

LINCOLN PUBLIC SCHOOLS
Mathematics Learning Expectations: Grade 5

**Massachusetts
Standards**

The 2011 Massachusetts Curriculum Framework for Mathematics incorporates the common core standards and a select number of additional standards unique to Massachusetts.

**Critical Areas for
Instructional Focus:**

- Fractions
- Division
- Volume

*See 2011
Massachusetts
Curriculum
Frameworks for
Mathematics:
Grade 5 Introduction
for more detail.*

Content Domains and Key Outcomes

Operations and Algebraic Thinking

- Write and interpret numerical expressions
- Analyze patterns and relationships

Number and Operations in Base 10

- Recognize and explain the structure of the base ten number system
- Read, write, compare and round decimals up to the thousandths place
- Perform operations with multi-digit whole numbers and with decimals to hundredths
- Use positive and negative integers to describe real-life situations

Number and Operations Fractions

- Use equivalent fractions as a strategy to add and subtract fractions
- Multiply and divide fractions

Measurement and Data

- Convert like measurement units within a given measurement system
- Represent and interpret data using tables and graphs
- Recognize volume as an attribute of solid figures; relate volume to multiplication and addition

Geometry

- Graph points on the coordinate plane to solve real-world and mathematical problems
- Classify two-dimensional figures into categories based on their properties

*See 2011 Massachusetts Curriculum Frameworks for Mathematics: Grade 5
for more detail.*

Standards for Mathematical Practice

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.

5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

*See 2011 Massachusetts Curriculum Frameworks for Mathematics:
pp.15-17 for more detail on the use of these standards in all domains.*