

SCHOOL DISTRICT OF SOUTH ORANGE AND MAPLEWOOD

Parents'
Guide to
Understanding
the
K-5
Curriculum

Revised September 2004

TABLE OF CONTENTS

Page

Introduction.....	3
Art	3
Health Education.....	4
English Language Arts.....	5
Library/Media.....	7
Mathematics	8
Music	10
Physical Education.....	11
Science.....	12
Social Studies.....	13
Technology.....	14
World Languages.....	16

INTRODUCTION

Parents are every child's first and most important teachers. In school, teachers expand what has been taught and learned at home. Therefore, parents and teachers become partners in teaching children to become knowledgeable, successful learners.

In order to be effective partners, we need to begin with an understanding of what and how your child will be learning. Some of what your child will be doing will not remind you of your school experiences. This booklet will help you understand the specifics of the South Orange and Maplewood School District's curriculum and explain some of its connections to recent research about learning. The curriculum is divided into content areas, such as mathematics and music, and all of our curricula are aligned with the *New Jersey Core Curriculum Content Standards*. Our schools organize separate curricula for each of the content areas, but our teachers coordinate and integrate them in order to provide an environment in which each student will develop the widest and deepest understanding of the world in which we live...past, present, and future.

As we look to the present and future, we build upon the past. New knowledge within each of the content areas, and new knowledge about learning cause us to modify past beliefs and experiences. Thus, your child's school experiences will differ from your school experiences.

- Learning today is much more active. Even young children create meaning from the learning experiences as they actively use tools, materials, and talk with each other.
- Learning today focuses on solving problems that require children to recognize alternative solutions, identify the best possible solution, and defend their choice. These behaviors are practiced in all content areas.
- Learning today emphasizes integration of content areas. Connections are made among ideas and information presented in different content areas.
- Learning must meet the specific needs of all children. Some may need enrichment in one content area, or more background knowledge

in another. Teachers meet these needs as they instruct your child.

The purpose of this booklet is to provide a summary of each content area. A more detailed description of each content area is available in a curriculum guide located in each elementary school library. You are welcome to review these curriculum guides.

You and your child's teacher form the primary partnership. The principal is also a partner. Communicate and collaborate with the teacher first to ensure an effective learning partnership for your child.

ART

Art is fundamental to the human experience and to the world in which children will create their lives. The elements of art, the skills, concepts, and values through which the visual world is fabricated, understood, and appreciated, are included in the art curriculum.

The visual arts provide a means of communicating ideas, feelings, and emotions. These arts shape the visual environment through architecture, urban planning and industrial design. Visual arts express the deepest yearnings and emotions of our species for human camaraderie, social and political justice, and beauty.

Children who learn to *read* the visual environment through art are better able to cope with the confusing barrage of images in modern life, including those of television and advertising. As a powerful tool of communication, art is indispensable to the efficient functioning of our children's lives and futures. Art helps us understand values and how they are transmitted in cultures, our own as well as others, and both of the present and of the past. The study of visual art is a powerful stimulus to a child's intellect and thus informs learning beyond the art class.

In a world increasingly bound by interdependence, art reveals the ideas, values, and interests of others. It reflects our commonalities and differences. Through art, children learn tolerance, respect, and concern for the beliefs, attitudes, and

values of other people, both in history and in the present.

GRADES K-2

- Children learn to observe the world around them. They distinguish between subtle changes such as bright and dull colors, differing textures, and contrasting shapes and forms.
- Children learn to use the vocabulary of the art world to describe their own work and the work of others. Some examples are lines, shapes, colors, and texture.
- Children are introduced to the world of artists and their work. They start to answer the questions: "What is art?" and "Who is an artist?" They begin to understand how artists think and what they do.
- Children are introduced to art from many cultures in order to broaden their experiences. They develop respect for and appreciation of the creative work of other people.
- Children identify art tools and materials, how to use them correctly, and how to care for them. They are encouraged to use their imaginations and inventiveness to create finished projects. The results are often displayed and shared with others.

GRADES 3-4

- Children develop perception further by using their memories, imagination, ethnic and cultural backgrounds. Gradually, they recognize subtleties such as style, movement, dimension, and light and shade.
- Children understand such basic elements as line, shape, color, texture, and design. Then more subtle principles such as unity, symbolism, and movement are introduced.
- Children study artists and artwork from a variety of cultures, countries, and time periods. They discern such details as color, line, composition, and mood. They learn how the work reflects its time, culture, and setting.
- Children are encouraged to search for analogies, feelings and meaning in their own

art and in the work of others. Their appreciation broadens to include respect for elements such as technique, originality, imagination, style, and symbolism. They learn the importance of total visual effect.

- Children use tools and materials to create their own artwork and begin to solve visual and conceptual problems.

In the art program, a variety of media such as: pens, pencils, colored pencils, markers, charcoal, pastels, cray-pas, crayons, tempera paint, watercolor paint, printing ink, colored paper, tissue paper, clay, glazes, wood, string, fibers, wool, fabrics, and wire are used.

Displays are put up during the year in showcases and on bulletin boards throughout the buildings. In the spring, each school holds an art exhibit. These exhibits inspire students' pride in their work and represent a true form of authentic assessment.

All children benefit from art experiences as they learn to express themselves visually.

GRADE 5

The fifth grade curriculum addresses issues in two-dimensional and three-dimensional design. There are lessons in drawing, tempera painting, watercolor painting, collage, graphic design, mono-printing, sculpture (in various materials), and ceramics. Perceptual skills addressed in earlier grades are developed further and art product is expected to be somewhat more sophisticated. Students continue to encounter the challenges posed by problems of various sorts, and experience further development of their critical faculties. Art history and art criticism are woven into the studio lessons in a manner that connects student art production with historical antecedent and illuminates culture through their symbols.

HEALTH EDUCATION

Elementary health education emphasizes a positive approach to wellness, encouraging children to assume responsibility for promoting their own health. The program helps children develop the skills necessary for healthful living, including decision-making, problem solving,

critical thinking, and refusal skills. Lessons are sequenced at age appropriate levels for children in grades one through five. Major themes include, but are not limited to:

- body systems
- community health
- communicable diseases
- environmental health
- family life
- growth and development
- mental health
- substance abuse

Children learn to take an active and responsible role in maintaining and improving their health. This lifetime skill is the goal of a health education program that develops positive self-concepts in our children. It provides a knowledge base that enables children to become responsible health care consumers. Such consumers monitor the health needs of themselves, their families, and their communities.

GRADES 1-2

- Children learn to examine and identify basic emotional feelings.
- Children begin to practice and implement self care skills including hygiene, nutrition, and exercise.

GRADES 3-5

- Children learn about human development and how it relates to them.
- Children learn to recognize and cope with feelings and emotional reactions in a positive manner.
- Children become familiar with the anatomy, physiology and care of body systems.

Here's Looking At You, 2000, a supplementary curriculum approved by our Board of Education, is used by K-12 staff to assist them in teaching substance abuse topics. This program contains a variety of teaching materials ranging from videos and pamphlets, to workbook and game activities.

LANGUAGE ARTS LITERACY

The essence of learning is the acquisition and development of language. Language is the tool by which humans acquire knowledge,

communicate with others, and exercise control over their environment.

Exposure to a wide variety of reading, listening, writing, and speaking experiences, at home and at school, will best prepare children to be active, independent learners in a world negotiated through language. The District Language Arts Literacy Curriculum is designed to engage children in the communication skills of listening, speaking, viewing, reading, and writing through meaningful, real-life language activities.

The integrated literature-based reading program explicitly addresses the components of a balanced reading program:

- phonemic awareness
- phonics/spelling
- vocabulary
- reading fluency and
- comprehension

The children practice the craft of reading in a wide variety of genres, texts, and contexts through a reading workshop format.

Children are exposed to the richness of our language, as well as to good writing models in writing workshop. They have frequent opportunities to write for different audiences and purposes. Through a process writing approach, children collaborate, discuss, and confer with each other, developing essential listening and speaking skills.

The K-12 Language Arts Literacy Curriculum is a spiraling curriculum, each year building and expanding upon the year before.

The success of the program is assessed in a variety of ways throughout the year. In addition, each child keeps a portfolio of works. These portfolios contain evidence that students are involved in the curriculum as it is designed and provide parents, teachers, and students with a record of student growth throughout the year.

GRADES K - 2

- **Responding To Language:** Children learn to relate what they read and hear to their own experiences and to recognize information and ideas when they encounter them in new forms. They learn to respond meaningfully to others and to the texts they encounter, demonstrating their

understanding of them. They also learn to use oral and written language as a means to explore and reflect on new experiences and perceptions.

- **Monitoring Learning:** Children are encouraged to take risks in their learning of language, trying new words and structures. They also begin to learn to set goals for themselves.
- **Preparing For Meaning:** Children learn to use their knowledge of story structure, purpose, audience, and their personal experiences to inform their reading and to plan their writing.
- **Constructing Meaning:** Children move from emerging to developing to independent readers and writers as they develop fluency through the reading and writing of fiction and non-fiction structures. Achieving fluency, children select more diversity in texts and begin to read strategically. They are able to monitor their reading comprehension and apply *fix-up strategies* (re-reading, referring back to text) to better understand. In writing, they move from drawing to scribbling to labeling, often using only initial sounds, before they form actual words. They begin to write short sentences, which gradually turn into stories.
- In **word study**, children attend to and manipulate speech sounds in spoken language developing phonemic awareness skills, which are assessed beginning at the kindergarten level. Ongoing explicitly and systematic phonics instruction is designed to help students understand the relationships between spoken sounds and written letters. As children begin to understand these relationships, they are able to recognize familiar words and decode unfamiliar words by sounding out word parts and blending sounds to create recognizable words. As children progress, they develop an understanding of spelling patterns. Instruction is differentiated, based on each child's strengths and needs.
- **Revising For Meaning:** Children learn to confirm or revise their understanding of texts. They share and discuss books they have read and their own writing as they learn to give and receive constructive feedback.

- **Editing for Word Choice, Sentence Structures, and Conventions:** Children learn about the diversity of our language by reading the literature of many cultures written in many styles and structures. They also begin to learn how situation and audience influence language and word choices. In addition, they begin to learn the patterns of the English language through systematic and explicit word study. As they mature in their use and understanding of language, children apply the conventions of grammar, capitalization, punctuation, and usage in their speaking, reading, and writing.

GRADES 3-5

- **Responding To Language:** Children are surrounded by language and are engaged in increasingly sophisticated language activities. They respond to and recreate texts in oral, written, and visual forms.
- **Monitoring Learning:** Children are encouraged to take risks in their learning of language, trying new words and structures. They learn to set realistic goals for themselves in reading and writing and to independently use *fix-up* strategies to monitor their comprehension.
- **Preparing For Meaning:** Children learn to use their knowledge of text structures, purpose, audience, and their prior experiences (schema) to make connections with their reading and writing. They learn increasingly sophisticated ways of preparing for language activities.
- **Constructing Meaning:** Intermediate learners read fluently. Their word recognition is automatic, and because of this, their minds are free to think as rapidly as they read. This period of literacy development is generally accompanied by the ability to think abstractly.

Children, in small and large group discussions, respond to text through a wide range of interpretations, ultimately taking new meaning away from those conversations. They read strategically-as they:
 - ✓ Search for connections between what they know and the new information they

encounter in the texts they read (schema).

- ✓ Continually ask questions of themselves, the authors they encounter, and the informational and narrative texts they read.
- ✓ Draw inferences during and after reading.
- ✓ Distinguish important from less important ideas in text.
- ✓ Are adept at synthesizing (new ideas) information within and across texts and reading experiences.
- ✓ Repair faulty comprehension by monitoring the adequacy of their understanding.
- ✓ Visualize and create images to better understand what they've read.

Intermediate readers read most texts with accuracy, developing an efficient reading rate, both orally and silently. Using what they read as models, intermediate children compose different genres of text and begin to experiment with different styles and vocabulary in their writing.

In word study, intermediate children work with meaning units such as prefixes and suffixes, and roots and bases of words in their reading and writing.

- **Revising For Meaning:** Children learn to confirm or revise their understanding of texts. They choose, share, and discuss books they have read as they learn to engage in authentic discussions of books-listening and responding to diverse opinions and ideas of others. Through the format of writing circles, children analytically revise their writing, understanding the attributes of what makes writing effective.
- **Editing for Word Choice, Sentence Fluency, and Conventions:** As they mature in their use and understanding of language, children apply sentence composing strategies to personal writing using key words, phrases, compound subjects, and compound predicates. They demonstrate understanding of correct verb tense. Intermediate children apply knowledge of English grammar and usage to express ideas effectively.

LIBRARY/MEDIA

The library media skills curriculum addresses the skills necessary for children to access and evaluate pertinent information for problem-solving and life-long learning while fostering a love for books and reading. In this, the *Information Age*, the library has become the hub of our technology-rich schools. With multi-media computers, mini-TV studios, and access to on-line data and the Internet complementing traditional library resources, library media technology centers create a dynamic learning environment and valuable community resource.

GRADES K-2

The purpose of the library media program is to have children develop a positive attitude toward the world of books, reading, and libraries. Instilling a love for books at this early age is essential if our children are to keep alive the sense of wonder that will enable them to become fulfilled, creative adults. The program assists each generation in passing on accumulated stories and wisdom to the next generation. This involvement of family, community, and traditional knowledge fosters understanding of what has gone on before and inspires children to develop their highest potential.

What better place to begin this transfer of our diverse past than the Library Media Center, a place filled with wonder? Since all knowledge and creativity begins with wonder, the library at the K-2 level offers the child a rich and varied environment. These centers are filled with books and media that include folk and fairy tales from many cultures, picture books, biographies, poetry, history, science, and math, among others. The weekly sharing of books through storytelling, oral reading, book talks, media, and dramatic productions enables children to discover their interests. They then begin to explore areas, which interest them through individual book selection. The library media program closely supports language arts instruction by integrating the district's curricula through the use of literature. In addition, the program introduces the students to the world of technology by describing how computers work and teaching them to operate CD-ROMs, On-line Public Access Catalog (OPAC) terminals, and other technology tools.

Library activities, which are learned and integrated with classroom programs, are the following:

- Understanding how to use the Library Media Center and Technology Resource Room;
- Knowing the physical arrangement of materials, collections and services;
- Listening and viewing;
- Caring for materials;
- Appreciating literature;
- Knowing parts of a book;
- Using computerized resources including the OPAC, and electronic encyclopedias;
- Knowing about the call number systems of other libraries so as to be able to retrieve materials from the shelves; and
- Recognizing that there are other libraries and information systems.

GRADES 3 - 5

The library media program for grades three through five builds on the foundation established in the K-2 program. While continuing to provide a rich source of literary materials, the three-five program also complements the children's increasing motor skill development and reading skills by encouraging the use of more sophisticated equipment and more complex information-retrieval resources. For example, students are taught traditional indexing skills as they learn to use a print encyclopedia, and they will also have access to several multi-media encyclopedias and subject resources on CD-ROM.

Classroom teachers team up with the librarian to better integrate the media center's resources into classroom activities. For example, while working on a unit about animals in winter, the students could use National Geographic on CD-ROM to select pictures. They could use E-mail to contact a zoologist at the National Zoo for more information. They could get data from on-line resources and create charts. They could use music or tapes of wilderness sounds; they could use a video camera to tape squirrels finding food, etc. The instructional model for these grades includes small group directed instruction, whole group activities, and a literature strand.

The K – 2 activities are reinforced, and lessons address the following three-five components:

- Dewey Decimal Classification System;
- Indexes and interpretation of general index information in both print and electronic formats;
- Library/learning resources: English language dictionaries, general encyclopedias, atlases and almanacs in both print and electronic format;
- On-line databases;
- Evaluation and interpretation of books, audio-visual materials, and computer programs; and
- Report writing through the use of research techniques and multi-media.

The library media program is designed to provide a comprehensive background to all elementary students in the literary, information, and technological requirements demanded by the twenty-first century. This is an exciting time, full of promise and expanded horizons, and the library media program is ready to serve as guide and inspiration.

MATHEMATICS

In any day, the average citizen makes sense of the world in many ways. They collect, organize and display data. People explore and arrange objects in two-dimensional and three-dimensional space. They look for patterns and hypothesize. As new ideas are encountered, mathematicians develop concepts and skills to help them understand this information. In our increasingly complex and technological society, competency in mathematics is essential. Our mathematics curriculum supports current research that says that mathematics needs to be learned through experiences where students can make sense of how numbers are used. Your child will be learning mathematics in a rich, problem-solving context that uses real-life situations and that views mathematics as a dynamic discipline. Your child will experience mathematics as problem solving, communication, reasoning, and making connections.

GRADES K-2

Concepts and skills are embedded in activities designed to engage students in problem solving. Children learn that there are many ways to arrive at a solution. Reasoning strategies are discussed

and demonstrated. This is done in a problem-oriented context where students work in small groups, partnerships, or as a whole class. Students will use journals and personal data books along with tools that include counters, base ten blocks, pattern blocks, geoboards, measuring tapes, and calculators. Students will use these materials as they actively learn the following mathematics:

- **Number Sense and Numeration:** Recognizing, modeling, and writing numbers; counting; comparing numbers, including whole numbers and fractions, and building a foundation for place value.
- **Computation:** Learning the meaning of addition and subtraction, applying that understanding to solve problems, and knowing addition facts.
- **Exploring Data:** Ordering data; making and using tables, charts, and graphs.
- **Geometry:** Exploring and recognizing two and three-dimensional shapes, symmetry, and congruence.
- **Measurement:** Measuring length, area, weight, capacity, time, temperature, recognizing the value of coins and currency, and making fair exchanges.
- **Patterns and Relationships:** Identifying, completing, extending, and creating a variety of patterns, attributes, and sequences, including numerical and geometric relationships.

GRADES 3- 5

In grades three through five, students build on the experiences they encountered in the primary grades, and construct new concepts and skills that build a foundation for later middle grades. As the mathematics becomes more complex, the emphasis on arriving at a solution in many different ways continues through activity and discussion. The ability to recall the basic facts of addition and subtraction automatically, is now extended to include multiplication and division facts. Students will use a combination of materials that includes journals, textbooks, references, periodicals, and newspapers. They will use computer software, calculators, and manipulative materials such as measuring tools, counters, base

ten blocks, geoboards, and Cuisenaire rods. Students will sometimes work individually, sometimes with partners, or in small or large groups. Students will use these materials as they actively learn the following mathematics.

- **Number Sense and Numeration:** Extending the understanding of place value to include decimals; developing part/whole concepts of fractions; using estimation on a regular basis; and choosing among methods of computation including paper and pencil, calculator, and mental math. Fifth graders explore number theory, including divisibility rules, and prime and composite numbers.
- **Computation and Estimation:** Learning the meaning of multiplication and division; applying that understanding to solve problems, stating and writing computation for all operations, and using variables. Children are expected to do mental arithmetic, estimate within a suitable range, and distinguish between reasonable and unreasonable answers. Children develop operational number sense, which enables them to distinguish between the effects of adding, subtracting, multiplying, and dividing with whole numbers and fractions or decimals. In grade 5, computation with whole numbers is expanded to focus on computation with decimals and fractions; integers are introduced at grade five.
- **Geometry and Spatial Sense:** Classifying shapes, analyzing their attributes, and measuring and comparing angles.
- **Measurement:** Estimating with both customary (US) and metric units; using measures of linear, liquid, and mass units; and investigating measures of perimeter, areas, and volume.
- **Quantitative Literacy:** Collecting, displaying, comparing, and interpreting data.
- **Patterns and Relationships:** Locating and translating patterns in the environment to numerical patterns, solving complex number patterns using mental mathematics or calculators.
- **Algebra:** Children learn basic algebraic concepts of variables and equations. In grade five, the *Hands-On-Equations*, a series

of sequential lessons using number cubes and pawns, more apparently addresses the algebra strand. Base-ten materials, pattern blocks, Cuisinaire rods, and other visuals that represent fractions and decimals are used so that children can begin to informally make generalizations regarding the effects of number on operations.

MUSIC

Children in our schools make and study music with their voices, through movement and dance, and with musical instruments. These lively, age-appropriate activities provide the foundation and framework for children to cultivate musical knowledge and skills and to appreciate music from cultural and aesthetic vantages. Music is a powerful stimulus to intellectual and psycho-motor development.

Between the ages of five and eight, music education focuses on sharpening the perception of rhythm and pitch to increase musical aptitude. Emphasis is on active participation. The primary level develops students' skills and creates a positive attitude toward music through the following activities:

KINDERGARTEN

- **Singing:** Children sing both seasonal and activity songs and become aware of their singing voices. Music becomes an expressive force capable of creating and illuminating moods and feelings through songs.
- **Listening:** Study of rhythm and meter becomes more sophisticated. The range of guided listening examples expands and attention is drawn to harmony, texture, and tone color.
- **Rhythmic Movement:** Children respond to music with fundamental movements in a steady beat and create simple rhythmic patterns with hands and instruments. They correlate notes with syllables.
- **Reading Readiness:** Children reflect melodic contour and high and low pitches with hand motions, body movements, and line drawings.

- **Cultural Awareness and Aesthetic Appreciation:** Children experiment with the many different sounds that they can make and improvise to organize sounds into musical compositions that tell stories. They may also put some of their own experiences into songs.

GRADES 1-2

- **Singing:** Children recognize the difference between their singing voices and their speaking voices, and they become more comfortable singing with a natural, unforced tone. Their repertoire of songs expands to include songs about home, school, community, country, special events, and folk songs.
- **Listening:** Study of rhythm and meter becomes more sophisticated. The range of guided listening examples expands and attention is drawn to harmony, texture, and tone color.
- **Rhythmic Movement:** There is simultaneous emphasis upon freely moving to music and reflecting rhythm, accent structure, and mood. Children hear excerpts of dance music and improvise their own movement compositions.
- **Cultural Awareness and Aesthetic Sensitivity:** These components are woven into singing, listening, and rhythmic movement.
- **Reading Music:** Children read and write half, quarter, and eighth notes and make simple rhythmic patterns. Children recognize note symbols in simple songs and sound out rhythms in time using voices and hands to speak, sing, and clap.

GRADES 3-4

The intermediate level introduces the increasingly sophisticated musical instruments, shapes singing into choral music, connects movement and dance to expressive content, guides listening along programmatic and coloristic lines, and extends cultural and aesthetic appreciations through the following activities:

- **Singing:** Children sing melodic patterns, rounds, chants, partner songs, and simple descants. They continue developing a strong sense of melody and vocal quality. By fourth grade, chorus becomes a synthesizing activity for vocal music.
- **Listening:** Greater awareness of dynamics, tone color, the impact of tempo and tonal differences expand student listening capacities. Children become aware of some of the many kinds of music in the world and explore similarities and differences.
- **Rhythmic Movement:** Children express through bodily movement recognition of repetition, contrast, and variation. They discover the connections between dance steps, rhythmic patterns, and steady beats, and they become able to create their own movement sequences.
- **Choral Music:** Chorus is offered beginning in grade 4. The student chorus is open to any student in grade 4. Students volunteer to be a member and agree to attend rehearsals and concerts as scheduled. The chorus rehearses a minimum of once a week.

GRADE 5

The fifth grade curriculum offers further development of concepts and skills addressed in the earlier grades.

- **Singing:** Students continue round and partner song singing, develop greater sight-singing skills through *solfege* practice.
- **Listening:** Students learn to recognize simple formal structures; study, in more depth, the instruments of the orchestra.
- **Rhythm Exercises:** Students learn to read and perform more complex rhythms.
- **Choral Music:** Chorus continues in grade 5.
- **Instrumental Music:** Instrumental music begins in grade 5. Students are offered the opportunity to select the band or string instrument of their choice near the end of grade 4 and again in the beginning of grade 5.

PHYSICAL EDUCATION

The Physical Education Program is a planned sequence of learning experiences designed to fulfill the growth, developmental, and behavioral needs of each of our children. Physical education is an integral part of total education. It contributes to the healthy development of our children through physical activity. It is unique in its contribution in the development of knowledge, understanding, and positive attitudes concerning human movement and physical fitness.

Most of the physical education activities described below may be used at any grade level. The main differences lie in the degree of intensity and the quality of movement. At the K-2 level, the motivation may be in terms of dramatization and *Who can...?*, while at the upper grade levels the motivation may be with a greater emphasis on *How can...?* and *Why?*, *Describe*, and *Cooperative Activities*.

GRADES K-2

The emphasis on body movements and perceptual motor skills is extremely important at this stage. Little emphasis is given to competition during these years; teachers plan activities that allow every child to experience success. Children acquire and maintain basic fitness through enjoyable activity.

The most common teaching approach used in these early years involves *movement exploration*. Teachers emphasize student discovery. Because children develop physically, mentally, and emotionally at their own pace, instruction must be as individualized as possible. Movement education lends itself to such individualization. No matter what children's limits are, they need to learn muscle coordination and body control. Ability varies in skills such as distinguishing between right and left, judging distance, and throwing and catching. Our program is geared to detect and overcome these perceptual motor lags during these early years.

Units of instruction include:

- Exploration of movement concepts and fundamentals;
- Physical awareness (i.e., identify body parts, use of space awareness);

- Ball skills (i.e., throwing, catching, kicking);
- Rhythmic activities (i.e., awareness of beat, space and expression);
- Perceptual skills (i.e., balance, agility, hand/eye coordination);
- Locomotor skills (i.e., walking, running, skipping, hopping, and jumping);
- Games (i.e., kickball, chase and fleeing activities);
- Physical fitness activities and relays; and
- Playground apparatus skills.

GRADES 3-5

Physical fitness activities continue, and the program introduces the elements of dance and individual and team sport skills. Teaching units are broken into specific areas with attention given to seasonal sports, the benefits of regular physical activity, and the enjoyment of participation. Teachers emphasize individual skill development through guided and specific learning experiences. Learning these new sports skills is a major factor at this level, rather than a concentration on *playing the game*, which will come in later years.

Instructional units focus on:

- Team sports (i.e. soccer, football, basketball, volleyball, softball);
- Individual sports (i.e. gymnastics, tumbling, and track and field);
- Dance and rhythmic activities (i.e. awareness of coordination, space, choreography, performance, movement styles);
- Games (i.e. kickball, self-directed activities, simulated games leading to major skill development), and cooperative activities;
- Physical fitness, relays and exercise science (i.e. speed, strength, endurance, flexibility, cardio-respiratory); and
- Project Adventure read-up activities and cooperative game experiences.

SCIENCE

Science is a distinctive way of looking at and developing an understanding of phenomena. Our science curriculum engages students in both *hands-on* and *minds-on* activities that allow students to construct their own understanding of the natural world. Students are encouraged to explore, experiment, and use tools and

technology to observe, compare, classify, measure, predict, and communicate results.

KINDERGARTEN - GRADE 2

Each of these grade levels addresses five main themes: matter, earth patterns, motion, magnetism or electricity, and life science. Concepts are introduced one year, and then extended and enriched in following years.

KINDERGARTEN

- Use senses to describe properties of matter (color, texture, shape, size, odor, etc.);
- Observe patterns of time (seasons, shadows, evaporation, etc.);
- Explore changes in motion of air and water;
- Explore magnets and their attractions; and
- Identify features that help plants and animals survive.

GRADE 1

- Sort and classify matter by its properties (material, solid, liquid, gas, etc.);
- Record data and make predictions about time's patterns (seasons, shadows, etc.);
- Investigate different ways that objects move;
- Generate a series of magnet rules and classify magnetic and non-magnetic matter; and
- Identify the basic requirements of living things and stages of the birth/death cycle.

GRADE 2

- Observe interactions of matter and identify evidence of interactions;
- Describe patterns of the sun, water cycle, and weather;
- Investigate simple mechanical devices and the relationship of force and motion;
- Combine interacting materials to make electrical circuits; and
- Observe, identify, and classify food chains and stages of the life cycle.

GRADES 3 – 5

Investigation in grades three through five builds on experiences from kindergarten through grade two. Experiments, however, become more complex, attending to more variables and more abstract concepts. Students learn relevant science content and vocabulary as well.

GRADE 3

- Identify patterns of rocks and earth science systems (rock system, solar system);
- Describe properties of human body systems and their interactions;
- Explore the motion of energy and how electricity can make heat, light, and sound;
- Design invention systems of interacting parts to solve problems; and
- Investigate the systems of living and populations (food chains, ecosystems, etc.).

GRADE 4

- Investigate features of New Jersey and adaptations that help various species survive in a given habitat, food web or food chain;
- Demonstrate that heating and cooling transform matter (solid to liquid, to gas);
- Relate the motion of earth, sun, moon to units of time (days, months, years); and
- Manipulate variables (friction, wind resistance, force) for optimum motion design.

GRADE 5

- Explore and identify examples of kinetic and potential energy (springs, batteries, position, etc.) and the transformation from one to the other;
- Describe how force and motion change (simple machines) and stay the same (inertia);
- Identify the major features of the earth's crust and surface, the processes and events that change them, and use maps to locate various landforms; and
- Explain the transfer of energy through ecosystems, the manipulation of environmental factors, and human's interaction with other living things.

SOCIAL STUDIES

The goal of the K-12 social studies program is to create knowledgeable citizens who take an active part in the world around them. Through exposure to a broad range of materials and experiences, including folklore, museum visits, oral histories, audio-visual materials, primary and secondary printed sources, artifacts, maps, globes, and

atlases, students come to understand how geography, economy, and human interaction shape cultures and determine the quality of individual experience.

The curriculum spirals upward from kindergarten to high school, building and expanding upon five key strands: multiculturalism/cultural diversity; democratic principles; civic participation; global awareness; and time, continuity, and change.

Multiculturalism is a process, which enables all students to understand and affirm their own unique cultural and ethnic background, to respect the cultures and perspectives of the diverse peoples in their own community as well as in the larger society, and to become united as citizens within the framework of a democratic nation. Powerful social studies at the elementary level includes addressing issues related to race, ethnicity, gender, and religion.

Democratic principles comprise popular sovereignty, participatory citizenship, civil rights, orderly change, and rule of law. In the United States the *Declaration of Independence* and the *Constitution* with its *Bill of Rights* set forth these principles. Powerful elementary social studies involve students in setting classroom and school rules, working cooperatively in a variety of settings, and respecting the rights and property of individuals.

Civic participation is based upon a common moral code, which promotes humane and rational behavior. This behavior is demonstrated via (but not limited to) group interaction skills such as communicating, sensitivity to others, and resolving conflicts. Elementary students participate in the world around them confronting appropriate issues and formulating plans to affect change at the classroom, building, community, or larger level.

Global awareness prepares young people for life in a world increasingly characterized by pluralism, interdependence, and change. At the elementary level, students study geography and develop an understanding that how other people live often depends on the physical and political climate of their country. By the end of fourth grade, students are able to locate and identify physical and political sites on a globe or map. They can use directions, the map key, latitude and longitude, and scale. They can identify different types of maps and use them for different purposes. Maps become tools that students use to gather information.

Time, continuity, and change is the history component of the program. Human beings seek to understand their historic roots and to locate themselves in time. Such understanding involves knowing what things were like in the past and how things change and develop.

In addition to the five strands, which spiral K-12, each grade level has an age appropriate focus.

GRADES K-2

- In kindergarten, students learn to work together; exploring, creating, and communicating. They reach out to times in their recent past to see what the world was like for their parents and grandparents.
- In first grade, students explore a child's place in time and space. They develop social skills and responsibilities, expand geographic and economic worlds, and develop an awareness of cultural diversity.
- In grade two, the focus is people who make a difference: people who supply our needs; parents, grandparents, and ancestors; and people from many cultures. Students visit the Durand-Hedden House to see how people from other time periods lived in this area. Students expand their sense of time and place.

GRADES 3-4

- In grade three, students learn about communities near and far, past and present. They use South Orange and Maplewood as models to begin to explore other communities around the world. Additionally, they meet people from our nation's past through biography, story, folktale, and legend. Students explore middens in archeology and contour maps in geography. Students are introduced to reading in the content area using a social studies textbook, *Communities: Near and Far*.
- The focus in grade four is New Jersey, a mirror of the world. Students study the physical setting of our state and the role of New Jersey today and in the past. Students use a textbook, *New Jersey*.

GRADE 5

- The fifth grade curriculum concentrates on the beginning of a two year chronological United States History. The major areas that the students investigate include land and people, exploration and colonization, Revolutionary War, expansion and conflict. Students further develop skills to think critically and creatively. They investigate the influences that shaped American society and heritage and work both independently and cooperatively to critically interpret historical data. Students learn to use a variety of sources including textbooks, supplementary readings, maps, charts, graphs, photos, software, and historical novels to help them investigate United States history.

The social studies program includes skill proficiencies relating to acquiring, organizing, and using information as well as those mentioned above related to interpersonal relationships and social participation.

Assessment of student learning in social studies overlaps with both language arts and science. Class participation, group interactions, involvement in discussions and issues, teacher observation, and student reflection contribute to assessment. Student projects and written work also demonstrate mastery of the proficiencies and constitute another aspect of assessment. Learning, teaching, and assessment together help us realize the goal of our program, which is to create active, informed citizens for the twenty-first century.

TECHNOLOGY

The purpose of the technology program is to develop an understanding of technology and how it can be used to accomplish specific tasks. Each elementary school has a Technology Resource Center whose operation is closely coordinated with the activities of the Library Media Center. The Technology Resource Centers include a 14 station computer lab and a fully functioning broadcast booth. Children are exposed to computers, digital cameras, scanners, and online services. The schools' broadcast booths provide *on camera* opportunities to anchor the school news,

forecast the weather and produce class presentations.

Elementary students are taught how to use technological tools to enhance and enrich their experiences in specific subject areas. Word processing is used to generate reports, poetry, and creative writings. Multimedia tools (*Slide show, HyperStudio and PowerPoint*) are used to create multimedia presentations. Students are introduced to the concepts of organizing information using database tools. They expand their mathematical understandings using spreadsheets and graphs.

By the end of their elementary experience, students have had many opportunities to incorporate technology into language arts, social studies, science, and mathematics. They are at ease with the operation of technological instruments and have identified successful strategies for matching a task to the available tools.

GRADES K-2

Young students are introduced to the fundamentals of computer operation through letter identification lessons and the development of early keyboarding skills. The goal of becoming familiar with the keyboard and the alphabet simultaneously reinforces both early reading skills and facility with computer operation.

Students have opportunities to create their own books, reinforce positional concepts, experiment with rhyming words and play with changing meanings using such engaging programs as *Bailey's Book House*. They can experience an introduction to global positions, coordinates on a grid, concepts of day, night and seasons using *Trudy's Time and Place House*. Students delight in creating weather; categorizing animals, plants, and rocks; taking a *field expedition* to the pond to discover the wonders of the animals there; sequencing their own *movies* of natural events (e.g. hatching eggs, or metamorphosing butterflies) with *Sammy's Science House*. The joy and excitement of *playing in* literary favorites (e.g. *The Arthur Series, Berenstain Bears*) deepens comprehension of and involvement with written material.

GRADES 3 - 5

The available experiences for students in grades three to five deepen their understanding of how integral technology is in accomplishing school based and life focused tasks. Students have conducted polls on topics ranging from the popular choice for a new M&M color, to political opinion, to preferred solutions for school based questions. Third, fourth, and fifth graders have analyzed and organized this information using spreadsheets and databases.

Students in these grades have utilized reference CD-ROMs to gather information on animal habits, musical instruments, famous inventions, scientific principles, and on how everyday machines work. They have expanded their study of immigration and heightened their understanding using CD's such as *If Your Name Was Changed At Ellis Island*.

Third and fourth graders demonstrate their understanding of literature and science by constructing multimedia presentations. As an authentic assessment instrument, these slide shows are unmatched in providing teachers with a clear understanding of exactly what students learned.

The introduction of online access has opened up opportunities to engage in collaborative investigations, ask questions of experts and famous persons, explore geographically distant sites and conduct subject specific research. Fifth graders have communicated with archeological teams unearthing the Mayan ruins. They have e-mailed their theories concerning the identity and use of artifacts discovered and displayed on the Internet. They have vicariously participated in a trek across South America through regular online communication with the actual scientists. They have utilized these experiences during a variety of lessons that melded several subject areas.

Third and fourth graders had opportunities to ask questions of Rosa Parks online. Third graders deepened their understanding of the Civil Rights Movement by visiting historical sites online.

Students can download photographs from powerful telescopes, communicate with shuttle

astronauts, explore ancient ruins, and participate in simulated adventures in distant locations (*Expedition Antarctica*). The installation of online access in every elementary school deepens students' opportunities for this type of rich experience, which can be integrated with every curriculum area.

Technology is constantly changing which makes our lives and our schools more exciting. Most of the time, young people enjoy the challenges that technology brings, but they need reassurance from home. Pointing out the use of technology at the bank, the library, the supermarket, etc. makes your children more aware of how important technology is to their lives. Relating how technology in these situations relates to future career choices and employment prerequisites is particularly helpful. If you have a computer at home, it also helps to have your children teach you what they have been learning in school. This encouragement has a profound impact on student performance. Technology demands that all of us become life-long learners. Fostering a commitment to the ideal of always striving to learn and do more is a natural role for parents and one that is especially appropriate in understanding technology.

WORLD LANGUAGES

SPANISH

Language is fundamental to our human experience. As our world becomes increasingly more global and interdependent, all of us will benefit from being able to function competently in a language other than English.

Through the study of Spanish, the children connect their own community to the Spanish speaking world. They thus acquire a greater sense of self, and an appreciation of the diversity, which surrounds us. Children who speak another language also see the commonalities and differences among the world groups, which they study. Language study is a powerful tool in the battle against prejudice. It teaches our children to learn tolerance, and to respect the beliefs and attitudes of other people. Additionally, other cognitive benefits are the direct result of studying another world language.

The students become more confident speakers, listeners, readers and writers. Their vocabulary in English will grow. The study of a world language directly affects the acquisition and development of one's own first language in a highly productive way.

This program advocates a language experience, which is meaningful, hands-on, and holistic. The children's teacher will model the language naturally, just as a caretaker would in first language acquisition. The messages will be directly related to the children and their environment. As such, they are effective and intrinsically interesting to the students.

GRADE 3

- Children learn to listen to and comprehend simple phrases and conversations;
- Children learn to respond to and initiate greetings and farewells;
- Children learn to introduce themselves and others;
- Children learn to understand and respond to basic commands;
- Children name classroom objects;
- Children identify family members;
- Children use weather expressions;
- Children can recognize and name colors;
- Children identify parts of the body;
- Children identify articles of clothing;
- Children describe and name domestic animals;
- Children name and identify the days of the week and the months of the year;
- Children tell their age and birthday;
- Children learn to count;
- Children express physical states of being and feelings; and
- Children ask simple questions.

GRADE 4

- Children learn to listen to and comprehend simple phrases and conversations;
- Children learn to respond to and initiate greetings and farewells;
- Children learn to introduce themselves and others;
- Children learn to understand and respond to basic commands;
- Children name classroom objects;

- Children identify family members;
- Children use weather expressions;
- Children can recognize and name colors;
- Children identify parts of the body;
- Children identify articles of clothing;
- Children describe and name domestic animals;
- Children name and identify the days of the week and the months of the year;
- Children tell their age and birthday;
- Children learn to count;
- Children express physical states of being and feelings;
- Children ask simple questions;
- Children learn to name school personnel;
- Children identify and name parts of a house;
- Children identify and name the seasons and winter activities; and
- Children recognize names of household furnishings.

GRADE 5

Although the focus remains on active listening and following teacher instructions, in grade 5 the children are introduced to the alphabet and slowly begin to read and write. The curriculum is thematic in nature, and makes every effort to reinforce the grade 5 curriculum in science, language arts, social studies, and mathematics. The children learn about:

- Location
- Their place in the world
- Leisure activities
- Places in the community
- The environment