LOUISIANA DEPARTMENT OF EDUCATION

Teaching and Learning

Family Roadmap to Math Success in Louisiana

Grade 3 Overview

In grade 3, students develop a strong foundation in multiplication, division, fractions, and measurement. They learn the meaning of multiplication and division using arrays, equal groups, and number lines, and begin solving one- and two-step word problems. Students build their fraction understanding by representing fractions on number lines and using models to show unit fractions and fractions as parts of a whole. They also extend place-value skills to read, write, compare, and round numbers, and they learn to measure area by counting unit squares or using arrays. These skills prepare students for the multi-digit operations and equivalent fraction work they will encounter in Grade 4.

By the end of the grade, your child will be able to:

- Know all products of two one-digit numbers from memory.
- Know all quotients of numbers within 100 by memory.
- Fluently add and subtract within 1,000.
- Compare numbers up to 100,000, identifying greater than, less than, or equal to.
- Estimate and round whole numbers to the nearest 10 and 100.
- Identify equivalent fractions with limited denominators.

How can families help at home?

- Create simple division stories using real objects, such as sharing 12 crackers among 3 people, to help your child understand equal groups and fair sharing.
- Use coins, buttons, or other small objects to build an array (e.g., 3 rows of 4. Have your child state the multiplication fact out loud. Repeat this with two one-digit numbers.
- Use number lines and real-life contexts (money, measuring cups, clocks) to help your child represent and compare fractions.
- Have your child round numbers to the nearest 10 or 100 in daily life (like rounding prices or distances) and explain why their rounded number makes sense.
- Practice equivalent fractions by giving your child one of the following fractions and have them identify a fraction that is equivalent to $\frac{1}{2}$; $\frac{3}{4}$, $\frac{4}{6}$; $\frac{4}{8}$ or additional fractions with the denominators of 2, 3, 4, 6, and 8.
- Estimate numbers to the nearest 10 and 100 using prices in the grocery store or advertisements.

Building reasoning and problem-solving through word problems

Working through word problems helps students develop both their mathematical vocabulary and their reasoning abilities. Word problems support critical thinking, improve problem-solving strategies, and help students apply math concepts to real-world situations. Example word problems that grade 3 students might work on:

- Liam has 4 bags of marbles. Each bag has 7 marbles. How many marbles does Liam have altogether? Show or explain how you know.
- Ava has $\frac{2}{4}$ of a granola bar, and Noah has $\frac{3}{4}$ of a granola bar. Who has more? Use a number line or fraction model to show your thinking.
- Maria measures the time from the start of her TV show to the end of the episode. It starts at 5:12 p.m. and ends at 5:45 p.m. How many minutes long is the episode?
- A teacher puts 20 markers into 4 equal groups. Tyler says there are 4 markers in each group. Explain why Tyler's answer is not correct. Show how many markers are in each group and explain your thinking.
- A class is collecting markers. On Monday, they collect 18 markers. On Tuesday, they collected 27 markers. They use 15 of the markers to make supply boxes and divide the rest equally into 3 groups. How many markers go in each group? Show or explain all your work.

Family Engagement Tips

- Talk positively about math and encourage your child to maintain a growth mindset.
- Encourage your child to share/show you a different way to solve a math problem than you are familiar with and explain the reasoning for their approach.
- Celebrate mistakes as learning opportunities. Remind your child that making mistakes is part of learning and praise their efforts.
- Stay in touch with your child's teacher to learn what your child is learning and how to support it at home.
- Create a learning space for your child with supplies such as paper, pencils, rulers, calculators, and age-appropriate math manipulatives.

How does grade 3 math build on grade 2

Grade 3 math builds on Grade 2 by expanding students' understanding of addition and subtraction into multiplication and division, using equal groups, arrays, and number lines. Students move from simple fraction ideas, like halves and thirds, to representing fractions on number lines and comparing them. They also extend their place value knowledge from hundreds to thousands and begin solving more complex problems involving time, measurement, and area. These foundations prepare them for multi-digit operations and deeper fraction work in Grade 4.

Math Conversations

Communicate with your child about math using open-ended questions:

- What strategy did you use to solve the problem?
- Why do you think your answer makes sense?
- If your answer was wrong, how could you check your work?
- How did you solve that problem?

Online Resources

- Family Math Resources
- Family Literacy Resources
- School System Parent and Family Engagement Resources