

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 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.

Honors Mathematics Goal

Provide an enriched and accelerated mathematics curriculum for our gifted mathematics students in grades three through twelve in a manner that encourages their life-long learning in the area of mathematics. This curriculum is consistent with the K-12 mathematics philosophy of the district.

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.

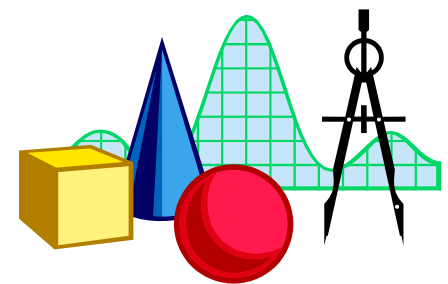
As a result of curriculum, environment and instruction, District 203 students will experience the utility, power and beauty of mathematics as they become proficient in using and applying fundamental mathematical concepts and skills including: computation, critical thinking, reasoning, and resourceful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

Property of Naperville Community Unit
School District 203

NAPERVILLE COMMUNITY UNIT SCHOOL DISTRICT 203



FOURTH GRADE TRIMESTER ONE HONORS MATHEMATICS CURRICULUM



Web Site: www.naperville203.org

AREAS OF FOCUS

Number and Operation

- Problem Solving
- Structure and patterns in the base 10 number system
- Multiples
- Factors
- Divisibility Rules
- Prime and Composite numbers

RESOURCES

Math Trailblazers 4

Math Trailblazers 5

Math Trailblazers Adventure Books

Prime Time Factors and Multiples

Problem Solver 5

MATERIALS

- Place Value chart
- Calculator
- Grid Paper
- Paper Clips
- Color Tiles
- Game Boards
- Base Ten Blocks
- Newspapers

CONCEPTS AND CONTENT IN THE HONORS FOURTH GRADE CLASSROOM Trimester One

- Students will use the four phases of problem solving (understand, plan, carry out and look back).
- Students will be able to represent a problem and its solution by making a table, chart or graph.
- Students will understand numbers from 1 to 1,000,000,000:
 - Read and write in numeral and word form
 - Understand the place value of each digit
 - Compare and order multiple numbers.
- Students will round numbers to a given place value.
- Students will demonstrate an understanding of multiples and factors through 12.
- Students will use the divisibility rules of 2, 3, 4, 5, 6, 9 and 10.
- Students will classify numbers as prime or composite according to their factors

HELP AT HOME

Parents can help their children.

- Work with your child in their acquisition of multiplication and division facts.
- Encourage your child to find and read large numbers (newspapers, magazines, almanacs, billboards).
- Have your child order the populations of different states or countries in ascending or descending order.
- Have your child draw multiple cards from a deck of cards numbered 0 to 9. Challenge them to create various numbers: largest, smallest, closest to a target number.
- Using the divisibility rules, ask your child to give you a number that uses one or more of the rules they have studied.
- Give your child two or three numbers. Have them list the multiples and factors for each number, looking for patterns and commonalities.
- Have your child create a product game similar to those used in class. Play the game when it is complete.