

**SAINT AGNES SCHOOL**  
**MATH ESSENTIAL SKILLS**  
**Updated August 2016**

Kindergarten

- I can understand concepts of addition.
- I can understand the concepts of subtraction.
- I can count orally to 100.
- I can count by 10's to 100.
- I can count by 5's to 100.
- I can know my basic shapes.
- I can recognize the numbers 1-20.
- I can understand the coins and their values.
- I can know time to the hour and half hour.
- I can know my days of the week.
- I can know their months of the year.

1<sup>st</sup> Grade

- I can understand the symbols to add and subtract. (+,-)
- I can understand the concept of addition and subtraction through 12.
- I can count by 2, 5, and 10.
- I can identify a penny, nickel, dime, and quarter, and can count money using a combination of different coins.
- I can identify the hour hand and minute hand on the clock, as well as tell the time to the hour and half hour.

2<sup>nd</sup> Grade

- I can read a number line.
- I can understand the concepts of greater than and less than.
- I can read tally marks, bar graphs and pictographs.
- I can continue to learn the addition and subtraction facts to 18.
- I can skip count by 2, 5 and 10.
- I can identify coins up to \$1.
- I can understand how to tell time by the hour, half hour and quarter hour.
- I can understand the concepts of related facts and fact families.
- I can understand how to solve word problems.
- I can continue to work on 2-digit addition and subtraction with and without regrouping.

3<sup>rd</sup> Grade

- I can do place value up to the ten thousands place.
- I can know my basic addition facts and can add numbers into the thousands.

I can know my basic subtraction facts and can subtract numbers from the thousands.  
I can multiply up to  $10 \times 10$ .  
I can divide up to  $100 \div 10$ .  
I can count money using dollars and coins.

#### 4<sup>th</sup> Grade

I can identify, read, and write numbers up through the hundred millions.  
I can compare and order numbers up through the hundred millions.  
I can work with basic addition, subtraction, multiplication, and division facts with both speed and accuracy.  
I can add numbers up through the hundred thousands, with and without carry over.  
I can subtract numbers up through the hundred thousands, with and without borrowing.  
I can multiply 2, 3, and 4 digit numbers with a 1 digit number.  
I can multiply a 2 and 3 digit number with a 2 digit number.  
I can divide a 2, 3, and 4 digit number by a 1 digit number.  
I can identify, read, and illustrate fractions.  
I can add and subtract fractions.

#### 5<sup>th</sup> Grade

I can read, write, add, and subtract numbers to hundred billions.  
I can multiply and divide 2, 3, and 4 digit numbers.  
I can solve equations using order of operations.  
I can identify and convert customary and metric units in length, capacity, and volume.  
I can determine area, perimeter, and volume.  
I can add and subtract measurement amounts.  
I can add, subtract, multiply, and divide fractions.  
I can add, subtract, multiply, and divide decimals to thousandths.  
I can convert fractions to decimals and decimals to fractions.  
I can read and construct various types of graphs.  
I can identify properties of addition and multiplication.  
I can read and solve various types of word problems.

#### 6<sup>th</sup> Grade

I can add, subtract, multiply, and divide whole numbers, decimals, and fractions.  
I can answer area and volume problems.  
I can convert from decimals to fractions and fractions to decimals.  
I can estimate to solve problems.  
I can find the greatest common factor and least common multiple.  
I can identify and work with positive and negative numbers.  
I can graph ordered pairs.  
I can understand what absolute value is and can use it to solve problems.  
I can read and display data.  
I can work with ratios.

## 7<sup>th</sup> Grade

I can identify whole numbers, counting numbers, rational numbers, irrational numbers, prime and composite numbers, integers, and real numbers.

I can add, subtract, multiply, and divide whole numbers, decimals, fractions, and integers.

I can understand that subtraction is the opposite of addition.

I can perform the order of operations on problems with rational numbers.

I can solve word problems with ratios and proportions.

I can put ratios into unit rates.

I can work with scale drawings to solve problems.

I can convert back and forth between percentages, decimals, ratios, and fractions.

I can solve word problems involving percentages.

I can understand the difference between theoretical and experimental probability.

I can work with trials, possible outcomes, and predicting outcomes.

I can do problems involving simple events and compound events.

I can determine total number of possible outcomes for an event.

I can list a probability as a fraction, ratio, and percent.

I can understand how to use mean, mode, median, and range in solving statistic problems.

I can read graphs and compare data.

I can make bar graphs, line graphs, pie charts, and box and whisker charts.

I can put numbers into scientific notation.

I can take scientific notation and give the number associated with it.

I can work with exponents.

I can simplify expressions by adding and subtracting like terms and multiplying and dividing monomials.

I can use the distributive property to solve problems.

I can identify vertical, supplementary, complementary, and adjacent angles.

I can identify 2- and 3-dimensional figures.

I can solve problems involving area, perimeter, circumference, and volume.

I can identify and work with diameter, radius, and diagonals to solve problems.

I can understand the Pythagorean Theorem and can work with it to solve right triangle problems.

I can solve equations with multiple steps.

I can translate into words algebraic expressions and equations.

I can solve word problems using equations.

I can solve linear equations.

I can identify slope in equations and on graphs.

I can solve inequalities.

I can work with numbers in Base 10 and Base 2.

## 8<sup>th</sup> Grade

I can add, subtract, multiply, and divide whole numbers, decimals, fractions, integers, and algebraic expressions.

I can perform the order of operations on problems with rational numbers.

I can solve ratios and proportion problems involving algebraic expressions and equations.

I can put ratios into unit rates.

I can convert back and forth between percentages, decimals, ratios, and fractions.

I can solve word problems involving percentages.

I can list a probability as a fraction, ratio, and percent.

I can understand how to use mean, mode, median, and range in solving statistic problems.

I can read graphs and compare data.

I can make bar graphs, line graphs, pie charts, and box and whisker charts.

I can put numbers into scientific notation.

I can take Scientific Notation and give the number associated with it.

I can work with exponents.

I can simplify expressions by adding and subtracting like terms and multiplying and dividing monomials.

I can use the distributive property to solve problems.

I can factor polynomials, perfect square binomials, and trinomials.

I can solve quadratic equations.

I can solve problems involving area, perimeter, circumference, and volume.

I can understand the Pythagorean Theorem and can work with it to solve right triangle problems.

I can solve equations with multiple steps and rational numbers.

I can translate algebraic expressions and equations into words.

I can solve word problems using equations.

I can solve linear equations and systems of equations.

I can solve inequalities.