

## 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.

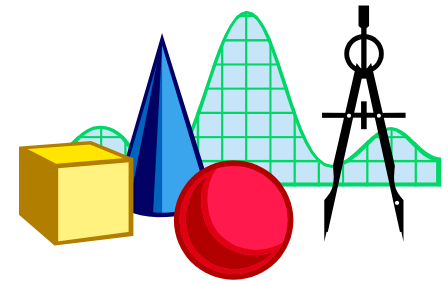
Instruction in every mathematics classroom will provide a rich variety of cognitively appropriate strategies and resources so that all students have opportunities to experience both success and challenge.

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 THREE MATHEMATICS CURRICULUM



Web Site: [www.naperville203.org](http://www.naperville203.org)

Property of Naperville Community  
Unit School District 203  
March, 2004

## AREAS OF FOCUS

### Number and Operation

- Number sense
  - Mastery of basic addition and subtraction facts
  - Creating story problems
    - Combining situations
    - Separating situations
  - Problem Solving
    - Utilizing appropriate problem solving strategies

## RESOURCES

### Number Games and Story Problems

Number Sense

#### The Problem Solver

Problem Solving

#### How Deep Is the Water?

Problem Solving

### *Mastering Basic Addition and Subtraction Facts*

#### MATERIALS

- Cubes
- Hundred chart
- Number cards (similar to playing cards)
- Counters
- Pattern blocks
- Calculators
- Crayons and markers
- Paper

## CONCEPTS AND CONTENT

### Trimester Three

#### Number Sense in the First Grade Classroom

Students will deepen their understanding of number in several ways by:

- finding combinations of 10, 20, and other numbers
- counting and combining different kinds of collections.

Students will use their growing understanding of number to solve a variety of addition and subtraction story problems. They will:

- learn to recognize and interpret addition and subtraction situations
- choose and carry out strategies for solving problems
- record their solution strategies clearly.

Students will solve problems by:

- modeling with objects or pictures
- counting
- using what they know about numbers and number relationships.

All of these approaches are encouraged.

## HELP AT HOME

Parents can help their children.

- Your child will bring home some of the math games we are playing with number cards, dot cards, coins, and counters. Take time to learn and play these games with your child.
- Look for opportunities to count large groups of objects. You might ask your child to count a handful of pennies, or marbles, or acorns. If several people take handfuls, your child can count each handful and compare them to find which is larger.
- Look for addition and subtraction situations at home (numbers under 25 are about right for many first graders). For example:
  - If we have 4 apples, 8 bananas, and 7 plums in the fruit bowl, how many pieces of fruit do we have?
  - If you have 20 cents, and you spend 15 cents, how much do you have left?
  - If we make 4 sandwiches for each person in the family, how many sandwiches is that?
- Roll two dice and add the numbers shown. Do this 30 times. Keep track of the results. What number comes up the most?
- Roll two dice and subtract the numbers shown. Do this 20 times. Record the results.