

# **Immaculate Conception School**

## **Math Curriculum**

### **Kindergarten**

#### **Counting and Cardinality**

- I know my numbers and can count.
  - ☐ I can count to 100 by ones, fives, and tens.
  - ☐ I can count forward starting at any number I have learned.
  - ☐ I can write numbers 0 to 100.
  - ☐ I can write a number to tell about a group of 0 to 20 things.
- I can count to tell the number of things.
  - ☐ I can understand how number names go with counting things in the right order.
  - ☐ I can name the number for each thing in a group as I count them.
  - ☐ I can understand that the last thing I count tells the number of things in a group.
  - ☐ I can understand that things in a group can be moved around and the total number will be the same.
  - ☐ I can understand that the next number I say when I count means that there is one more.
  - ☐ I can count up to 20 to tell how many things are in a line, a box or in a circle.
  - ☐ I can count up to 10 to tell how many things are in a group.
  - ☐ I can count out a group of things when someone gives me any number from 1 to 20.
- I can compare numbers.
  - ☐ I can use matching or counting to tell if a group of objects in one group is bigger, smaller or the same as a group of objects in another group.
  - ☐ I can compare two written numbers between 1 and 10.

#### **Operations and Algebraic Thinking**

- I can understand addition and subtraction.
  - ☐ I can use what makes sense to me to show that I know how to add.
  - ☐ I can use what makes sense to me to show that I know how to subtract.
  - ☐ I can use objects or drawings to show that I can solve addition word problems up to 10.
  - ☐ I can use objects or drawings to show that I can solve subtraction word problems up to 10.

- ☐ I can take apart any number from 1 to 10 to show that I understand that number. ( $5 = 2 + 3$ )
- ☐ I can take any number from 1 to 9 and show what I need to add to it to make 10.
- ☐ I can add numbers within 5.
- ☐ I can subtract numbers within 5.
- ☐ I can break down numbers that make 10 when added to a given number, using numbers 1-9.

## Numbers and Operations in Base Ten

- I can work with bigger numbers to understand place value.
  - ☐ I can make and take apart numbers from 11 to 19 by telling how many tens and ones are in the number.
  - ☐ I can show how many tens and ones in numbers from 11 to 19 by drawing a picture or writing a number sentence.

## Measurement and Data

- I can tell about and compare things that can be measured.
  - ☐ I can show and tell about the parts of a thing that I can measure.
  - ☐ I can compare two things that are measured using the same tool by using words like longer and shorter.
- I can sort things and put them into groups.
  - ☐ I can put things into groups by looking at how they are the same.
  - ☐ I can count the things that I put into groups and then sort them by how many.
- I can tell time.
  - ☐ I can tell time to the hour and half hour.
- I can identify money.
  - ☐ I can identify a penny, nickel, dime, and quarter.

## Geometry

- I can name and tell about shapes.
  - ☐ I can name and tell about shapes I see around me.
  - ☐ I can tell where I see shapes by using words like: above, below, beside, in front of, behind and next to.
  - ☐ I can name shapes no matter how big they are or which way they are turned.
  - ☐ I can tell if a shape is two-dimensional (flat) or three-dimensional (solid).

- I can think about, compare and make different shapes.
  - ☐ I can think about and compare two-dimensional and three-dimensional shapes.
  - ☐ I can make shapes by drawing them or by using things like sticks and clay.
  - ☐ I can use simple shapes to make larger shapes.
- I can collect, organize, and record data from the student's environment using tallies and graphs.
- I can model and draw shapes in the world by building shapes from components.

## **Calendar Math**

- I can do calendar math.
  - ☐ I can name the days of the week.
  - ☐ I can name the months of the years.
  - ☐ I can use the calendar to identify yesterday, today, and tomorrow.

# **Immaculate Conception School**

## **Math Curriculum**

### **Grade 1**

#### **Operations and Algebraic Thinking**

- I can write and solve problems using addition and subtraction.
  - ☐ I can use different strategies for addition to solve word problems (within 20).
  - ☐ I can use different strategies for subtraction to solve word problems (within 20).
  - ☐ I can solve word problems where I have to add 3 whole numbers.
- I can understand and use what I know about addition and subtraction.
  - ☐ I can use fact families to help me solve addition and subtraction problems.
  - ☐ I can use addition facts I know well to help me solve problems where there are more than two numbers (associative).
  - ☐ I can use what I know about addition facts to help me answer subtraction problems.
- I can add and subtract any numbers from 0 to 20.
  - ☐ I can understand how counting up is like adding and counting down is like subtracting.
  - ☐ I can add facts within 20 with fluency.
  - ☐ I can subtract facts within 20 with fluency.
- I can work with addition and subtraction number sentences.
  - ☐ I can tell addition or subtraction number sentences are true because I understand what an equal sign means.
  - ☐ I can figure out what a missing number is in an addition or subtraction problem.
- I can add and subtract two-digit numbers.
  - ☐ I can add two-digit numbers without regrouping.
  - ☐ I can understand how to add two-digit numbers with regrouping.
  - ☐ I can subtract two-digit numbers without regrouping.
  - ☐ I can understand how to subtract two-digit numbers with regrouping.

#### **Numbers and Operations in Base Ten**

- I can count up.
  - ☐ I can count, read, and write numbers up to 120 starting at any number under 120.
  - ☐ I can count, read, and write numbers up to 120 by ones, twos, fives, and tens.
  - ☐ I can count up or down by ones, fives, and tens using a 100 chart (5, 15, 25, ...).

- I can understand place value.
  - ☐ I can tell how many tens and how many ones are in a number.
  - ☐ I can show that I know what a “ten” is.
  - ☐ I can show that any number between 11 and 99 is a certain number of “ten” and a certain number of ones.
  - ☐ I can show that I understand the numbers I use when I count by tens, have a certain number of tens and 0 ones.
  - ☐ I can compare two-digit numbers using  $<$ ,  $=$ , and  $>$  because I understand tens and ones.
- I can use what I know about place value to help me add and subtract.
  - ☐ I can use math strategies to help me solve and explain addition problems within 100.
  - ☐ I can use objects and pictures to help me solve and explain addition problems within 100.
  - ☐ I can understand that adding two-digit numbers means I add the ones and then the tens.
  - ☐ I can understand that when I add two digit numbers, sometimes I have to make a group of tens from the ones (regroup).
  - ☐ I can find 10 more or 10 less in my head.
  - ☐ I can use different strategies to subtract multiples of 10 (10-90) from numbers under 100, write the matching number sentence and explain my strategy.

## Measurement and Data

- I can understand length.
  - ☐ I can put three objects in order from largest to shortest and compare their lengths.
  - ☐ I can tell the length of an object using whole numbers.
  - ☐ I can show that I understand how to measure something by using a smaller object as a measurement tool.
- I can tell time.
  - ☐ I can tell and write time in hours and half-hours using analog and digital clocks.
- I can understand how information is shared using numbers.
  - ☐ I can organize, show and explain number information in a way that makes sense.
  - ☐ I can ask and answer questions about number information that is organized.
- I can count money.
  - ☐ I can recognize and identify coins and their values up to \$1.00.

## Geometry

- I can understand shapes better by using what I notice about them.
  - ☐ I can understand and tell about the parts that make different shapes unique.
  - ☐ I can build and draw shapes that have certain parts.
  - ☐ I can create two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles and quarter-circles).
  - ☐ I can create three-dimensional shapes (cubes, right rectangular prisms, right circular cones and right circular cylinders).
  - ☐ I can use two- and three-dimensional shapes to create new shapes.
  - ☐ I can understand that “halves” means two equal parts and “fourths” or “quarters” means four equal parts.
  - ☐ I can break circles and rectangles into equal parts and use the word whole, halves, fourths, and quarters to talk about them.
  - ☐ I can understand that breaking circles or rectangles into more equal parts means that the parts will be smaller.

## Calendar Math

- I can do calendar math.
  - ☐ I can name the days of the week forward and backward.
  - ☐ I can name the months of the year forward and backward.
  - ☐ I can write the date using both numbers and abbreviations.
  - ☐ I can tell how many days are in each month.
  - ☐ I can use the calendar to name the date of a previous or future date (pattern of numbers on calendar).

# **Immaculate Conception School**

## **Math Curriculum**

### **Grade 2**

#### **Operations and Algebraic Thinking**

- I can write and solve problems using addition and subtraction.
  - ☐ I can use strategies to solve addition word problems. (within 100)
  - ☐ I can use strategies to solve subtraction word problems. (within 100)
- I can add and subtract any numbers from 0 to 20 in my mind.
  - ☐ I know my addition facts.
  - ☐ I know my subtraction facts.
- I can work with equal groups of objects to help me start to understand multiplication.
  - ☐ I can group objects to tell if a number is odd or even.
  - ☐ I can write a number sentence to show how adding two of the same number will equal an even number.
  - ☐ I can use addition to help me figure out how many objects are in an array.
  - ☐ I can write a number sentence to show the total number of objects are in an array.

#### **Numbers and Operations in Base Ten**

- I can understand place value.
  - ☐ I can understand and use hundreds, tens and ones.
  - ☐ I can show that I understand that a bundle of ten “tens” is called a “hundred”.
  - ☐ I can show that I understand the numbers I use when I count by hundreds, have a certain number of hundreds, 0 tens and 0 ones.
  - ☐ I can count to 1,000 by ones, fives, tens, and hundreds.
  - ☐ I can read and write numbers to 1,000 in different ways.
  - ☐ I can compare three-digit numbers using  $<$ ,  $=$ , and  $>$  because I understand hundreds, tens and ones.
- I can use what I know about place value to help me add and subtract.
  - ☐ I can add two-digit numbers.
  - ☐ I can subtract two-digit numbers.
  - ☐ I can add up to four 2-digit numbers.
  - ☐ I can use strategies to add numbers within 1000 and know when to regroup.
  - ☐ I can use strategies to subtract numbers within 1000 and know when to borrow.
  - ☐ I can add and subtract 10 or 100 to any number from 100 to 900 in my head.

- ☐ I can explain why adding and subtracting strategies work using what I know about place value.
- ☐ I can show measurements with a line plot.
- ☐ I can draw a picture graph to share number information.
- ☐ I can draw a bar graph to share number information.
- ☐ I can solve problems using information from a bar graph.

## Measurement and Data

- I can measure and estimate lengths of objects.
  - ☐ I can use different tools to measure objects.
  - ☐ I can use two different units to measure the same object and tell how the measurements compare.
  - ☐ I can estimate the lengths of objects using inches, feet, centimeters and meters.
  - ☐ I can tell the difference in the lengths of two different objects.
- I can use what I know about addition and subtraction to understand length.
  - ☐ I can use addition and subtraction to solve measurement problems.
  - ☐ I can make and use a number line.
- I can understand how to tell time.
  - ☐ I can tell time to five minutes.
  - ☐ I can use a.m. and p.m. in the right ways.
  - ☐ I can use quarter hour, before hour and elapsed time in the right ways.
- I can count money.
  - ☐ I can count money to help me solve word problems.
- I can understand how information is shared using numbers.
  - ☐ I can make a table to organize information about measurement.
- I can generate measurement data and record results on a line plot using whole-number units.

## Geometry

- I can understand shapes better by using what I notice about them.
  - ☐ I can name and draw shapes. (I know triangles, quadrilaterals, pentagons, hexagons, and cubes.)
  - ☐ I can find the area of a rectangle by breaking it into equal sized squares.
  - ☐ I can divide shapes into equal parts and describe the parts with words like halves or thirds.
  - ☐ I can understand that equal parts of a shape may look different depending on how I divide the shape.



# **Immaculate Conception School**

## **Math Curriculum**

### **Grade 3**

#### **Operations and Algebraic Thinking**

- I can write and solve problems using multiplication and division.
  - ☐ I can understand multiplication by thinking about groups of objects.
  - ☐ I can understand division by thinking about how one group can be divided into smaller groups.
  - ☐ I can use what I know about multiplication and division to solve word problems.
  - ☐ I can find the missing number in a multiplication or division equation.
  - ☐ I can use the Commutative property of multiplication.
  - ☐ I can use the Associative property of multiplication.
  - ☐ I can use the Distributive property of multiplication.
  - ☐ I can find the answer to a division problem by thinking of the missing factor in a multiplication problem.
  - ☐ I can multiply and divide within 100 easily and quickly because I know how multiplication and division are related.
  - ☐ I can solve two-step word problems that involve addition, subtraction, multiplication and division.
  - ☐ I can solve two-step word problems by writing an equation with a letter in place of the number I don't know.
  - ☐ I can use mental math to figure out if the answers to two-step word problems are reasonable.
  - ☐ I can find patterns in addition and multiplication tables and explain them using what I know about how numbers work.
  - ☐ I can compare and order numbers to hundred thousands using these symbols:  $<$ ,  $=$ ,  $>$ .
  - ☐ I can solve word problems that involve addition, subtraction, multiplication, and division, using problem solving strategies.

#### **Numbers and Operations in Base Ten**

- I can use what I know about place value and operations (+, -,  $\times$ ,  $\div$ ) to solve problems with larger numbers.
  - ☐ I can use place value to help me round numbers to the nearest 10 or 100.
  - ☐ I can quickly and easily add and subtract numbers within 1000.
  - ☐ I can multiply any one digit whole number by a multiple of 10.

- ☐ I can add, subtract and estimate whole numbers to hundred thousands, regrouping when necessary.
- ☐ I can read and write five and six digit numbers in standard, expanded, and word form.

## **Numbers and Operations - Fractions**

- I can understand fractions.
  - ☐ I can show and understand that fractions represent equal parts of a whole, where the top number is the part and the bottom number is the total number of parts in the whole.
  - ☐ I can understand a fraction as a number on the number line by showing fractions on a number line diagram.
  - ☐ I can label fractions on a number line because I know the space between any two numbers on the number line can be thought of as a whole.
  - ☐ I can show a fraction on a number line by marking off equal parts between two whole numbers.
  - ☐ I can understand how some different fractions can actually be equal.
  - ☐ I can compare fractions by reasoning about their size.
  - ☐ I can understand two fractions as equivalent if they are the same size or at the same point on a number line.
  - ☐ I can recognize and write simple equivalent fractions and explain why they are equal using words or models.
  - ☐ I can show whole numbers as fractions.
  - ☐ I can recognize fractions that are equal to one whole.
  - ☐ I can compare two fractions with the same numerator or the same denominator by reasoning about their size.
  - ☐ I can understand that comparing two fractions is only reasonable if they refer to the same whole.
  - ☐ I can compare fractions with the symbols  $>$ ,  $=$ ,  $<$  and prove my comparison using models.

## **Measurement and Data**

- I can solve problems that involve measurement and estimation.
  - ☐ I can tell and write time to the nearest minute.
  - ☐ I can measure time in minutes.
  - ☐ I can solve telling time word problems by adding and subtracting minutes.

- ☐ I can estimate and measure length to the nearest inch, half inch, and quarter inch.
- ☐ I can measure liquids and solids with grams (g), kilograms (kg), and liters (l).
- ☐ I can measure liquids and solids with cups, pints, quarts, half gallons and gallons.
- ☐ I can use addition, subtraction, multiplication and division to solve word problems about mass or volume.
- I can understand how information is shared using numbers.
  - ☐ I can make a picture or bar graph to show data and solve problems using the information from the graphs.
  - ☐ I can create a line plot from measurement data, where the measured objects have been measured to the nearest whole number, half or quarter.

## Geometry

- I can understand area.
  - ☐ I can understand that one way to measure plane shapes is by the area they have.
  - ☐ I can understand that a “unit square” is a square with side lengths of 1 unit and it is used to measure the area of plane shapes.
  - ☐ I can cover a plane shape with square units to measure its area.
  - ☐ I can measure areas by counting unit squares (square cm, square m, square in, square ft).
  - ☐ I can understand area by thinking about multiplication and addition.
  - ☐ I can find the area of a rectangle using square tiles and also by multiplying the two side lengths.
  - ☐ I can solve real world problems about area using multiplication.
  - ☐ I can use models to show that the area of a triangle can be found by using the distributive property.
  - ☐ I can find the area of a shape by breaking it down into smaller shapes and then adding those areas to find the total area.
- I can understand perimeter.
  - ☐ I can solve real world math problems using what I know about how to find the perimeter of shapes.
- I can understand shapes better by using what I notice about them.
  - ☐ I can place shapes into categories depending upon their attributes (parts).
  - ☐ I can name a category of many shapes by looking at their attributes (parts).
  - ☐ I can recognize and draw quadrilaterals including rhombuses, rectangles, and squares.
  - ☐ I can divide shapes into parts with equal areas and show those areas as fractions.

# **Immaculate Conception School**

## **Math Curriculum**

### **Grade 4**

#### **Operations and Algebraic Thinking**

- I can use the four operations (+, -,  $\times$ ,  $\div$ ) to help me solve problems
  - ☐ I can understand that multiplication equations can be seen as comparisons of groups.
  - ☐ I can multiply or divide to solve word problems by using drawings or writing equations and solving for a missing number.
  - ☐ I can use the Commutative property of multiplication.
  - ☐ I can determine how reasonable my answers to word problems are by using estimation, mental math and rounding.
- I can become familiar with factors and multiples.
  - ☐ I can find all factor pairs for a whole number from 1 to 100.
  - ☐ I can recognize a whole number as a multiple of each of its factors.
  - ☐ I can multiply and divide within 100 easily and quickly because I know how multiplication and division are related.
  - ☐ I can determine whether a whole number from 1 to 100 is a multiple of a given one-digit number.
  - ☐ I can determine whether a given whole number up to 100 is a prime or composite number.
- I can create and analyze patterns.
  - ☐ I can create a number or shape pattern that follows a given rule.
  - ☐ I can notice and point out different features of a pattern once it is created by a rule.
  - ☐

#### **Numbers and Operations in Base Ten**

- I can use place value to help me understand larger numbers.
  - ☐ I can recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right.
  - ☐ I can read and write larger whole numbers using numerals, words, and in expanded form.
  - ☐ I can compare two larger numbers by using what I know about the values in each place.
  - ☐ I can compare two larger numbers and use the symbols  $>$ ,  $=$  and  $<$  to show comparison.

- ☐ I can round larger whole numbers to any place.
- I can use what I know about place value and operations (+, -,  $\times$ ,  $\div$ ) to solve problems with larger numbers.
  - ☐ I can add and subtract larger numbers.
  - ☐ I can multiply a whole number up to four digits by a one-digit whole number.
  - ☐ I can multiply two two-digit numbers.
  - ☐ I can illustrate and explain how to multiply larger numbers by using equations, arrays or models.
  - ☐ I can find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors.
  - ☐ I can illustrate and explain how to divide larger numbers by using equations, arrays or models.

## Numbers and Operations - Fractions

- I can improve my understanding of fractions.
  - ☐ I can explain (and show models for) why multiplying a numerator and a denominator by the same number does not change the value of the fraction.
  - ☐ I can recognize and generate equivalent fractions based on my knowledge of numerators and denominators.
  - ☐ I can compare two fractions with different numerators and different denominators by creating common denominators or numerators or by comparing them to a benchmark fraction like one-half.
  - ☐ I can recognize that comparisons of fractions are valid only when the two fractions refer to the same whole.
  - ☐ I can compare fractions using the symbols  $>$ ,  $=$ , and  $<$  and justify the comparison by using models.
- I can build fractions from unit fractions.
  - ☐ I can understand a fraction  $a/b$  with  $a > 1$ , as a sum of fractions  $1/b$ .
  - ☐ I can understand addition and subtraction of fractions as joining and separating parts referring to the same whole.
  - ☐ I can decompose a fraction into a sum of fractions with the same denominator in more than one way and justify my work using models.
  - ☐ I can add and subtract mixed numbers with like denominators.
  - ☐ I can solve word problems involving addition and subtraction of fractions that refer to the same whole and that have like denominators.
  - ☐ I can apply my understanding of multiplication to multiply a fraction by a whole number.
  - ☐ I can understand a fraction  $a/b$  as a multiple of  $1/b$ .

- ☐ I can understand a multiple of  $a/b$  as a multiple of  $1/b$  and use that knowledge to multiply a fraction by a whole number.
- ☐ I can solve word problems involving multiplication of a fraction by a whole number.
- I can understand how fractions and decimals are related.
  - ☐ I can show a fraction with a denominator of 10 as an equivalent fraction with a denominator of 100 in order to add the two fractions.
  - ☐ I can use decimals to show fractions with denominators of 10 and 100.
  - ☐ I can compare two decimals to hundredths by reasoning about their size and realizing that the comparison is only true if the two decimals refer to the same whole.
  - ☐ I can compare decimals using the symbols  $>$ ,  $=$ , and  $<$  and justify the comparison using models.

## Measurement and Data

- I can solve problems involving measurement and conversion of measurements.
  - ☐ I can show that I know the relative size of measurement units within one system of units (including km, m, cm; kg, g; lb, oz; l, ml; hr, min, sec).
  - ☐ I can show the measurements in a larger unit in terms of smaller units and record these in a table.
  - ☐ I can use the four operations ( $+$ ,  $-$ ,  $\times$ ,  $\div$ ) to solve word problems involving measurement.
  - ☐ I can solve measurement problems involving simple fractions and decimals.
  - ☐ I can solve problems that ask me to express measurements given in a larger unit in terms of a smaller unit.
  - ☐ I can show measurement quantities using diagrams that involve a measurement scale (number line).
  - ☐ I can use what I know about area and perimeter to solve real world problems involving rectangles.
- I can use money.
  - ☐ I can identify and count money and demonstrate how to make change.
  - ☐ I can calculate sums, differences, and products involving dollars and cents.
  - ☐ I can solve word problems involving dollars and cents.
- I can represent and interpret data.
  - ☐ I can make a line plot to show a data set of measurements involving fractions.
  - ☐ I can solve problems involving addition and subtraction of fractions by using information shown in line plots.
  - ☐ I can organize and compare data using graphs, tables and charts.
  - ☐ I can calculate mean, median, and mode for a given set of numbers.

- I can understand the concept of measurement in geometry with regards to angles.
  - ☐ I can recognize angles as geometric shapes where two rays share a common endpoint.
  - ☐ I can understand concepts of angle measurement.
  - ☐ I can understand that angles are measured with reference to a 360 degree circle, with its center at the common endpoint of the rays.
  - ☐ I can understand that an angle that turns through “n” one-degree angles is said to have an angle measure of “n” degrees.
  - ☐ I can use a protractor to measure and sketch angles in whole-number degrees.
  - ☐ I can solve real-world and mathematical addition and subtraction problems to find unknown angles.

## **Geometry**

- I can use geometry to help me understand math.
  - ☐ I can identify and draw points, lines, line segments, rays, angles and perpendicular and parallel lines.
  - ☐ I can classify two-dimensional shapes based on what I know about their geometrical attributes.
  - ☐ I can recognize and identify right triangles.
  - ☐ I can recognize, identify and draw lines of symmetry.

# **Immaculate Conception School**

## **Math Curriculum**

### **Grade 5**

#### **Operations and Algebraic Thinking**

- I can understand and write number sentences with one or more numbers or operations.
  - ☐ I can write and figure out number sentences that have parentheses, brackets, and/or braces.
  - ☐ I can correctly write number sentences using mathematical symbols and the order of operations correctly.
  - ☐ I can understand number sentences and estimate their answers without actually calculating them.
- I can study number patterns and figure out their relationships.
  - ☐ I can create two number patterns using two given rules.
  - ☐ I can identify relationships between two number patterns.
  - ☐ I can form ordered pairs using the relationship between two number patterns and graph them on a coordinate plane.

#### **Numbers and Operations in Base Ten**

- I can understand the place value system.
  - ☐ I can understand and explain the value of digits in a larger number.
  - ☐ I can explain patterns of zeroes in an answer when multiplying a number by powers of 10.
  - ☐ I can explain patterns of decimal placement when a decimal is multiplied or divided by a power of 10.
  - ☐ I can use whole number exponents to show powers of 10.
  - ☐ I can read, write, and compare decimals to thousandths.
  - ☐ I can read and write decimals to thousandths using base-ten numbers, number names and expanded form.
  - ☐ I can compare two decimals to thousandths using the  $>$ ,  $=$ , and  $<$  symbols correctly.
  - ☐ I can use place value understanding to round decimals to any place.
  - ☐ I can convert and compare decimals to fractions.
- I can solve math equations with larger whole numbers and decimals to the hundredths.
  - ☐ I can easily multiply larger whole numbers.
  - ☐ I can divide four-digit numbers (dividends) by two-digit numbers (divisors).

- ☐ I can illustrate and explain a division problem using equations, arrays and/or models.
- ☐ I can add, subtract, multiply, and divide decimals to hundredths using what I have learned about place value.
- ☐ I can relate the strategies I use to add, subtract, multiply and divide decimals to hundredths to a written problem and explain why I chose the strategies to help me solve the problem.

## **Numbers and Operations - Fractions**

- I can use equivalent (equal) fractions as a strategy to add and subtract fractions.
  - ☐ I can add and subtract fractions or mixed numbers with unlike denominators.
  - ☐ I can solve word problems that involve addition and subtraction of fractions.
  - ☐ I can use number sense and fractions that I know to estimate the reasonableness of answers to fraction problems.
- I can use and increase my understanding of multiplication and division.
  - ☐ I can understand that fractions are really division problems.
  - ☐ I can convert improper fractions to mixed numbers and mixed numbers to improper fractions.
  - ☐ I can convert and compare fractions to decimals.
  - ☐ I can compare fractions to fractions or decimals using  $>$ ,  $=$ , or  $<$ .
  - ☐ I can solve word problems where I need to divide whole numbers leading to answers that are fractions or mixed numbers.
  - ☐ I can use what I know about multiplication to multiply fractions or whole numbers by a fraction.
  - ☐ I can understand and show with models that multiplying a fraction by a whole number is the same as finding the product of the numerator and whole number and then dividing it by the denominator.
  - ☐ I can use unit squares to find the area of a rectangle with fractional side lengths and prove that it is the same as multiplying the side lengths ( $A = l \times w$ ).
  - ☐ I can think of multiplication as the scaling of a number (similar to a scale on a map).
  - ☐ I can mentally compare the size of a product to the size of one of the factors by thinking about the other factor in the problem.
  - ☐ I can explain why multiplying a number by a fraction greater than 1 will result in a bigger number than the number I started with.
  - ☐ I can explain why multiplying a number by a fraction less than 1 will result in a smaller number than the number I started with.
  - ☐ I can relate the notion of equivalent fractions to the effect of multiplying a fraction by 1.

- ☐ I can solve real world problems that involve multiplication of fractions and mixed numbers.
- ☐ I can use what I know about division to divide fractions by whole numbers or whole numbers by fractions correctly.
- ☐ I can divide a fraction by a fraction correctly.
- ☐ I can use what I know about division problems involving fractions to solve real world problems.

## Measurement and Data

- I can convert like measurement units within a given measurement system.
  - ☐ I can convert different-sized measurements within the same measurement system.
  - ☐ I can use measurement conversions to solve real-world problems.
- I can represent and interpret data.
  - ☐ I can make a line plot to show a data set of measurements involving fractions.
  - ☐ I can use addition, subtraction, multiplication and division of fractions to solve problems involving information presented on a line plot.
  - ☐ I can interpret data from circle graphs, bar graphs, pictographs, line graphs, and histograms to solve word problems.
- I can understand the concept of measurement in geometry with regards to volume.
  - ☐ I can recognize volume as a characteristic of solid figures and understand how it can be measured.
  - ☐ I can understand a “unit cube” as a cube with side lengths of 1 unit and can use it to measure volume.
  - ☐ I can understand that a solid figure filled with a number of unit cubes is said to have a volume of that many cubes.
  - ☐ I can measure volume by counting unit cubes.
  - ☐ I can solve real world problems involving volume by thinking about multiplication of addition.
  - ☐ I can use unit cubes to find the volume of a right rectangular prism with whole number side lengths and prove that it is the same as multiplying the edge lengths ( $V = l \times w \times h$ ).
  - ☐ I can solve real-world and mathematical problems involving volume of an object using the formulas  $V = l \times w \times h$  and  $V = b \times h$ .
  - ☐ I can find the volumes of solid figures made up of two right rectangular prisms by adding the volumes of both.
  - ☐ I can solve real-world problems using what I know about adding the volumes of two right rectangular prisms.

## Geometry

- I can graph points on a coordinate plane to solve real-world problems and mathematical problems.
  - ☐ I can understand a coordinate plane and ordered pairs of number coordinates on that plane.
  - ☐ I can graph ordered pairs of numbers on a coordinate plane using what I have learned about the x-axis and coordinate and the y-axis and coordinate.
  - ☐ I can represent real-world and mathematical problems by graphing points in the first quadrant of a coordinate plane.
  - ☐ I can understand coordinate values in the context of a real-world or mathematical problem.
- I can classify 2-dimensional shapes into categories based on their properties.
  - ☐ I can understand how attributes of 2-dimensional shapes in a category also belong to all subcategories of those shapes.
  - ☐ I can classify 2-dimensional shapes based on their properties.
  - ☐ I can determine the perimeter of polygons.
  - ☐ I can determine the measurement of angles in a polygon using a protractor.
  - ☐ I can identify the parts of a circle.
  - ☐ I can determine the circumference of a circle using the formula  $C = \pi \times d$ .

# **Immaculate Conception School**

## **Math Curriculum**

### **Grade 6**

#### **Number System**

- I can add, subtract, multiply and divide two fractions including whole numbers and mixed numbers.
- I can solve word problems involving fractions.
- I can add, subtract, multiply, and divide whole numbers and decimals.
- I can find the greatest common factor(GCF) and least common multiple(LCM) of whole numbers
- I can use the distributive property to show the sum of two whole numbers in different ways.
- I can understand and use integers and their opposites in a variety of ways including absolute value, coordinate graphing, number line use and real world situations.
- I can extend number line diagrams and coordinate axes to show both positive and negative numbers.
- I can recognize and locate two ordered pairs in quadrants of the coordinate plane.
- I can use what I know about coordinates and absolute values to figure out the distance between points with the same first coordinate or the same second coordinate.
- I can understand and order rational numbers.
- I can recognize integers and rational numbers and the absolute value of both.
- I can understand integers and rational numbers in the real world.

#### **Expressions and Equations**

- I can write, solve and read numerical and algebraic expressions.
- I can name the parts of an expression using mathematical terms (sum, product, term, factor, quotient, coefficient, variable, etc.)
- I can explain the difference between an expression and equation.
- I can solve numerical and algebraic expressions and equations when given specific values for variables.
- I can understand, write, use and solve problems with exponents.
- I can use expressions and equations in real world problems.
- I can apply what I know about associative, commutative and distributive properties to create equivalent expressions.
- I can recognize equivalent expressions.
- I can solve problems using order of operations.

- I can solve and write one step equations and inequalities using addition, subtraction, multiplication and division in both mathematical and real-world problems.
- I can show answers to inequalities on a number line.
- I can solve problems using formulas.
- I can write and analyze numerical relationships between dependent and independent variables.
- I can use graphs and tables to show relationships between dependent and independent variables.
- I can translate a verbal phrase into an inequality and graph the solution.

## **Geometry**

- I can find the area, volume and surface area of quadrilaterals and triangles.
- I can put together and take apart a variety of shapes to find the area and perimeter of polygons in mathematical and real-life situations.
- I can plot and use coordinates on a plane to draw polygons and evaluate the length of the sides.
- I can calculate the volume of a right rectangular prism.

## **Statistics & Probability**

- I can recognize a statistical question as one that expects variability in the data related to the question.
- I can interpret the data answered by a statistical question (mean, median, mode, range)
- I can show numerical data using plots and graphs.
- I can summarize and explain data.

## **Ratios and Proportional Relationships**

- I can use what I know about ratios to describe the relationship between quantities.
- I can find the rate when given a specific ratio.
- I can solve real world problems using rates and ratios.
- I can solve unit rate problems.
- I can find equivalent ratios, find missing variables in ratios, and compare ratios.
- I can find percent of a whole.
- I can evaluate and compare decimals, fractions, and percents.

# **Immaculate Conception School**

## **Math Curriculum**

### **Grade 7**

#### **Pre-Algebra**

- I can write variable expressions from word phrases.
- I can simplify expressions using order of operations.
- I can evaluate variable expressions.
- I can compare numbers on a number line using opposites and absolute values.
- I can add integers (using negatives).
- I can subtract integers.
- I can multiply and divide integers.
- I can plot points and define quadrants on a coordinate plane.
- I can define the properties of numbers and know when to use them.
- I can use the distributive property to simplify expressions
- I can combine like terms
- I can solve one-step equations involving: addition, subtraction, multiplication and division.
- I can graph inequalities with one variable
- I can solve one-step inequalities involving: addition, subtraction, multiplication and division.
- I can estimate by using rounding
- I can use statistics to find measurements of mean, median and mode.
- I can solve equations using rational numbers.
- I can convert measurements using the metric system.
- I can factor using divisibility rules.
- I can use exponents to show repeated multiplication.
- I can find the greatest common factor of composite numbers.
- I can simplify fractions and find equivalent fractions.
- I can use the properties of exponents to simplify expressions.
- I can use scientific notation to write numbers as powers of 10.
- I can compare and order rational numbers.
- I can add and subtract fractions with unlike denominators.
- I can multiply and divide fractions.
- I can use the US system of measurements.
- I can compare two quantities using ratios and unit rates.
- I can solve proportions using cross products.

- I can solve for missing sides in similar figures using proportions.
- I can tell the probability of an event knowing the possible outcomes.
- I can write numbers as percents, fractions and decimals.
- I can use the percent equation to solve for missing values.
- I can use proportions to solve percent problems.
- I can solve for the percent change of a quantity.
- I can solve markup, simple interest and discount problems.
- I can solve two-step equations.
- I can solve multistep equations, including variables on both sides.
- I can solve two-step inequalities.
- I can solve literal equations for any variable.
- I can graph using a table of x and y-values.
- I can solve for the slope of a line given two points or a graph.
- I can use slope and y-intercept to graph a line.
- I can graph using slope intercept form ( $y = mx + b$ ).
- I can write an equation of a line from a graph.
- I can create a scatter plot from a set of data and approximate the line of best fit.
- I can solve systems of linear equations using a graph.
- I can find the area of a quadrilateral given the length of two sides.
- I can find the area of a triangle or trapezoid given the height and base lengths.
- I can find the area of a circle given the radius or diameter.
- I can find the surface area or volume of a prism or cylinder.
- I can create tables, line plots, histograms or box-and-whisker plots given a data set

**Immaculate Conception School**  
**Math Curriculum**  
**Grade 8**

**Algebra**

- I can classify and compare numbers.
- I can add, subtract, multiply and divide Fractions, Decimals, and Integers
- I can compare and order real numbers.
- I can add, subtract, multiply and divide radical expressions.
- I can write expressions from word phrases.
- I can simplify expressions using Order of Operations.
- I can write an expression to solve problems.
- I can simplify expressions using the Distributive Property and combining like term.
- I can write a linear equation from a table.
- I can write a linear equation from a graph.
- I can write a linear equation from two points.
- I can write a linear equation given a point and a slope.
- I can write a linear equation from a situation.
- I can write an equation given parallel slope and a point.
- I can write an equation given perpendicular slope and a point.
- I can solve a multi-step equation.
- I can solve a multi-step inequality.
- I can solve a literal equation.
- I can solve a proportion.
- I can use a proportion to solve problems.
- I can use a scale factor to solve problems.
- I can solve a system using graphing.
- I can solve a system using substitution.
- I can solve a system using elimination.
- I can solve a problem using systems of equations.
- I can find a greatest common factor of a polynomial.
- I can factor a quadratic expression into two binomials.
- I can find a slope given two points.
- I can find a slope given a graph.
- I can find a slope given an equation.
- I can find a slope given a table.
- I can compare rate of change to slope.

- I can graph a line using a table.
- I can graph a line given slope and a point.
- I can graph a line given an equation in slope intercept form.
- I can graph a line given an equation in standard form.
- I can graph a line given an equation in point slope form.
- I can add, subtract, multiply and divide polynomials.
- I can simplify expressions using power rules.
- I can solve a quadratic equation using square roots.
- I can solve a quadratic equation using Factoring.
- I can solve a problem using the Pythagorean Theorem.
- I can make and interpret a scatter plot.
- I can find line of best fit and correlation using a scatter plot or graph