

**Fifth 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 with them. Students will compute fluently and make reasonable estimates. They will increase their understanding of number patterns, relations and functions. In fifth grade, students will develop an understanding of measurable attributes of objects and the units, systems, and processes of measurement. Students will analyze characteristics and properties of two and three-dimensional geometric shapes. Students will improve their speed and accuracy when completing basic math facts. By the end of fifth grade, students will demonstrate proficiency and application of their math facts.

	<b><u>Standards/Goals</u></b>	<b><u>Instructional Tools</u></b>	<b><u>Assessment Tools</u></b>
<b>5.1 Number and Operations</b>	<ul style="list-style-type: none"> <li>A. Understands numbers, ways of representing numbers, relationships among numbers and number systems.</li> <li>B. Recognize equivalent representations for the same number and generate them by decomposing and composing numbers.</li> <li>C. Understand the place-value structure of the base-ten number system and be able to represent and compare whole numbers and decimals.</li> <li>D. Develop and use strategies to estimate the results of whole-number computations and to judge the reasonableness of such results.</li> <li>E. Select appropriate methods and tools for computing whole numbers from among mental computation, estimation, and paper and pencil according to the context and nature of the computation and use the selected method or tools.</li> <li>F. Develop fluency in adding, subtracting, multiplying, and dividing whole numbers.</li> <li>G. Describe number classes according to characteristics.</li> <li>H. Develop an understanding of fractions as parts of unit wholes, as parts of a collection, as locations on number lines, and a divisions of whole numbers.</li> </ul>	<ul style="list-style-type: none"> <li>Text</li> <li>Place value chart</li> <li>Manipulatives</li> <li>Math games</li> <li>Multiplication/division flash cards</li> <li>Timed basic facts tests</li> <li>Slates</li> </ul>	<ul style="list-style-type: none"> <li>Quizzes/Tests</li> <li>Slate assessments</li> <li>Timed facts tests</li> <li>Math facts expectations guide</li> <li>portfolio sheet</li> <li>Homework</li> <li>Teacher observation</li> </ul>

	<b><u>Standards/Goals</u></b>	<b><u>Instructional Tools</u></b>	<b><u>Assessment Tools</u></b>
<b>5.1 Number and Operations (cont.)</b>	<ul style="list-style-type: none"> <li>I. Recognize and generates equivalent forms of common fractions, decimals and percents.</li> <li>J. Use models, benchmarks, and equivalent forms to judge the size of fractions.</li> <li>K. Develop and use strategies to estimate computation involving fractions and decimals in situations relevant to students' experiences.</li> <li>L. Use visual models, benchmarks, and equivalent forms to add subtract commonly used fractions and decimals.</li> </ul>	<ul style="list-style-type: none"> <li>Text</li> <li>Place value chart</li> <li>Manipulatives</li> <li>Math games</li> <li>Multiplication/division flash cards</li> <li>Timed basic facts tests</li> <li>Slates</li> </ul>	<ul style="list-style-type: none"> <li>Quizzes/Tests</li> <li>Slate assessments</li> <li>Timed facts tests</li> <li>Math facts expectations guide</li> <li>portfolio sheet</li> <li>Homework</li> <li>Teacher observation</li> </ul>
<b>5.2 Geometry</b>	<ul style="list-style-type: none"> <li>A. Identify, compare and analyze attributes of shapes</li> <li>B. Build and draw geometric shapes</li> <li>C. Classify Shapes</li> <li>D. Identify and build three dimensional objects from two-dimensional representation</li> <li>E. Explore congruence and similarity.</li> <li>F. Identify line and rotational symmetry in shapes and designs</li> <li>G. Predict and describe results of sliding, flipping and turning two-dimensional shapes</li> <li>H. Investigate results of subdividing, combining, and transforming shapes</li> <li>I. Explore congruence and similarity</li> <li>J. Specify locations and describe spatial relationships using coordinate geometry and other models</li> </ul>	<ul style="list-style-type: none"> <li>Models</li> <li>Text</li> <li>Slates</li> <li>Compass</li> <li>Ruler</li> </ul>	<ul style="list-style-type: none"> <li>Quizzes/Tests</li> <li>Slate assessments</li> <li>Homework</li> <li>Teacher observation</li> </ul>

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<b>5.3 Measurement</b>	<ul style="list-style-type: none"> <li>A. Understand that measurements are approximations and how differences in units affect precision.</li> <li>B. Carry out simple conversions within a system of measurement.</li> <li>C. Become familiar with standard units in the customary and metric systems.</li> <li>D. Select and apply appropriate standard units and tools to measure length, area, volume, weight, time, temperature, and the size of angles.</li> </ul>	<ul style="list-style-type: none"> <li>Text</li> <li>Manipulatives</li> <li>Slates</li> </ul>	<ul style="list-style-type: none"> <li>Quizzes/Tests</li> <li>Slate assessments</li> <li>Homework</li> <li>Teacher observation</li> </ul>
<b>5.4 Data Analysis And Probability</b>	<ul style="list-style-type: none"> <li>A. Represent data using tables and graphs.</li> <li>B. Compare different representations of the same data and evaluate how well each representation shows important aspects of the data.</li> <li>C. Formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them.</li> <li>D. Represent data using tables and graphs.</li> <li>E. Propose and justify conclusions and predictions that are based on data.</li> <li>F. Understand and apply basic concepts of probability</li> </ul>	<ul style="list-style-type: none"> <li>Text</li> <li>Manipulatives</li> <li>Math games</li> <li>Slates</li> </ul>	<ul style="list-style-type: none"> <li>Quizzes/Tests</li> <li>Slate assessments</li> <li>Homework</li> <li>Teacher observation</li> </ul>
<b>5.5 Algebra</b>	<ul style="list-style-type: none"> <li>A. Represent the idea of a variable as an unknown quantity using a letter or symbol.</li> <li>B. Express Mathematical relationships using equations.</li> <li>C. Identify such properties as commutative, associative, and distributive and use them to compute with whole numbers.</li> <li>D. Express mathematical relationships using equations.</li> <li>E. Model problem situations and use graphs, tables and equations to draw conclusions</li> <li>F. Identify and describe situations with constant and varying rates of change and compare them</li> </ul>	<ul style="list-style-type: none"> <li>Text</li> <li>Manipulatives</li> <li>Math games</li> <li>Slates</li> </ul>	<ul style="list-style-type: none"> <li>Quizzes/Tests</li> <li>Slate assessments</li> <li>Homework</li> <li>Teacher observation</li> </ul>

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<b>5.6 Problem Solving</b>	<ul style="list-style-type: none"> <li>A. Apply and adapt a variety of appropriate strategies to solve problems.</li> <li>B. Monitor and reflect on the process of mathematical problem solving.</li> <li>C. Express mathematical relationships using equations; use mathematical models</li> <li>D. Understand patterns, relations and functions</li> </ul>	<ul style="list-style-type: none"> <li>Text</li> <li>Manipulatives</li> <li>Math games</li> </ul>	<ul style="list-style-type: none"> <li>Quizzes/Tests</li> <li>Slate assessments</li> <li>Homework</li> <li>Teacher observation</li> </ul>