • Solve two step and word problems using the four operations(expressions are not explicitly stated). Limit to problems with whole numbers and having whole-number answers. • Solve two step equations using order of operations(equation is explicitly stated with no grouping symbols). • Identify arithmetic patterns(including patterns in the additions table or multiplication table) and/or explain them using properties of operations.	
6	CC.2.2.3.A.1 Eligible content: M03.D-M.1 M03.D-M.1.2 M03.D-M.1.2.2	• Solve problems involving measurement and estimation of intervals of time, money, liquid volumes, masses, and lengths of objects. • Use the attributes of liquid volume, mass, and length of objects. • Add, subtract, multiply, and divide to solve one-step word problems involving masses or liquid volumes that are given in the same units.	*Coach, Lesson 21-24*

Moon Area School District Curriculum Map

Course: Math 3
Grade Level: 3
Content Area: Math Topic 9
Frequency: Full-Year Course

Big Ideas

1. Add two 3-digit numbers by breaking apart problems into simpler problems.
2. Use regrouping to add 3-digit numbers.
3. Add three or more numbers using addition strategies.
4. Subtract multi-digit numbers using expanded algorithm.
5. Use regrouping to subtract 3-digit numbers.
6. Use strategies to add 3-digit numbers and subtract a 3-digit number from another 3-digit number with one or more zeros.
7. Use addition and subtraction to justify a conjecture.

Essential Questions

1. How can you break apart addition problems to solve?
2. How can you use regrouping to solve addition problems?
3. How can add more than two numbers?
4. How can you use partial differences to subtract?
5. How can you use regrouping to solve subtraction problems?
6. How can you use strategies to add and subtract?
7. How can you construct arguments?

Primary Resource(s) & Technology:

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Big Ideas/ EQs	Focus Standard(s)	Assessed Competencies (Key content and skills)	Timeline
1, 2, 3, 4, 5, 6, 7	CC.2.1.3.B.1 Eligible Content: M03.A-T.1	• Apply place-value understanding and properties of operations to perform multi-digit arithmetic.	August - September

	M03.A-T.1.1 M03.A-T.1.1.2	• Use place-value understanding and properties of operations to perform multi-digit arithmetic. • Apply place-value strategies to solve problems. • Add two-and-three digit whole numbers (limit sums from 100 through 1,000) and/or subtract two-and three-digit numbers from three-digit whole numbers.	(Weeks or Days)
3, 4	C.C.2.2.3.A.3	• Demonstrate multiplication and division fluency.	
1, 2, 4, 5, 6, 7	C.C.2.2.3.A.4 M03.B-0.3 M03.B-0.3.1 M03.B-0.3.3	• Solve problems involving the four operations, and identify and explain patterns in arithmetic. • Use operations, patterns, and estimation strategies to solve problems (may include word problems). • Assess the reasonableness of answers. Limit problems posed with whole numbers and having whole-number answers.	

Moon Area School District Curriculum Map

Course: 3rd Grade Math
Grade Level: 3
Content Area: Math, Topic 1
Frequency: Full-Year Course

Big Ideas

1. Use repeated addition to show the relationship between multiplication and division.
2. Use number lines to join equal groups.
3. Use arrays and properties to understand multiplication.
4. Use sharing to separate equal groups and to think about division.
5. Use repeated subtraction to show the relationship between division and subtraction.
6. Think strategically about available tools that can be used to solve problems.

Essential Questions

1. How can you find the total number of objects in equal groups?
2. How can you use a number line to show multiplication?
3. How does an array show multiplication?
4. How do you determine how many objects are in each group?
5. How can you divide using repeated subtraction?
6. How can you use appropriate tools to represent and solve problems?

Primary Resource(s) & Technology:
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Big Ideas/ EQs	Focus Standard(s)	Assessed Competencies (Key content and skills)	Timeline
1, 2, 3, 4, 5, 6	Eligible Content: CC.2.2.3.A.1 M.03.B-O.1 M.03.B-O.1.1 M.03.B-O.1.1.2 M.03.B-O.1.2	• Represent and solve problems involving multiplication and division. • Represent and solve problems involving multiplication and division. • Understand various meanings of multiplication and division.	*Coach Lesson 1* *Coach Lesson 3* *Coach Lesson 6*

	M.03.B-O.1.2.1	• Interpret and/or describe products of whole numbers (up to and including 10 x 10) • Interpret and/or describe whole-number quotients of whole numbers (limit dividends through 5- and limit divisors and quotients through 10) • Solve mathematical and real-world problems using multiplication and division, including determining the missing number in a multiplication and/or division equation. • Use multiplication (up to and including 10 x 10) 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 quantities.	

Moon Area School District Curriculum Map

Course: 3rd Grade Math
Grade Level: 3
Content Area: Math, Topic 2
Frequency: Full-Year Course

Big Ideas

1. Gain fluency in multiplication when using 2 and 5 as a factor.
2. Gain fluency in multiplication when using 9 as a factor.
3. Gain fluency in multiplication when multiplying by 0 or 1.Gain fluency in multiplication when multiplying by 10.
4. Use number relationships and patterns to develop reasoning strategies to support their recall of the basic multiplication facts.
5. Use previously learned concepts and skills to represent and solve problems.

Essential Questions

1. How can you use patterns to multiply by 2 and 5?
2. How can you use patterns to multiply by 9?
3. What are the patterns in multiples of 1 and 0?
4. What are the patterns in multiples of 10?
5. How do you use multiplication facts to solve problems?
6. How can you model with math?

Primary Resource(s) & Technology:
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Big Ideas/ EQs	Focus Standard(s)	Assessed Competencies (Key content and skills)	Timeline
	Eligible Content: CC.2.2.3.A.1 M.03.B-O.1 M.03.B-O.1.1 M.03.B-O.1.1.1 M.03.B-O.1.2 M.03.B-O.1.2.1	• Represent and solve problems involving multiplication and division. • Understand various meanings of multiplication and division. • Interpret and/or describe products of whole numbers (up to and including 10 x 10)	*Coach Lesson 2* *Coach Lesson 4*

		• Solve mathematical and real-world problems using multiplication and division, including determining the missing number in a multiplication and/or division equation. • Use multiplication (up to and including 10 x 10) 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 quantities.	*Coach Lesson 8*
	C.C.2.2.3.A.2 M.03.B-O.2 M.03.B-O.2.1 M.O3.B-O.2.1.1	• Understand properties of multiplication and the relationship between multiplication and division. • Use properties to simplify and solve multiplication problems. • Apply the commutative property of multiplication (not identification or definition of the property).	*Coach Lesson 5*
	C.C.2.2.3.A.4 M.03.B-O.3.1 M.03.B-O.3.1.5	• Solve problems involving the four operations, and identify and explain patterns in arithmetic • Use operations, patterns, and estimation strategies to solve problems (may include word problems) • Identify arithmetic patterns (including patterns in the addition table or multiplication table) and/or explain them using properties of operations.	*Coach Lesson 7*

Moon Area School District Curriculum Map

Course: Math
Grade Level: Third Grade
Content Area: Math Topic 3 & 4
Frequency: Full-Year Course

Big Ideas

1. Use the Distributive Property to solve problems involving multiplication within 100.
2. Use the Distributive Property to break apart unknown facts with 3 or 4 as a factor.
3. Use the Distributive Property to break apart unknown facts with 6 or 7 as a factor.
4. Use the Distributive Property to break apart unknown facts with 8 as a factor.
5. Use strategies such as bar diagrams and arrays with known facts to solve multiplication problems.
6. Use the Associative Property of Multiplication to group factors when multiplying 3 factors.
7. Use repeated reasoning with known facts to generalize when multiplying.

Essential Questions

1. How can you Break Up a Multiplication Fact?
2. How can you Break Apart Arrays to Multiply with 3?
3. How can you Break Apart Arrays to Multiply?
4. How can you Use Doubles to Multiply with 8?
5. How do you use Strategies to Multiply?
6. How can you Multiply 3 Numbers?
7. How can you use repeated reasoning when multiplying?

Primary Resource(s) & Technology:

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Big Ideas/ EQs	Focus Standard(s)	Assessed Competencies (Key content and skills)	Timeline

1, 2, 3, 4, 5, 6, 7	CC.2.2.3.A.1 Eligible Content: M03.B-0.1 M03.0.1.2 M03.0.1.2.1	• Represent and solve problems involving multiplication and division. • Solve mathematical and real-world problems using multiplication and division, including determining the missing number in a multiplication and/or division. • Use multiplication (up to and including 10 x 10) 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 quantities.	
2, 3, 4, 5, 6	CC.2.2.3.A.2 Eligible Content: M03.B-0.2 M03.B-0.2.1 M03.B-0.2.1.1 M03.B-0.2.1.2	• Understand properties of multiplication and the relationship between multiplication and division. • Use properties to simplify and solve multiplication problems. • Apply the commutative property of multiplication. • Apply the associative property of multiplication.	
2, 3, 4	C.C.2.2.3.A.4 Eligible Content M03.B-0.3 M03.B-0.3.1 M03.B-0.3.1.5	• Solve problems involving the four operations and identify and explain patterns in arithmetic. • Use operations, patterns, and estimation strategies to solve problems (may include word problems). • Identify arithmetic patterns (including patterns in the addition table or multiplication table) and/ or explain them using properties of operations.	
7	CC.2.4.3A.5 Eligible Content M03.D-M.3 M03.D-M.3.1 M03.D-M.3.1.2	• Geometric measurement: understand concepts of area and relate area to multiplication and to addition. • Find and use the areas of plane figures. • Multiply side lengths in the context of solving real-world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.	*Coach Lesson 29*

Moon Area School District Curriculum Map

Course: Math
Grade Level: Third Grade
Content Area: Math Topic 3 & 4
Frequency: Full-Year Course

Big Ideas

1. Use multiplication facts to divide.
2. Use multiplication facts to find related division facts.
3. Use knowledge of even and odd numbers to identify multiplication patterns.
4. Use properties to understand division involving 0 and 1.
5. Use patterns and known facts to find unknown multiplication facts. Use multiplication facts to find related division facts.
6. Use multiplication and division facts to find unknow values in equations.
7. Use previously learned concepts to find and answer hidden questions to solve problems.

Essential Questions

1. How can Multiplication Facts help you divide?
2. What Multiplication fact can you use?
3. How do you divide with 6 and 7?
4. What Multiplication fact can you use?
5. How can you explain multiplication patters for even and odd numbers?
6. How do you divide with 1 and 0?
7. What fact can you use?
8. How do multiplication and division equations work?
9. How can you make sense of a problem and persevere in solving it?

Primary Resource(s) & Technology:

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Moon Area School District Curriculum Map

Course: Math 3
Grade Level: 3
Content Area: Math, Topic 5
Frequency: Full-Year Course

Big Ideas

1. Use the multiplication table and the Distributive Property to find patterns in factors and products.
2. Use number sense and reasoning while practicing multiplication and division basic facts.
3. Use strategies such as skip counting and properties of operations to multiply.
4. Solve multiplication and division problems that involve different strategies and representations.
5. Use multiplication and division to write and solve real world problems involving equal groups.
6. Use the structures of multiplication and division to compare expressions.
7. Multiply by 0,1,5,10

Essential Questions

1. How can you explain patterns in the multiplication chart?
2. How can you use a multiplication table to solve division problems?
3. How can you use strategies to multiply?
4. How can you solve word problems using multiplication and division?
5. How can you describe a multiplication fact?
6. How can you use the structure of mathematics?
7. How can you model with math?

Primary Resource(s) & Technology:

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Big Ideas/ EQs	Focus Standard(s)	Assessed Competencies (Key content and skills)	Timeline
1,3,4,5 ,6,7	CC.2.2.3.A..1	• Represent and solve problems involving multiplication and division.	October

	Eligible Content: MO3.B-0.1 M.03.B-O.1.1 M03.B-O.1.1.1 M03.B-O.1.1.2 M03.B-O.1.2 M03.B-O.1.2.1	• Understand various meanings of multiplication and division. • Interpret and/or describe products of whole numbers (up to and including 10x10) • Interpret and/or describe whole-number quotients of whole numbers (limit dividends through 50 and limit divisors.) • Solve mathematical and real-world problems using multiplication and division, including determining the missing number in a multiplication and or division equation. • Use multiplication (up to and including 10x10) and or division limiting dividends through 50 and limit quotients through 10to solve word problems in situations involving equal groups, arrays, and or measurement quantities.	
1,2,3,4,5,7	CC.2.2.3.A.4 Eligible content: M03B-O.3 M03B-O.3.1 M03B-O.3.1.2 M03B-O.3.1.5 M03B-O.3.1.6	• Solve problems involving the four operations, and identify and explain patterns in arithmetic. • Use operation, patterns, and estimation strategies to solve problems (may include word problems.) • 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. • Identify arithmetic patterns (including patterns in addition table or multiplication table) and or explain them using properties of operations. • Create or match a story to a given combination of symbols (+,-,<,>) and numbers.	

Moon Area School District Curriculum Map

Course: Math 3
Grade Level: 3
Content Area: Math, Topic 6
Frequency: Full-Year Course

Big Ideas

1. Use unit squares to find the area of a shape.
2. Use unit squares to find the area of a figure.
3. Use standard units to measure the area of a shape.
4. Use unit squares and multiplication to find the areas of squares and rectangles.
5. Use areas of rectangles to model the distributive property of multiplication.
6. Use areas of rectangles to find the area of irregular shapes.
7. Solve problems by breaking apart or changing the problem into simpler problems.

Essential Questions

1. How does area connect to multiplication?
2. How do you measure area?
3. How can you measure area using non-standard units?
4. How can you measure area using standard units of length?
5. How can you find the area of a figure?
6. How can the area of a rectangle represent the distributive property?
7. How can you find the area of an irregular shape?
8. How can you use structure to solve problems?

Primary Resource(s) & Technology:

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Big Ideas/ EQs	Focus Standard(s)	Assessed Competencies (Key content and skills)	Timeline
1,3,4,5,6,7,8	C.2.2.3.A.3 Eligible Content: M03.D-M.3	• Determine the area of a rectangle and apply the concept to multiplication and to addition.	December-January *Coach, Lesson 29*

	M03.D-M.3.1 M03.D-M.3.1.1 M03.D-M.3.1.2	• Geometric measurement: understand concepts of an area and relate area to multiplication and to addition. • Find and use the areas of plane figures. • Measure areas by counting unit squares. • 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.	
1	CC..2.2.3.A.3	• Demonstrate multiplication and division fluency.	

Moon Area School District Curriculum Map

Course: Math 3
Grade Level: 3
Content Area: Math, Topic 10
Frequency: Full-Year Course

Big Ideas

1. Use patterns to find products when one factor is a multiple of 10.
2. Use different strategies to find products when one factor is a multiple of 10.
3. Use the properties of multiplication to find products when on factor is a multiple of 10.
4. Use the structure of a multiplication and place value to find products when on factor is a multiple of 10.

Essential Questions

1. How can you use patterns to multiply?
2. How can place value help you use mental math to multiply by a multiple of 10.
3. How can you use properties to multiply by multiples of 10?
4. How can I use structure to multiply with multiples of 10?

Primary Resource(s) & Technology:

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Big Ideas/ EQs	Focus Standard(s)	Assessed Competencies (Key content and skills)	Timeline
2,4	C.2.1.3.B.1 Eligible Content: M03.A-T.1 M03.A-T.1.1 M03.A-T.1.1.3	• Apply place value understanding and properties of operations to perform multi-digit arithmetic. • Use place-value understanding and properties of operations to perform multi-digit arithmetic. • Apply place-value strategies to solve problems • Multiply one digit whole numbers by two digit multiples of 10(from 10 through 90).	*Coach, Lesson 13*

1,4	CC.2.2.3A.4 Eligible content: M03B-O.3 M03B-O.3.1 M03B-O.3.1.5	• Solve problems involving the four operations, and identify and explain patterns in arithmetic. • Use operations, patterns, and estimation strategies to solve problems(may include word problems). • Identify arithmetic patterns(including patterns in the addition table or multiplication table) and/or explain them using properties of operations.	
1,4	CC.2.2.3.A.1 Eligible content: M03.B-O.1 M03.B-O.1.2 M03.B-O.1.2.1	• Represent and solve problems involving multiplication and division. • Solve mathematical and real-world problems using multiplication and division, including determining the missing number in a multiplication and/or division equation. • Use multiplication(up to and including 10x10) 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 quantities.	
3	C.C.2.2.3.A.2 Eligible content: M03.B-O.2 M03.B-O.2.1 M03.B-O.2.1.2	• Understand properties and the relationship between multiplication and division. • Use properties to simplify and solve multiplication problems. • Apply the associative property of multiplication(not identification or definition of the property).	

Moon Area School District Curriculum Map

Course: Math 3
Grade Level: 3
Content Area: Math, Topic 11
Frequency: Full-Year Course

Big Ideas

1. Draw diagrams and write equations to solve two-step problems involving addition and subtraction of whole numbers.
2. Draw diagrams ad write equations to solve two-step problems involving multiplication and division of whole numbers.
3. Examine relationships between quantities in a two-step word problem by writing equations. Choose and apply the operations needed to find the answer.
4. Critique the reasoning of others by asking questions, identifying mistakes, and providing suggestions for improvement.

Essential Questions

1. How can you use diagrams to solve 2-step problems?
2. How can you solve 2-step problems?
3. How can you critique the reasoning of others?

Primary Resource(s) & Technology:

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Big Ideas/ EQs	Focus Standard(s)	Assessed Competencies (Key content and skills)	Timeline
1,3,4	C.2.1.3.B.1 Eligible Content: M03.A-T.1 M03.A-T.1.1 M03.A-T.1.1.2 M03.A-T1.1.3	• Apply place-value understanding and properties of operations to perform multi-digit arithmetic. • Use place-value understanding and properties of operations to perform multi-digit arithmetic. • Apply place value strategies to solve problems. • Add two- and three-digit whole numbers(limit sums from 100 through 1,000) and/or subtract two- and three-digit	

		whole numbers from three-digit whole numbers. • Multiply one-digit whole numbers by two-digit multiplies of ten(from 10 through 90).	
2,3,4	CC.2.2.3A.3 CC.2.2.3A.4 Eligible content: M03B-O.3 M03B-O.3.1 M03B-O.3.1.1 M03B-O.3.1.4 M03B-O.3.1.7	• Demonstrate multiplication and division fluency. • Solve problems involving the four operations, and identify and explain patterns in arithmetic. • Use operations, patterns, and estimation strategies to solve problems(may include word problems). • Solve two-step word problems using the four operations (expressions are not explicitly stated). Limit to problems with whole numbers and having whole-number answers. • Solve two-step equations using order of operations(equation is explicitly stated with no regrouping symbols). • Identify the missing symbol (+, -, x, divide, greater than, less than, and =) that makes a number sentence true.	
1,2,3,4	CC.2.4.3.A.4 Eligible content: M03.D-M.2 M03.D-M.2.1 M03.D-M.2.1.2	• Represent and interpret data using tally charts, tables, pictographs, line plots, and bar graphs. • Represent and interpret data. • Organize, display, and answer questions based on data. • Solve one- and two-step problems using information to interpret date presented in scaled pictographs and scaled bar graphs(scales limited to 1, 2, 5, and 10).	*Coach Lesson 26 & 27*

Moon Area School District Curriculum Map

Course: Math 3
Grade Level: 3
Content Area: Math, Topic 7
Frequency: Full-Year Course

Big Ideas

1. Use graphs to compare and interpret data.
2. Use frequency tables and picture graphs to compare and interpret data.
3. Use scaled bar graphs to represent data sets.
4. Use graphs to solve problems.
5. Use words, symbols, and numbers to accurately and precisely solve math problems.

Essential Questions

1. How can data be represented, analyzed, and interpreted?
2. How can you read picture graphs?
3. How can you read bar graphs?
4. How do you make a picture graph?
5. How do you make a bar graph?
6. How can you solve problems using graphs?
7. How can you be precise when solving math problems?

Primary Resource(s) & Technology:

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Big Ideas/ EQs	Focus Standard(s)	Assessed Competencies (Key content and skills)	Timeline
1, 2, 3, 4, 5	CC.2.2.3.A.1 Eligible Content: M03.B-O.1 M03.B-O.1.2 M03.B-O.1.2.1	• Represent and solve problems involving multiplication and division. • Solve mathematical and real-world problems using multiplication and division, including determining the missing number in a multiplication and/or division equation.	

		• Use multiplication (up to and including 10 x 10) 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 quantities.	
1, 4	CC.2.2.3.A.4 Eligible Content: M03.B-O.3 M03.B-O.3.1 M03.B-O.3.1.2	• Solve problems involving the four operations, and identify and explain patterns in arithmetic. • Use operations, patterns, and estimation strategies to solve problems (may include word problems). • 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.	
1, 2, 3, 4, 5	CC.2.4.3.A.4 Eligible Content: M03.D-M.2 M03.D-M.2.1 M03.D-M.2.1.1 M03.D-M.2.1.2 M03.D-M.2.1.4	• Represent and interpret data. • Organize, display, and answer questions based on data. • Complete a scaled pictograph and a scaled bar graph to represent a data set with several categories (scales limited to 1, 2, 5, and 10). • Translate information from one type of display to another. Limit to pictographs, tally charts, bar graphs, and tables.	*Coach Lesson 25*

Moon Area School District Curriculum Map

Course: Math
Grade Level:3
Content Area: Topic 12
Frequency: Full-Year Course

Big Ideas

1. Understand how to read and write unit fractions for equal sized parts of a region.
2. Use fraction to represent multiple copies of a unit fraction
3. Determine and draw the whole (unit) given one part (unit fraction)
4. Represent fractions less than 1 on a number line.
5. Represent fractions greater than 1 on a number line.
6. Measure length to the nearest half inch and show the data on a line plot.
7. Measure length the nearest fourth inch and show the data on a number line.
8. Determine when a problem has either extra or missing information.

Essential Questions

1. How can you name the equal parts of a whole?
2. How can you show and name parts of a region?
3. How can you use fractional part to find the whole?
4. How can you record fractions on a number line?
5. How can you use a number line to represent fractions greater than 1?
6. How can you measure lengths and use line plots to show the data?
7. How can you make and use line plots?
8. How can you make sense of a problem and preserve in solving it?

Primary Resource(s) & Technology:

Envisions Textbook Series, IXL online software, PSSA Performance Coach Mathematics, 2nd Edition, Microsoft Teams, Promethean Boards, Student Laptops/iPads

Pennsylvania and/or focus standards referenced at:

www.pdesas.org
www.education.pa.gov

Big Ideas/ EQs	Focus Standard(s)	Assessed Competencies (Key content and skills)	Timeline
1,3,4,5,8	CC.2.1.3.C.1 Eligible Content: M03.A-F.1 M03.A-F.1.1	• Develop an understanding of fractions as numbers	January

	M03.A-F.1.1.1 M03.A-F.1.1.2 M03.A-F.1.1.3 M03.A-F.1.1.4	• Develop and apply number theory concepts to compare quantities and magnitudes of fractions and whole numbers • Demonstrate that when a whole or set is partitioned into y equal parts, the fraction 1/y represents 1 part of the whole and the fraction x/y represents x equal parts of the whole (limit denominators to 2, 3, 4, 6, and 8; limit numerators to whole numbers less than the denominator; and no simplification necessary) • Represent fractions on a number line (limit denominators to 2,3,4,6, and 8; limit numerators to whole numbers less than the denominator; and no simplification necessary) • Recognize and generate simple equivalent fractions (limit denominators to 1,2,3,4,6, and 8 and limit numerators to whole numbers less than the denominator) • Express whole numbers (limit denominators to 1,2,3,4,6, and 8)	*Coach Lesson 15* *Coach Lesson 16* *Coach Lesson 38* *Coach Lesson 40*
1, 2, 3, 4, 8	CC.2.3.3.A.2 M03.C-G.1 M03.C-G.1.1 M03.C-G.1.1.3	• Use the understanding of fractions to partition shapes into equal parts with equal areas and express the area of each part as a unit fraction of the whole • Reason with shapes and their attributes • Analyze characteristics of polygons • Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole	*Coach Lesson 30* *Coach Lesson 31*
6, 7	CC.2.4.3.A.4 M03.D-M.2 M03.D-M.2.1 M03.D-M.2.1.3	• Represent and interpret data using tally charts, tables, pictographs, line plots, and bar graphs • Represent and interpret data • Organize, display, and answer questions based on data • 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	*Coach Lesson 22*

Moon Area School District Curriculum Map

Course: Math 3
Grade Level: 3
Content Area: Topic 13
Frequency: Full-Year Course

Big Ideas

1. Find equivalent fractions that name the same part of the whole
2. Represent equivalent fractions on a number line
3. Use models such as fraction strips to compare fractions that refer to the same whole and have the same denominator
4. Use models such as fraction strips to compare fractions that refer to the same whole and have the same numerator
5. Use benchmark numbers to compare fractions
6. Use the number line to compare fractions

Essential Questions

1. How can different fractions name the same part of a whole?
2. How can you use number lines to name equivalent fractions?
3. How can you compare fractions with the same denominator?
4. How can you compare fractions with the same numerator?
5. How can benchmark numbers be used to compare fractions?
6. How can you compare fractions using a number line?
7. How can you use fraction names to represent whole numbers?
8. How can you construct arguments?

Primary Resource(s) & Technology:

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Big Ideas/ EQs	Focus Standard(s)	Assessed Competencies (Key content and skills)	Timeline

1,2,3,4,5,6,7,8	CC.2.1.3.C.1 Eligible Content: M03.A-F.1 M03.A-F.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	• Explore and develop an understanding of fractions as numbers • Develop an understanding of fractions as numbers • Develop and apply number theory concepts to compare quantities and magnitudes of fractions and whole numbers • Represent fractions on a number line (limit denominators to 2,3,4,6, and 8; limit numerators to whole numbers less than the denominator; and no simplification necessary) • Recognize and generate simple equivalent fractions(limit denominators to 1,2,3,4,6, and 8; limit numerators to whole numbers less than the denominator) • Express whole numbers as fractions and/or generate fractions that are equivalent to whole numbers (limit denominators to 1,2,3,4,6, and 8) • Compare two fractions with the same denominator (limit denominators to 1,2,3,4,6, and 8), using the symbols >, =, or <, and/or justify the conclusions	February
1	CC.2.3.3.A.2 M03.C-G.1 M03.C-G.1.1 M03.C-G.1.1.3	• 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 • Reason with the shapes and their attributes • Analyze characteristics of polygons • Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole	

Moon Area School District Curriculum Map

Course: 3
Grade Level: 3
Content Area: Topic 14 - Time, Capacity, and Mass Problems
Frequency: Full-Year Course

Big Ideas

1. Show and tell time to the nearest minute using analog and digital clocks.
2. Tell and write time to the nearest minute and measure time intervals in minutes.
3. Solve word problems involving addition and subtraction to measure quantities of time.
4. Use standard units to estimate liquid volume.
5. Use standard units to measure liquid volume.
6. Use standard units to estimate the masses of solid objects.
7. Use a pan balance with metric weights to measure the mass of objects in grams and kilograms.
8. Use pictures to help solve problems about mass and volume.
9. Make sense of quantities and relationships in problems.

Essential Questions

1. How do you tell time to the nearest minute?
2. How can you find elapsed time?
3. How can you add or subtract time intervals?
4. How do you estimate capacity?
5. How do you measure capacity?
6. How can you use reasoning to estimate mass?
7. How do you measure mass?
8. How can you solve problems involving mass and liquid volume?
9. How can you use reasoning to solve problems?

Primary Resource(s) & Technology:

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Big Ideas/ EQs	Focus Standard(s)	Assessed Competencies (Key content and skills)	Timeline
4,5,6,7,8	CC.2.4.3.A.1 Eligible Content: M03.D-M.1 M03.D-M.1.2 M03.D-M.1.2.1 M03.D-M.1.2.2	• Solve problems involving measurement and estimation of temperature, liquid volume, mass or length. • Solve problems involving measurement and estimation of intervals of time, money, liquid volumes, masses, and lengths of objects. • Use the attributes of liquid volume, mass, and length of objects. • Measure and estimate liquid volumes and masses of objects using standard units, ounces and pounds and metric units, and kilograms. • Add, subtract, multiply, and divide to solve one-step word problems involving masses or liquid volumes that are given in the same units.	
1,2,3,	CC.2.4.3.A.2 M03.D-M.1 M03.D-M.1.1 M03.D-M.1.1.1 M03.D-M.1.1.2	• Tell and write time to the nearest minute and solve problems by calculating time intervals. Solve problems involving measurement and estimation of intervals of time, money, liquid volumes, masses, and lengths of objects. Determine or calculate time and elapsed time. Tell, show, and/or write time to the nearest minute. Calculate elapsed time to the minute in a given situation.	
	CC.2.4.3.A.3 M03.D-M.1 M03.D-M.1.3 M03.D-M.1.3.1 M03.D-M.1.3.2 M03.D-M.1.3.3	• Solve problems and make change involving money using a combination of bills and coins. • Solve problems involving measurement and estimation of intervals of time, money, liquid volumes, masses, and lengths of objects. • Count, compare, and make change using a collection of coins and one-dollar bills.	*Coach Lesson 20*

		• Compare total values of combinations of coins 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. • Round amounts of money to the nearest dollar.	

Moon Area School District Curriculum Map

Course: Math 3
Grade Level: 3
Content Area: Math Topic 15
Frequency: Full-Year Course

Big Ideas

1. Identify quadrilaterals and use attributes to describe them.
2. Classify shapes according to their attributes.
3. Analyze and compare quadrilaterals and group them by their attributes.
4. Solve math problems precisely, efficiently, and accurately using appropriate tools and mathematics vocabulary.

Essential Questions

1. What are some attributes of quadrilaterals?
2. How can you describe different groups of shapes?
3. How can you analyze and compare shapes?
4. How can you be precise when solving math problems?

Primary Resource(s) & Technology:
Envisions Textbook Series, IXL online software, PSSA Performance Coach Mathematics, 2nd Edition, Microsoft Teams, Promethean Boards, Student Laptops/iPads

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Big Ideas/ EQs	Focus Standard(s)	Assessed Competencies (Key content and skills)	Timeline
	CC.2.3.3.A.1	• Identify, compare, and classify shapes and their attributes.	August - September

	Eligible Content: M03.C-G.1 M03.C-G.1.1.1 M03.C-G.1.1.2	• Reason with shapes and their attributes. • Analyze characteristics of polygons. • Explain that shapes in different categories may share attributes and that the shared attributes can define a larger category. • Recognize rhombi, rectangles, and squares as examples of quadrilaterals and/or draw examples of quadrilaterals that do not belong to any of these subcategories.	
	C.C.2.2.3.A.3	• Demonstrate multiplication and division fluency.	

Moon Area School District Curriculum Map

Course: 3
Grade Level: 3
Content Area: Topic 16 – Solve Perimeter Problems
Frequency: Full-Year Course

Big Ideas

1. Find the perimeter of different polygons.
2. Find the perimeter of different polygons with common shapes.
3. Use the given sides of a polygon and the known perimeter to find the unknown side length.
4. Understand the relationship of shapes with the same perimeter and different areas.
5. Understand the relationship of shapes with the same area and different perimeters.
6. Understand the relationship between numbers to simplify and solve problems involving perimeter.

Essential Questions

1. How do you find perimeter?
2. How can you find the perimeters of common shapes?
3. How can you find an unknown side length from the perimeter?
4. Can rectangles have different areas but the same perimeter?
5. Can rectangles have the same areas but different perimeters?
6. How can you use reasoning to solve problems?

Primary Resource(s) & Technology:
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Big Ideas/ EQs	Focus Standard(s)	Assessed Competencies (Key content and skills)	Timeline
	CC.2.4.3.A.1 M03.D-M.1 M03.D-M.1.2 M03.D-M.1.2.3	• Solve problems involving measurement and estimation of temperature, liquid volume, mass or length. • Solve problems involving measurement and estimation of intervals of time, money, liquid volumes, masses, and lengths of objects. • Use the attributes of liquid volume, mass, and length of objects. • Use a ruler to measure lengths to the nearest quarter inch or centimeter.	
1,2,3,4,5,6	CC.2.4.3.A.6 M03.D-M.4 M03.D-M.4.1 M03.D-M.4.1.1	• Solve problems involving perimeters of polygons and distinguish between linear and area measures. • Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures. • Find and use the perimeters of plane figures. • Solve real-world and mathematical problems involving perimeters of polygons, including finding the perimeter give the side lengths, finding an unknown side length, exhibiting rectangles with the same perimeter and different areas, and exhibiting rectangles with the same area and different perimeters. Use the same units throughout the problem.	*Coach Lesson 28* *Coach Lesson 30*