

**2024 – 2025**

**MIDDLE SCHOOL**

**PROGRAM OF STUDIES**

**BOARD APPROVED – 9/18/2024**

# SCOTCH PLAINS-FANWOOD BOARD OF EDUCATION

512 Cedar Street  
Scotch Plains, New Jersey 07076

## MIDDLE SCHOOL PROGRAM OF STUDIES

**2024 – 2025**

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**The Scotch Plains-Fanwood Public Schools are committed to providing an equal opportunity for all students and employees, regardless of race, color, creed, religion, sex, ancestry, national origin, place of residence, social or economic condition, or handicap/disability in all school programs and vocational education opportunities. Consistent with the intent of Title VI of the Civil Rights Act of 1964 (racial/ethnic equity), and Section 504 of the Rehabilitation Act of 1973 (non-discrimination on the basis of handicap/disability), the Scotch Plains-Fanwood Public Schools afford all students and employees equal opportunity.**

*The Mission of the Scotch Plains-Fanwood Public Schools is to educate every student to become a confident and caring life-long learner who can communicate and contribute positively to the rapidly changing world. The district, in cooperation with the community, will provide an academic environment which values excellence, initiative and diversity.*

The Scotch Plains-Fanwood curriculum is designed to offer every student in our district an excellent comprehensive education. This Program of Studies booklet provides an overview of the various curriculum components in each of the subject areas at the middle school level.

A review and revision of each curricular area is conducted on a five-year cycle and whenever dictated by revisions to the NJ Student Learning Standards. The work is completed by committees of professional staff and parents. In order to meet state standards and keep pace with the changing needs of students in our increasingly interdependent world, curriculum revisions have emphasized the use of content to solve problems, higher-level thinking processes, and technology applications which foster and enhance learning. Through this systematic approach to curriculum renewal, the district also incorporates into our program the most current state and federal guidelines, findings from research of professional organizations and universities, and best approaches of informed practice.

If you have questions about any of the programs we offer, please contact your child's teacher. If further clarification is needed, building principals and subject supervisors will be pleased to assist you.

Sincerely,

A handwritten signature in black ink, appearing to read 'R. McGarry', with a long horizontal flourish extending to the right.

Dr. Robert McGarry  
Asst. Superintendent for Curriculum and  
Instruction

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## **INTRODUCTION**

Dear Students and Parents:

Welcome to our middle schools! The Scotch Plains-Fanwood middle school program is based upon the concept that each child should be provided with learning opportunities commensurate with his/her abilities and talents. It is the belief of the middle school staffs that each child should develop the basic skills and acquire the broad, general understanding and the knowledge that are necessary for effective citizenship.

We recognize the importance in fulfilling the above ideals and the need for cooperation between the home and school. It is by this close cooperation that both the home and school can reinforce each other in helping students to understand and assimilate the basic values of our democratic society.

This Program of Studies has been prepared especially for the parents and students of our middle schools. In this booklet, we have included important information about the curriculum and the operation of our schools. This publication should be examined carefully before program selections are made. Should you have questions, please confer with your counselor. Parent conferences concerning individual programs may be arranged by contacting the Counseling Office.

Dr. Kevin Holloway, Principal  
Terrill Middle School  
Main Office: 322-5215  
Counseling Office: 322-5215

Dr. Jocelyn Dumaresq, Principal  
Nettingham Middle School  
Main Office: 322-4445  
Counseling Office: 322-4445

## INSTRUCTIONAL PROGRAM

### SIXTH GRADE:

<u>Required Subjects</u>	<u>Length</u>	<u>Times per Week</u>
Language Arts	Year	5
Writing Workshop	Year	5
Mathematics	Year	5
Integrated Science	Year	5
Social Studies	Year	5
* Physical Education/Health	Year	5
Math Explorations	Year	Meets every 3 days on a 6-Day Cycle
Art	18 weeks	Meets every 3 days on a 6-Day Cycle
General Music	18 weeks	Meets every 3 days on a 6-Day Cycle
World Language: Select from	Year	Meets every 3 days on a 6-Day Cycle
French		
Italian		
Spanish		
S.T.A.R.	Year	Meets every 3 days on a 6-Day Cycle

<u>Elective Subject</u>	<u>Length</u>	<u>Times per week</u>
*** Band	Year	Meets twice during a 6-Day Cycle
*** Chorus	Year	Meets twice during a 6-Day Cycle
Instrumental Techniques	Year	1
** Gifted/Talented Program (QUEST)		

\* Students enrolled in band or chorus will attend physical education three times per week. All other students will attend physical education five times per week.

\*\* For eligible students per district established criteria.

\*\*\* Band students interested in taking chorus also will be scheduled for chorus class one day of each week in lieu of an exploratory class or S.T.A.R.

NOTE:Grade 6 uses a team format involving mathematics, science, social studies, writing workshop and language arts. All 6th grade students will participate in the S.T.A.R.

**SEVENTH GRADE:**

<b><u>Required Subjects</u></b>	<b><u>Length</u></b>	<b><u>Times per Week</u></b>
Language Arts	Year	5
Writing Workshop	Year	5
Mathematics	Year	5
Integrated Science	Year	5
U.S. History	Year	5
World Language	Year	5
French		
Italian		
Spanish		
* Physical Education/Health	Year	4
Math Explorations	Year	Meets every 3 days on a 6-Day Cycle

<b><u>Elective Subject</u></b>	<b><u>Length</u></b>	<b><u>Times per week</u></b>
Digital Art	18 weeks	Meets every 3 days on a 6-Day Cycle
Making Money Moves	18 weeks	Meets every 3 days on a 6-Day Cycle
Digital Game Design	18 weeks	Meets every 3 days on a 6-Day Cycle
The Magic of Movies	18 weeks	Meets every 3 days on a 6-Day Cycle
*** Band	Year	Meets every 3 days on a 6-Day Cycle
*** Chorus	Year	Meets every 3 days on a 6-Day Cycle
Jazz Band	Year	Before school
Instrumental Techniques	Year	Meets 2 days on a 6-Day Cycle
** Gifted/Talented Program (QUEST)		
S.T.A.R.	Year	Meets every 2 days on a 6-Day Cycle

\*\* For eligible students per district established criteria. This is in lieu of S.T.A.R.

\*\*\* Band students interested in taking chorus also will be scheduled for chorus two days of each week in lieu of S.T.A.R.

**NOTE:** Grade 7 uses a team format involving mathematics, science, social studies, writing workshop and language arts.

## **EIGHTH GRADE:**

<b><u>Required Subjects</u></b>	<b><u>Length</u></b>	<b><u>Times per Week</u></b>
Language Arts	Year	5
Writing Workshop	Year	5
Mathematics	Year	5
Integrated Science	Year	5
World Cultures	Year	5
* Physical Education/Health	Year	4
World Language	Year	5
French		
Italian		
Spanish		

<b><u>Elective Subject</u></b>	<b><u>Length</u></b>	<b><u>Times per week</u></b>
Beyond the Brush	18 weeks	Meets every 3 days on a 6-Day Cycle
Making Money Moves	18 weeks	Meets every 3 days on a 6-Day Cycle
Digital Game Design	18 weeks	Meets every 3 days on a 6-Day Cycle
The Magic of Movies	18 weeks	Meets every 3 days on a 6-Day Cycle
*** Band	Year	Meets every 3 days on a 6-Day Cycle
*** Chorus	Year	Meets every 3 days on a 6-Day Cycle
Jazz Band	Year	Before school
Instrumental Techniques	Year	Meets 2 days on a 6-Day Cycle
** Gifted/Talented Program (QUEST)		
S.T.A.R.	Year	Meets every 2 days on a 6-Day Cycle

\*\* For eligible students per district established criteria. This is in lieu of S.T.A.R.

\*\*\* Band students interested in taking chorus also will be scheduled for chorus two days of each week in lieu of S.T.A.R.

**NOTE:** Grade 8 uses a team format involving mathematics, science, social studies, writing workshop and language arts.



## ART

The art program in the middle school is designed to give each student experience with a variety of skills, techniques and materials and should enable the student to organize these materials and his/her ideas into personal creative expression. Ultimately, this should result in self-realization and personal growth.

The art program is designed to develop in the student a sense of community; that is, sharing materials, working together, and respecting others and their work. It will not be restricted to the classroom but will be taught in its application to the legacy of humankind, to the contemporary environment, and to future career opportunities. Art is a required course of study for all 6<sup>th</sup> grade students. 7<sup>th</sup> and 8<sup>th</sup> grade students are able to select art as an elective.

### INTRODUCTION TO ART

**GRADE 6** 18 weeks. . Meets 3 days of a 6-day cycle

The 6<sup>th</sup> grade program is designed as an introductory course to color, theory, composition, and two- and three-dimensional design while exploring different media. Students will work with a wide variety of techniques and materials such as painting, drawing and three-dimensional media. Art history and contemporary art as well as art careers will be examined.

At this level, the emphasis is on organization of materials, techniques, and ideas, care and respect of materials, a development of a sense of community, and the development of imagination and creative problem solving.

**GRADE 7** Introduction to Digital Art - 18 weeks. . Meets 3 days of a 6-day cycle

The 7<sup>th</sup> grade program is designed as an introductory course to Digital Design that teaches students the principles and practices of digital illustration and design using Adobe Photoshop. Students will learn how to use the fundamental tools and techniques which include photo-retouching, color correction, blending and combining images, using clipping paths, applying filters and adding text to an image. Students will design their own digital compositions using various techniques utilizing Adobe Photoshop.

**GRADE 8** 18 weeks. . Meets 3 days of a 6-day cycle

The 8<sup>th</sup> grade program is designed to support and encourage greater student self-reflection and personal expression using the skills and techniques acquired throughout their prior years in art. Students will use a wide variety of materials (both 2D and 3D) and techniques to best create artwork that is personally meaningful and valuable to their world.

## **BASIC SKILLS PROGRAM FOR 6<sup>th</sup>, 7<sup>th</sup> and 8<sup>th</sup> GRADE STUDENTS**

Basic Skills support for reading, writing and mathematics is provided to sixth, seventh, and eighth grade students through content area language arts and math classes in conjunction with Writing Workshop and Math Explorations. Students are identified as needing support based on their performance on district benchmarks and ongoing assessments.

### **LANGUAGE ARTS LITERACY**

The Language Arts program at the middle school is designed to develop, reinforce, and refine essential skills in reading, writing, speaking, listening, and language in alignment with the New Jersey Student Learning Standards for English Language Arts. The standards suggest that students who are college and career ready should demonstrate independence; build strong content knowledge; respond to the varying demands of audience, task, purpose and discipline; comprehend as well as critique; value evidence; use technology and digital media strategically and capably; and come to understand other perspectives and cultures.

The Language Arts course aims to develop critical readers, writers, and thinkers. Students are exposed to a variety of genres: drama, poetry, and contemporary and traditional texts in fiction and nonfiction. Classroom instruction emphasizes literature discussion, meaningful written response to literature, vocabulary development, and application of reading strategies. As part of Language Arts students participate in independent reading in order to foster a love of reading and encourage life-long learning.

The Writing Workshop course aims to develop both technical and creative writers. Students will explore argumentative, informational, and narrative genres in a workshop format. By definition, a writing workshop is a student-centered model of instruction, designed to meet the needs of each individual writer through brief mini-lessons, peer and teacher conferencing, and use of portfolios in a developmentally appropriate manner. Classroom instruction emphasizes the writing process; reflection; and grammar, usage, and mechanics application in writing.

In addition to the Language Arts Workshop classes, seventh and eighth graders have the opportunity to take an elective course called The Magic of Movies. In this elective students will take a look at movie-making from various perspectives. Acting as critics, directors, screenwriters and more, students will look at what makes a movie successful and create their own film proposals.

Media Center instruction is another integral part of the Language Arts and Writing Workshop curriculum. Students employ their technology skills as they discover the vast array of information available to them in a variety of mediums. Lessons may be planned cooperatively by the media specialist and the classroom teacher and are generally developed in conjunction with classroom activities.

Presently there are two levels of instructional grouping in the grade eight language arts program. The Honors level is designed for those students whose reading and writing skills exceed

the expectations of a traditional eighth grade language arts program. The Honors level moves at an accelerated pace, provides less in class support, and expects students to have more complex analytical skills.

### **MULTILINGUAL LEARNERS**

Students who have been identified as a multilingual learner are eligible to participate in the district's English as a Second Language (ESL) program. Multilingual learners are identified using criteria determined by the NJ Department of Education. Direct instruction in English is provided by a certified ESL teacher daily for a minimum of 40 minutes. The ESL teacher works closely with classroom teachers and families to recommend materials and strategies to enhance English language acquisition for multilingual learners.

### **GIFTED AND TALENTED PROGRAM**

(QUEST – Question, Understand, Explore, Seek, Think)

The Scotch Plains-Fanwood Public School System is committed to providing learning opportunities to stimulate all children while simultaneously meeting the unique needs of the academically talented student.

All students are re-evaluated in Grades 6, 7 and 8 for possible inclusion in the gifted and talented program using multiple criteria. The criteria include a teacher checklist, a cognitive ability test, and standardized tests.

The pull-out program is conducted within the student's own school. Students meet by grade level on a rotating schedule.

The QUEST Program is committed to providing a curriculum that emphasizes the use of thinking skills through independent and group activities. These activities will prepare our learners for meaningful participation in both the classroom and community by valuing their individuality, recognizing their skills, and instilling in them an appreciation of their ability to contribute to society.

### **COUNSELING SERVICES**

School counselors are educators uniquely trained in adolescent development, learning strategies, self management and social skills, who understand and promote success for all students. They implement a school counseling program to support students through this important developmental period. The program provides education, prevention and intervention activities, which are integrated into all aspects of children's lives. The program teaches knowledge, attitudes and skills students need to acquire in academic, career and social/emotional development, which serve as the foundation for future success.

The middle school counseling program serves as a most vital link in the total educational process. The program is based on the following objectives:

- Transition/Orientation Program
- Safe School Programs
- Crisis Intervention
- Problem Solving
- Individual Counseling
- Small Group Counseling
- Classroom Developmental Counseling
- Parent/Family Involvement
- Consultation/Collaboration with School Staff, Parents, Mental Health Professionals, and Community

The counselor assists the students in the transition from the elementary to the middle school through activities, classroom presentations, and visits. This is continued as an orientation program in the middle school through classroom developmental counseling activities and small group as well as individual counseling.

The developmental counseling program is delivered in a classroom setting with specific themes, such as: respect for self and others, conflict resolution, decision making, bullying prevention, study skills, and career interests exploration. These lessons address the personal, social, educational, and career interest development of the middle school student.

School counselors serve as the liaison between the parent/family and the school. An important role of the counselor is to act as an advocate for the student in communicating with teachers, staff, and others in the school community. Counselors may assist in the referral process to other school and community professional services as needed. Additionally, school counselors assist students, parents and teachers in helping each child achieve his/her potential through consultation and collaboration.

## **HEALTH EDUCATION**

The middle school health program is a comprehensive curriculum designed to give students the opportunity to examine the importance of wellness throughout a lifespan. Students will examine factors that both support and hinder the achievement of personal health goals. Students will explore the efforts of organizations to prevent and control disease as well as health conditions. The program is also designed to give students the ability to analyze various health issues to determine not only how they can live healthier lives, but how they can positively impact the health of others. An examination of the impact that community and groups can have on individuals will allow students to plan and implement ways to promote health at various levels. Students will not only understand the short-term and long-term effects of various drugs, but they will also gain an understanding of the cycle of addiction and dependency. Students will gain the skills necessary to examine the short and long-term effects of their decisions. Students will also explain the role of practicing healthy behaviors in an effort to prevent disease and unintended health issues and outcomes. Students will examine the characteristics of a healthy relationship and will discuss the various types of relationships that exist as well as cultural stereotypes. Students will understand the strategies available to deal with stress, conflict, crisis, and change. The students will determine when it is necessary to seek help from a health professional and will look for ways that they can advocate for health issues. In order to achieve these goals, the course will be guided by both the New Jersey State Standards and the National Standards for Health Education.

It addresses many of the topics which are critical in today's society including: personal growth and development, pregnancy and parenting, emotional health, social and sexual health, community health service and support, nutrition, personal safety, health conditions, diseases and medicines, alcohol, tobacco and other drugs and dependency, substance disorder and treatment.

The health curriculum is a required course for all sixth, seventh, and eighth grade students and serves as an extension of the physical education program. During one marking period (9 weeks), students attend their respective health program which utilizes a variety of resources and materials to meet the course objectives.

Units from within each curriculum include:

### **GRADE 6**

Personal Health  
Family Life and Social Health  
Emotion Regulation  
Body Systems  
Nutrition  
Substance Awareness  
Immune System  
Conflict Management and Resolution  
Communicable Diseases  
Stress Management  
Climate Change

### **GRADE 7**

Decision-Making  
Peer Influence

Relationships/Dating Violence Education  
Conflict Resolution  
Injury Prevention  
Puberty and Adolescence  
Dietary Guidelines  
Digital Citizenship  
Drugs and Alcohol Education  
Community Health  
Gang Awareness

### **GRADE 8**

Puberty  
Reproduction  
Personal and Social Health  
Sexual Health (Sexually Transmitted Diseases including HIV/AIDS Education)  
Drug and Alcohol Education  
Dating Violence Education  
Personal Safety  
Community Resources

*Pursuant to N.J.S.A. 18A: 35-4.7, any child whose parent or guardian presents to the school a signed statement that any part of instruction in Health, Family Life or Sexual Health Education is in conflict with their conscience or sincerely-held moral or religious beliefs shall be excused from this portion of the course.*

## **PHYSICAL EDUCATION**

The physical education curriculum in the middle school is an extension of the elementary program and provides the opportunity for each student to develop as a total person, physically, mentally, and socially. The program is comprehensive and strives to educate each individual in a variety of activities ranging from fitness to team and individual sports. Emphasis at this level is based upon active participation, which in turn will promote achievement and success.

The philosophy of the physical education program is to produce physically fit youth with an understanding of the importance of physical activity and to give students the skills, knowledge, motivation, and activities to remain fit throughout their lives.

Physical education is a required program for all students in grades six, seven, and eight. During the year, students will receive three marking periods of physical education and one marking period of a comprehensive health program. Students enrolled in band or chorus will attend physical education four days in a 6-Day Cycle. All other students will attend six times per 6-Day Cycle.

### **GRADES 6 and 7**

The physical education curriculum at this level is designed to introduce students to the components of fitness, to develop specific motor skills, and to promote an understanding of the importance of

movement in one's life. A variety of activities including team and individual sports and physical fitness are presented at a beginner's level. Basic skills are stressed with emphasis placed on skill acquisition, on the understanding of individual and team sports, and on assessing one's own fitness level. Lead-up games and game situations are also used to increase students' understanding of rules, strategies, and teamwork.

## **GRADE 8**

The eighth grade physical education curriculum is designed to reinforce and refine basic skills that were previously learned and to maintain and/or improve one's fitness level. The skills, knowledge, and attitudes acquired in grade 6 and 7 should enhance the student's abilities to participate and become proficient in a variety of activities. A more in-depth concentration of skills and game situations designed to improve agility, strength, balance, flexibility, and endurance are presented in grade 8. The advanced skills and understanding of rules will promote growth and achievement within the physical education program.

## **LIBRARY/MEDIA**

The media center is the hub of the learning process at our middle schools. Classes are scheduled into the center based on need and availability. Information literacy skills are taught through integration with the curriculum. Working collaboratively with the teachers, the media specialist provides access to a wide range of materials, both text and electronic. The media specialist provides an extensive variety of print and non-print material for student and teacher use. An excellent collection of Young Adult (YA) materials is available for all students for research and reading for pleasure. Students and staff may check periodicals out overnight.

The media center is open from 7:55 a.m. to 2:55 p.m. for independent student use. During the school day, individual students may use the center with a pass from their teacher. Classes are routinely scheduled into the media center for research projects.

The middle school media centers are now automated and provide students with an opportunity to learn valuable “searching” techniques. Both middle schools have computer labs, allowing students access to the Internet and other databases for information as part of the research process.

## **STUDY SKILLS**

Study skills are the learned abilities that support the acquisition of content knowledge and competencies. When students learn study skills, they are learning ways of problem-solving and methods or techniques which can be used in any academic context. Through study skills instruction, students develop ways to study more effectively and to be in charge of their own learning.

Explicit instruction will enhance the use of study skills. While most study skills are basic to all learning, some subject areas have additional sets of specific skills essential to the mastery of their academic disciplines. Skills will be reinforced through practice in content area classes. Mastering study skills is critical for life-long independent learning.

The teaching, development, and reinforcement of study skills are dependent upon cooperation among students, home, and school.

In grade 6 study skills are introduced and reinforced in all content area programs.

In grade 7 and 8 study skill strategies are reinforced in all disciplines.

The media specialists, in conjunction with the library skills curriculum, also teach and reinforce study skills at all grade levels.



## **MATHEMATICS**

A working knowledge of mathematics is vital to deal effectively with daily life. The primary purpose of our middle school mathematics program is to help students develop their ability to solve problems and reason logically. The middle school curriculum aims to give all students the opportunity to appreciate the full power and beauty of mathematics and to acquire the mathematical knowledge and intellectual tools necessary for its use in their lives.

All students acquire an appreciation for, and develop an understanding of, mathematical ideas if they have frequent encounters with interesting, challenging problems. Students at this age level also succeed if they find both challenge and support in the mathematics classroom. Thus students in grades 6 through 8 have opportunities, through classroom activities and projects, to investigate tasks that allow their teachers to adjust the level of challenge and support as appropriate.

### **GRADE 6**

Sixth grade students use the Connected Mathematics 3 program produced by Michigan State University. One main aim of the sixth grade program is to introduce algebraic concepts while building confidence and fluency with number sense, computation skills, and problem-solving skills. The students develop the ability to make connections between ideas. Students use technological tools such as calculators, spreadsheets, and online applications to make sense of mathematical problems and persevere in solving them. Students continue to study multiple mathematics strands such as:

- Number and Operations
- Geometry and Measurement
- Data Analysis and Probability
- Algebra and Functions

## **GRADE 7**

Students' understanding of foundational algebraic and geometric ideas for high school should be developed through extended experience across grades 6 to 8 with a broad range of mathematics content, including statistics, number sense, and proportional reasoning. The seventh grade mathematics curriculum is an integrated curriculum where concepts from algebra, number and operations, geometry, data and probability motivate students to pose questions, solve problems, build understandings, and develop fluency and skill with operations and procedures. Appropriate technological tools are used to enhance student. Units emphasize particular strands, though the strands are connected and integrated throughout the course. The students are expected to develop an understanding in the following areas:

### **Algebra and Functions**

- Develop and apply the properties of exponents to solve algebraic problems
- Write algebraic expressions to represent situations and patterns
- Apply the distributive property to expand and factor, and simplify expressions
- Solve single-variable linear equations in which the variable appears on both sides
- Recognize linear relationships from multiple representations
- Describe, draw, and calculate slope and distance on a coordinate grid

### **Geometry and Measurement**

- Construct, evaluate and apply formulas for volume and surface area
- Apply ideas about similarity and scale factor
- Explain the relationships between scale factor and the surface area and volumes
- Plot points in all four quadrants

### **Numbers and Operations**

- Demonstrate proficiency with operations using signed numbers
- Analyze percent operations, including percent increase and percent decrease
- Demonstrate knowledge and use of ratios, rates, and proportions

### **Data Analysis and Probability**

- Calculate probabilities in situations involving multipart outcomes
- Conduct simple simulations to find probabilities
- Design and interpret graphs using spreadsheet applications
- Construct and interpret displays of data

## **LEVELS**

Students in both Math 7 and Math 7 Honors will be expected to develop competency in the identified strands. In Math 7, students study the curriculum at a flexible pace and undertake in-depth investigations. In Math 7 Honors, students study some topics with greater independence and are assigned additional investigations. Students in both groups are challenged with the same sets of enrichment assignments, and are prepared for the same course sequence in grade 8 and the high school.

## **GRADE 8**

Students' understanding of foundational algebraic and geometric ideas for high school should be developed through extended experience across grades 6 to 8 with a broad range of mathematics content, including statistics, number sense, and abstract reasoning. The eighth grade mathematics curriculum is an integrated curriculum where concepts from algebra, number and operations, geometry, data and probability motivate students to pose questions, solve problems, build understandings, and develop fluency and skill with operations and procedures. . Appropriate technological tools are used to enhance student. Units emphasize particular strands, though the strands are connected and integrated throughout the course. The students are expected to develop an understanding in the following areas:

### **Algebra and Functions**

- Solve linear inequalities, linear systems, quadratic equations
- Write and interpret linear equations
- Predict the effect of changing coefficients in graphs, e.g.,  $y = ax^2 + bx + c$
- Identify functions and patterns from a table, a graph, or an equation
- Identify equivalent expressions

### **Geometry and Measurement**

- Recognize and describe reflectional and rotational symmetry
- Apply algebraic rules for similarity transformations, translations, and reflections
- Construct arguments for geometric properties and formulas

### **Numbers and Operations**

- Apply the definition of square roots to estimate and simplify expressions
- Classify Real Numbers into subsets

### **Data Analysis and Probability**

- Solve problems using combinations and permutations
- Design and interpret graphs using spreadsheet applications
- Determine probabilities and expected values

## **LEVELS**

Students in both Math 8 and Math 8 Honors will be expected to develop competency in the identified strands. In Math 8, students study the curriculum at a flexible pace and undertake in-depth investigations. In Math 8 Honors, students study some topics with greater independence and are assigned additional investigations. Students in both groups are challenged with the same sets of enrichment assignments, and are prepared for the same course sequence at the high school.

## **MATH EXPLORATIONS – GRADE 6**

Students' understanding of foundational algebraic and geometric ideas is broadened through exploratory and inquiry-based learning activities. They will explore various themes such as global awareness, financial literacy, entrepreneurship, science, and engineering. Through thematic and interdisciplinary units focused on real-life scenarios, students will construct visual representations to demonstrate their understanding of mathematics and its relevance to their world. The use of technology as a tool is emphasized as well as the students' ability to make sense of a problem, reason and construct viable arguments, and use modeling.

Students continue to study multiple math strands such as:

- Numerical Operations
- Use of variables, expressions, and equations
- Interpreting and modeling data
- Measurements
- Geometry
- Probability

## **Making Money Moves – Grades 7 and 8**

Making Money Moves is a project based course that introduces students to financial concepts that they will encounter in their lives. Through interactive projects students will develop a budget, examine the impact of using a credit card, and develop a marketing plan. The course will emphasize the 21 century skills of financial literacy, such as credit and debt management, planning, and budgeting.

Students explore 21<sup>st</sup> Century Life and Careers:

- Income and Career
- Money and Management
- Credit and Debt Management
- Planning, Saving, and Investing
- Becoming a Critical Consumer
- Civic Financial Literacy
- Insuring and Protecting

### **Digital Game Design – Grades 7 and 8**

Digital Game Design introduces students to the basics of computer programming and computational thinking through the creation of video game applications in Scratch. Students will design game elements including user interactions, coding, and getting user feedback. This course also emphasizes the development of 21-st century skills of collaboration, communication, and teamwork. Students will gain experience discovering innovative solutions to digital problems.

Students explore 21<sup>st</sup> Century Life and Careers:

- Creative and Innovation
- Critical Thinking and Problem Solving
- Digital Citizenship
- Information and Media Literacy
- Technology Literacy

### **Math Lab – Grades 7 and 8**

Math Lab focuses on reinforcing the skills required for success in the student's current math course. The program also aims to build confidence in students by teaching them effective problem-solving strategies. Concepts that are reinforced include: a) Computation, b) Decimals and fractions, c) Ratio, proportion, and percent, d) Integers and irrational numbers, e) Order of operations, f) Equations and inequalities, g) Graphing linear equations. Students are identified for this course through use of multiple measures such as teacher observations, performance assessments, and standardized test scores.

## MUSIC

Music in the middle school is considered an art and a craft, an individual and a group activity, creative and recreational in nature, vocal and instrumental in expression, and participant as well as community-oriented. All musical activities should be thought of and planned as episodes in a process of musical growth; therefore, the program is structured to challenge all students at their own level of ability.

The performance program's philosophy is not only to challenge the student musically but also to build character and self-discipline. All students can participate in the music program as long as they are willing to practice their instrument and have the desire to participate in one of the musical ensembles. All performance ensemble courses are elective in nature.

General Music is offered at the sixth grade level only and is the culmination of the district general music program. The program's philosophy is to cultivate an understanding and appreciation of this art form, while generating a sense of self-awareness. In the words of Karl Paulnack, "Music is a basic need of human survival. Music is one of the ways we make sense of our lives, one of the ways in which we express feelings when we have no words, a way for us to understand things with our hearts when we can't with our minds".

### GRADE 6

**BAND** – Twice in a 6-Day Cycle - year course

The grade 6 band is a training ensemble consisting of instruments from the brass, woodwind, and percussion families. Music is selected based on the ability of the incoming fifth grade students. The emphasis is placed on beginning rehearsal techniques and developing a concert band sound.

**CHORUS** - Twice in a 6-Day Cycle - year course

The grade six chorus rehearses two days per cycle. The emphasis is placed on learning to sing two- and three-part songs in preparation for their concert performances, while continuing to develop proper vocal technique and performance strategies. Music is selected based on the ability of the students.

Band students interested in taking chorus will rehearse one day per cycle. Opportunities will be made to rehearse both sections in a combined setting.

## **GENERAL MUSIC** - 18 weeks - 3x in a 6-Day Cycle

Grade six general music is a semester course required of all students. The course continues the study of the elements of music, such as rhythm, melody, harmony, dynamics, etc, while offering opportunities for the students to express themselves in the form of music. Students will compose music focusing on the various elements, while being exposed to a wide variety of musical styles. Activities are planned to continue musical growth and understanding through composition, creative thinking, and critical analysis. This course will relate to the state standards by asking students to demonstrate originality and artistic expression in the creation and performance of music, to critique and evaluate their own and others' music, and to evaluate the techniques of media in the creation of music. This course is the culmination of the general music program.

## **GRADE 7**

### **BAND** – 3x in a 6-Day Cycle – year course

The grade 7 band students are part of a large concert band. They rehearse as a separate band until a scheduled performance. Then the 7th graders combine with the 8th graders to form the concert band. Emphasis is placed on developing a more rounded and balanced band. Students will play more advanced literature and will have more performance demands.

### **CHORUS** – 3x in a 6-Day Cycle – year course

The 7th grade chorus is a combination of male and female voices, both changed and unchanged, that rehearses three days in a six-day cycle. Emphasis is placed on three-part harmonic singing, developing a balanced choral sound, and developing proper vocal technique through the adolescent voice change. In addition, students will continue to improve performance strategies used at the concerts. Music is selected based on the abilities of the singers. The 7th grade chorus may be combined with other grade levels for special performances, festivals, and concerts.

Band students interested in taking chorus will be scheduled for a chorus class on one day of each cycle in lieu of an exploratory class. Opportunities will be made to rehearse both sections in a combined setting.

### **JAZZ BAND**

Before School Practice Sessions - The jazz band is a highly select group of musicians taken from the seventh and eighth grade. Students in the jazz band should know various scales and be working diligently on their method books. The group includes a limited instrumentation of saxes, flutes, trombones, trumpets, and a rhythm section. This group performs many times during the school year, and students should be willing to be present for ALL rehearsals and performances. Students audition each year for this jazz ensemble.

## **SELECT CHOIR**

The select choir is an auditioned choir of seventh and eighth grade students and meets after school one day per week. Their performances feature music compositions that are at an advanced level for middle school students.

## **GRADE 8**

### **BAND** – 3x in a 6-Day Cycle – year course

This course is for 8th grade students who wish to further their development of playing wind and percussion instruments. At times they combine with the 7th grade band to form a large concert band for performances. The level of the music requires students to practice at home.

### **CHORUS** – 3x in a 6-Day Cycle – year course

The 8<sup>th</sup> grade chorus consists of both changed and unchanged male and female voices. This course continues to cultivate the skills introduced in earlier grade levels, such as proper vocal technique and music reading, which are honed during rehearsals that are held two days per six-day cycle. In addition to the musical skills developed during middle school, students will foster leadership skills during rehearsals and performances. This chorus may also be combined with other grade levels at the discretion of the director.

Band students interested in taking chorus will be scheduled for chorus class on one day of each cycle in lieu of the exploratory class. Opportunities will be made to rehearse both sections in a combined setting.

## **JAZZ BAND**

Before School Practice Sessions - The jazz band is a highly select group of musicians taken from the seventh and eighth grade. Students in the jazz band should know various scales and be working diligently on their method books. The group includes a limited instrumentation of saxes, flutes, trombones, trumpets, and a rhythm section. This group performs many times during the school year, and students should be willing to be present for ALL rehearsals and performances. Students audition each year for this jazz ensemble.

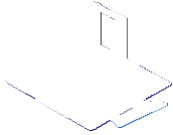
## **SELECT CHOIR**

The select choir is an auditioned choir of seventh and eighth grade students and meets after school one day per week. Their performances feature music compositions that are at an advanced level for middle school students.



## **INSTRUMENTAL MUSIC TECHNIQUES**

2 x week in a 6-Day Cycle - year course - Each student, in order to be in one of the ensembles or large performing instrumental groups, must continue to study his/her instrument by enrolling for at least one period per week of instrumental music. A limited number of beginners may be enrolled, depending upon the instrument desired and available time. All lessons are arranged on a rotating basis so that students do not regularly miss the same scheduled class every week. All facets of instrumental music training are emphasized. Students are expected to practice daily at home.



## **SCIENCE**

### **PURPOSE AND RATIONALE:**

The purpose in science instruction in the middle schools is to serve a general education function. That is, science instruction should focus on providing the student with (1) a valid understanding of the nature and purposes of science and of those mental and physical behaviors that characterize science as a human process, (2) a familiarization with certain general principles and concepts of science that have lasting relevancy, and (3) stimulating intellectual encounters with challenging problems involving investigative activities. The goal of preparing the student for future science courses is met by the successful attainment of these more general goals.

Science instruction requires active investigative behavior on the part of students. By coordinating/integrating the middle school science program students are provided with opportunities throughout their middle school experience to reconnect to the themes of Systems and Change. In this manner students and teachers are regularly collecting data on student progress toward learning goals not only during the year but from year to year. The threading of these themes from sixth grade through eighth grade will lead to increased understanding and appreciation for the myriad of connections that exist among and between the branches of Earth, Life, and Physical Science. By *doing* science in addition to learning about science, students are given the opportunity to apply problem solving skills, learned across the curriculum, to real problems they and society as a whole will face.

### **GRADE 6** Science - 5 x week - year

Sixth grade science provides students with a coordinated science course that integrates concepts in Life, Earth, and Physical Science through the use of a storyline approach – a logical sequence of lessons that are motivated by students’ questions that arise from students’ interactions with phenomena. Students examine phenomena dealing with Light & Matter, Thermal Energy, Weather Climate & Water Cycling, Rock Cycling & Plate Tectonics, Natural Hazards, and Cells & Systems. Some of the questions that students will be figuring out include:

- Why do we sometimes see different things when looking at the same object?
- How can containers keep stuff from warming up or cooling down?

- Why does a lot of hail, rain, or snow fall at some times but not others?
- What causes Earth's Surface to change over time?
- Where do natural hazards happen and how do we prepare for them?
- How do living things heal?

Students will actively engage in scientific and engineering practices and apply crosscutting concepts to deepen their understanding of the core ideas. The learning experiences provided for students will engage them with fundamental questions about the world and in the role of scientists to investigate and find answers to those questions. Students will have ongoing opportunities to carry out scientific investigations and engineering design projects related to the disciplinary core ideas throughout the course.

## **GRADE 7**      Science - 5 x week - year

Seventh grade science provides students with a coordinated science course that integrates concepts in Life, Earth, and Physical Science through the use of a storyline approach – a logical sequence of lessons that are motivated by students' questions that arise from students' interactions with phenomena. Students examine phenomena dealing with Chemical Reactions & Matter, Chemical Reactions & Energy, Metabolic Reactions, Matter Cycling & Photosynthesis, Ecosystem Dynamics, and Natural Resources & Human Impact. Some of the overarching questions that students will be figuring out include:

- How can we make something new that wasn't there before?
- How can we use chemical reactions to design a solution to a problem?
- How do things inside our bodies work together to make us feel the way we do?
- Where does food come from, and where does it go next?
- How does changing an ecosystem affect what lives there?
- How do changes in Earth's system impact our communities and what can we do about it?

Students will actively engage in scientific and engineering practices and apply crosscutting concepts to deepen their understanding of the core ideas. The learning experiences provided for students will engage them with fundamental questions about the world and in the role of scientists to investigate and find answers to those questions. Students will have ongoing opportunities to carry out scientific investigations and engineering design projects related to the disciplinary core ideas throughout the course.

**GRADE 8** Science - 5 x week - year

Eight grade science provides students with a coordinated science course that integrates concepts in Life, Earth, and Physical Science through the use of a storyline approach – a logical sequence of lessons that are motivated by students’ questions that arise from students’ interactions with phenomena. Students examine phenomena dealing with Contact Forces, Sound Waves, Forces at a Distance, Earth in Space, Genetics, Natural Selection & Common Ancestry. Some of the overarching questions that students will be figuring out include:

- Why do things sometimes get damaged when they hit each other?
- How can a sound make something move?
- How can a magnet move another object without touching it?
- How are we connected to patterns we see in the sky and space?
- Why are living things different from one another?
- How could things living today be connected to things that lived long ago?

Students will actively engage in scientific and engineering practices and apply crosscutting concepts to deepen their understanding of the core ideas. The learning experiences provided for students will engage them with fundamental questions about the world and in the role of scientists to investigate and find answers to those questions. Students will have ongoing opportunities to carry out scientific investigations and engineering design projects related to the disciplinary core ideas throughout the course.

## **SOCIAL STUDIES**

Social studies in the Scotch Plains-Fanwood Middle School is designed to give students knowledge of the development of human civilizations, understanding of the political, cultural, and economic roots of the United States, appreciation of the diverse cultures that are the foundations of modern times, and awareness of and respect for our own multicultural society. The social studies curriculum emphasizes varied skills which include note taking, gathering information, cooperative learning, written and oral communication, interpretation, and analysis of primary sources, and critical thinking skills.

The great record of human experience becomes the laboratory of the social studies program where students study the achievements and conflicts that have faced societies throughout history. The students also study the geographic conditions and social environments that influence past and present decisions. Students examine the decision making process and design solutions for problems confronting the United States and the world today with a focus on understanding the consequences of those choices.

### **GRADE 6**

The primary focus in sixth grade is on world geography. The students explore how physical geography (location and place) and human geography (culture and region) interact to shape the political, economic, social, and cultural features of the world's major regions (Africa, Asia, Europe, and the Americas). Management and allocation of resources and preservation of the natural environment are central to the course. An issues-centered approach to geography challenges students to think about solutions to important global issues as they are experienced in various places and times.

Students develop skills that include the interpretation of maps, globes, databases, and charts. They engage in research and develop analytical reports. Through public speaking, multimedia presentations, classroom discussion, and simulations, they explore issues including world hunger, pollution, population density, and energy needs. Students use technology to gather and exchange information with other students studying geographic concerns.

### **GRADE 7**

The seventh grade social studies program includes a semester of civics and semester of U.S. history. Students develop an understanding of the philosophical and historical developments that led to the democratic institutions we experience today. Students study how and why the Constitution was designed as it was, and they investigate both historical and contemporary events and issues that illustrate how the U.S. government operates. In addition, the exploration of major political and social issues further help students to understand civics in action. Various civc-oriented projects afford students the opportunity to practice active citizenship.

Besides studying factual content, there is an emphasis on reading a variety of fiction and non-fiction resources including primary source material. There are numerous opportunities for research and the development of expository and analytical writing. Teaching strategies include cooperative learning, journal writing, service learning, inquiry approach to discussions of current issues, and the integration of technology.

## **GRADE 8**

The eighth grade program in social studies builds on students' knowledge of basic geography, civics, culture, history and economics through a study of world history. Utilizing the framework of the Big History Project, students study the history of the world to understand how and why the world and human societies developed and changed over time. Students develop critical thinking skills to explore the past but also to make predictions about the future and better understand the current transofrations they are living through. Each unit is designed to facilitate strategies for seeking out common themes and patterns that can help us better understand people, civilizations, and the world we live in. Using essential questions such as "How do societies get what they need?", "What makes human societies similar and different?", and "What are the consequences of interaction?", students begin to understand how the experiences of past civilizations help us to understand the challenges we face in the modern world.

## **SPECIAL EDUCATION - RESOURCE PROGRAM**

All special education resource students have been identified and classified by the child study team as having a specific disability which interferes with their learning. An individualized Educational Program (IEP) has been developed for such learners. The IEP document determines which resource setting is appropriate for the student and what accommodations and/or modifications are necessary to assist learning.

The Resource Program offers services in the general education classroom or in a small group, separate special education classroom. Services in the general education classroom are called In-Class Resource (ICR). Both a general education and a special education teacher collaboratively deliver the general education curriculum in a general education classroom, using a team teaching approach with accommodations and/or modifications implemented to accompany learning.

Services in the small group, special education classroom are called Pull-Out Replacement (POR). POR services replace the general education instruction. A special education teacher provides instruction using a modified general education and/or supplemental curriculum and materials to meet the students' needs.

## **SPECIAL EDUCATION - SELF-CONTAINED MD PROGRAM**

Classified students who require a more specialized education program than the Resource Program receive services in the self-contained program. Instruction in the self-contained classes address the academic, emotional, and social needs of students whose disabilities require the integration of significantly modified content area proficiencies. As needed, the self-contained program incorporates instruction in the areas of daily living and functional life skills. Academic and functional life skills may also be taught through community-based instruction throughout the school year. Students are included in typical academic and non-academic classes, as documented in individual IEPs.

## **SPECIAL EDUCATION - SELF-CONTAINED LLD PROGRAM**

Students who require a more specialized program than the Resource Program, with an emphasis on comprehensions of spoken or written language, may receive services in the LLD Program. This class is designed specifically for students with a language-learning disability. The program delivers instruction to meet the individual needs of students through explicit, direct instruction, using a heavily modified curriculum that focuses on intervention-based multisensory strategies. The curriculum meets the requirements of the New Jersey Learning Standards through direct, intentional, slower-paced instruction. Instruction infuses the academic, social and emotional need of learners in a specialized setting.

## **SPEECH/LANGUAGE PROGRAM**

Speech/language specialists examine, appraise, diagnose, and remediate the speech, voice, and language of children who experience difficulty with these functions. Students may be referred by parents, teachers, and/or a member of the child study team. The presenting speech/language problem must interfere with the educational process in order for the student to be eligible for in school services. Services are offered in accordance with the identified individual needs of the children being served as delineated in their Individualized Education Program (IEP). Speech services may be provided in a pull-out setting or within the student's classroom setting. It is also the responsibility of the speech/language specialist to serve as a consultant for the entire staff and to provide materials and suggestions to any teacher who is working with a communication challenged child in the classroom situation. Referrals are made to other specialists (medical, dental) when appropriate.

## **WORLD LANGUAGES**

The World Languages program in the Scotch Plains-Fanwood Public Schools is committed to helping ALL students acquire an understanding and respect for other people, cultures, contributions, and points of view. We believe that through a long sequence of language study, students' lives are enriched by exposing them to the study of cultures as reflected in language, art, music, geography, and history.

Our nation's expansion into the international arena has made the study of world languages a national priority. Therefore, we are committed to providing a world language sequence that integrates an understanding of the interrelationship between language and culture in the multiethnic community that exists in our global society. Through our program, students will begin or continue to gain proficiency in three modes of communication: interpretive (listening, reading and viewing, interpersonal (speaking and writing), and presentational (speaking and writing.)

The middle school world language program is composed of an exploratory experience in the fifth grade and an opportunity for formal language study in the sixth, seventh, and eighth grades. French, Italian, and Spanish are the languages offered in the program.

### **GRADE 6**

In the sixth grade, the students begin to study the language of their choice for three days of a six day cycle. Students are introduced to the target language and culture via units of study that focus on common informal settings and aspects of daily life within a meaningful cultural context. Emphasis is placed on using the language communicatively and instruction is primarily in the target language. Student-centered activities actively engage the learners in demonstrating language proficiency through the interpretive, interpersonal and presentational modes of communication.

### **GRADE 7**

In the seventh grade, the students continue to study the language of their choice with classes increasing to five days a week. Students learn the target language and culture via thematic units of study that focus on common informal settings and aspects of daily life within meaningful cultural contexts. . Emphasis is placed on using the language communicatively and instruction is primarily in the target language. Student-centered activities actively engage the learners in demonstrating language proficiency through the interpretive, interpersonal, and presentational modes of communication.

### **GRADE 8**

In the eighth grade, the students continue in their chosen language five days a week. Each course is designed to reenter and build upon previously learned material in units of study that integrate language and culture. There is a continued emphasis on listening and speaking with reinforcement from simple readings and some writing.

Instruction is delivered in the target language. Students will actively apply their language skills through student-centered learning activities that will help them continue to acquire and demonstrate language proficiency through the interpretive, interpersonal, and presentational modes of communication.

**MIDDLE SCHOOL S.T.A.R.**  
**(STUDENTS TAKING ACADEMIC RESPONSIBILITY)**

The purpose of the S.T.A.R. program is to offer students enrichment opportunities and academic support while simultaneously providing students and teachers with a structure in which to forge close relationships.

**ACADEMIC SUPPORT**

During the year, students will have the opportunity to receive academic support from their teachers. The goal is to provide meaningful time during the school day whereby teachers are able to give additional academic support to all students. If students do not need to meet with a teacher, they may complete work by themselves, read independently, or pursue other academic interests.

**TEAM BUILDING**

Students will periodically participate in various team-building activities. The activities are structured so that students collaborate, problem-solve, exercise interpersonal skills, establish trust, demonstrate respect for others, and strengthen relationships with their teachers and peers. At times, the team-building activities may include groups of students from all grade levels working together toward a common goal.

**CYBER SAFETY and DIGITAL CITIZENSHIP**

S.T.A.R. also includes a series of lessons that address cyber safety and digital citizenship. The lessons will touch on both the benefits and dangers that students face when interacting with technology and digital media. Some of lesson topics include cyberbullying, safe online talk, and thoughtful media consumption.