MATH: GRADE 2

Data Analysis, Statistics, and Probability:

Students will be able to…

- Formulate questions, use interviews, surveys, and observations to gather data about themselves and their surroundings.
- Gather, collect, categorize and record data.
- Have a plan for keeping track of data.
- Explain and interprets results of surveys.
- Collect numerical data.
- See representations as a way of communicating to others.
- Describe and interpret representations of data.
- Can plan a data analysis project.
- Students organize, classify, represent, and interpret data using tallies, charts, tables, bar graphs, pictographs, and interpret representations.
- Make sense of other students' representations of data.
- Represent data in several ways.
- Explore different ways of organizing numerical data.
- Focus on important features of data, such as range and outlier.
- Compare data sets.
- Uses data representations to communicate information.
- Students formulate inferences (draw conclusions) and make educated guesses (conjectures) about a situation based on information gained from data.
- Interprets data and makes hypotheses based on data.

Geometry:

Students will be able to…

- Describe attributes and compare 2-D and 3-D shapes.
- Sort, describe, and identify 2-D and 3-D shapes.
- Compose and decompose 2-D and 3-D shapes.
- Identify shapes based on number of sides and corners.
- Recognize congruent shapes.
- Recognize shapes that have been rotated and reflected and describe those translations.
- Identify symmetry in 2-D shapes.
- Find and describe objects that mirror symmetry.
- Make 2-D symmetrical designs.
- Build 3-D symmetrical designs.
- Relate geometric ideas to number.
- Visualize, construct, and draw rectangular arrays.
- Construct arrays to represent numbers and identify halves of the arrays.
- Describe fractional parts of an array both numerically and visually.
- Construct 2-D array divided into thirds or fourths.

Measurement:

Students will be able to…

- Identify parts of the day, days of the week, months of the year; identify dates using a calendar.
- Work with calendar to become familiar with sequence of days, weeks, and months and the relationships among these periods of time.
- Work with daily schedules to become familiar with order of familiar events over time.
- Discuss posted daily schedule including both analog and digital representations.
- Identify and record a start time and a finish time include analog and digital representations.
- Compare the length and area of two or more objects by using direct comparison.
- Use a nonstandard unit to measure length.
- Measure and compare common objects.
- Understand the process of measuring.
- Compare the effect on measurement of using units of different size.
- Use direct and indirect comparison to compare length.
- Select and correctly use the appropriate measurement tools.
- Use a measuring device with understanding of the measurement process.
- Understand that units must be used in a consistent way.
- Make and use estimates of measurement including time, length, and area.
- Develop a sense of a minute as a unit of time.
- Determine path length by iterating and then counting units.

Number Sense and Operations:

Students will be able to…

- Read, write, and sequence numbers up to 100.
- Demonstrate knowledge of the structure and patterns of our number system from 1 to 100.
- Use landmark numbers such as 10, 25, and 100.
- Identify and distinguish among multiple uses of number.
- Identify uses of numbers in the world.
- Identify and represent common fractions.
- Construct arrays to represent numbers and identify halves of the arrays.
- Describe fractional parts of an array both numerically and visually.
- Construct an array and divide into thirds or fourths.
- Compare whole numbers.
- Use the 100 chart as a tool for combining and comparing numbers.
- Compare numbers to 100.
- Identify coin names, values, and equivalencies.
- Combine different coins to make 25¢ and 50¢.
- Recognize coins: penny, nickel, dime, and quarter.
- Know coin equivalencies for nickel, dime, and quarter.
- Use money as a model for counting by 5's and 10's.
- Use coins as a model for adding and subtracting multiples of 5 and 10.
- Demonstrate an understanding of various meanings of addition and subtraction.
- Write several equations for a given number.
- Understand the concept of addition.
- Understand the concept of subtraction as "take away", comparison, and unknown change.
- Match addition and subtraction notations to situations they could represent.
- Identify and use standard notation for addition and subtraction.
- Can choose from a variety of strategies based on the numbers given in a problem.
- Understand and use the inverse relationship between addition and subtraction.

- Use knowledge of addition and subtraction pairs.
- Know addition combinations to 10 and use them to solve problems.
- Know combinations of 10.
- Know doubles combinations and doubles +1 combinations.
- Demonstrate the ability to add and subtract two-digit numbers accurately and efficiently.
- Accurately add double-digit plus single digit number.
- Accurately subtract a single-digit number from a double-digit number.
- Accurately add two-digit numbers.
- Accurately subtract two-digit numbers.

Discussion, Presentation and Composition

Students will be able to…

- Use agreed upon rules to participate in large and small group discussions.
- Express ideas in an organized way.
- Explain their mathematical thinking in writing.
- Maintain a system for collecting, referring to, and sharing their work.