



# Family Resource Guide



## FOURTH GRADE







# Welcome to Fourth Grade!

## Purpose of the Guide

Students in Charlotte-Mecklenburg Schools follow the state of North Carolina's expectations for what every student will know and be able to do by the end of their current grade level. This guide is designed to help you support your student by understanding those expectations, provide everyday activities to reinforce their learning at home and partner with their teachers throughout the school year.

## This guide includes...



### Key Skills for Reading and Math

Understand the most important things your child should know and be able to do by the end of the school year.



### Questions to Ask Your Child

Engage in conversations with your child using these suggested reading and math questions.



### Topics to Discuss with the Teacher

Find sample questions and topics you might want to talk about with the teacher related to reading and math skills.



### Learning Activities

Explore some easy ways you can support your child's learning important reading and math concepts and skills.



### Words to Know

Learn some important words and acronyms used at school to "speak the same language".



### Helpful Resources to Practice Skills at Home

Click the link to access a collection of reading and math resources aligned to your child's grade level.



# LITERACY

Students will enhance their reading and writing abilities. They will practice writing sentences and paragraphs with proper spelling, grammar, and punctuation. Reading fluently, they aim for 90-140 words per minute with expression. They'll learn to ask and answer questions independently, use evidence to support ideas, and understand unknown words using context or tools like dictionaries.



## Key Skills

### Reading and Writing

- Write sentences and paragraphs about what they learn, with accurate spelling, grammar, and punctuation.
- Read 4th-grade texts fluently, around 90-140 words per minute, with expression.

### Learning about the World through Text

- Discuss stories and texts independently, providing evidence to support ideas and make inferences.
- Determine word meanings in context, including synonyms, antonyms, and figurative language.
- Use words and phrases to link opinions and reasons, enhancing coherence in writing.



## Questions to Ask Your Child

- What is the best summary of the story?
- Why do you think the author wrote this text?



## Topics to Discuss with the Teacher

- What are my child's strengths, and how are they utilized in teaching?
- How are texts selected? Will my child encounter characters and topics that reflect their background and identity?
- What topics are covered through reading? What should my child understand, write, and discuss after reading? (e.g., history, science)
- Is my child reading Grade 4 texts fluently?



## Learning Activities

- Turn on the closed captioning while watching TV to allow your child to read along with the dialogue.
- Encourage your child each day to choose a book they want to read on their own. Reading several of books over time is more important than the type of text. Let your child pick based on their interests and what makes them excited to read.
- Have “book talk” conversations. Ask your child to share the important ideas in their own words and show you what part of the text provided this information.
- Pick a topic to learn about together. Read books, research online, do things together. You can help your child build knowledge and develop a love of learning.



## MATH

Fourth graders solidify their place value understanding of whole numbers up to and including 100,000. They also learn to use the standard algorithm for addition and subtraction. The multiplication and division work from 3rd grade is extended to fourth grade as students operate with larger numbers, solve two-step problems, and interpret remainders. Fourth graders deeply study fractions through the use of models in order to generate equivalent fractions, compare fractions, and add/subtract fractions using the same denominators. This includes developing understanding of representing fractions in various forms (improper fractions and mixed numbers can both mean the same amount). Fourth graders also develop a deep understanding of angle measurement as they explore tools used to measure angles, vocabulary used to describe angles (including inside polygons), and solve problems.



## Key Skills

- Represent and solve problems involving multiplicative and additive comparisons.
- Estimate, represent, and solve two-step word problems involving addition, subtraction, multiplication, and division with whole numbers, including interpreting remainders.
- Work with factors and multiples up to and including 1-50. Determine if a number 1-50 is prime or composite.
- Read, write, and compare multi-digit whole numbers up to and including 100,000.
- Add and subtract multi-digit whole numbers up to and including 100,000 using the standard algorithm with place value understanding.
- Multiply a whole number up to three digits by a one-digit whole number, and multiply up to two two-digit numbers using a variety of strategies.
- Divide whole numbers up to three-digits by one-digit divisors using a variety of strategies in order to determine the answer, including problems with remainders.

## Key Skills continued

- Use models (pictures) and number lines to explain why a fraction is equivalent to another fraction (denominators of 2, 3, 4, 5, 6, 8, 10, 12, and 100).
- Compare two fractions with different numerators and different denominators, using the denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100 and using  $>$ ,  $<$ , and  $=$  symbols to record the comparisons.
- Solve problems involving addition and subtraction of fractions and mixed numbers with the like denominators of 2, 3, 4, 5, 6, 8, 10, 12, and 100 using models.
- Model, solve, and explain strategies for solving problems involving multiplying whole numbers by any fractions less than 1.
- Solve word problems involving multiplication of a fraction by a whole number.
- Use models to represent, write, and combine fractions with the denominators of 10 and 100, making connections between fractions and decimals.
- Use models (pictures) and number lines to compare two decimals to the hundredths and use  $>$ ,  $<$ , and  $=$  symbols to record the comparisons.
- Solve problems involving metric measurement, time, area, and perimeter.
- Measure angles in whole-number degrees using a protractor and solve addition and subtraction problems to find unknown angles on a diagram and in real world problems.
- Draw two-dimensional geometric objects and identify them in two-dimensional figures.
- Sort quadrilaterals and triangles based on parallelism, perpendicularity, side lengths, and angle types.
- Identify and draw lines of symmetry in a two-dimensional figure.



## Questions to Ask Your Child

### Whole Number Work

- How can you represent the story problem with a bar diagram? With an equation? How many steps are needed to solve this story problem?
- For division - How can you use the area model or partial quotients to help you solve the problem? What will you need to do with a remainder if you have one? How do you know?
- For addition/subtraction - How can you use the standard algorithm for addition or subtraction to help you solve the problem?
- For multiplication - How can you use the area model or partial products to help you solve the problem?

### Fraction Work

- For equivalence/comparing - How can a number line or area model (like a rectangle, circle, or grid paper) help you represent the fractions you are working with? How might a picture help you find equivalent fractions or compare fractions?
- For addition/subtraction - How could you use the number lines or area models to help you add and/or subtract fractions?

## Questions to Ask Your Child continued

- For multiplication - How could you use the number lines or area models to help you? How can you relate this to whole number multiplication?
- For 10ths and 100ths - If you were to show this number on a 10x10 grid, what would it look like? How many tenths? How many hundredths? How would you write the decimal number on a place value chart?

## For Measurement, Geometry, and Data

- For measurement - How can you use place value understanding and multiplication to help you solve this problem?
- For geometry - is the angle you are measuring acute, obtuse, right, or straight?



## Topics to Discuss with the Teacher

- Why is the standard algorithm used only in addition and subtraction in 4th grade? What should my child do for multiplication and division?
- Ask about multiplication and division fluency game ideas you can play at home.
- How can I help my students represent fractions on paper?
- What problem types will my student need to be familiar with?
- How can I support my child to retell and represent one-step and multi-step word problems?



## Learning Activities

- Double It, Triple It, Quadruple it!**  
Student says a fraction. You yell double, triple, or quadruple. Student tries to mentally compute the fraction. Then swap rolls.  
Example: Student: "one half  $\frac{1}{2}$ " You: "Triple it!" Student: " $\frac{3}{2}$ , one and a half, 1 and  $\frac{1}{2}$ " (possible answers)
- Would you Rather?**  
You ask student would they rather have  $\frac{1}{2}$  of a candy bar or  $\frac{3}{8}$ ?  
Have the student answer then if needed, the student can draw, write, cut up an object (think sandwich, chocolate, gummy worm) to see that  $\frac{1}{2}$  is larger. Switch up the questions for something they may want more or less of and discuss the fractions.  
Hint: students can work across like denominators listed here: 2, 4, 8; 3, 6, 12; 5, 10  
Example: Student: "one half  $\frac{1}{2}$ " You: "Triple it!" Student: " $\frac{3}{2}$ , one and a half, 1 and  $\frac{1}{2}$ " (possible answers)
- Fraction War**  
Have the student use scratch paper or a whiteboard. Partners each roll two dice to make a fraction. The smaller of the roll should go on top/be the numerator. If the person rolls doubles (same number twice, like two fives), that person automatically wins a point for that round. Once dice are rolled, partners work together to see which fraction is larger. The larger fraction wins. Students can draw fraction number lines, fraction bars, or other pictures to help them make the comparison. (Variation: smaller number wins)



### Words to Know

- Area Model** - model representing the size of a two-dimensional region as measured with squares with no gaps or overlapping.
- Decimal grid** - a rectangular grid separated into tenths, hundredths, and/or thousandths and used to represent a number less than one.
- Denominator** - the quantity referring to the number of pieces to make one and located on the bottom of the fraction.
- Equivalent Fraction** - two fractions with different numerators and denominators, but having the same value or measure.
- Improper Fraction** - fraction in which there are enough parts to make one whole or more than one whole.
- Length Model** - number lines used to represent addition, subtraction, multiplication, and/or division.
- Mixed Number** - whole number and fraction combined to represent a quantity.
- Numerator** - the quantity being referred to of a given size piece and located on the top of the fraction.
- Standard Form/Base Ten Numeral** - numeral recorded using only digits 0 to 9 and including a decimal as needed; the location of each digit in the number (place) impacts the value of the digit.



### Helpful Resources to Practice Skills at Home for Fourth Grade

- <http://bit.ly/CMSHomeSchoolConnect>