

Waukegan Community Unit School District #60 Lincoln Center for Educational Services Division of Teaching, Learning, and Professional Practices

# The Core Principals: Standards for Mathematical Practice Grade Level: Grade 3

The goal of the Standards for Mathematical Practice is to complement the Common Core State Standards by working to engage students in the subject matter, ensuring that they grow in maturity and expertise from Pre-Kindergarten through High School.

According to the Common Core State Standards, at the completion of their 3rd Grade year students should be able to:

## **Operations and Algebraic Thinking**

- Represent and solve problems involving multiplication and division
- Understand properties of multiplication and the relationship between multiplication and division
- Multiply and divide within 100
- Solve problems involving the four operations, and identify and explain patterns in arithmetic

### **Number and Operations in Base Ten**

• Use place value understanding and properties of operations to perform multi-digit arithmetic

# **Number and Operations - Fractions**

Develop understanding of fractions as numbers

#### **Measurement and Data**

- Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects
- Represent and interpret data
- Geometric measurement: understand concepts of are and relate area to multiplication and to addition
- Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures

#### Geometry

Reason with shapes and their attributes

### **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 an express regularity in repeated reasoning

Adapted from the Massachusetts Curriculum Framework for Mathematics, March 2011