

In an Elementary Mathematics Classroom:

- Students explore problems in depth.
- Students solve problems using multiple strategies.
- Students choose from a variety of concrete materials and appropriate technology, including calculators, as a natural part of their everyday mathematical work.
- Students express their mathematical thinking through drawing, writing, and talking.
- Students work in a variety of groupings - - individually, in pairs, in small groups, and as a whole class.

Mathematics Philosophy

Mathematics is a universal language that allows us to make sense of fundamental principles, thoughts, ideas, patterns, problems, and phenomena surrounding us and to communicate our understanding and resolutions of these concepts to others. In order to develop and enrich student understanding of mathematics, District 203 will provide a comprehensive and cohesive mathematics curriculum in which mathematical topics are explored and analyzed with significant depth.

The environment in every mathematics classroom will provide the following: active and responsible engagement in the learning of mathematics. An atmosphere of risk taking, in-depth investigation and analysis of intriguing situations and problems, ample opportunities for reflections and interaction, and connections to everyday life.

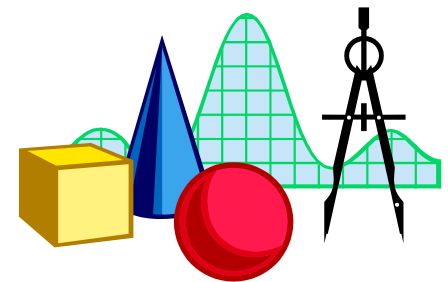
Instruction in every mathematics classroom will provide a rich variety of cognitively appropriate strategies and resources so that all students have opportunities to experience both success and challenge.

As a result of curriculum, environment and instruction, District 203 students will experience the utility, power and beauty of mathematics as they become proficient in using and applying fundamental mathematical concepts and skills including: computation, critical thinking, reasoning, and resourceful problem solving.

NAPERVILLE COMMUNITY UNIT SCHOOL DISTRICT 203



FIFTH GRADE TRIMESTER TWO MATHEMATICS CURRICULUM



Web Site: www.naperville203.org

Property of Naperville Community
Unit School District 203
March, 2004

AREAS OF FOCUS

Number and Operation

- Understand the pattern of the base ten number system as it relates to decimals
- Master addition and subtraction of decimals
- Demonstrate an understanding of comparing fractions to decimals

Algebra

- Understand algebraic reasoning

RESOURCES

Patterns of Change

Investigations in Number, Data, and Space

Navigations through Algebra in Grades 3-5 Algebra

The Hands –On Equations Learning System Algebra

Bits and Pieces I

Understanding Rational Numbers

MATERIALS

- Base Ten Blocks
- Fraction Bars
- Fraction Circles
- Hands-On Equations - Algebra Kit
- Tangrams

Number and Operation in the Fifth Grade Classroom Trimester Two

Using manipulatives students will demonstrate an understanding of decimals as they relate to the base ten number system and fractions. Students will compare and order decimals as well as identify digits in the tenth, hundredths, and thousandths place. Next, students will round decimals to the nearest whole number, tenth, or hundredth. After this knowledge is attained, students will add and subtract decimal numbers through the thousandths. To further demonstrate their understanding of number and operation, students will recognize the equivalence of common fractions, decimals, and percents.

As students study Algebraic Thinking, they will be able to use variables to represent unknown quantities in whole number sentences and to describe general patterns. They will identify and describe relationships between quantities where one quantity increases as the other decreases, or vice versa.

Students will continue to use words or symbols to describe numeric and geometric patterns and analyze and extend numeric and geometric patterns.

HELP AT HOME

Parents can help their children.

- Talk with your child about the ways you use fraction, decimals, and percents.
- Point out examples of how fractions, decimals, and percents are used in newspapers, magazines, radio, and television.
- To help your child understand a real-life application of percents, look at sales' flyers and determine how much you will save by buying the sale items.
- Have your child estimate how many minutes or hours he/she spends watching TV each evening, weekend, or during an entire week. Write the fraction that expresses the amount of estimated time and then convert to a decimal.
- Compare prices and quantities for different brands of items in the grocery store. Which costs less per unit of measure?
- Use a map to estimate the mileage for a trip. Estimate the cost of fuel needed to complete the trip.
- Name four fractions and their decimal equivalent. Next name four decimals and their fraction equivalent.