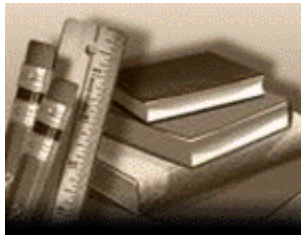


SOMERVILLE
PUBLIC SCHOOLS



A Parent's Guide to the Curriculum

2011-2012



Our mission as a school community is to provide quality education through an environment which promotes individual excellence and that all pupils achieve the Common Core State Standards and the New Jersey Core Curriculum Content Standards at all grade levels.

Somerville Public Schools
Somerville, New Jersey

Adopted by the Board of Education: September 15, 1992
Amended by the Board of Education: March 11, 2008 and May 24, 2011

INTRODUCTION

The PreK-12 curriculum guide has been produced to help parents/guardians and community members understand the educational programs offered in the Somerville Public School district. The brochure presents an overview of the academic programs that support the *2009 New Jersey Core Curriculum Content Standards* and the *2010 Common Core State Standards*. Board-adopted curriculum maps are available in each school building, in the Office of Curriculum, Instruction, and Technology, and on the district website (www.somervillenk12.org).

The Somerville Board of Education initiates curriculum committees to encourage parental and community involvement. Partnerships with parents/guardians, business and industry, and the school community are essential to provide a quality education for all students.

SOMERVILLE PUBLIC SCHOOLS BOARD OF EDUCATION: 2011-2012

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Acknowledgement

Portions of this document are direct citations from the *2009 New Jersey Core Curriculum Content Standards*, the *2010 Common Core State Standards*, and *Frameworks* as published by the New Jersey Department of Education.

Somerville Public Schools Administration

Administrative Headquarters

Dr. Timothy J. Purnell
Superintendent of Schools

Mr. Thomas A. Conroy
Director of Curriculum and Instruction

Mr. Bryan P. Boyce
School Business Administrator/
Board Secretary

Ms. Cindy Atkins
PreK-12 Supervisor

Mr. Luke McGrath
Director of Special Services

Mrs. Katherine K. Neary
PreK-12 Supervisor/Preschool Supervisor

Mr. Salvatore Gambino
Supervisor of School Plant Facilities

Mr. Jason Solomon
Director of Technology

Somerville High School

Mr. Corey J. Jones
Principal

Mr. Scott Hade
Assistant Principal/Athletic Director

Mr. Gerard Foley
Assistant Principal for Guidance
& Special Services

Mr. Jeffrey Caulfield
Supervisor of Student Activities & Testing

Somerville Middle School

Ms. Georgette Boulegeris
Principal

Mr. Robert Reavey
Assistant Principal

Van Derveer Elementary School

Mrs. Susan Haynes
Principal

Ms. Stacey Peterson
Assistant Principal

EDUCATIONAL PHILOSOPHY



The educational philosophy of the Somerville Public School district is based on the belief that all children shall be given an opportunity to learn and to achieve their full potential in a democratic society. Our focus is to foster the well-being of students and to provide for their academic, social, emotional, civic, and physical development.

It is also our mission to nurture intellectual achievement and civic responsibility and to promote positive self-esteem for all students. We recognize that parents/guardians are the primary educators of their children and we seek a partnership in working with parents/guardians. Parents/Guardians are the key to a child's success in school and in life.

The Board of Education believes that students must be guided to attain 21st century life skills needed to be successful in future endeavors as contributing members of their community and the United States of America. Our aim is also to promote dedication to the democratic process, love of America, respect for one another, and appreciation of our multicultural society.

The Board of Education and staff accept the following charges to achieve the goal of quality education for all.

- ✓ *To promote students' mastery of learning, thinking, and problem-solving skills, including providing the tools for self-expression, communication, and 21st century life and career skills as defined by the 2009 New Jersey Core Curriculum Content Standards and the 2010 Common Core State Standards.*
- ✓ *To meet the developmental needs of children, particularly the needs to inquire, learn, think, create, and to relate well to others in social situations involving family, work, government, and recreation.*
- ✓ *To acknowledge the importance of the primary role of the home and the supplemental role of social institutions in establishing habits and attitudes that lead to positive personal choices, optimum physical and mental health, and sound ethical decisions.*



ENGLISH LANGUAGE ARTS

The goal of the English language arts program is to increase student achievement through effective instruction in the skills required to live and to work in the 21st century global community. The primary grades are building blocks that lay the foundation for learning and skill development so that each succeeding grade builds on the skills achieved by every student in his/her effort to become a fluent reader, writer, speaker, listener, and viewer. The English language arts program becomes increasingly sophisticated as students progress through the grades, enabling students to gain increased confidence and proficiency in oral and written language, comprehension, and critical thinking skills. Language skills are essential to further learning, communication, career development, and the human spirit. These beliefs are in accordance with the *2010 Common Core State Standards for English Language Arts and Literacy in History, Social Studies, and Science*.

Grades PreK-5

Our belief is that teaching in the elementary grades encompasses the commitment to teaching the whole child. We recognize the importance of English language arts to all facets of learning, which includes reading, writing, speaking, listening, viewing, and thinking. We provide an approach to teaching English language arts that includes a literature-based integration of direct instruction in context and a high degree of student engagement and developmentally-appropriate interaction in the learning process.

Grades 6-8

Students in grades six, seven, and eight bridge the gap that carries them from childhood to early adolescence. Academic change is occurring in their lives. The program includes literature study exposing students to an ever-widening breadth and depth of knowledge of genres and recurring themes, such as bravery, loyalty, friendship, and loneliness.



Grades 6-8 (continued)

Integrating comprehension reading strategies into English language arts instruction prepares students with the communication skills of reading, writing, speaking, and listening, which provide an academic foundation applied across all content areas. The school district is committed to providing an interactive classroom environment to enhance all learning.

Grades 9-12

In high school, students expand the foundational skills of reading, writing, speaking, listening, viewing, and higher-order thinking. A careful and in-depth study of grammar enables students to express themselves more effectively in written and oral communication. In order to meet individual student needs, we believe in differentiating instruction and offering a variety of electives that reflect students' interests and career goals.

Summer Reading Program: Grades K-12

The Somerville Public School district maintains as its broad purpose the goal of supporting and enhancing literacy across the curriculum at every grade level. The Summer Reading Program was collaboratively developed by teachers, students, parents/guardians, administrators, and Board members. Each summer, students are provided with required and suggested readings and supporting curricular activities. Visit each school's website for a current list of specific readings and program requirements at www.somervillenk12.org.



MATHEMATICS

The goal of the mathematics program is to help students acquire the mathematical skills, understandings, and attitudes that they need to be successful in their careers and daily lives. These beliefs are in accordance with the *2010 Common Core State Standards for Mathematics* and the philosophy of the National Council of Teachers of Mathematics.



- The mathematics program enables all students of the Somerville Public School district to compete in the global market place of the 21st century.
- Students learn mathematics in a cooperative setting where they share mathematical understandings in written and oral form with their classmates, teachers, and parents/guardians, thus developing their confidence as mathematicians.
- Students use a variety of technologies (e.g., manipulatives, calculators, computers, and SMART Boards) to build a conceptual understanding while engaging in motivational real-world, hands-on mathematical explorations and discoveries that assist them in problem solving.
- Students focus on understanding where, when, and how mathematics and mathematical concepts are used.
- Students are challenged to use mathematics in meaningful ways to develop their reasoning and problem-solving skills.
- Students are evaluated using a variety of assessment strategies to provide a more comprehensive picture of their performance and progress.

Grades PreK-5

At the elementary level, mathematics is learned in three stages: concrete, pictorial, and abstract. For this reason, fundamental concepts are developed using manipulative materials that actively engage students. This hands-on approach is used to develop important aspects of mathematics, such as place value, measurement, geometry, and fractions. Computation and mental mathematics are incorporated in problem-solving situations.



Grades 6-8

Students are provided with many opportunities to practice problem solving, reflect upon their thinking, and to explain their solutions. Problem-solving strategies are expanded to include working backwards, writing and solving equations and solving, making diagrams, solving complex problems, and using concrete objects to represent problem situations. Technology, including calculators, computers, and SMART Boards, is used to develop fundamental concepts.

Grades 9-12

The secondary mathematics curriculum emphasizes understanding concepts, developing multiple representations, making connections, and using mathematical modeling and logical problem solving. Graphing calculators, computer applications, and mathematical modeling are used as tools for exploring and developing fundamental concepts. A broad range of course offerings promotes mathematical problem solving, communication, reasoning, connections, algebra, functions, geometry, trigonometry, statistics, probability, discrete mathematics, calculus, and mathematical structure. Students who qualify may enroll in one of two levels of Advanced Placement Calculus or Advanced Placement Statistics.



Computer Science

The computer science program consists of a sequence of programming courses offered through the Department of Mathematics. The culminating Advanced Placement course provides high school students with the opportunity to earn college credit.

Pre-Engineering

Pre-engineering courses begin at Somerville Middle School with the *Gateway to Technology* encore sequence in grades 6-8. At the secondary level, students may elect to enroll in a four-course pre-engineering sequence through *Project Lead The Way*. The Engineering of the Future course explores current environmental concerns, molecular biology, and the robotics build. Each class uses state-of-the-art technology equipment and software in a project-based laboratory setting.



SCIENCE

The goal of the science program is to help all students understand the fundamental scientific principles and develop the habits of mind inherent in science, such as communication, curiosity, skepticism, open-mindedness, and accuracy when experimenting and interpreting findings. Students receive instruction in the life, earth, space, and physical sciences which they will be able to apply as they grow towards scientific literacy. The PreK-12 science curriculum infuses the *2009 New Jersey Core Curriculum Content Standards for Science* and the *2010 Common Core State Standards* and supports the philosophy of the *National Science Education Standards (NSES)* and *Project 2061 of the American Association for the Advancement of Science (AAAS)*.

Grades PreK-5

In the elementary science program, topics are investigated in a hands-on setting in order to capitalize on the natural curiosity and creativity that young children have about the world around them.

Students often work in teams to investigate a broad range of topics drawn from the living world. Interdisciplinary computer projects enhance the study of science. The science laboratory provides students with the opportunity to utilize technology, including poly com video conferencing, as a tool to investigate and to explore scientific concepts from experts in the field.

Grades 6-8

The middle school science curriculum actively engages students in the collection and use of evidence, the design of investigations, and hands-on experiences using mechanical, electronic, and optical tools in science laboratories.

The curriculum focuses on the areas of earth science, biological science, and physical science. Students are provided with the opportunity to gain an understanding of the dynamics, patterns, and order on earth, as well as in the universe. Manipulation and observation skills with emphasis on the correct use of measuring instruments are a major component of the curriculum. Students use technology as an investigative tool.

Grades 9-12

The high school science curriculum provides students with insight into our technological world and a broad exposure to a variety of relevant science topics. Students use their abilities to develop an appreciation and an understanding of the world around them while they prepare for the workplace, for college, and for citizenship.

State-of-the-art science laboratories provide students with numerous opportunities to develop problem-solving, decision-making, and inquiry skills. Students formulate hypotheses, plan experiments, conduct systematic observations, interpret and analyze data, draw conclusions, and communicate results.

The science program integrates modern technology through the use of computer-based laboratories and the electronic video microscope. The curriculum offers a broad range of courses, including Biology, Chemistry, Physics, and Anatomy and Physiology. Advanced Placement courses are offered in biology, chemistry, and physics to students who qualify.



SOCIAL STUDIES



The basic purpose of social studies education is to prepare young people to be active, informed, responsible citizens, and contributing members of society. The social studies content is organized into four strands and three standards. The strands are: Civics, Government, and Human Rights; Geography, People, and the Environment; Economics, Innovation, and Technology; and History, Culture, and Perspectives. The standards are: U.S. History: America in the World; World History/Global Studies; and Active Citizenship in the 21st Century.

Three areas of humanities study—citizenship, geography, and history—are emphasized to provide students with an understanding of human interaction over time. Embedded in these content areas are anthropological, cultural, economic, global, and sociological perspectives. By studying the human condition in these contexts, students gain an understanding of our country’s history, institutions and environment, and also of the forces that have shaped world cultures. Students learn to view contemporary problems facing the nation and the world as products of complex historical, institutional, and environmental processes, rather than as isolated events, which lack deep meaning. The social studies strands and standards offer students a set of shared understandings about our nation and the world, which are the basis for informed discussions about how to achieve democratic goals of justice, equality, and social progress. These beliefs are in accordance with the *2009 New Jersey Core Curriculum Content Standards for Social Studies* and the *2010 Common Core State Standards*.

Grades PreK-5

The elementary social studies curriculum includes a study of the past as a basis for understanding the present and as an aid in preparing for the future. Recognizing the importance of understanding and appreciating cultural diversity in the local community, New Jersey, the country, and the world, we believe in teaching students to interact with all people, appreciate cultural diversity, and work cooperatively.



Grades 6-8

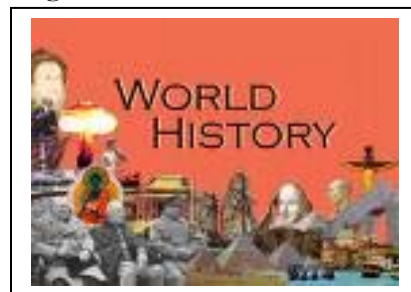
Students in grades six, seven, and eight expand their geographical understanding through the study of the interaction between humans and their environments. Building on prior knowledge of the Revolutionary War period and world studies, students broaden their knowledge of American history, including events leading up to and during the Civil War. Students study world history and the development of civilized societies through an examination of the effects of geography on the formation of government.

Due to the complexities of living in a global society, the curriculum highlights the variety of approaches used by different cultures to define and meet one's basic needs. Students become aware of the impact of different cultures and civilizations throughout history. To foster this understanding, the middle school curriculum explores geography, regions of the world, and American history.

Grades 9-12

The goals of social studies instruction include an examination of our cultural and intellectual heritage, citizenship education, and the development of critical thinking, reflective learning, and information gathering. Social studies education includes the study of civics, history, economics, geography, sociology, psychology, political science, and law. Students learn to analyze and to interpret a variety of resources and materials in order to compare and contrast conflicting view points. While the curriculum is responsive to individual student goals, all of the courses emphasize contemporary issues that affect the home, community, school, state, country, and world.

Amistad, Holocaust, and genocide studies are embedded in the social studies curriculum and courses in the humanities at all grade levels.



WORLD LANGUAGES



The Somerville Public School district supports the need to educate individuals to be multi-lingual and to be sensitive to multi-cultural societies. Due to the rapid growth of technology connecting the world, the district recognizes the need to prepare its students to live and work in a cross-cultural society. The World Languages program reflects the experiences of the cultures that preceded us, as well as our own multi-language and multi-cultural population. World Languages are an essential part of the education of all students. As a result, the individual becomes an integral part of this multi-lingual, multi-cultural society. The ability to communicate in other languages and function in different cultural contexts serves to enhance students' personal and professional opportunities. These beliefs are in accordance with the *2009 New Jersey Core Curriculum Content Standards for World Languages*.

Grades K-5

At the elementary level, the focus of world language study is on listening and speaking skills. Students reinforce and expand the basic vocabulary, expressions, and structures that are essential for everyday communication in Spanish. While increasing their vocabulary, students learn to respond to simple questions and commands using actions, words, phrases, and short sentences. Students are exposed to the culture of Spanish-speaking countries. Additionally, Spanish instruction utilizes the support of multimedia presentations and integrates the disciplines of art, English language arts, mathematics, music, science, and social studies.

Grades 6-8

At the middle school level, sixth grade students are afforded the opportunity to experience both French and Spanish in exploratory courses. The seventh and eighth grade world languages curricula is a two-year sequence of courses, which is equivalent to one year of world language study at Somerville High School. The eighth grade curriculum reinforces and expands the requisite skills of reading, writing, speaking, and listening, taught at the previous grade levels. Experience in the study of both French and Spanish languages enables students to select the target language of interest for further study.

Grades 9-12

The World Languages program offers a six-year sequence of study in French and Spanish, which incorporates middle school language study. In order to meet individual student language goals, the program also provides an honors sequence in both French and Spanish, leading to Advanced Placement courses in grade twelve.

Teachers stress proficiencies in written and oral expression and in listening and reading comprehension in order to develop students' ability to communicate effectively and appropriately in a language other than their own. Teachers emphasize career opportunities in which skills in more than one language are valued. The histories and cultures of the countries in which these languages are spoken and the importance of effective communication in an increasingly global society are recognized.



COMPREHENSIVE HEALTH AND PHYSICAL EDUCATION

The overall goal of the Comprehensive Health and Physical Education program is to:

- ▶ Empower students to make informed decisions about issues that impact their present health, the health of their family and friends, and the health of society.
- ▶ Enable students to practice health-enhancing behaviors before damaging patterns are firmly established.
- ▶ Enhance students' ability to become cautious and competent consumers.
- ▶ Strengthen students' ability to focus on learning, academic achievement, and preparation for the world of work.
- ▶ Empower students to navigate through and around conflicting messages, risky behaviors and mounting pressures, and to develop dependable support systems.
- ▶ Assist students to recognize, understand, and address immediate or chronic health issues in order to prevent long-term health problems.
- ▶ Empower students to choose lifelong physical activities that promote enjoyment and self-confidence.
- ▶ Enable students to participate in lifelong activities that promote, support, and maintain wellness.



These beliefs are in accordance with the 2009 New Jersey Core Curriculum Content Standards for Comprehensive Health and Physical Education and reinforce building-based character education themes.

Family Life Education

The basic content of the Family Life curriculum includes units on family living education. The content and level of detail explored is consistent with the grade level of the students. The New Jersey Family Life Program law permits a parent or legal guardian to request that his/her child be excused from that portion of the Family Life course that “is in conflict with his/her conscience, or sincerely held moral or religious beliefs...”

A parent or guardian who wishes the child to be excused, as per the state law, must submit a written request to the building principal.

Certification and License Programs: CPR and Driver Education

In addition to meeting the *2009 New Jersey Core Curriculum Content Standards*, Somerville High School juniors are afforded the opportunity to obtain certification in Cardio-Pulmonary Resuscitation (CPR) and First Aid. Sophomores participate in Driver Education theory. Successful completion of this program may result in the issuance of a learner’s permit.





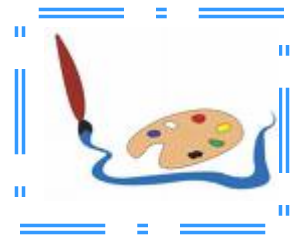
VISUAL AND PERFORMING ARTS

An education in the arts is an essential part of the academic curriculum for the achievement of human, social, and economic growth. It has the potential to:

- ★ Strengthen the ability to be creative and inventive decision-makers.
- ★ Develop a wide range of skills significant to many aspects of life and work.
- ★ Provide varied and powerful ways of communicating ideas, thoughts, and feelings both as individuals and as members of communities.
- ★ Enable us to understand and influence the increasingly complex technological environment affecting all aspects of our lives.
- ★ Provide a strong economic base through the state's cultural attractions.
- ★ Emphasize humanities education as a key to understanding the arts as products of complex social, cultural, and intellectual trends.
- ★ Enrich understanding of the human experience across cultures and histories, including the accomplishments of men and women of different ethnic, racial, and cultural backgrounds.
- ★ Provide valuable tools to enhance learning across all disciplines.
- ★ Empower people to create, reshape, and fully participate in personal and community environments to enhance the quality of life for all.



*These beliefs are in accordance with the 2009 New Jersey Core Curriculum
Content Standards for Visual and Performing Arts.*



Art

The purpose of art education is to expand the student's knowledge, develop concentration, and encourage critical thinking. In today's increasingly visual and interconnected world, art education teaches students to be visually aware, literate, and multi-culturally sensitive.

At the secondary level, students begin with a survey course that introduces all media and techniques. Use of graphics is infused into these courses through the application of technology tools, such as *Adobe Photoshop* and *Wacom* tablets. Students may elect to continue on to the study of digital photography, three-dimensional art, art for commercial purposes, or advanced fine arts.

Music

Music influences children's thinking and behavior. Through exposure to various historical, cultural, and contemporary styles of music, students learn to hear, feel, and examine the thoughts and feelings others have communicated through music and song.

The making of music is a thoughtful practice involving formal and informal knowledge. It requires the development and practice of sensory skills, the manipulation and translation of complex symbol systems, and the understanding of the component parts that comprise the "whole" composition. The continuum and practice of thoughtful synthesis, expressiveness, dynamics, dance, movement, flow, and timing are essential to success in music and virtually all aspects of a person's life.



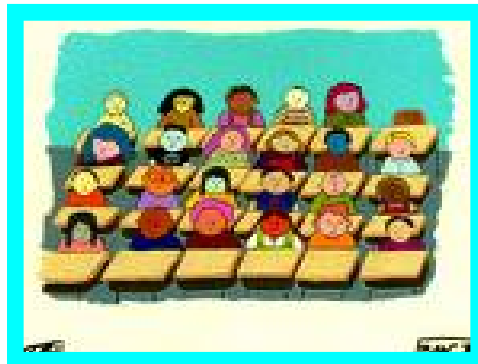
Instrumental Music

Students may pursue their interest in music through the instrumental music program. Beginning in grade four, students may receive lessons and instruction during school hours under the direction of staff members. The school bands and ensembles formed through our program perform at various school and community functions and at our annual winter and spring concerts.

SPECIAL EDUCATION

The goal of the special education program is to provide appropriate programs in the least restrictive environment to all pupils with educational disabilities. Pupils with suspected learning disabilities should be referred to the individual school's Intervention and Referral Services (I&RS) Committee. The I&RS/504 Committee may refer the pupil to the Child Study Team for review and/or possible evaluation to determine the pupil's eligibility for special education and related services. The Child Study Team consists of a learning disabilities teacher/consultant, a school psychologist, and a school social worker. The following programs are available to children identified as eligible for special education or related services: preschool disabilities, learning and/or language disabilities, pull-out resource centers, in-class support for general education, preschool through fifth grade ABA classes, speech/language services, occupational therapy, and physical therapy.

Pupils with educational disabilities who require programs or services not offered in the local schools are placed in out-of-district placements. All learning disabled pupils have an Individual Educational Plan (IEP) outlining their services, programs, goals, and objectives. The IEP is updated annually and conforms to strict guidelines established by State and Federal regulations.



PRACTICAL ARTS

The following programs are aligned with the *2009 New Jersey Core Curriculum Content Standards for: Technological Literacy, Career Education and Consumer, Family and Life Skills*.

21st Century Life and Career Skills is infused across content areas in an interdisciplinary approach. The Financial Literacy course, required for high school graduation, focuses on preparing students to meet the challenges of managing personal and family resources in a 21st century environment.

Business Education

The purpose of business education is to prepare students for a satisfying, successful career as contributing citizens in our complex society. Those factors related to career success beyond the mechanical skills and knowledge associated with business education are especially emphasized. Business education courses are recommended for all students who have an interest in pursuing a career the business world. The background, knowledge, and experiences provided in the elective offerings are practical skills that apply to personal finance, career exploration, and post-secondary education.

21st Century Life and Careers

Students are encouraged to use creative, critical-thinking skills in collaboration with classmates as they identify and implement strategies necessary to assume their roles as global citizens working in a diverse society. Personal and financial responsibility related to financial planning, savings, investments, and charitable giving are discussed as students develop the skills and strategies necessary to become informed citizens of the global economy.



LIBRARY/MEDIA

The goal of the library/media curriculum is to foster a love of reading and to help students effectively access the ideas and information needed to complete academic tasks. The library/media curriculum provides the tools to be lifelong learners and informed decision-makers, skilled in the use of information technologies.

Grades PreK-5

The library/media program is designed for all students in the elementary level and is integrated with all curricular areas. Each class meets on a regularly-scheduled basis. The library/media curriculum reflects learning skills within the context of researching with the goal that by the end of fifth grade, students may effectively access information and efficiently make use of all the resources found in the library/media center.



Grades 6-8

The middle school library is a resource base that utilizes flexible scheduling to accommodate all staff and students who are engaged in research on a variety of subjects. The middle school library/media program builds on the skills developed in the elementary grades. Individual students, small groups, and whole classes may access materials and technology in the library to complete assignments. The media specialist provides formal and informal instruction that is tailored to various projects and performance assessments.



Grades 9-12

The library/media center at the secondary level provides students with the skills necessary to access and evaluate information through a variety of formats, including books, CD ROMs, and the Internet. Electronic and print materials are available in all content areas, in addition to a collection of novels, magazines, and journals for leisure reading. Computer terminals are equipped with word processing programs that students may use for preparing papers and other school projects.

In addition to the materials in the high school library, the inter-library loan program allows free statewide borrowing. The media center is open all day and students may use the library during both lunch and/or study hall. The media center is accessible before and after school Monday through Thursday.

COMPUTERS AND OTHER TECHNOLOGIES



Grades K-2

Students in the lower elementary grades have the opportunity to build familiarity with the computer and its functions. Students are introduced to a variety of software applications, including those that allow them to map their writing ideas through words or pictures and programs which provide the platform for multimedia presentations.

Grades 3-5

Upper elementary students build upon the skills they acquired during their first three years in the program. These students are also introduced to applications, such as word processing, spreadsheets, and multimedia presentations.

Grades 6-8

Middle school students have the opportunity to become proficient in the use and integration of applications, multimedia presentations, spreadsheets, and word processing. Students at each grade level complete projects that correspond to the core grade-level curriculum and the *2009 New Jersey Core Curriculum Content Standards*.

Proficiency is assessed at the grade 8 level through use of the New Jersey Technology Assessment for Proficiency and Integration (NJTAP-IN) rubric in a culminating project, including all required applications. Students conclude the validity of information located on the Internet and practice safe uses of technologies for research across the content areas.

Grades 9-12

The Microsoft Office Specialist (MOS) course provides acquisition of specific skills in the applications of *Word*, *Excel*, and *Outlook* and prepares students to take the MOS examination.

Internet safety and appropriate use of technology are addressed throughout the K-12 educational program.

Study Skills Curriculum

Students in grade 6 participate in a rotational course titled, *Explorations*. This course provides students with the opportunity to learn study skills that promote school and personal success. Students access, evaluate, and use research tools and other electronic and print resources available through the media center. The program encourages students to become effective lifelong learners.

Project Lead The Way

Project Lead The Way is a standards-based technology program for students in grades 6-12. At the middle school level, students participate in the *Gateway to Technology* program, which promotes the development of technology skills through the integration of mathematics, science, and literacy. At the high school level, *Project Lead The Way* prepares students to enter a two- or four-year college or technical school in engineering technology while offering students who do not intend to pursue further formal education the opportunity to apply the knowledge and logical thought processes that are incorporated in the pre-engineering courses. The *Gateway to Technology* program prepares students for the sequence of four pre-engineering elective courses offered in grades 9-12.

Engineering of the Future is a Somerville High School elective course offered in three modules: Robotics, Biotechnical Engineering, and Conservation Engineering.

Students at all grade levels (K-12) participate in the *i-SAFE* program, which promotes Internet safety.



PROGRAM ENHANCEMENT: BILINGUAL/ESL EDUCATION

The goal of the Bilingual/ESL education program is to ensure that students of limited English proficiency are provided instruction that allows them to continue to develop academic skills while simultaneously acquiring English language proficiency. The program is designed to integrate the English language learners (ELL) population into an all English-speaking curriculum and is similar to the regular program.

The district has two types of programs: English as a Second Language (ESL) and a Bilingual program for Latino students. The ESL program from grades PreK-12 is a developmental English language program for non-native speakers designed to develop proficiency in listening comprehension, speaking, reading, and writing in English.

The Bilingual program provides instruction to students in English language arts and mathematics content areas. Skills are developed in the dominant language as English proficiency continues to expand. This is to ensure that students develop English language proficiency and subject matter competency.

The Bilingual/ESL education program is available to students in grades K-5.



PROGRAM ENHANCEMENT: GIFTED AND TALENTED

Philosophy

All schools have a population of gifted students who demonstrate high levels of intellectual capacity in general knowledge and skills, or in content-specific areas. The district believes that academically-gifted students should be presented with opportunities and experiences that enable them to develop their talents.

This district's mission is to help students to uncover and recognize their gifts, to provide the environment and resources to nurture those gifts through a differentiated curriculum, and to achieve the basic goal for the education of all children: the fullest development of one's potential.

The K-12 Gifted and Talented program offers a curriculum consisting of active learning, inquiry, discovery, complex problem solving, and communication skills that enables students to develop these abilities. The district believes that providing a program for gifted students will ultimately enrich the lives of all students.

Program Sequence



Van Derveer Elementary School (K-5)

Infusion and differentiated instruction across content areas meet the individual needs of gifted and talented students. Gifted education services include:

- ◆ Differentiated curriculum for the gifted learner.
- ◆ Regular classroom curricula and instruction that is adapted, modified, or replaced.
- ◆ Educational gifted and talented modules consisting of a continuum of differentiated curricular options, instructional approaches, and varied materials.
- ◆ Integrated gifted and talented programming into the general education school day.
- ◆ Flexible groupings of students to facilitate differentiated instruction and curriculum.

Program Sequence (continued)

Somerville Middle School (6-8)

Accelerated curriculum in English language arts and mathematics is provided for identified pupils.

Somerville High School (9-12)

Honors and/or Advanced Placement courses leading to college credit are offered in English language arts, mathematics, science, social studies, world languages, computer science, and music for identified pupils.

Qualifications Process

Kindergarten through Grade 5

Teacher observation and recommendation (adopted April 2, 2009).

Grades 6 through 8

Local performance assessment, class average, teacher recommendation, and/or advanced proficiency on the NJASK (adopted April 27, 2004).

Grades 9 through 12

Ninety percent average in subject area at mid-year of grade 8 or at end-of-year of grades 9 through 11, student self-assessment questionnaire, signed parent/student honors program agreement form (adopted July 17, 2007).



PROGRAM ENHANCEMENT: SOMERVILLE HIGH SCHOOL STUDENTS



Senior Options

Somerville High School has entered into an agreement with Raritan Valley Community College (RVCC) to provide exciting college opportunities to our students. Students are able to register for courses at RVCC and to attend the college from 7:30 a.m. to 10:00 a.m. Participants earn dual credits from both Somerville High School and RVCC. Course offerings may be found at the RVCC web site (www.raritanval.edu). Most college courses are guaranteed to qualify as transfer credits to any New Jersey state college or university. This is an incredible opportunity for students who wish to jump-start their college career or diversify their educational experiences.

Virtual High School

Virtual education courses are available through Educere for Somerville High School students. Educere is a leading K-12 virtual education services organization with school customers across forty-two US states and twenty-two countries. Students are afforded the opportunity to participate in courses from the following subjects: English language arts, mathematics, technology, life skills/health, world languages, science, social studies, business, and the arts.

For further information about the Senior Options and/or online courses programs, contact the Somerville High School guidance office at (908) 243-1550.



PROGRAM ENHANCEMENT: TITLE I/SUPPLEMENTAL SERVICES

The goal of the Title I/Supplemental Services program is to provide instruction to pupils who need reinforcement in reaching proficiency in English language arts and/or mathematics. All students enrolled in Title I schools are assessed annually using local, commercial, and/or statewide assessment instruments in accordance with federal guidelines. Eligibility is based on state-established levels of proficiency and other assessment criteria.

Title I services are provided to students in a variety of instructional settings, including supplemental instruction and before or after school programs.

Somerville Public Schools

