3rd – 5th Grade Math Core Curriculum
Anna McDonald School

Our core math curriculum is only as strong and reliable as its implementation. Ensuring the goals of our curriculum are met in each classroom, each week, will help us provide consistent, effective instruction to all students in our school.

Core Math Curriculum Goals:
All teachers cover all topics in the Pearson enVision basal series.

Program	3rd	4th	5th
Pearson enVision	**Number Sense** **Representation & Ordering** Read, write, recognize, and model equivalent representations of whole numbers and their place values up to 100,000. Identify and write (in words and standard form) whole numbers up to 100,000. Recognize a fraction represented with a pictorial model. Represent multiplication as repeated addition. Order and compare whole numbers up to 10,000 using symbols (>, <, or =) and words (e.g., greater (more) than, less than, equal to, between). Order and compare decimals expressed using monetary units. Identify and locate whole numbers and halves on a number line. Solve problems involving descriptions of numbers, including characteristics and relationships (e.g., odd/even, factors/multiples, greater than, less than). **Computation, Operations, Estimation, & Properties** Solve problems and number sentences involving addition and subtraction with regrouping. Solve problems involving the value of a collection of bills and coins whose total value is $10.00 or less, and make change. Model and apply basic multiplication facts (up to 10 × 10), and apply them to related multiples of 10 (e.g., 3 × 4 = 12, 30 × 4 = 120). Use the inverse relationships between addition and subtraction to complete basic fact sentences and	**Number Sense** **Representation & Ordering** Read, write, recognize, and model equivalent representations of whole numbers and their place values up to 1,000,000. Identify and write (in words and standard form) whole numbers up to 1,000,000. Read, write, recognize, and model equivalent representations of fractions; divide regions or sets to represent a fraction. Represent multiplication as repeated addition. Order and compare whole numbers up to 100,000. Order and compare decimals through hundredths. Order and compare fractions having like denominators with or without models. Identify and locate whole numbers, halves, and fourths on a number line. Solve problems involving descriptions of numbers, including characteristics and relationships (e.g., odd/even, factors/multiples, greater than, less than). **Computation, Operations, Estimation, & Properties** Solve problems and number sentences involving addition and subtraction with regrouping and multiplication (up to three-digit by one-digit). Solve problems involving the value of a collection of bills and coins whose total value is $100.00 or less, and make change. Model and apply basic multiplication and division facts (up to 12×12), and apply them to related multiples of 10 (e.g., 3×9=27, 30×9=270, 6÷3=2, 600÷3=200). Model situations involving addition and subtraction of fractions with like denominators. Solve problems involving the commutative	**Number Sense** **Representation & Ordering** Read, write, recognize, and model equivalent representations of whole numbers and their place values up to 100,000,000. Read, write, recognize, model, and interpret numerical expressions from a given description or situation. Read, write, recognize, and model equivalent representations of fractions, including improper fractions and mixed numbers. Recognize, translate between, and model multiple representations of decimals, fractions less than one (halves, quarters, fifths, and tenths), and percents (0%, 25%, 50%, 75%, and 100%). Read, write, recognize, and model decimals and their place values through thousandths. Represent multiplication as repeated addition. Order and compare whole numbers up to 1,000,000. Order and compare decimals through hundredths. Order and compare fractions having like or unlike denominators with or without models. Identify and locate whole numbers, halves, fourths, and thirds on a number line. Solve problems involving descriptions of numbers, including characteristics and relationships (e.g., odd/even, factors/multiples, greater than, less than, square numbers). **Computation, Operations, Estimation, & Properties** Solve problems and number sentences

	solve problems (e.g., 5 + 3 = 8 and 8 – 3 = __). Solve problems involving the multiplicative identity of one (e.g., 3 × 1 = 3) and the additive identity of zero (e.g., 3 + 0 = 3). Make estimates appropriate to a given situation with whole numbers. **Measurement** **Units, Tools, Estimation, & Applications** Solve problems involving simple elapsed time in compound units (e.g., hours, minutes, days). Select and use appropriate standard units and tools to measure length (to the nearest inch or cm), time (to the nearest minute), and temperature (to the nearest degree). Solve problems involving the perimeter of a polygon with given side lengths or a given non–standard unit (e.g., paperclip). Solve problems involving the area of a figure when whole and half square units are shown within the figure. Compare and estimate length (including perimeter), area, and weight/mass using referents. Determine the volume of a solid figure that shows cubic units. Solve problems involving simple unit conversions within the same measurement system for time and length. **Algebra** **Representations, Patterns, & Expressions** Determine a missing term in a pattern (sequence), describe a pattern (sequence), and extend a pattern (sequence) when given a description or pattern (sequence). Write an expression to represent a given situation. **Writing, Interpreting, & Solving Equations** Represent simple mathematical relationships with number sentences (equations and inequalities). Solve one–step addition and subtraction equations that have a missing number or missing operation sign (e.g.,3+c =5,6 c 1=7). Solve word problems involving unknown quantities. **Geometry** **Properties of Single Figures & Coordinate Geometry** Identify, describe, and sketch two–dimensional shapes (triangles, squares, rectangles, pentagons, hexagons, and octagons) according	and distributive properties of operations on whole numbers [e.g., 8 + 7 = 7 + 8, 27 × 5 = (20×5) + (7×5)]. Use the inverse relationships between addition/subtraction and multiplication/division to complete basic fact sentences and solve problems (e.g., 4 × 3 = 12, 12 ÷ 3 = __). Make estimates appropriate to a given situation with whole numbers. **Measurement** **Units, Tools, Estimation, & Applications** Solve problems involving elapsed time in compound units (e.g., 1 hour and 40 minutes) that occur in the same half day (a.m. only or p.m. only). Select and use appropriate standard units and tools to measure length (to the nearest 1 inch or 21 cm), time, and temperature. Solve problems involving the perimeter of a polygon with given side lengths and the area of a square, rectangle, or irregular shape composed of rectangles using diagrams, models, and grids or by measuring (may include sketching a figure from its description). Compare and estimate length (including perimeter), area, volume, and weight/mass using referents. Determine the volume of a solid figure that shows cubic units. Solve problems involving unit conversions within the same measurement system for time, length, and weight/mass. **Algebra** **Representations, Patterns, & Expressions** Determine a missing term in a pattern (sequence), describe a pattern (sequence), and extend a pattern (sequence) when given a description or pattern (sequence). Write an expression using letters or symbols to represent an unknown quantity. Evaluate algebraic expressions with a whole number variable value (e.g., evaluate 3 + *m* when *m* = 4). **Connections Using Tables, Graphs, and Symbols** Identify or represent situations with well-defined patterns using words, tables, and graphs (e.g., represent temperature and time in a line graph). Translate between different representations (table, written, or pictorial) of whole number relationships. **Writing, Interpreting, & Solving Equations** Represent simple mathematical relationships with number sentences (equations and inequalities). Solve for the unknown in an equation with	involving addition, subtraction, multiplication, and division using whole numbers. Solve problems and number sentences involving addition and subtraction of decimals through hundredths (with or without monetary labels). Model situations involving addition and subtraction of fractions. Solve problems involving the commutative, distributive, and identity properties of operations on whole numbers [e.g., 37 × 46 = 46 × 37, 270 × 5 = (200 × 5) + (70 × 5)]. Make estimates appropriate to a given situation with whole numbers, fractions, and decimals. **Ratios, Proportions, and Percents** Identify and express ratios using appropriate notation (i.e., a/b, a to b), and identify equivalent ratios. Solve problems involving proportional relationships, including unit pricing (e.g., one apple costs 20¢, so four apples cost 80¢). Read, write, recognize, and model percents (0%, 25%, 50%, 75%, and 100%). **Measurement** **Units, Tools, Estimation, & Applications** Solve problems involving elapsed time in compound units. Select and use appropriate standard units and tools to measure length (to the nearest 1 inch or 4mm), mass/weight, capacity, and angles. Solve problems involving the perimeter and area of a triangle, rectangle, or irregular shape using diagrams, models, and grids or by measuring or using given formulas (may include sketching a figure from its description). Compare and estimate length (including perimeter), area, volume, weight/mass, and angles (0° to 180°) using referents. Determine the volume of a right rectangular prism using an appropriate formula or strategy. Solve problems involving unit conversions within the same measurement system for time, length, and weight/mass, including compound units (e.g., 5ft 5in, 2lbs 2oz). Solve problems involving map interpretation (e.g., one inch represents five miles, so two inches represent ten miles). **Algebra** **Representations, Patterns, & Expressions** Determine a missing term in a sequence, extend a sequence, and

	to the number of sides, length of sides, and number of vertices. Identify and describe three–dimensional shapes (cubes, spheres, cones, cylinders, prisms, and pyramids) according to their characteristics (faces, edges, vertices). Locate and identify points using numbers and symbols on a grid, and describe how points relate to each other on a grid (e.g., ␣ is 2 units below ␣, point A is 3 units to the right of point B). Identify whether or not a figure has a line of symmetry, and sketch or identify the line of Symmetry Identify images resulting from flips (reflections), slides (translations), or turns (rotations). Identify parallel lines. **Relationships Between & Among Multiple Figures** Identify the two-dimensional components of a three–dimensional object (e.g., a cube has square faces). Identify a three-dimensional object from its net. Predict the result of putting shapes together (composing) and taking them apart (decomposing). Identify congruent and similar figures by visual inspection. Determine the distance between two points on the number line in whole numbers. ## Data Analysis, Statistics, & Probability **Data Analysis and Statistics** Read and interpret data represented in a pictograph, bar graph, Venn diagram (with two circles), tally chart, or table. Complete missing parts of a pictograph, bar graph, tally chart, or table for a given set of data. Determine the mode, given a set of data or a graph. **Probability** Classify events using words such as certain, most likely, equally likely, least likely, possible, and impossible. Describe the chances associated with a context presented visually, including using the response format "3 out of 4."	one operation (e.g., 10 =c+ 3+ 2,c– 1 = 3). Solve word problems involving unknown quantities. ## Geometry **Properties of Single Figures & Coordinate Geometry** Identify, describe, and sketch two-dimensional shapes (triangles, quadrilaterals, pentagons, hexagons, and octagons) according to the number of sides, length of sides, number of vertices, and right angles. Identify and describe three-dimensional shapes (cubes, spheres, cones, cylinders, prisms, and pyramids) according to their characteristics (faces, edges, vertices). Differentiate between polygons and non–polygons. Graph, locate, identify points, and describe paths using ordered pairs (first quadrant). Identify whether or not a figure has one or more lines of symmetry, and sketch or identify all lines of symmetry. Identify images resulting from flips (reflections), slides (translations), or turns (rotations). Identify and sketch parallel and perpendicular lines. Identify and sketch right angles. **Relationships Between & Among Multiple Figures** Identify the two-dimensional components of a three–dimensional object. Identify a three-dimensional object from its net. Predict the result of composing or decomposing shapes or figures. Identify congruent and similar figures by visual inspection. Determine the distance between two points on the number line in whole numbers. ## Data Analysis, Statistics, & Probability **Data Analysis and Statistics** Read and interpret data represented in a pictograph, bar graph, line (dot) plot, Venn diagram (with two circles), tally chart, table, line graph, or circle graph. Create a pictograph, bar graph, tally chart, or table for a given set of data. Determine the mode and range, given a set of data or a graph. **Probability** Classify events using words such as certain, most likely, equally likely, least likely, possible, and impossible. Describe the chances associated with a context presented visually, including using the response format "3 out of 4" or 3⁄4.	identify errors in a sequence when given a description or sequence. Construct and identify a rule that can generate the terms of a given sequence. Write an expression using variables to represent unknown quantities. Evaluate algebraic expressions with a whole number variable value (e.g., evaluate m + m + 3 when m = 4). **Connections Using Tables, Graphs, and Symbols** Demonstrate, in simple situations, how a change in one quantity results in a change in another quantity (e.g., input–output tables). Translate between different representations (table, written, or pictorial) of whole number relationships. **Writing, Interpreting, & Solving Equations** Represent problems with equations and inequalities. Solve for the unknown in an equation with one operation (e.g., 2 + n = 20, n ÷ 2 = 6). Solve word problems involving unknown quantities. ## Geometry **Properties of Single Figures & Coordinate Geometry** Classify, describe, and sketch two-dimensional shapes (triangles, quadrilaterals, pentagons, hexagons, and octagons) according to the number of sides, length of sides, number of vertices, and interior angles (right, acute, obtuse). Identify and describe three-dimensional shapes (cubes, spheres, cones, cylinders, prisms, and pyramids) according to their characteristics (faces, edges, vertices). Solve problems using properties of triangles (e.g., sum of interior angles of a triangle is 180°). Identify, describe, and sketch circles, including radius and diameter. Graph, locate, identify points, and describe paths using ordered pairs (first quadrant). Identify whether or not a figure has one or more lines of symmetry, and sketch or identify all lines of symmetry. Identify, describe, and predict results of reflections, translations, and rotations of two-dimensional shapes. Identify and sketch parallel, perpendicular, and intersecting lines. Identify and sketch acute, right, and obtuse angles. **Relationships Between & Among Multiple Figures** Identify the two-dimensional

			components of a three-dimensional object. Identify a three-dimensional object from its net. Predict the result of composing or decomposing shapes or figures. Identify congruent and similar figures by visual inspection. Determine if figures are similar, and identify relationships between corresponding parts of similar figures. Determine the distance between two points on a horizontal or vertical number line in whole numbers. **Data Analysis, Statistics, & Probability** **Data Analysis and Statistics** Read, interpret, and make predictions from data represented in a pictograph, bar graph, line (dot) plot, Venn diagram (with two circles), chart/table, line graph, or circle graph. Create a pictograph, bar graph, chart/table, or line graph for a given set of data. Determine the mode, range, median (with an odd number of data points), and mean, given a set of data or a graph. **Probability** Solve problems involving the probability of a simple event, including representing the probability as a fraction between zero and one. Apply the fundamental counting principle in a simple problem (e.g., How many different combinations of one-scoop ice cream cones can be made with 3 flavors and 2 types of cones?).

Math Non-Negotiables

All teachers address and/or implement the set of non-negotiable concepts EVERY week which includes:

- identifying and posting math vocabulary
- displaying math posters related to concepts covered
- lesson focus question identified & posted on daily basis in the form of an "I CAN" statement
- spiral review using "Daily Common Core Review"
- basic math fact fluency instruction & practice executed daily
- student exploration activity implemented daily

- formative lesson review using enVision quick checks
- written Response--Problems from Quick Checks or other resources decided by team
- use of enVision teaching videos as deemed necessary
- daily small group time during the math block to assist struggling students
- quarterly assessment taken for grade