Fifth Grade: Using Numbers to Explore Our Mathematical Community

Dear Fifth Grade Family,



Focus of the Unit
Your fifth grader will learn that mathematicians have positive attitudes, respect others, and have a growth mindset for problem solving. Mathematics involves meaningful talk about strategies and students explaining their thinking. Teachers will establish expectations for math talk and help students create a "math mindset," a belief that they can do math. They will learn to take risks when problem solving and learn to persevere even when the problems they encounter are new to them. Students will learn that a math community values mistakes and struggles as learning opportunities. Activities in this unit of study will build a foundation for the entire year.

Building on Past Mathematics
In previous years, students conducted surveys that yielded numerical or categorical data and represented that data in a frequency table, scaled bar graph, scaled picture graph, and/or line plot. They interpreted the data, answered questions about it, and reported conclusions.

Strategies that Students Will Learn
Students will work together to create survey questions, analyze the data, and report results. Students will collect data by asking questions that yield data that change over time (ex: rainfall over a period of time). They will make and interpret a representation of data using a line graph. Through these surveys, students will get to know one another, work collaboratively, and begin to build a mathematical community that supports a growth mindset.

Students will explore this idea of a growth mindset and apply it throughout all units this year in mathematics. They will discuss how to persevere when they encounter new and difficult tasks and believe that they can do well in math. They will explore how math problems can be solved with many different approaches and view mistakes as valuable parts of the learning process.

Ideas for Home Support
Encourage your child to share situations where they apply their growth mindset to help them be successful. Talk with them about situations where you as an adult apply your own growth mindset:

- Persevering while learning a new role at your job
- Studying to learn an unfamiliar procedure (changing the oil in your car)
- Admitting failure and consciously deciding to press on and try again

Thank you for serving as partners in your child's success as a mathematician!