Fifth Grade

Fifth grade is a milestone and a pivot point for students in mathematics. The classroom focus on fractions, addition, subtraction, division, and multiplication from the previous years will develop into a more formal study of algebra in middle school. To be ready for algebra, students must have an understanding of fractional arithmetic, in part because even simple *equations* cannot be solved without fractions. Because of this, whole-number arithmetic comes mostly to a close in 5th grade, while multiplying and dividing fractions becomes a major focus.

Skills Your Child Will Be Working On

- Adding and subtracting fractions with unlike *denominators* (e.g., 2 1⁄4 – 1 1⁄3), and solving word problems of this kind
- Multiplying fractions; dividing fractions in simple cases; and solving related word problems
- Using parentheses, brackets, or braces in numerical expressions
- Analyzing mathematical patterns and relationships
- Graphing points in the coordinate plane (two dimensions) to solve problems

- Generalizing the place-value system to include decimals, and calculating with decimals to the hundredths place (two places after the decimal)
- Multiplying whole numbers quickly and accurately, for example 1,638 × 753, and dividing whole numbers in simple cases, such as dividing 6,971 by 63
- Expanding, combining, and reducing sentences to improve meaning, interest, and style of writing
- Understanding the concept of volume, and solving word problems that involve volume

Learning Activity to Use at Home

Working with ratios is something that we do on a regular basis in our everyday lives which probably goes unnoticed. In this activity, we are going to do a little experiment using ratios to determine "What is the best ratio of sugar to lemon juice for a great glass of lemonade."

Activity: Lemonade Anyone?

What You Do:
Together you will be making three glasses of lemonade to perform a taste test to see which is best or to determine how change the mixture to make it even better. Create a chart to track your mixtures similar to the one provide here. Label each mixture you make so that you can perform the taste test.

1. Using a measuring cup, measure one cup of water for each of the three drinking glasses.
2. Mixing the three different ratios

> Mixture A – Add 3 table spoons of sugar and 1 table spoon of lemon juice. (3 to 1 ratio)
> Mixture B – Add 3 table spoons of sugar and 2 table spoon of lemon juice. (3 to 2 ratio)
> Mixture C – Add 3 table spoons of sugar and 3 table spoons of lemon juice. (3 to 3 or 1 to 1 ratio)

3. Mix the three drinks and perform the taste test together. Record your response to how does it taste on the chart (e.g. too sweet, too sour, good, bad, etc.)

If none of the three mixes are to your liking, what do you need to do to make it better? Do you need to increase or decrease the amount of lemon used? Does it need more sugar? How does this change the ratio of sugar to lemon juice for your drink? Once you have found the perfect mixture, pour it over ice and enjoy a refreshing drink.

Teacher and Parent Conferencing - Topics for ongoing conversations throughout the school year with your child's teacher.

When you talk to the teacher, do not worry about covering everything. Instead, keep the conversation focused on the most important topics. In fifth grade, these include:

- Is your child on track with multiplication and division of fractions and related word problems?
- Does your child understand the concept of volume?
- Is your child using numerical *expressions* to solve word problems?

Ask to see a sample of your child's work. Ask the teacher questions such as: Is this piece of work satisfactory? How could it be better? Is my child on track? How can I help my child improve or excel in this area? If my child needs extra support or wants to learn more about a subject, are there resources to help his or her learning outside the classroom?