

Frelinghuysen Middle School Grade 7 Course Synopsis

MATHEMATICS

In the grade 7 math program students will be: (1) developing understanding of and applying proportional relationships; (2) developing understanding of operations with rational numbers and working with expressions and linear equations; (3) solving problems involving scale drawings and informal geometric constructions, and working with two- and three-dimensional shapes to solve problems involving area, surface area, and volume; and (4) drawing inferences about populations based on samples. The goals of our program are: to use a problem solving approach, which emphasizes the NCTM Standards, to develop the confidence, knowledge and techniques for using math to reason and solve problems in everyday life and be able to communicate mathematically, and to help students value mathematics and its connection to all subjects.

ALGEBRA I Honors

The grade 7 algebra honors program introduces students to the concepts of algebra in a college prep program. The scope expands students mathematical knowledge through a variety of activities that include reasoning, problem solving and communication.

Students will: 1) demonstrate conceptual understanding of the properties and operations of real numbers with emphasis on ratio, rates, and proportion and numerical expressions containing exponents and radicals, 2) operate with polynomial expressions, factor polynomial expressions and use algebraic radical expressions, 3) analyze, represent and graph linear functions including those involving absolute value and recognize and use linear models, 4) solve and

graph linear equations and inequalities and use them to represent contextual situations, 5) solve systems of linear equations and model with single variable linear equations, one- or two-variable inequalities, or systems of equations, 6) demonstrate facility with estimating and verifying solutions of linear equations, making use of technology where appropriate to do so, 7) represent simple quadratic functions in multiple ways and use quadratic models, as well as solve quadratic equations, and make connections through the interpretation of linear trends in data, the comparison of data using summary statistics, probability and counting principles, and the evaluation of data-based reports in the media.

WORLD LANGUAGES

The philosophy of this 2nd year program focuses on increasing students' ability to speak, listen, and write in the target language. In addition, students' knowledge of culture and the interrelationship between language and culture is extended. The goals of the 7th grade program are: 1) to further develop oral proficiency skills in order to successfully communicate on a variety of topics in the target language; and 2) to enhance and encourage awareness and appreciation of cultural diversity.

LANGUAGE ARTS

The seventh grade language arts curriculum integrates reading and writing, encouraging students to move beyond the basic skills of reading and writing, to deal with abstract concepts and symbolism. As students are guided to appreciate the language and conventions of authors they read, they will sharpen their writing skills by composing, drafting and publishing for a variety of purposes.

Goals: to successfully complete the reading elements of this course, students will demonstrate the ability to: identify characteristics of different genre; utilize reading strategies appropriate to task; adjust reading

rate to skim, scan, and read for details; improve fluency; predict outcomes within and beyond the structure of the text; identify, summarize and evaluate elements of fiction; explain main idea with a logical sequence of ideas, details, and reactions; analyze text for purpose, tone and style; support statements and opinions with evidence from the text; enhance inference skills; and compare a variety of works by the same author. To successfully complete the writing elements of this course, students will demonstrate the ability to: use varied techniques to generate ideas for writing; develop and use varied pre-writing activities; use drafting techniques to produce a finished piece of writing; prepare final draft in a matter appropriate for the audience; focus writing to respond to an identifiable purpose; use a style and tone appropriate for the intended audience and purpose; and use correct spelling, punctuation, syntax, and word usage.

SOCIAL STUDIES

The 7th grade Social Studies curriculum is divided into six world history units: the Paleolithic and Nomadic Eras; Geography; Religion; Government; Economics; and Society. Emphasis is placed on significant events that have impacted civilizations around the world. The curriculum is designed to align with the New Jersey Core Curriculum Standards.

Goals: Students will be able to: 1) Read from a variety of primary and secondary sources (fiction and non-fiction) to acquire information, 2) Expand critical thinking skills, 3) Develop and reinforce writing skills in the content area, 4) Expand study and research skills, 5) Gain an understanding of the historical contributions that have shaped society.

SCIENCE

This course is designed to introduce the student to the basic concepts, skills and attitudes involved in science. Through a variety of independent units of study the students will be exposed to scientific methodology while completing appropriate laboratory and other hands-on activities. Emphasis will also be placed on an introduction to safety procedures in the science classroom/laboratory, an introduction to proper study skills and an initial exposure to collecting, analyzing and interpreting empirical data, as well as developing a sense of appreciation and understanding of scientific contributions from diverse cultural and ethnic backgrounds.

Goals: The student will demonstrate the ability to: 1) Work safely and cooperatively in the laboratory, 2) Use the units of the metric system, 3) Apply the scientific method to problem solving, 4) Proficiently use a compound microscope, 5) Utilize the cell theory to investigate living things, 6) Explain how living things function and react/interact with their environment, 7) Use and develop various systems of classification, 8) Recognize the relationship between function, structure and behavior of organisms.

PHYSICAL EDUCATION

Students will develop overall physical fitness and game skills and strategies in various activities. Emphasis is placed on lifelong skills.

Goals: 1) To improve the strength, speed endurance and flexibility of the student, 2) To understand the value of physical exercise, 3) To improve the social and emotional development of the student, 4) To improve the student's knowledge of skills, rules, techniques, and strategies as it pertains to specific sports, 5) To expose students to a variety of activities which will ultimately aid in their search for life time leisure activities, 6) To have fun.

HEALTH

The Health curriculum covers the following topics: Alcohol and Drug

Awareness, DARE, and the Gang Resistance Education and Training (GREAT) program.

Goals: 1) To increase a student's understanding of one's self, 2) Creating wellness by learning good habits, 3) Substance abuse prevention.

ART

Creative expression is a necessity for the healthy growth of all children. Emphasis is given on art values, sensitivity to design, and continuous process of attaining skills and striving toward individual creation and expression.

Art Connections: Emphasizes classic hands-on drawing techniques and graphic arts and uses them interchangeably.

General Art: Emphasizes drawing and the value of 3D artwork.

Visual Art: Emphasizes the fine arts and basic drawing and painting skills.

Goals: 1) To gain knowledge of the expressive media, 2) To utilize art elements and principles, 3) To utilize art media to produce artistic products, 4) To demonstrate knowledge of the critique process, 5) To enhance aesthetic awareness of art history, 6) To help students evaluate their own progress in creating artwork, 7) To engage students in understanding and appreciating the process of creating artwork in addition to their product.

COMPUTERS

Students who participate in the computer application exploratory cycle will learn how to use the computer, computer applications, and computer peripherals as academic tools in order to assist them in their daily class work. The students will apply and integrate keyboarding fundamentals, application awareness and Internet usage in cross-curricula projects.

Goals: 1) Students will be able to use correct finger reaches for alphabetic and punctuation keys, 2) Students will be able to safely and effectively search the Internet, 3) Students will be able to analyze and integrate information found on the

Internet into projects via other computer applications, 4) Students will be able to create, design, format and organize documents using presentation software, 5) Students will integrate digital media into their work using computer peripherals such as digital cameras and scanners, 6) Students will be able to input, organize and process information using a spreadsheet program.

MULTIMEDIA APPLICATIONS

Seventh grade students will apply information-literacy skills to create and publish professional documents and multimedia presentations. Students will think critically, synthesize and create new knowledge, and collaborate with peers by selecting and using a variety of online tools.

ORCHESTRA

Students will develop the skills for playing in an orchestra. Throughout the course, students will continue to develop the technical facility by way of more refined bowing and left hand technique. Students will be exposed to various styles of music from different time periods.

Goals: 1) The opportunity to perform in concert using a wide variety of orchestral literature, 2) Develop an understanding, appreciation, and love for music, 3) Communicate aesthetic responses.

CHORUS

Students will have the opportunity to grow in their enjoyment and understanding of music by singing selected vocal scores that fit the technical level and voice range of the student. The repertoire will include a variety of styles such as folk, popular, multicultural and classical music.

Goals: 1) To increase the ability of students to perform two part singing and three part harmony, 2) To offer students the opportunity to study and perform a variety of choral literature, 3) To increase the vocal range of students, 4) To reinforce vocal techniques, diction, and sight-singing

through performance, 5) To utilize technology to enhance performance, 6) To introduce student created movement to accompany vocal literature performance, 7) To prepare students for scheduled performances.

BAND

This course continues the development of musicianship techniques. Emphasis is placed on increased understanding of how the music should be performed as well as increased individual technical skill. Students will continue to be exposed to a wide variety of music styles.

Goals: 1) To offer students the opportunity to study and perform a variety of band literature, 2) To further develop and reinforce music performance techniques, 3) To prepare students for scheduled performances.

QUEST

Students who participate in the FMS Quest programs are identified, highly capable children who are given an opportunity to study topics in a wide variety of integrated and differentiated research based curricula. The focus of these programs is to develop higher level critical thinking and writing skills. Specific lessons strengthen divergent and cognitive skill development through a variety of collaborative, research, and shared inquiry approaches. Additionally, Quest students are given opportunities to participate in enriching experiences outside of the classroom at the county and state level in enriching challenges, such as those sponsored by the New Jersey Consortium for Gifted and Talented Programs.

S.T.E.M. ENRICHMENT

S.T.E.M. Enrichment is designed to reinforce and extend Science, Technology, Engineering, and Mathematics skills. By merging these major topics of study, students will have the opportunity to reinforce math and science skills by exploring topics in the areas of technology and

engineering. This course will require students to develop the skills of collaboration, communication, and critical thinking.

WORLD CULTURES

ENRICHMENT

This course will provide students with the opportunity to explore the historical roots of various modern-day cultures across the globe. The goal of this class will be for students to gain a deeper understanding and appreciation for culture differences in modern society through an inquiry-based model of instruction. The themes, concepts and student products will differ for grade 6 and grade 7.

WORLD LANGUAGE

ENRICHMENT

World Language Enrichment offers students an opportunity to explore the history, geography, art, culture, literature, music and cuisines of the countries where Spanish, French and Italian are spoken. The enrichment curriculum is project-based and evaluated on a pass-fail basis.

INFORMATION LITERACY

The Information Literacy curriculum is designed to assist students with the acquisition and enrichment of skills in research, interpretation, evaluation, and synthesis of information from all forms of media. The program will focus primarily on leading students through the research process by utilizing a variety of different resources. Students will be guided in the use of library materials, online databases, and web searches to investigate a topic and produce a written document and/or a visual presentation of that topic.

MUSIC APPRECIATION 7

Music Appreciation classes are designed to give students an overview of the many aspects of music ranging from the Renaissance Era up to the 21st Century. Students are asked to participate in music as critical thinkers and make real life

connections with each topic they learn about. Students do this by creating projects using 21st Century learning model, and by performing on musical instruments such as keyboards. The goal is for students to have the ability to critically listen to and analyze music to gain a greater understanding of any music genre and to make a connection to music of all cultures.

HUMANITIES ENRICHMENT

This is an interdisciplinary course that builds upon and extends the themes and concepts that students explore in their social studies and language arts classes. The goal of this class is to provide students with opportunities to gain a deeper understanding of these themes and concepts through an inquiry-based approach and to demonstrate this deeper understanding through problem-based learning.

ASSESSMENT

Student progress is assessed using multiple indicators. Assessment tools may include:

Cumulative Exams

Quizzes

Running Records

Self Assessments

Portfolio Records

Performance Based Assessments

Projects

Class Participation

Homework

Journals/Logs

Daily Assignments

Using these various evaluation tools, teachers assess each student's progress per unit and marking period. The emphasis on assessing a student's progress is to discover which concepts, skills, and habits need to be reinforced. Assessment is both formative and summative. Students will receive grades based upon their cumulative progress in each subject area each marking period.

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