

CORE CONCEPT

The Harry Lee Cole School has aligned its Mathematics Curriculum with the Core Concept of the Massachusetts Mathematics Curriculum Framework: *Achieving Mathematical Power* through problem solving, communication, reasoning and connections.

What is the Math Trailblazers Curriculum?

Math Trailblazers is a comprehensive curriculum that maintains a balance between the development of math concepts and basic skills. Students apply basic math skills while working on meaningful and challenging tasks. Math Trailblazers is aligned with the Massachusetts Frameworks and teaches mastery of concepts through a spiral effect over the course of a student's elementary years. The concepts of: estimation, geometry, measurement, patterns and relationships, problem solving, algebra concepts, and statistics and probability are investigated at an appropriate level in each grade.

Math Trailblazers will prepare students to:

- know and apply basic math skills
- solve problems using many different strategies
- be independent thinkers
- effectively communicate solutions to problems and methods for solving them
- work alone and in groups to solve problems



HARRY LEE COLE
ELEMENTARY SCHOOL
(Grades: K-2)

(978) 887-2856

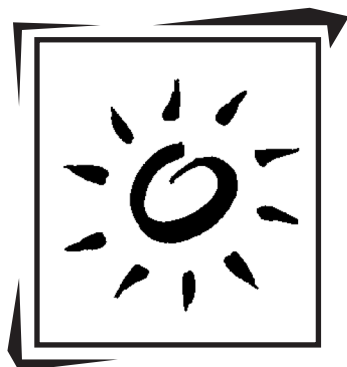
BOXFORD
MASSACHUSETTS

Mathematics



Cole School
FAQs

FREQUENTLY
ASKED
QUESTIONS
SERIES



The Harry Lee Cole School in collaboration with the Tri-Town Elementary School Union has developed the following philosophy:

The overall objective of our mathematics instruction is to develop in every student an understanding of mathematics that will last a lifetime and grow as new understandings are developed. In our program, students are encouraged and empowered to explore, reason logically, draw inferences, and employ a variety of methods to enable them to become mathematically literate and capable of developing their math understanding and powers.

GUIDING PRINCIPLES OF MATHEMATICS EDUCATION

1. Students explore mathematical ideas in ways that maintain their enjoyment of and curiosity about mathematics, help them develop depth of understanding, and reflect real-world applications.
2. **All** students have access to high-quality mathematics programs.
3. Mathematics learning is a **lifelong process** that begins and continues in the home and extends to school and community settings.
4. Mathematics instruction both **connects** with other disciplines and moves toward **integration** of mathematical domains.
5. **Cooperative teaching** in teams and groups enhances mathematical learning, helps students communicate effectively, and develops social and mathematical skills.
6. **Technology** is successfully integrated into mathematics in the classroom and the computer lab.
7. Mathematics **assessment** is a multifaceted tool that monitors student performance, improves instruction, enhances learning and encourages student self-reflection.

CONTENTS IN MATHEMATICS

Students will use Problem Solving, Communicating, Reasoning, and Connecting to explore, develop, investigate and know:

- **Number Sense...**
Concepts of Whole Number Operation, Fractions and Decimals, Estimation, Whole Number Computation, Number Systems and Number Theory, Discrete Mathematics, and Structure.
- **Patterns, Relations and Functions...**
Relationships, Algebra, Trigonometry, and Conceptual Underpinnings of Calculus.
- **Geometry and Measurements...**
Spatial Sense and Geometry from an Algebraic Perspective.
- **Statistics and Probability...**
Gathering and Graphing Data, Chance, Simulations, and Theoretical Probability.