

# NEW PROVIDENCE SCHOOL DISTRICT PROGRAM OF STUDIES ~ SIXTH-GRADE

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## INTEGRATED LANGUAGE ARTS

The sixth-grade language arts program follows a balanced literacy framework that aligns with the New Jersey Student Learning Standards and assessments. It contains all of the components necessary to develop lifelong literacy. These components include word study, Reader's Workshop, and Writer's Workshop. Writing and reading are integrated in the sixth-grade program.

Word study at the upper level focuses on morpheme analysis and word meanings. Students learn to analyze word structure and use context clues to determine word meaning.

Reader's Workshop is based on reading research and develops essential reading skills while fostering a love of reading. At the intermediate level, students read and learn about a variety of genres, including full-length trade books and nonfiction selections. Students learn and grow through various instructional contexts including teacher modeling, mini-lessons, small group instruction, book clubs, partnerships, research, and independent reading. Attention is given to each student's level of reading development while guiding him/her along the pathway to further growth as a strategic reader.

Writer's Workshop is similar to Reader's Workshop in many ways. This instructional model includes the following:

- Teacher modeling of his/her thought process to demonstrate the writing process
- Use of mentor text to illustrate particular elements of writing
- Regular and sustained periods of time for writing
- Student choice and responsibility in using strategies needed to become independent, lifelong writers
- Student opportunity to reflect upon writing and to discuss their growth with others
- Practical application of grammar rules

## MATHEMATICS

The mathematics program in sixth-grade is designed to actively engage students in a variety of activities and explorations that foster and develop an understanding of ratio and rates, extend the system of rational numbers to include negative numbers, use expressions and equations, and develop an understanding of statistical thinking. In sixth-grade, instructional time focuses on the following areas:

### *Solve ratio and rate problems*

- ✓ By extending rows or columns in the multiplication table, students further develop their understanding of equivalent ratios and rates. They analyze drawings that show relative size of quantities and solve a wide variety of problems involving ratios and rates.

### *Extend division*

- ✓ Students use previous knowledge to explain why the procedures for dividing fractions make sense. They extend their understanding of numbers to the full system of rational numbers, including negative integers. Through logical reasoning skills, students order rational numbers,

find their absolute value, and locate points in all four quadrants of the coordinate plane.

*Write expressions and equations*

- ✓ Using variables, students write mathematical expressions and equations that correspond to given situations. They write equivalent expressions using algebraic properties, evaluate expressions, and use formulas to solve problems. Students solve simple one-step equations by understanding the need to maintain the equality of both sides of that equation. Further, students construct and analyze tables of quantities and use simple equations like  $y=3x$  to describe relationships between quantities.

*Develop statistical understanding*

- ✓ Students realize that data may not have a definite center and that different ways to measure the center may yield different values. They work with the mean and median of a data set, but recognize the need for measures of variability, like the interquartile range or mean absolute deviation as a way to summarize data.

*Extend geometric measurement*

- ✓ Students extend their work from elementary school to include finding area, surface area, and volume of polygons. They discuss, develop, and justify formulas for areas of triangles and parallelograms. Students find areas of polygons and solid shapes by decomposing them into pieces whose area they can determine. They draw polygons in the coordinate plane to help them prepare for their work on scale drawings and constructions in grade 7.

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 New Jersey Student Learning Standards for Mathematics.

## **LIFE LITERACIES AND KEY SKILLS**

The K-6 instructional program provides an important foundation for elementary students in life literacies and key skills, including: Creativity and Innovation, Critical Thinking and Problem Solving, Digital Citizenship, Global and Cultural Awareness, Information and Media Literacy, and Technology Literacy

The program is comprehensive and interdisciplinary, addressing major themes within the curriculum. Each elementary school has a full-time technology coordinator. The role of the technology coordinator is to provide curriculum development, instruction, professional development, and technical support in their respective schools.

Elementary students at each grade-level engage in curriculum-related activities designed by their classroom teacher, technology coordinator, and/or library media specialist that are enhanced through the use of technology. Students are encouraged to use technology for personalized learning, problem-solving activities, transfer of knowledge, collaboration and to communicate their understandings effectively. As students move through the elementary grade-levels, they are also encouraged to use the Internet responsibly as a tool for basic research.

The New Jersey Student Learning Standard 9.4 Life Literacies and Key Skills, includes instruction focused on the following core ideas:

- Creativity and Innovation
  - Gathering and evaluating knowledge and information from a variety of sources, including global perspectives, fosters creativity and innovative thinking.
- Critical Thinking and Problem-solving
  - Multiple solutions often exist to solve a problem.
  - An essential aspect of problem solving is being able to self-reflect on why possible solutions for solving problems were or were not successful.
- Digital Citizenship
  - Detailed examples exist to illustrate crediting others when incorporating their digital artifacts in one's own work.
  - There are tradeoffs between allowing information to be public and keeping information private and secure.
  - Digital footprints are publicly accessible, even if only shared with a select group. Appropriate measures such as proper interactions can protect online reputations.
  - Digital communities are used by individuals to share information, organize, and engage around issues and topics of interest.
  - Digital technology and data can be leveraged by communities to address effects of climate change.
- Global and Cultural Awareness
  - Awareness of and appreciation for cultural differences is critical to avoid barriers to productive and positive interaction.
- Information and Media Literacy
  - Increases in the quantity of information available through electronic means have heightened the need to check sources for possible distortion, exaggeration, or misrepresentation.
  - Digital tools make it possible to analyze and interpret data, including text, images, and sound. These tools allow for broad concepts and data to be more effectively communicated.
  - The mode of information can convey a message to consumers or an audience.
  - Sources of information are evaluated for accuracy and relevance when considering the use of information.
  - There are ethical and unethical uses of information and media.
  - There is a need to produce and publish media that has information supported with quality evidence and is intended for authentic audiences.
- Technology Literacy
  - Some digital tools are appropriate for gathering, organizing, analyzing, and presenting information, while other types of digital tools are appropriate for creating text, visualizations, models, and communicating with others.
  - Digital tools allow for remote collaboration and rapid sharing of ideas unrestricted by geographic location or time.

## **SCIENCE**

The sixth-grade science program uses the Full Option Science System (FOSS) Next Generation. Students explore standards-based, inquiry centered units in life, physical, and earth science. FOSS Next Generation puts the Next Generation Science Standards into practice by integrating all three dimensions, including the disciplinary core ideas, the science and engineering practices,

and the crosscutting concepts into the science classroom in order to engage students in experiences that lead to a deeper understanding of the natural and designed world.

Sixth-grade science is taught as a process in which students construct an understanding of scientific core ideas through investigations and analysis of observed phenomena. In doing so, students will apply the following science and engineering practices throughout the course:

- 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

The sixth-grade students continue to develop their understanding of key concepts in life science, physical science, and earth science. The ideas build upon the K-5 ideas and capabilities to allow learners to explain phenomena central to science. The specific units explored are:

- Matter and Energy in Organisms and Ecosystems
- Interdependent Relationships in Ecosystems
- Body Systems
- Types of Interactions
- Thermal Energy
- Astronomy
- Weather and Climate

The sixth-grade science curriculum is aligned with the New Jersey Student Learning Standards for Science (NJSL-S).

### **STEM**

Sixth-grade students will collaborate on a number of authentic engineering, coding, and design challenges that emphasize innovation, critical thinking, problem-solving, and teamwork. They will define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions. They will then evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem. Students will then analyze data from tests to determine similarities and differences among several design solutions and identify the best characteristics of each to be combined into a new solution to better meet the criteria for success. Finally, students will develop a model to generate data for iterative testing and modification of a proposed object, tool, or process such that an optimal design can be achieved.

### **SOCIAL STUDIES**

The grade six courses of study will focus on the era of empires. Students will examine the great empires of the past, with a particular focus on the traditions of ancient Greece and Rome. The structural components of empires will be examined as well as the themes of global interconnectedness, economy, commerce, and territoriality. The students will pay particular attention to how these concepts relate to our world today.

The Social Studies curriculum is aligned with the New Jersey Student Learning Standards for Social Studies.

### **FLES**

Foreign Language in the Elementary Schools (FLES) is a Spanish language and culture instructional program in grades 1-6. Students are given one session per week of instruction in the basics of Spanish language and cultural traditions of the world. The students are introduced to vocabulary related to the environment and time, the countries of the Spanish speaking world, and how to speak about themselves and others by describing physical and personality characteristics, occupations, and life activities.

### **ART**

In Kindergarten through sixth-grade, students experience an ongoing and systematic art program. Using the elements of art and principles of design as a guide, students explore a wide range of materials and artistic methods. Performance tasks allow students to produce visual expressions with which to communicate their ideas, their culture and their environment, both real and imagined. Through creation, reflection and analysis, children learn to value art as a cultural institution and as a means of personal expression.

The art curriculum is aligned with the New Jersey Student Learning Standards for Visual and Performing Arts. Engaging in the four artistic processes (creating, presenting, responding and connecting,) as indicated in the National Core Art Standards, encourages all students to develop personal artistic capabilities to their greatest potential.

In sixth-grade, children meet with an art specialist once a week. The sixth-grade Art Class provides a variety of artistic activities in various media designed to help students master concepts and skills while creating age-appropriate artwork. As individual artistic skills grow, students will be increasingly encouraged to be more self-directed in creative decisions. Students may be required to maintain a sketchbook or portfolio.

### **MUSIC**

The K-6 music curriculum is aligned with the New Jersey Student Learning Standards for Visual and Performing Arts. Engaging in the four artistic processes (creating, performing, responding and connecting) encourages all students to develop personal musical capabilities to their greatest potential.

In sixth-grade, children continue to refine their singing voice, proper singing posture and breathing, and skills in singing two and three part harmony. In Chorus, students increase their music reading skills by analyzing and singing from various choral octaves throughout the year and by using a system for sight-singing. Choral literature includes art music, folk song arrangements, songs in foreign languages, songs from the theatre, and music in pop and jazz styles. In December, March and May, all sixth-graders demonstrate their choral music growth, stage presence, and audience etiquette during evening concerts held in the New Providence High School auditorium.

The Music Class provides a variety of musical activities designed to help each student master concepts and skills. Children perform vocal/instrumental ensembles, improvise and create

original compositions, develop critical and creative listening skills by listening to and analyzing selections representing numerous composers, styles, and historical eras, and increase their knowledge of music notation through score study and sight-reading activities. Students complete several projects and engage in self-directed and cooperative learning activities. A firm understanding of musical concepts will allow each child to fully enjoy this highly expressive art form.

Sixth-grade students are given the opportunity to continue their participation in Band and Orchestra. Band and orchestra students attend a forty-minute lesson once per week during which they increase music reading skills, refine tone quality, and further develop playing technique. These lessons are pull-outs but are rotated in order to avoid missing the same academic period in consecutive weeks. Band and Orchestra rehearsals are held once or twice a week before the beginning of the school day. Each ensemble performs in several evening concerts held at New Providence High School. More advanced musicians may be eligible to participate in select ensembles inside and outside of school.

### **District Philosophy - Repertoire Selection for Concerts**

Each teacher enters into the selection process of ensemble literature with the mindset of selecting repertoire based on the 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.

### **LIBRARY AND INFORMATION SKILLS**

Fifth and sixth-grade students continue to receive library and information skills instruction from the library media specialist and the classroom teachers. Throughout the year, students visit the media center to research reports and projects created by the subject area teachers in collaboration with the library media specialist. In addition to reinforcing basic research skills, students now learn to extract bibliographical information from a variety of resources and apply it to MLA citation formats. Students recognize the difference between fact and opinion in print, non-print, and computer database resources. They refine their research skills by note-taking, organizing, analyzing, evaluating, and synthesizing information to create a product that demonstrates original thought and the ability to communicate ideas. An emphasis is placed on learning that not all information sources are unbiased and reliable, especially on the Internet.

Students are encouraged to visit their school and public libraries frequently, not only for school-related projects but also for their personal reading pleasure.

As students start to use more online resources, they learn how to evaluate websites for authority and accountability. Students begin to move closer to becoming independent and self-directed learners.

## **PHYSICAL EDUCATION**

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.

\*All students must wear sneakers.

## **HEALTH**

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. Students are provided with opportunities to gain knowledge, learn and practice life skills, and develop character traits that foster health-promoting behaviors.

### UNIT 1: Wellness and Personal Growth

- Healthy choices (physical, social, and mental)
- Decision making process
- Nutrition
- Diseases and health conditions
- Safety (first aid, personal, fire and accident prevention)
- Stress management and coping skills

### UNIT 2: Alcohol, Tobacco, and Other Drugs

- Types and uses of over-the-counter medications
- Safe use of over-the-counter and prescription medications
- Short and long term effects of tobacco use
- Role of advertising, media, peer pressure, self-esteem, and role models in the choice to use or not to use drugs
- Recognizing signs of addiction/abuse

### UNIT 3: Human Relationships and Sexuality

- Family, peer relationships, values

- Reproductive systems
- Sexuality and abstinence
- Puberty
- Fertilization and fetal development
- Pregnancy

UNIT 4: Integrated Skills

- Effective communication
- Decision-making
- Conflict resolution
- Harassment, intimidation, & bullying
- Strategies to make and maintain healthy friendships
- Self-esteem
- Positive character traits

The Physical Education and Health curriculum is aligned with the New Jersey Student Learning Standards for Comprehensive Health and Physical Education.

**GIFTED AND TALENTED**

Enrichment education is an integral part of the New Providence School District's curricular program, including services for students identified as "gifted and talented" and for all students as an extension of the New Jersey Student Learning Standards, grades K-6. Enrichment education is an opportunity for students to expand their intellectual and creative capacities at an appropriate level commensurate with students' educational and social development and their specific abilities, talents, and interests. The New Providence School District's K-6 Gifted and Talented Program is committed to identifying students who exhibit characteristics of general intellectual ability and to meet their special learning needs. Our responsibility to provide an excellent education for these children requires developing their special abilities and talents as well as addressing their social and emotional needs. In addition, the program is committed to stimulating educational opportunities which encourage each child to strive for excellence and fulfill her/his potential. The New Providence School District Gifted and Talented Services are centered on a three-tiered approach to afford flexibility to meet the varying needs, abilities, and interests of students. Further information can be found on the New Providence School District website.

**HOMEWORK**

Homework is a planned part of the curriculum which is intended to reinforce the school learning experience. The number, frequency, and degree of difficulty of assignments are based on ability and utilize no more of the student's time than necessary.



## ELEMENTARY SCHOOLS ~ K-6

<b>ALLEN W. ROBERTS SCHOOL</b>	
<b>80 Jones Drive</b>	<b>(908) 464-4707</b>
Robyn Greenwald	Principal
Susan McGeechan	Assistant Principal

<b>SALT BROOK SCHOOL</b>	
<b>40 Maple Street</b>	<b>(908) 464-7100</b>
Jean M. Drexinger	Principal
Jonathan Firetto	Assistant Principal

<b>ADMINISTRATIVE OFFICES</b>	
<b>356 Elkwood Avenue</b>	<b>(908) 464-9050</b>
David M. Miceli, Ed.D	Superintendent
Lauren Zirpoli	Assistant Superintendent
James E. Testa	Business Administrator/Board Secretary
Jay Richter	Director of Curriculum, Instruction, and Supervision