

# Family Guide for Student SUCCESS

## 4th Grade MATH



### FAMILIES + SCHOOLS = STUDENT SUCCESS

Parents and family are a child's first teachers in life and have valuable insights into the needs, strengths, and interests of their child. The collaboration of caregivers and educators is vital in guiding each child toward success. The Family Guide for Student Success outlines what your child should learn in 4th grade. You can encourage your child's academic growth by reinforcing classroom activities at home. The Family Guide for Student Success outlines the critical content that all students should know and be able to do at the end of 4th grade. The achievement of the expectations will help your child meet the assessment standards established by our state. It is only through your support and active participation in your child's education that we form a partnership for success for all the children in Alabama.

### WHY ARE STANDARDS IMPORTANT?

- They help ensure that all students, no matter where they live, are prepared for success in college and the workforce.
- Standards provide a clear roadmap of learning for teachers, parents, and students.
- Having clearly defined goals helps families and teachers work together to ensure that students succeed.
- They also will help your child develop critical thinking skills that will prepare him or her for college and career.

## 4TH GRADE CONTENT PRIORITIES

This guide provides an overview of what your child will learn by the end of 4th grade in mathematics. If your child is meeting the expectations outlined in these standards, he or she will be well prepared for 5th grade. In Grade 4, instructional time should focus on three essential areas, all of which have equal importance:



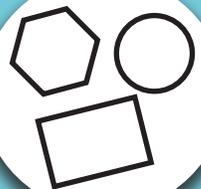
### MULTIPLICATION & DIVISION

Your child can build on strategies and concepts to multiply and divide multi-digit whole numbers.



### FRACTIONS

Your child can find equivalent fractions, add & subtract fractions, and multiply fractions with a whole number.



### SHAPES

Your child can analyze and classify shapes based on properties like parallel lines, side lengths, and angles.

# MATH @ HOME

Have you ever heard this phrase from your child before about math, "When will I ever use this?" The more they can make a connection between math & the real world, the more they will value it. Below you will find a few ideas to showcase how your child can relate the 4th grade math concepts he/she is learning at school and apply them at home in everyday situations.

## Multiplication & Division

- Look for items that are packaged or arranged in rectangular arrays (things arranged in columns & rows). For example, when you go through the drive through & buy 10 dozen doughnuts, ask your child "How many doughnuts did we order?"
- If your family is having a graduation party and needs 96 sodas for your guests, how many 6 packs of sodas will you need to buy at the store?

## Fractions

- Take advantage of any natural opportunities to use fractions as they arise. For example, your family orders 2 large pizzas for dinner. One of the pizzas is cut into fourths and the other is cut into eighths. Ask your child, "Would you rather eat a  $\frac{1}{4}$  piece or 2 of the one-eighth pieces?" Do not forget to ask them what their reasoning is for their answer.
- Bake brownies with your child for his/her friends and triple the recipe. If the recipe calls for  $\frac{1}{4}$  of a cup of oil, ask your child, "How much oil will we need if we are going to triple the recipe?"

## Shapes

- Look for examples of triangles and quadrilaterals (closed shapes with 4 straight sides) with your child. For example, when you are in the car or on a walk, your child can point out the triangles or quadrilaterals that he or she sees on signs, buildings, shop windows, and so on.
- There are many opportunities to notice, name, and discuss symmetry. Look for objects that are symmetrical around your home. When they identify a symmetrical object, be sure to ask, "What makes it symmetrical?"
- Have your child fold a leaf in half to see if both sides are the same. Then ask them, "Can you fold it in half again a different way?"

## WHAT IS AMSTI?

The Alabama Math, Science, and Technology Initiative, commonly referred to as AMSTI, is the Alabama Department of Education's initiative to improve STEM teaching & learning statewide. Its mission is to support Alabama educators and students in learning STEM by doing STEM. Check us out by scanning the QR Code.



“Education is the foundation upon which we build our future.”  
-Christine Gregoire

## HOMEWORK HELP



### AMSTI

Quick links for Family Resources to do math at home

[www.amsti.org/35-math-student-family](http://www.amsti.org/35-math-student-family)



### Khan Academy

Instructional Math Videos with Interactive Guided Practice

[www.khanacademy.com](http://www.khanacademy.com)



### Math Help!

Instructional Math Videos with Interactive Guided Practice & Self Assessment

[www.mathhelp.com](http://www.mathhelp.com)



### WolframAlpha

A unique engine for providing mathematical knowledge & generate reports

[www.wolframalpha.com](http://www.wolframalpha.com)



### PBS Learning Media

Direct access to videos and interactive mathematics

[www.pbslearningmedia.org/subjects/mathematics](http://www.pbslearningmedia.org/subjects/mathematics)