Springfield Elementary—Essential Standards

Semester:__1___ Grade Level/Department: 5th Subject: Math Team Members: Sharon Stern

Standard #	Description	Example or Rigor	Prior Skills Needed	Assessment	When Taught?
5.1.1.1	Divide multi-digit numbers, using efficient and generalizable procedures, based on knowledge of place value, including standard algorithms. Recognize that quotients can be represented in a variety of ways, including a whole number with a remainder, a fraction or mixed number, or a decimal	Dividing 153 by 7 can be used to convert the improper fraction $\frac{153}{7}$ to the mixed number $21\frac{6}{7}$.	Multiplication and division facts Single-digit division procedures	M/M book assignments IXL SI	October/December and January
5.1.1.2	Consider the context in which a problem is situated to select the most useful form of the quotient for the solution and use the context to interpret the quotient appropriately.	If 77 amusement ride tickets are to be distributed equally among 4 children, each child will receive 19 tickets, and there will be one left over. If $77 is to be distributed equally among 4 children, each will receive $19.25, with nothing left over.	Single and Multi-digit division procedures Problem solving skills	M/M book assignments IXL SI	October/November
5.1.1.3	Estimate solutions to arithmetic problems in order to assess the reasonableness of results.	Estimate and show your work. 5624÷71	Rounding numbers using compatible numbers and rounding to the greatest place	M/M book assignments IXL SI	October
5.1.1.4	Solve real-world and mathematical problems requiring addition, subtraction, multiplication and division of multi-digit whole numbers. Use various strategies, including the inverse relationships between operations, the use of technology, and the context of the problem to assess the reasonableness of results.	The calculation 117 ÷ 9 = 13 can be checked by multiplying 9 and 13.	Multiplication and division facts Problem solving skills Adding "undoes" subtracting Multiplying "undoes" dividing	M/M book assignments IXL SI	October/November

5.1.2.1	Read and write decimals using place value to describe decimals in terms of groups from millionths to millions.	Possible names for the number 0.0037 are: 37 ten thousandths 3 thousandths + 7 ten thousandths; a possible name for the number 1.5 is 15 tenths.	Read write decimals using place values of tenths, hundredths, and thousandths	Pearson WS, IXL, SI, continuous classroom drill and repetition, oral reading of decimals	September
5.1.2.2	Find 0.1 more than a number and 0.1 less than a number. Find 0.01 more than a number and 0.01 less than a number. Find 0.001 more than a number and 0.001 less than a number.	0.5462 - 0.001 0.6489+0.001	Adding and subtracting decimals, lining up the decimal points	Pearson WS, IXL, SI, That Quiz	September
5.1.2.5	Round numbers to the nearest 0.1, 0.01 and 0.001.	Round to the underlined digit: 23.099	Decimal place value	M/M book assignments Pearson WS IXL, SI	September
5.2.1.1	Create and use rules, tables, spreadsheets and graphs to describe patterns of change and solve problems	An end-of-the-year party for 5th grade costs $100 to rent the room and $4.50 for each student. Know how to use a spreadsheet to create an input-output table that records the total cost of the party for any number of students between 90 and 150.	Addition and multiplication expressions using variables and replacing variables with a value	M/M book assignments Pearson Ch. 14-9,15-4, 16-5 IXL , SI	November
5.2.1.2	Use a rule or table to represent ordered pairs of positive integers and graph these ordered pairs on a coordinate system.	A bag of birdseed weighs 5 pounds. Given the function rule 5b, find the total weight for 0,1,2,3 bags of seed. Make a function table and graph the ordered pairs	Geometry; ordered pairs	M/M book assignments Pearson 17-2,IXL, SI	December
5.2.2.1	Apply the commutative, associative and distributive properties and order of operations to generate equivalent numerical expressions and to solve problems involving whole numbers	*For example*: Purchase 5 pencils at 19 cents and 7 erasers at 19 cents. The numerical expression is 5 × 19 + 7 × 19 which is the same as (5 + 7) × 19.	Communtative and associative property of addition and multiplication	M/M book assignments Pearson 6-4&5 IXL SI	September, October, December

5.2.3.1	Determine whether an equation or inequality involving a variable is true or false for a given value of the variable.	*For example*: Determine whether the inequality $1.5 + x < 10$ is true for $x = 2.8$, $x = 8.1$, or $x = 9.2$.	Use of Algebraic expressions	Pearson 15-1&3	December Continue March
5.2.3.2	Represent real-world situations using equations and inequalities involving variables. Create real-world situations corresponding to equations and inequalities	*For example*: $250 - 27 \times a = b$ can be used to represent the number of sheets of paper remaining from a packet of 250 sheets when each student in a class of 27 is given a certain number of sheets.	Use of algebraic expressions	M/M book assignments, Pearson 6-1,3,6 IXL SI	November, December
5.2.3.3	Evaluate expressions and solve equations involving variables when values for the variables are given	*For example*: Using the formula, $A = \ell w$, determine the area when the length is 5, and the width 6, and find the length when the area is 24 and the width is 4.	Terms: Variables, expressions, evaluate	M/M book assignments Pearson 6-2, 15-1&2 IXL, SI	November

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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Springfield Elementary—Essential Standards

Semester:__2___ Grade Level/Department:_____5th_____ Subject:_____Math_____Members:_SStern_____

Standard #	Description	Example or Rigor	Prior Skills Needed	Assessment	When Taught?
5.1.2.3	Order fractions and decimals, including mixed numbers and improper fractions, and locate on a number line.	Which is larger 1.25 or $\frac{6}{5}$?	Changing mixed fractions to improper fractions. Changing improper fractions to mixed fractions.	Book assignments WS IXL	January Pearson 9-10
5.1.2.4	Recognize and generate equivalent decimals, fractions, mixed numbers and improper fractions in various contexts.	When comparing 1.5 and $\frac{19}{12}$, note that $1.5 = 1\frac{1}{2} = 1\frac{6}{12} = \frac{18}{12}$, so $1.5 < \frac{19}{12}$.	Know decimal and fraction equivalents for benchmark numbers	Book assignments WS IXL	January Pearson 9-10
5.1.3.1	Add and subtract decimals and fractions, using efficient and generalizable procedures, including standard algorithms	2/6+3/6=	Adding fractions using fraction bars	Book assignments WS IXL	January M/M Ch 8&9
5.1.3.2	Model addition and subtraction of fractions and decimals using a variety of representations.	Represent $\frac{2}{3}+\frac{1}{4}$ and $\frac{2}{3}-\frac{1}{4}$ by using fraction bars	Adding and subtracting using like denominators. Common multiples	Book assignment and WS IXL	January M/M Ch 9 Pearson 10-5&6
5.1.3.3	Estimate sums and differences of decimals and fractions to assess the reasonableness of results.	Recognize that $12\frac{2}{5}-3\frac{3}{4}$ is between 8 and 9 (since $\frac{2}{5}<\frac{3}{4}$).	Comparing fractions to half.	Book assignment and WS SI, IXL	January M/M Ch 9 Pearson 10-3
5.1.3.4	Solve real-world and mathematical problems requiring addition and subtraction of decimals, fractions and mixed numbers, including those involving measurement, geometry and data.	Polly has played soccer 3 5/6 years, Gen has played 6 1/12 years. How many more years has Gen played?	Know decimal place values Know terms: mixed number and improper fraction Adding and subtracting with like and unlike denominators.	Book assignment and WS SI, IXL	January M/M Ch 10
5.3.1.1 5.3.1.2	Describe and classify three-dimensional figures including cubes, prisms and pyramids by the number of edges, faces or vertices as well as the types of faces. Recognize and draw a net for a three three-dimensional figure.	Draw a 3-d figure. Label terms as edges etc.	Terms: solid, cube, prism, pyramid	Book assignment and WS SI, IXL	January M/M Ch 14 Pearson 12-4,5,6,

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5.3.2.1	Develop and use formulas to determine the area of triangles, parallelograms and figures that can be decomposed into triangles	Find the area given specific measurements	Terms: triangle, parallelogram, quadrilateral, parallel lines	Book assignment and WS IXL	January M/M Ch 14 Pearson 13-3,5
5.3.2.2	Use various tools and strategies to measure the volume and surface area of objects that are shaped like rectangular prisms	Use a net or decompose the surface into rectangles.	Terms: net, area, units squared	Book assignment and WS SI packet IXL	January M/M Ch 14 Pearson 13-5
5.3.2.3 5.3.2.4	Understand that the volume of a three-dimensional figure can be found by counting the total number of same-sized cubic units that fill a shape without gaps or overlaps. Use cubic units to label volume measurements. Develop and use the formulas $V = \ell wh$ and $V = Bh$ to determine the volume of rectangular prisms. Justify why base area B and height h are multiplied to find the volume of a rectangular prism by breaking the prism into layers of unit cubes.	Use cubes to find the volume of a small box.	Terms: rectangular prism, length, width Know standard formulas for area and perimeter including labeling.	Book assignment and WS SI packet IXL	February M/M Ch 14 Pearson 13-5
5.4.1.1	Know and use the definitions of the mean, median and range of a set of data. Know how to use a spreadsheet to find the mean, median and range of a data set. Understand that the mean is a "leveling out" of data.	The set of numbers 1, 1, 4, 6 has mean 3. It can be leveled by taking one unit from the 4 and three units from the 6 and adding them to the 1s, making four 3s.	Operations: Division, addition, multiplication, subtraction	Book assignment and WS IXL	End of December M/M Ch 7
5.4.1.2	Create and analyze double-bar graphs and line graphs by applying understanding of whole numbers, fractions and decimals. Know how to create spreadsheet tables and graphs to display data.	Generate a line graph using data from plant unit in science. Generate a double line graph using specific survey data.	Single bar graph construction Bar graphs are used to compare. Line graphs are used to show data over time.	Book assignment and WS SI IXL	March M/M Ch 7

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