

NEW PROVIDENCE MIDDLE SCHOOL PROGRAM OF STUDIES 2016-2017

LANGUAGE ARTS

7th Grade Language Arts

The 7th grade Language Arts program develops language, literacy skills, and strategy applications within the context of reading, writing, and research activities. Students engage in oral and written communications which emphasize the relationship of the language processes to thinking and learning. The course integrates the Common Core State Standards in English/Language Arts.

An introduction to a wide range of literary genres is presented in the anthology Elements of Literature and supplementary novels. At the core of the writing program is the composition process in which students learn to prepare, write, and edit for a variety of audiences and purposes. Instruction in the support skills of grammar, usage, and mechanics is stressed within the editing phase of this process. Writing portfolios are maintained.

7th Grade Enriched Language Arts

Prerequisites:

- A student must maintain an “A-“ average or higher for the year. For both Reading and Writing, three of the four marking period grades must be an “A-” or higher and one of the four marking period grades cannot be lower than a “B”.
- Advanced performance on a department-specific assessment.
- Test of Cognitive Skills Score of 120 or above.

In addition to the regular components of the 7th grade Language Arts program, the Enriched Language Arts program studies supplementary literary works that encourage higher level critical thinking, evaluation, and synthesis.

8th Grade Language Arts

The 8th grade Language Arts program continues the development of literacy skills such as reading, writing, speaking, listening, viewing, and research in an integrative and interactive way. The course is characterized by a strong emphasis on the relationship of the language processes to thinking and learning. The course integrates the Common Core State Standards in English/Language Arts.

The anthology Elements of Literature, and selected full-length novels offer a wide variety of literary genres to meet reading abilities and personal interests. At the core of the writing program is the composition process in which students prepare, write, revise, and edit for a variety of audiences and purposes. Instruction in the support skills of grammar, usage, and mechanics is stressed within the editing phase of this process. Writing portfolios are maintained.

8th Grade Enriched Language Arts

Prerequisites:

- A student must maintain a minimum average of A-.
- Advanced performance on a department-specific assessment.
- Test of Cognitive Skills Score of **120** or above.

In addition to the regular components of the 8th grade Language Arts program, the Enriched Language Arts program studies supplementary literary works that encourage higher level critical thinking, evaluation, and synthesis. Students are also challenged to compose expository writings that stimulate mature and well-developed syntax, sentence construction, vocabulary, and mechanics.

MATHEMATICS

7th Grade Mathematics

The mathematics program in Grade 7 is designed to actively engage students in a variety of activities and explorations that foster and develop understanding with proportional relationships, computing with rational numbers within expressions and equations, solving problems involving area, surface area, and volume, and drawing inferences about populations based on samples. In Grade 7, instructional time focuses on the following areas:

- *Extend ratios and proportionality*
Students solve real-world problems involving percent increase/decrease, discounts, interest, tips, and taxes. They graph proportional relationships and understand unit rate informally as a measure of the steepness of a line, called its slope.
- *Extend the rational number system*
Students develop a unified understanding of fractions, decimals, and percents as different representations of rational numbers. They use the properties of numbers to be able to explain the rules for adding, subtracting, multiplying, and dividing with negative numbers. This is applied in formulating expressions and equations in one variable in order to solve problems.
- *Extend geometric measurement*
Students work with three-dimensional figures, relating them to two-dimensional figures by examining cross-sections. They solve real-world and mathematical problems involving area, surface area, and volume of two- and three- dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.
- *Explore statistical designs*
Students build on previous work with single data distributions to compare two data distributions and address questions about differences between populations. They begin informal work with random sampling to generate data sets and learn about the importance of representative samples for drawing inferences.

The curriculum for this course includes 21st Century Skills that promote the use of innovative learning strategies by integrating supportive technologies, performance tasks, and higher order thinking skills as well as the integration of global perspectives and financial literacy. The Mathematics curriculum is aligned with the Common Core State Standards for Mathematics.

7th Grade Enriched Mathematics

Prerequisites:

- A student must maintain an “A-“ average or higher for the year. Three of the four marking period grades must be an “A-” or higher and one of the four marking period grades cannot be lower than a “B”.
- Test of Cognitive Skills Score of **120** or above.
- Advanced performance on a department-specific assessment.

The 7th Grade Enriched Mathematics course explores topics at a greater level of detail than the regular 7th Grade Mathematics course. Students are expected to go beyond applying a formula and must also be able to derive it in order to show understanding of its development and validity. The course is focused on higher level skills that emphasize prediction, analysis, development and interpretation of results.

A very small population of students eligible for Enriched Mathematics 7 will be eligible for placement in the high school level honors course, Algebra I Theory and Applications. This will be considered only if a student is mature enough to handle a high school level honors course as a 7th grader. If a student is eligible for the Algebra I Theory and Applications course as a 7th grader, he/she will be taking Geometry Theory and Applications as an 8th grader, and Advanced Algebra and Functions as a 9th grader, accelerating his/her mathematics program by two years over the average student. Additionally, every student (regardless of grade level) taking Algebra I T/A (a high school level course) will be required to take the Algebra I PARCC assessments.

The curriculum for this course includes 21st Century Skills that promote the use of innovative learning strategies by integrating supportive technologies, performance tasks, and higher order thinking skills as well as the integration of global perspectives and financial literacy. The Mathematics curriculum is aligned with the Common Core State Standards for Mathematics.

8th Grade Mathematics

The mathematics program in Grade 8 is designed to actively engage students in a variety of activities and explorations that foster and develop understanding in working with linear equations and their solutions, exploring the idea of a function, and analyzing shapes using distance, angles, similarity, and congruence. In Grade 8, instructional time focuses on the following areas:

- *Use linear equations to represent problems*
Students recognize equations for proportions ($y=mx$) as special linear equations ($y=mx+b$) in order to understand the constant of slope as a rate of change. Students also use linear equations to describe the association between two quantities, such as arm span vs. height. Fitting a model and assessing its fit are done informally. By the end of the year, students solve systems of two linear equations in two variables and relate the systems to pairs of lines in the plane. Problems involving systems and linear functions are analyzed and solved.
- *Investigate the concept of function*
Students recognize that a function is a rule that assigns to each input exactly one output. They understand that functions describe situations where one quantity determines another. Several different representations of functions are investigated.

- *Explore geometric measurement*
Students investigate distances and angles of shapes as they behave under translations, rotations, reflections, and dilations. Ideas of similarity and congruence are further explored involving parallel lines. Students justify and apply the Pythagorean Theorem and its converse. To complete their work on volume, students solve problems involving cones, cylinders, and spheres.

The curriculum for this course includes 21st Century Skills that promote the use of innovative learning strategies by integrating supportive technologies, performance tasks, and higher order thinking skills as well as the integration of global perspectives and financial literacy. The Mathematics curriculum is aligned with the Common Core State Standards for Mathematics.

Algebra I Theory and Applications (Honors)

Prerequisite:

- Successful completion of 7th Grade Enriched Mathematics with a cumulative average of B or higher.

Algebra I Theory and Applications is the first course in the sequence of honors courses. Foundation principles are established in the following areas: solving equations and inequalities, understanding an axiomatic structure, use of variables and algebraic expressions, linear function leading into quadratic functions, formulas, and factoring algebraic and polynomial expressions.

The curriculum for this course includes 21st Century Skills that promote the use of innovative learning strategies by integrating supportive technologies, performance tasks, and higher order thinking skills as well as the integration of global perspectives and financial literacy. The Mathematics curriculum is aligned with the Common Core State Standards for Mathematics. All students (regardless of grade level) taking Algebra I T/A (a high school level course) will be required to take the Algebra I PARCC assessments.

Geometry Theory and Applications (Honors)

Prerequisite:

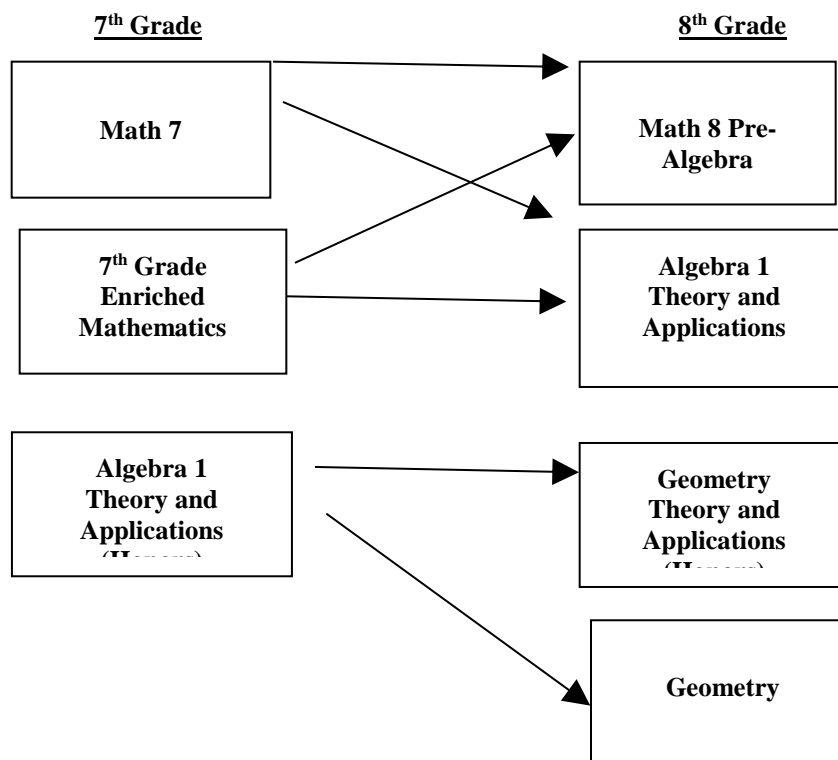
- Successful completion of Algebra I Theory and Applications with a cumulative average of B or higher.

Geometry Theory and Applications is the second course in the sequence of honors courses. Various types of geometry, including plane and solid Euclidean, symbolic logic and validation of arguments are introduced. Transformation geometry is a primary mode of development as well as the synthetic proof.

The curriculum for this course includes 21st Century Skills that promote the use of innovative learning strategies by integrating supportive technologies, performance tasks, and higher order thinking skills as well as the integration of global perspectives and financial literacy. The Mathematics curriculum is aligned with the Common Core State Standards for Mathematics. All students (regardless of grade level) taking Geometry T/A (a high school level course) will be required to take the Geometry PARCC assessments.

See the chart below for an illustration of the sequence of mathematics courses:

MIDDLE SCHOOL MATHEMATICS



MUSIC

The Middle School offers a daily music ensemble period for band, chorus, and orchestra. Students have the option of choosing one ensemble or may participate in two. All ensembles perform three or four times a year. Band, chorus and orchestra are curricular offerings and are graded accordingly. As a supplement to their instruction, all instrumental students will attend one lesson per week on a rotating schedule. This lesson is in addition to the ensemble period.

Extracurricular performing opportunities are available through participation in Jazz Band, Girls' Ensemble, and Boys' Ensemble. Students interested in these additional performance opportunities are required to participate in the related major ensemble.

District Philosophy - Repertoire Selection for Concerts:

Each teacher enters into the selection process of ensemble literature with the mindset of selecting repertoire based on quality of composition, aesthetic and educational value, and overall effectiveness with regard to the music education of the students in the ensemble. If the selection is deemed "good music," it inherently has validity and educational merit. In selecting literature, teachers endeavor to find music that expands each student's musical experiences.

In addition to being a catalyst for the development of musical skills and concepts, repertoire should expand each student's cultural awareness. This repertoire, and accompanying texts (in the case of vocal music), may or may not be associated with holidays - religious or otherwise. Because

tradition and culture are rooted deeply within the composition, performance and enjoyment of music, the study of these traditions and cultures is essential for an optimal musical experience.

Throughout the K-12 experience in the New Providence Schools, students study the historical and cultural aspects of music representative of various holidays and traditions, not only in order to perform the music with greater skill, but also to better understand the world around them. The selections in a single concert comprise a mere snapshot of a student's complete educational journey.

PHYSICAL EDUCATION & HEALTH

Physical Education is that part of the educational process which contributes to the mental, physical, social, and emotional growth of each child through the medium of physical activity. A regular program of physical education is provided in all grades. It is the intent of the physical education program to plan movement experiences that will strive to:

1. Develop motor skills necessary to successfully perform a variety of physical activities.
2. Develop a level of physical fitness that will enable active physical participation and enhance the learning of motor skills.
3. Develop knowledge, understanding, and the benefits from involvement in physical activity and its contributions to a healthful lifestyle.
4. Develop an awareness of social skills and socially acceptable behavior.
5. Motivate students to achieve their physical potential through a comprehensive physical education program.
6. Promote interest and proficiency in activities that will enable students to participate successfully, now, as well as in the future.

Health Education classes will promote wellness, which incorporates social, physical, and emotional health. The course will give students skills that will be applicable throughout their lifetime. Students learn about personal health, drugs, safety, global perspectives, and relationships. Health Education is a sequential and age-appropriate instructional program to help students develop positive behaviors and attitudes that contribute to a healthy, active lifestyle. Health literacy in the 21st Century will have a strong emphasis on incorporating technology, global perspectives, and interdisciplinary connections. The Physical Education and Health curriculums are aligned with the New Jersey Core Curriculum Content Standards for Comprehensive Health and Physical Education.

SCIENCE

7th and 8th Grade Science and Engineering

The Science and Engineering course is designed around the concepts of Understanding by Design and Differentiated Instruction, the relevant Next Generation Science Standards (NGSS), and the Common Core Standards for Reading and Writing Literacy in Science and Technical Subjects. The goal of the program is to emphasize the use of experimentation and collected evidence to construct mechanisms and explanations for scientific phenomena. The course will also integrate an examination of the engineering design process and is designed to help students engage in scientific inquiry by incorporating the Science and Engineering practices that ask students to:

- Ask questions and define problems

- Develop and use models
- Plan and carry out investigations
- Analyze and interpret data
- Use mathematics and computational thinking
- Construct explanations and design solutions
- Engage in argument from evidence
- Obtain, evaluate, and communicate information

These practices will also clarify for students the relevance of science, technology, engineering and mathematics (the four STEM fields) to everyday life. The course is taught through a mixture of individual, paired, and small group student inquiry and investigation, supplemented with whole class discussion and teacher-lead direct instruction.

7th Grade Science and Engineering Units

- Structure and Properties of Matter
- Changes in Matter
- Chemical Reactions
- Structure, Function, and Information Processing
- Growth, Development, and Reproduction of Organisms
- Inheritance and Variations of Traits
- Organization for Matter and Energy Flow in Organisms
- Earth Systems

8th Grade Science and Engineering Units (Standard and Enriched)

- Evidence of Common Ancestry
- Selection and Adaptation
- Stability and Change on Earth
- Human Impacts on Earth Systems and Global Climate Change
- Relationships Among Forms of Energy
- Forces and Motion
- The Electromagnetic Spectrum

8th Grade Enriched Science and Engineering

Prerequisites:

- Successful completion of Algebra I Theory and Applications in 7th Grade or be enrolled in Algebra I Theory and Applications in 8th grade.
- A student must maintain an A- average or higher for the year in 7th grade Science.
- A student must demonstrate superior performance on the Science placement assessment.

The Enriched Science and Engineering 8 course will incorporate more rigorous investigations of phenomena and engage students in complex problem solving that requires higher level critical thinking, computational skills, and analysis. It will also provide opportunities for extended open-ended inquiry of complex, authentic tasks.

SOCIAL STUDIES

7th Grade Social Studies

The 7th grade Social Studies course will focus on a chronological study of American history beginning with an examination of the earliest native cultures and continuing through the Age of Jefferson (1820). Topics include the cultures of the native peoples of the Americas, the encounter between the Europeans and the native peoples, the emergence of colonial America, the events on the road to revolution, the American Revolution, the development of the American Republic, the Constitution, the New Republic, and the Age of Jefferson. The curriculum for this course is based on the 2014 New Jersey Social Studies Standards.

8th Grade Social Studies

The 8th grade Social Studies course continues the examination of American history, covering the years from 1820 through the Reconstruction Era (1877). Topics include the growth of American industry and technological change, the Age of Jackson, the westward expansion of the American nation, the rise of sectionalism, the growth of reform movements in the United States, the events leading to, and the major aspects of, the Civil War, and the attempts at rebuilding the nation during the Reconstruction Era. Students who maintain an A average, and meet the minimum score on the 8th grade social studies proficiency test, will be eligible to sign up for Honors World Studies as freshman. The curriculum for this course is based on the 2014 New Jersey Social Studies Standards.

S.T.E.M.

During the 2016-2017 school year, the Engineering Design Process will be integrated into the 7th and 8th grade Science programs and the Digital Art and Design exploratory course. Components of coding and programming will be integrated into the Coding exploratory course and the newly adapted Robotics program. Middle School students will have an opportunity to engage in a variety of STEM activities and competitions as members of the Technology and STEM clubs. These may include but are not limited to the NJ MS STEM League, Science Olympiad, Solar Sprints, Verizon App Challenge, TEAMS competition, and Scratch programming.

WORLD LANGUAGE

Spanish A- 7th Grade

Spanish A provides the student with an introduction to the Spanish language and the culture of the Spanish-speaking world. Emphasis is on the development of listening and speaking skills as well as reading and writing. Elements of the course include vocabulary related to daily life, the sound and spelling system, and elementary linguistic structures that support conversation.

Spanish B - 8th Grade

Spanish B is offered to students who have successfully completed level "A". Emphasis is on the further development of listening, speaking, reading, and writing skills through the introduction of additional vocabulary and more advanced linguistic structures. Basic communication skills are stressed as students continue to explore a wide variety of cultural topics and read short selections in Spanish. Those students who demonstrate a high level of proficiency on the 8th grade Spanish Language placement test will be eligible to enroll in Spanish 2 as freshmen. The World Languages

curriculum is aligned with the New Jersey Core Curriculum Content Standards for World Languages.

EXPLORATORY COURSES

The seventh and eighth grade curricula incorporate modular courses which are offered for shorter periods of time and provide varied opportunities in the student's program. Exploratory courses will be offered from among the following curricular areas:

- In the News - 7th grade
- Photoshop - 7th grade
- Coding (STEM) - 7th grade
- Drama - 7th and 8th grade
- Music - 7th and 8th grade
- Art - 7th and 8th grade
- Digital Art and Design - 8th grade
- Robotics - 8th grade
- Reading - 8th grade

NOTE: Grades are assigned for these exploratory courses and are included for honor roll status.

CO-CURRICULAR ACTIVITIES

STEM Club
Math Club
Technology Club/Science Olympiad
Yearbook
Girls' Ensemble
Boys' Ensemble
Jazz Band
Peer Leadership
Student Council
Student Services Organization

MEDIA CENTER

The New Providence High School/Middle School Media Center serves the staff and students of both schools. In addition to a large print and audiovisual collection, the media center has a network of computer workstations that offer access to the Internet and online subscription databases that support research in all curriculum content areas. Middle School teachers plan research projects in conjunction with the media specialists and relevant instruction in information literacy skills is integrated into the lesson plans for each media center class visit. The Media Center is open to Middle School students who need to work on assignments before and after school, from 7:30 a.m. to 4:00 p.m., Monday through Thursday, and until 3:30 p.m. on Friday.

HOMEWORK

Homework is assigned to reinforce the learning experience of the classroom, to develop good study habits, and to encourage the self-discipline necessary for successful academic achievement. Middle

School students can expect up to 1 hour and 40 minutes of homework per night. In addition, students are expected to devote 30 minutes per night to recreational reading of their choice.

SUMMER READING

During the summer, students are required to read one book and complete a written assignment for the book. Suggested reading lists and the assignment forms may be found on the New Providence School District website: www.npsd.k12.nj.us. Students are asked to submit the completed assignment to their Language Arts teacher the first week of school in September.

DISTRICT DEPARTMENT HEADS

Sandra Andersen, *Technology & Information Services*

Kristie Arnold, *Language Arts/Grades K-6*

David Goldstein, *Language Arts/Grades 7-12*

Rocco Constantino, *Health & Physical Education*

Jonathan Keaney, *S.T.E.M.*

James McGeechan, *Science*

Kenneth Hess, *Fine, Performing &
Practical Arts*

Susan Rembetsy, *Mathematics*
Peter Schaefer (Leave Replacement)

Byron Tracey, *World Language &
Social Studies*

MIDDLE SCHOOL ADMINISTRATION

Jay Richter
Principal

GUIDANCE DEPARTMENT

Scott Maciag
Supervisor of Pupil Personnel Services/Guidance

Kim Chrisostomides
Counselor

Susan McGeechan
Counselor

CENTRAL ADMINISTRATION

David M. Miceli, Ed.D
Superintendent of Schools

Scott D. Hough
Assistant Superintendent of
Educational Services

James E. Testa
School Business Administrator/
Board Secretary

Ann Marie Inzano
Interim Director of Curriculum, Instruction, and Supervision

NEW PROVIDENCE MIDDLE SCHOOL

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