

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 - - as a whole class, individually, in pairs, and in small groups.

Mathematics Philosophy

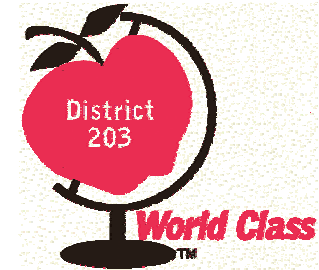
Mathematics is a universal language that allows us to make sense of fundamental principles, thoughts, ideas, patterns, problems, and phenomena surrounding us and to communicate our understanding and resolutions of these concepts to others. In order to develop and enrich student understanding of mathematics, 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.

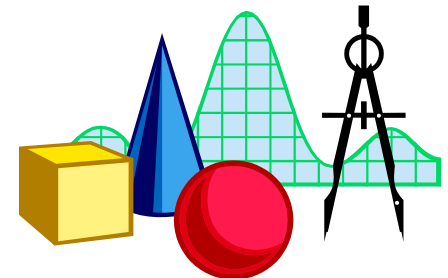
Instruction in every mathematics classroom will provide a rich variety of cognitively appropriate strategies and resources so that all students have opportunities to experience both success and challenge.

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



FIRST GRADE TRIMESTER TWO MATHEMATICS CURRICULUM



Web Site: www.naperville203.org

Property of Naperville Community
Unit School District 203
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AREAS OF FOCUS

Number and Operation

- Developing strategies for solving combining and separating story problems

Geometry

- Observing, describing, visualizing, and comparing 2-D and 3-D shapes and their characteristics
- Constructing and representing 2-D and 3-D shapes

RESOURCES

Quilt Squares and Block Towns
2-D and 3-D Geometry

The Problem Solver 1
Problem Solving

How Deep is the Water?
Problem Solving

MATERIALS

- Pattern Blocks
- Geometric models
- Paper, pencils, crayons, and markers

CONCEPTS AND CONTENT

Trimester Two

Geometry in the First Grade Classroom

When students first learn to identify shapes, they usually depend on an overall picture of what different shapes look like. A square is a square because it has a “squarish” look. Students can identify something as a square before they can say exactly why it is a square. They may not yet be able to articulate that a square has four sides, that the four sides are equal, and that the shape has a particular kind of angle, but they have an overall sense of what looks square.

As students use 2-D and 3-D shapes during this trimester, they engage in different activities that require them to begin to take a closer look at shapes. What makes a square a square? What makes a cube a cube? How are squares different from triangles? How are cubes different from triangular prisms?

During this trimester, all students will learn more about the geometric shapes, their relationships, and their properties

HELP AT HOME

Parents can help their children.

- Create combining and separating story problems for your child to solve. For example, “I made 6 hamburgers for dinner and 4 were eaten. How many are left?” Encourage your child to express his/her answers in pictures, numbers, and/or words.
- Look for patterns or designs made from different shapes. Can you find floor patterns or wallpaper patterns made from squares, rectangles, triangles, circles, hexagons, and other shapes?
- Take walks with your child to look at the shapes of buildings in your neighborhood. On longer trips, talk about the shapes in the buildings you see.
- Look at boxes you have at home. What shapes are they? How many sides do they have?
- Find books about shapes in the children’s section of your public library. Read them with your child.
- If you enjoy drawing, spend some time with your child drawing shapes you see around your home. Create quilt patterns with repeating shapes.