

Third Grade Math students at St. Patrick’s will develop into individuals with the ability to solve problems and record data, using mathematical language, in an organized way. Students will increase proficiency in understanding numbers and performing operations using those numbers. Students will understand basic algebraic patterns and functions. They will increase their understanding of geometric figures and spatial sense. In third grade, students will develop an understanding of probability using reasoning and proof to support their answers. Students will also understand measurement concepts. Students will improve their speed and accuracy when completing basic math facts. By the end of third grade, students will be able to complete 50 addition, 50 subtraction, 30 multiplication and 40 division facts in two minutes.

Third Grade Math

	<u>Standards/Goals</u>	<u>Instructional Tools</u>	<u>Assessment Tools</u>
3.1 Problem Solving	<p>Solves problems that arise in math and in other content areas:</p> <ul style="list-style-type: none"> • Builds new mathematical knowledge through problem solving • Makes, investigates, and applies a variety of strategies to solve problems • Monitors and reflects on solutions • Develop and evaluate inferences and predictions that are based on data <p>Communicates mathematical thinking coherently and clearly:</p> <ul style="list-style-type: none"> • Uses mathematical language to express ideas • Shows connections among mathematical ideas • Creates and uses representations to organize, record, and communicate mathematical ideas 	Student Math Workbooks Manipulatives Number Grid Number Line Math Games Mimio Addition/Subtraction Flash Cards Computer Games Slates Math Learning Stations	Tests Daily Work Slate Assessments Homework Teacher Observation
3.2 Numbers and Place Value	<p>Understands Numbers, ways of representing numbers, relationships among numbers, and number systems:</p> <ul style="list-style-type: none"> • Apply place-value concepts in 4 digit numbers • Find equivalent names for numbers • Read, write and compare whole numbers up to 5 digits • Identify place-value in whole numbers up to 5 digits • Read, write and compare 6 and 7 digit whole numbers • Read and write 1 and 2 digit decimals • Identify place value in decimals • Read and write 3 digit decimals • Count by 10s and 100s. • Compare and order fractions • Identify fractions on a number line • Identify fractional parts of a set • Identify fractional parts of a region 	Student Math Workbooks Calendar Manipulatives Math Games Mimio Slates Number Grid Math Learning Stations computer	Tests Daily Work Slate Assessments Homework Teacher Observation

	<u>Standards/Goals</u>	<u>Instructional Tools</u>	<u>Assessment Tools</u>
3.3 Computation	<p>Understands meanings of operations and how they relate to one another:</p> <ul style="list-style-type: none"> • Use basic facts to solve fact extensions <p>Compute fluently and make reasonable estimates:</p> <ul style="list-style-type: none"> • Estimate answers to multidigit addition and subtraction problems. • Add multi-digit numbers • Subtract multi-digit numbers • Complete fact and number families • Complete multiplication/division fact families • Multiply multidigit numbers by one or two digit numbers • Make ballpark estimates for sums and products • Find factors of a number • Know basic addition and subtraction facts. • Know single digit multiplication facts 0-12 • Interpret remainders in division problems • Recognize square products • Solve addition and subtraction multi-digit number stories • Solve number stories involving equal groups by using multiplication • Solve number stories involving equal sharing and equal grouping • Solve number stories involving positive and negative numbers 	<p>Student Math Workbooks Calendar Manipulatives Math Games Mimio Slates Number Grid Math Learning Stations computer</p>	<p>Tests Daily Work Slate Assessments Homework Teacher Observation Timed Tests</p>
3.4 Measurement	<p>Understands measurable attributes of objects and the units, systems, and processes of measurement:</p> <ul style="list-style-type: none"> • Know units of measure for length, weight, and capacity • Tell and show times to the nearest minute <p>Apply appropriate techniques, tools, and formulas to determine measurements:</p> <ul style="list-style-type: none"> • Count combinations of bills and coins and write the totals in dollars and cents notation • Makes change • Find the perimeter of a polygon • Find the area of a rectangular region divided into square units • Measure line segments to the nearest $\frac{1}{4}$ inch • Measure line segments to the nearest centimeter • Measure in centimeters, inches, feet, yards • Estimate and interpret the temperature in Celsius and Fahrenheit • Estimate and find the volume of a shape using cubic units 	<p>Student Math Workbooks Tape measures Rulers Clocks Coins Thermometers Mimio Math Learning Stations</p>	<p>Tests Daily Work Homework Teacher Observation</p>

	<u>Standards/Goals</u>	<u>Instructional Tools</u>	<u>Assessment Tools</u>
3.5 Data Analysis and Probability	<p>Formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them:</p> <ul style="list-style-type: none"> • Collect and organize data for use in predicting outcomes • Make and interpret bar graphs, pictographs <p>Select and use appropriate statistical methods to analyze data:</p> <ul style="list-style-type: none"> • Find the median of a data set • Find the mean of a data set • Understand area model of probability and solve simple spinner problems <p>Understand and apply basic concepts of probability:</p> <ul style="list-style-type: none"> • Understand the language of probability • Predict the likelihood of an event happening • Use fractions to record probabilities of events 	<p>Student Math Workbooks Class data Manipulatives</p>	<p>Tests Daily Work Homework Teacher Observations</p>
3.6 Geometry	<p>Analyze characteristics and properties of two-and three-dimensional geometric shapes and develop mathematical arguments about geometrical relationships:</p> <ul style="list-style-type: none"> • Identify and name 2-D and 3-D shapes • Identify, draw, and name line segments, lines and rays • Identify right angles • Make and draw polygons and quadrilaterals <p>Specify locations and describe spatial relationships using coordinate geometry and other representational systems:</p> <ul style="list-style-type: none"> • Identify symmetric figures and draw lines of symmetry • Draw parallel and intersecting line segments, lines and rays 	<p>Student Math Workbooks Student Reference Book Mimio Slates Math Learning Stations Manipulatives Computer</p>	<p>Tests Daily Work Homework Teacher Observations</p>
3.7 Algebra	<p>Understands patterns, relations and functions:</p> <ul style="list-style-type: none"> • Identify and use number patterns to solve problems. • Complete input and output tables • Write and solve addition and subtraction number sentences, including those with missing addends or digits <p>Represent and analyze mathematical situations and structures using algebraic symbols:</p> <ul style="list-style-type: none"> • Understand function and placement of parentheses in number sentences • Understand how to read a coordinate graph • Understand the inverse relationship between addition and subtraction 	<p>Student Math Workbooks Number Grid Mimio Manipulatives Math Games Slates</p>	<p>Tests Daily Work Homework Teacher Observations</p>