Grade 5 Mathematics - Course Syllabus
Connected Mathematics I
2009/2010 School Year

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TEXT:
Prentice Hall - Connected Mathematics Grade 6

DESCRIPTION:
The City Honors Middle School math program has been restructured to align with NCTM Standards, NYS Standards, and our accelerated high school program. Mathematical skills and computation improve with practice. Mathematical ideas and concepts, however, are only strengthened experientially. The Connected Mathematics program is experiential in nature and the purpose of each investigative unit is to enable students to build understanding of important concepts and ideas in number, geometry, measurement, algebra readiness, probability, and statistics.

AIM: The ovearching objective of the Connected Mathematics program is to help students develop mathematical knowledge, understanding, and skill, as well as awareness and appreciation of the connections among mathematical strands and between math and other disciplines. Its focus isto engage students in investigations that help develop concepts, skills, procedures, and ways of thinking and reasoning in each of the core concepts.

As with all subject areas, the study of mathematics will embrace the International Baccalaureate Middle Years Programme's (MYP) philosophy of learning. Investigative units will reflect appropriate MYP areas of interaction, ongoing formative assessments, and summative assessment tasks.

GOALS: At the completion of fifth grade students should be able to demonstrate working knowledge in the fifth and sixth grade mathematics core concepts including:

1. Mathematical Reasoning
2. Number and Numeration
3. Operations
4. Modeling/Representations
5. Measurement
6. Uncertainty
7. Patterns and Functions

TOPICS

TIMELINE	UNITS	GUIDING QUESTIONS	LINKS TO AREAS OF INTERACTION
September - October	Prime Time	What are the relationships among factors, multiples, divisors, and products?	ATL • Using concepts and skills • Recognizing concepts and applying skills HF • Drawing and understanding Venn diagrams
November	Bits + Pieces I	What are the relationships among fractions, decimals, and percents?	ATL • Recognizing concepts and applying skills
December	Bits + Pieces II	In what ways are fraction operations different from whole number operations?	ATL • Applying problem solving strategies
January - February	Covering + Surrounding	In what ways can we develop strategies for finding areas and perimeters of rectangular and non-rectangular shapes?	ATL • Using concepts and skills • Recognizing concepts and applying skills HF • Using measuring instruments and reading scales
March	Bits + Pieces III	Is it possible to create algorithms for decimal operations?	ATL • Using concepts and skills • Recognizing concepts and applying skills HF • Calculator use
April - May	Data About Us	What is involved in data investigation?	EN • Using school statistics CS • Presenting data to the school community ATL • Using + interpreting data
May - June	Shapes + Designs	What are the important properties of polygons, including side/angle relationships?	ATL • Recognizing concepts and applying skills • Using concepts and skills

ATL = Approaches to Learning HF = Homo Faber EN = Environment
CS = Community & Service HS = Health & Social Education

TEXTS/MATERIALS: Math texts are provided for all students. It is the responsibility of the student to be prepared for class by having sharpened pencils, notebook, and simple calculator daily.

TEACHING AND ASSESSMENT:

Math grade: Tests and quizzes – 60%
Graded classwork – 20%
Homework - 10%
Participation - 10%

Grades will be based on student performance on a variety of assessments, including short assessments, unit assessments, and group assessments. Formal assessments (quizzes and tests) will be announced three days before the assessment. Students will be expected to demonstrate working knowledge of the mathematical skill being assessed, as well as the ability to explain mathematical reasoning in written form. Some assessments will be evaluated by the MYP Rubric for knowledge and understanding, application and reasoning, reflection and evaluation, or communication. Students who are absent for a quiz or test will be expected to complete the test on the day of their return to school.

WRITING IN MATHEMATICS: Students will be expected to complete written reflections regularly. These will be asssessed using the MYP reflection rubric. Reflections are to demonstrate fluency and a proficiency in the use and understanding of mathematical terms, symbols, and concepts.

STATE ASSESSMENTS: The mandatory math state assessment will be administered in May.

TECHNOLOGY: PHSchool.com is a homework help site that is imbedded within the Connected Mathematics program. Students are free to access help from this site at any time.

COMMUNICATION: Parents should feel free to contact me with questions or concerns by e-mail or via school phone at any time. Parents can expect to receive student progress reports at the end of the first five week period. I have, in the past, offered additional math help for students during lunch. If a student needs academic support, that student should see me to arrange times for extra help.

REQUIREMENTS: All students are expected to have working knowledge of the four basic math operations, including addition and subtraction of large numbers, double digit multiplication and division, and a solid foundation of number facts. In addition, all students must be active participants in mathematics class, whether working independently, in pairs, or in small groups. Students must maintain a mathematics notebook.

ASSIGNMENTS: Students are required to complete in-class assignments and nightly homework assignments, regularly and on time. Homework that is handed in late will not be accepted. Students who are absent are expected to complete missed assignments in a timely manner.

INTERNATIONAL MYP MATH PROJECT: MYP mathematics places considerable emphasis on mathematical literacy and requires students to use the language and symbols of mathematics through a variety of media and technologies. Students should come to realize that the language of mathematics is universal. To help achieve this goal, City Honors fifth graders will be assigned a math project in the spring. This project will focus on the international nature of mathematics through the study of mathematicians. You will receive notification of the project dates and requirements at an appropriate time. Project grades will be lowered 5 points for each late day. Projects three days past due date will not be accepted.