Springfield Elementary—Essential Standards

Semester:___1__ Grade Level/Department:____Grade 3 _____ Subject:_Math_____ Team Members:_____

Standard #	Description	Example or Rigor	Prior Skills Needed	Assessment	When Taught?
3.1.1.1	**Compare and represent whole numbers up to 100,000 with an emphasis on place value and equality.** Read, write and represent whole numbers up to 100,000. Representations may include numerals, expressions with operations, words, pictures, number lines and manipulatives such as bundles of sticks and base ten blocks.	A pet shop sold 1,372 turtles. Which of these equals 1,372? A. 1 + 3 + 7 + 2 B. 1 + 30 + 70 + 2000 C. 100 + 300 + 70 + 2 D. 1000 + 300 + 70 + 2		McGraw-Hill math, Lessons 1-3, 1-4, 1-6, 1-7	August-September
3.1.1.2	Use place value to describe whole numbers between 100 and 100,000 in terms of ten thousands, thousands, hundreds, tens and ones.	Writing 54,873 is a shorter way of writing the following sums: 5 ten thousands + 4 thousands + 8 Hundreds + 7 tens + 3 ones	Understanding place value and digit position. Reading large numbers correctly	McGraw-Hill Math, Chapter 1	August-September
3.1.1.3	Find 10,000 more or 10,000 less than a given five-digit number. Find 1000 more or 1000 less than a given four- or five-digit number. Find 100 more or 100 less than a given four- or five-digit number.	What is 10,000 more than 42, 123?	Understanding of place value.	McGraw –Hill Math, Chapter 1	August-September
3.1.1.4	**Compare and represent whole numbers up to 100,000 with an emphasis on place value and equality.** Round numbers to the nearest 10,000, 1,000, 100, and 10. Round up and round down to estimate sums and differences.	8,726 rounded to the nearest 1,000 is 9,000, to the nearest 100 is 8,700, and to the nearest 10 is 8730. 473-291 is between 400-300 and 500-200 or between 100 and 300.	Identify place value to the thousands place. Know that 100 is 10 tens and 1000 is 10 hundreds.	McGraw-Hill math, Chapter 1. Mid-Chapter check Workbook pages Lesson 2-3 Lesson 3-2	September

3.1.1.5	Compare and order whole numbers up to 100,000.	Keith's family bought a computer for $1,200. Margareta's family bought a computer for $1,002. Which computer costs less? Explain.	Understanding of place value. Ability to use symbols for greater than, less than, and equal to.	McGraw-Hill math, Lesson 1-6 and Lesson 1-7	September
3.1.2.1	**Add and subtract multi-digit whole numbers; represent multiplication and division in various ways; solve real-world and mathematical problems using arithmetic.** Add and subtract multi-digit numbers, using efficient and generalizable procedures based on knowledge of place value, including standard algorithms.	Using the hundreds chart to subtract. Nate had 10 river stones. Chen had 26 river stones. How many more river stones did Chen have than Nate?	Understanding of place value. Understanding of regrouping.	McGraw-Hill math, Chapters 3, 4, 5, 6, 7 Envision math, Topics 2, 3, 4, 5, 6, 7, 8	October - March
3.1.2.3	Represent multiplication facts by using a variety of approaches, such as repeated addition, equal-sized groups, arrays, area models, equal jumps on a number line and skip counting. Represent division facts by using a variety of approaches, such as repeated subtraction, equal sharing and forming equal groups. Recognize the relationship between multiplication and division.		Understanding of **equal** groups.	McGraw-Hill math, Chapters 5, 6, 7 Envision math, Topics 5, 6, 7, 8	December-March
3.1.2.5	Use strategies and algorithms based on knowledge of place value, equality and properties of addition and multiplication to multiply a two- or three-digit number by a one-digit number. Strategies may include mental strategies, partial products, the standard algorithm, and the commutative, associative, and distributive properties.	9 x 26 = 9 x (20 + 6) = 9 X 20 + 9 X 6 = 180 + 54 = 234	Understanding of the commutative, associative, and distributive properties. Understanding of breaking numbers apart.	McGraw-Hill math, Chapter 15	March

3.2.1.1	**Use single-operation input-output rules to represent patterns and relationships and to solve real-world and mathematical problems.** Create, describe, and apply single-operation input-output rules involving addition, subtraction and multiplication to solve problems in various contexts.	Describe the relationship between the number of chairs and number of legs by the rule that the number of legs is four times the number of chairs.	Number sense to look for a pattern in an input-output table. Understanding of the arrangement of an input-output table.	McGraw-Hill Math, Lessons 8-4, 8-5, 8-7 Envision math, Lessons 9-3, 9-4, 9-6, 12-10	February, March
3.2.2.1	**Use number sentences involving multiplication and division basic facts and unknowns to represent and solve real-world and mathematical problems; create real-world situations corresponding to number sentences.** Understand how to interpret number sentences involving multiplication and division basic facts and unknowns. Create real-world situations to represent number sentences.	The number sentence $8 \times n = 24$ could be represented by the question "How much did each ticket to a play cost if 8 tickets totaled $24?"	Understanding that a variable is represented by a letter.	McGraw-Hill math, chapters 5, 6, 7 Envision math, Topics 5, 6, 7, 8	December-March
3.2.2.2	Use multiplication and division basic facts to represent a given problem situation using a number sentence. Use number sense and multiplication and division basic facts to find values for the unknown that make the number sentences true.	Find values of the unknown that make each number sentence true. $24 = a \times b$ $5 \times 8 = 4 \times t$		McGraw-Hill Math and Envision Math, multiplication and division chapters	December - March

Description—What is the essential standard to be learned? Define in student-friendly vocabulary.

Example or Rigor—What does this look like? Provide an example or sample problem.

Prior Skills Needed—What knowledge or skills must the student already have in order to master this standard?

Springfield Elementary—Essential Standards

Semester: 2 Grade Level/Department: Grade 3 Subject: Math Team Members: Bobbie Maurer / Anne Nibbe

Standard #	Description	Example or Rigor	Prior Skills Needed	Assessment	When Taught?
3.3.1.1	Identify parallel and perpendicular lines in various contexts, and use them to describe and create geometric shapes, such as right triangles, rectangles, parallelograms and trapezoids.	Which of these figures has parallel lines? Perpendicular?	What is a line? Basic shape recognition	Worksheets: Lessons 11-2, 11-4, 11-5, 11-7 Envision IXL	January
3.3.1.2	Sketch polygons with a given number of sides or vertices (corners), such as pentagons, hexagons and octagons.	Draw a pentagon. How many sides? How many vertices?	Vocabulary: sides, vertices Definition: a polygon is a closed figure made of straight line segments	Worksheets: Lessons 11-2, 11-4, 11-5, 11-7 Envision IXL	January
3.3.2.1	Use half units when measuring distances.	Measure a person's height to the nearest half inch.	Reading a ruler Recognize that ½ is exactly halfway between inch marks	Worksheets Classroom activities	January
3.3.2.2	Find the perimeter of a polygon by adding the lengths of the sides.	What is the perimeter of the square?	Know that all 4 sides of a square are the same length. Rectangle: opposite sides are the same length.	McGraw Hill math, Lesson 9-5 Envision IXL	January
3.3.2.3	Measure distances around objects.	Measure the distance around a classroom, or measure a person's wrist size.	Use of rulers, yardsticks, etc.	McGraw Hill math Lesson 9-1 Envision	January
3.4.1.1	Collect, display and interpret data using frequency tables, bar graphs, picture graphs and number line plots having a variety of scales. Use appropriate titles, labels and units.	Survey classmates Tally answers Create a pictograph and a bar graph to show results.	Reading a variety of graphs together Noting *labels* and *scales* and *titles*	McGraw Hill math Lessons 12-1, 12-2, 12-4, 12-5, 12-6 Envision IXL	February
3.3.3.1	Tell time to the minute, using digital and analog clocks. Determine elapsed time to the minute.	Your trip began at 9:50 a.m. and ended at 3:10 p.m. How long were you traveling?	Prior knowledge: There are 60 minutes in 1 hour a.m. / p.m.	McGraw Hill math Lesson 10-8 Envision 17-4 IXL	February

3.3.3.2	Know relationships among units of time How many minutes in 1 hour? How many days in 1 week? How many months in a year?	PE begins ½ hour after lunch. How many minutes is that? The Johnsons are on vacation for 2 weeks. How many days will they be gone?		Worksheets Classroom activities	February
3.1.3.1	Read and write fractions with words and symbols. Understand that fractions represent parts of a whole, parts of a set, points or distances on a number line.	How much of the pie is eaten? What fraction of circles is shaded? Which point is ¾ inch?	Introduction to fractions as parts of a whole	McGraw Hill math, Chapter 13	March
3.1.3.2	Understand that the size of the fractional part is relative to the size of the whole	½ of a small pizza is smaller than ½ of a large pizza, but both represent ½.		McGraw Hill math, Chapter 13	March
3.1.3.3	Order and compare unit fractions with like denominators using models.	Name three fractions between 1/6 and 6/6 on the number line.	Understand that as the numerator gets bigger, the fraction is bigger.	McGraw Hill math, Chapter 13	March
3.3.3.4	Use and analog thermometer to determine degrees Fahrenheit and degrees Celsius.	Use thermometers to measure the outside temperature in the morning, at noon, and at the end of the school day.	Identify intervals on the thermometer (number sense) Understand there are 2 systems of measuring temperature.	McGraw Hill math, Lesson 9-8	March
3.3.3.3	Make change up to 1 dollar in several ways, including as few coins as possible.	A chocolate bar costs $1.84. You pay with $2. Give 2 ways to make change.	Count by 1s (pennies) 5s (nickels) 10s (dimes) 25s (quarters)	Envision Lesson 1-8 IXL	April
3.1.2.2 3.1.2.4	Use addition and subtraction to solve real-world problems. Solve real-world math problems using multiplication and division	Amanda has 14 dolls from around the world. There are 3 from Ireland, 2 from Italy, 2 from Mexico, and the rest are from the Americas. How many are from the Americas?	Read to understand the problem. Look for "key words." Check answers for reasonableness.	Envision: 1-9, 2-10, 3-5, 4-6, 5-10, 6-7, 7-5, 8-6, 9-8, 12-10, 13-4, 13-5, 15-5, 16-4, 18-7, 19-6, 20-9	Throughout the year / review in April

		Kylie's teacher assigned 5 math problems each day. After 10 days how many math problems did her class do?			

Description—What is the essential standard to be learned? Define in student-friendly vocabulary.

Example or Rigor—What does this look like? Provide an example or sample problem.

Prior Skills Needed—What knowledge or skills must the student already have in order to master this standard?

Assessment—How will student mastery be measured?

When Taught—What is the proposed time frame for teaching this standard?

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