

GRADE 4
CURRICULUM OVERVIEW
2008-2009

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- LEARNING RESOURCES and
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September 2008

Dear Parents,

Welcome to Open House! This evening, you will have the opportunity to meet your child's teacher and learn about the challenging and engaging educational activities planned for this year. This Curriculum Overview has been prepared to provide you with general information about what will be taught during this important year in your child's education. Summaries of each subject area are included, and they will be supplemented by information from the classroom teacher.

In the Darien Public Schools, curriculum content and teaching methodology are continually reviewed. Each year, the Darien Board of Education establishes goals for instruction, as well as for other aspects of the school system. In the 2008-2009 Board of Education Goals, there are two that refer to curriculum (what and how we teach) and assessment (measurement of student learning). Goal # 1 states: "All students will have appropriate access to challenging and enriching instructional programming." Goal # 2 states: "All students will maximize their learning as measured by selected assessments."

With these goals providing over-arching direction, a systematic review of curriculum is in place. Over the past few years, revisions of language arts, health, and science have been completed. The proposed schedule for 2008-2009 elementary level curricula includes development of detailed units of study for the revised social studies curriculum and a review of mathematics to improve assessment and differentiation of instruction. All current curricula guides are posted on the district website: www.darienps.org under the heading of "Curriculum." You are encouraged to access this information regularly.

Sincerely,

Judith Pandolfo

Judith M. Pandolfo, Ph.D.
Assistant Superintendent for Elementary Education

LANGUAGE ARTS

In accordance with students' developmental needs, Darien elementary staff members have organized a sequential language arts program that systematically develops reading, writing, and language competence in grades K through 5. This program is based on standards derived from the Connecticut Language Arts Framework, the National Council of Teachers of English, and the International Reading Association.

There are five goals of the K-5 Language Arts program. Students will:

- develop the skills to read, write, listen, and view texts to construct meaning, gain knowledge, solve problems and respond thoughtfully to a variety of texts;
- write and speak English proficiently to communicate effectively;
- choose and apply strategies that enhance the fluent and proficient use of language arts;
- understand and appreciate texts from many literacy periods and cultures;
- develop a positive view of themselves as listeners, speakers, readers and writers;
- choose to listen, speak, read, and write for lifelong learning, work and enjoyment.

The teaching of language arts is a careful balance of a number of essential components. Among these are:

- a stimulating classroom environment;
- the sharing of excellent literature read aloud to students across the curriculum;
- opportunities for shared reading, where students and teachers are all looking at a text together (e.g., big books, class sets of the same text, or text viewed on an overhead screen or PowerPoint);
- teacher modeling and explicit reading and writing strategy instruction ;
- direct instruction in the study of words (phonics, spelling, vocabulary);
- large blocks of time for students to engage in independent reading and writing to practice newly developing skills and strategies;
- opportunities to talk with teachers and students about what has been read or written;
- opportunities to write for many different purposes, in a variety of genres, and receive feedback;
- ongoing assessment, both formal and informal, that informs individual, small group, and whole class instruction.

GRADE 4

Fourth graders are becoming increasingly independent and proficient in their use of language arts skills for both enjoyment and information. They have an expanding gamut of favorite authors and genres of text. Fourth graders should be encouraged to read as a leisure activity for at least 30 minutes each day. Your child's reading skills will be greatly enhanced if you engage him or her in conversations about the selections he or she has read. Research indicates that children's vocabulary, fluency and thinking skills are improved when they converse regularly with adults.

In fourth grade, children are expanding their repertoire of writing strategies and use writing for a variety of purposes. Writing has become a viable tool for connecting with the wider world around them. Please encourage your child to write at home and share with you what he or she has written. Talking to your child about his or her writing will demonstrate your own interest, and can improve motivation, stimulate ideas, and improve verbal fluency.

Reading Benchmarks (by the end of fourth grade):

Vocabulary Skills:

- Identify prefixes, suffixes, root words
- Use context clues to determine correct meaning of words with multiple meanings
- Identify synonyms, antonyms, homophones, homographs (sound- and look-alike words), compound words

Comprehension Skills:

- Continue building on prior experiences with literal and inferential skills to refine application of thinking skills
- Identify story elements, types of literature, author's style and purpose

LANGUAGE ARTS – (continued)

Independent Reading Skills:

- Self-select reading materials at an appropriate level of difficulty
- Use a variety of strategies when reading
- Continue to build stamina in independent reading
- Use appropriate expression and pacing when reading aloud

Writing Benchmarks (by the end of fourth grade):

- Independently initiate personal writing topics, and follow the steps in the writing process: pre-write, draft, revise, edit, publish, analyze and evaluate the effectiveness of written work
- Write to record thoughts, express point of view, remember, organize, inform, describe, express feelings, respond to questions or prompts
- Write different types of paragraphs with well-written topic sentences, supporting and concluding sentences
- Use stylistic devices in writing: figurative language, transition words that create logical order, elaboration with supporting sentences, leads, tension, problems, solution and ending/resolution
- Write sentences of varying types and lengths, including compound sentences
- Correctly use subject-verb agreement, verb tense, pronouns, comparative forms of adjectives and adverbs, punctuation and capitalization rules when writing final drafts
- Use legible handwriting

Listening and Speaking Benchmarks (by the end of fourth grade):

- Listen courteously while others are speaking
- Follow speaker's ideas and purpose
- Ask questions to clarify information
- Use expressive, fluent speech
- Support orally expressed ideas with examples and reasons
- Assume a comfortable stance when speaking before a group

MATHEMATICS

The Darien K-5 Mathematics Curriculum Guide is based on the Connecticut K-12 Content Standards and standards established by the National Council of Teachers of Mathematics. It articulates specific learning objectives for each grade. These objectives are detailed in the scope and sequence of skills that is the foundation for instruction in math. As in language arts, the acquisition of these skills should be seen as a spiral staircase rather than a ladder; students make upward progress, but at the same time return again and again to the basics for review, reinforcement and further practice. Each grade's skills include, to some degree, those of previous grades. Important at all levels is the development of three important attitudes toward math: an understanding of the language of mathematics, enjoyment in the challenges of problem solving and confidence in mathematical reasoning.

The teaching of math is a complex process carried out through many different kinds of methods and strategies. Teachers introduce concepts and skills, provide opportunities for practice through whole group, small group and individualized instruction, monitor students' learning and adjust instruction accordingly. Teachers assess students' learning frequently and use the results of assessments to inform their instructional planning.

The standards, concepts and scope and sequence of skills are grouped into five strands of study. Each year, all students in grades pre-K - 5 will study all of the five areas to ensure their full understanding of concepts in the K-5 Mathematics Curriculum Guide. The strands and components are listed as follows:

1. Number Sense and Operations

- Understanding of numbers
 - Ways of representing numbers
 - Relationships among numbers and number systems
 - Meaning of operations and how they relate to one another
 - Ability to compute fluently and to make reasonable estimates

MATHEMATICS – (continued)

2. Algebra and Functions

- Representation – the display of mathematical relationships in diagrams, drawings, graphs, symbols and tables
 - Proportional reasoning - the ability to determine how objects vary in relation to one another
 - Variable - the understanding of unknowns and creating methods for figuring their values
 - Balance - the concept of equality among variable expressions
 - Function - the relationship in which sets are linked by a rule
 - Inductive and deductive reasoning – identifying patterns and extending them; seeing a pattern emerging from other given information
 - Recognizing, analyzing, describing, extending and creating patterns
 - Using patterns to describe mathematical and other real-world phenomena
 - Sorting, classifying and ordering objects by size, number and other properties
 - Analyzing how repeating and growing patterns are generated

3. Measurement

- Making and using measurement in both customary and metric units to approximate, measure and compute length, area, volume, mass, temperature, angle and time

4. Geometry

- Analyzing and using spatial relationships and basic concepts of geometry to construct, draw, describe and compare geometric models and their transformations
 - Using geometric relationships and patterns to solve problems

5. Data Analysis and Probability

- Using basic concepts of probability and statistics to collect, organize, display and analyze data, simulate events and test hypotheses

In the K-5 Mathematics Curriculum Guide, all five strands of skills have been organized into a taxonomy identical to that listed beginning on page 4 of this overview. The mathematics strands and specific objectives for each grade are listed under each level of understanding.

Mathematics skills are taught through a variety of resources. The primary source for grades pre K-5 is the Growing with Mathematics program, which was adopted by the Darien Board of Education in May 2002 for use in all five of Darien's elementary schools. The program is organized around a series of sequentially presented math topics and regular assessments of student progress are conducted so that teachers may respond most effectively to students' instructional needs. Growing with Mathematics was selected because it successfully expresses all of the skills included in our scope and sequence, consistently provides students with opportunities for review, reinforcement and practice, incorporates high-quality literature in an integrated approach to math and offers a variety of enriching materials. Important at all levels is the development of three important attitudes toward math: an understanding of the language of mathematics, enjoyment in the challenges of problem solving and confidence in mathematical reasoning.

SOCIAL STUDIES

The grade four social studies program focuses on the regions of the United States of America: Northeast, Southeast, Mid-West, West/Southwest, and Northwest. Students learn about the history, geography, regional weather, resources and life styles in the various regions of the U.S. Map and globe skills are emphasized as well as the skill of comparing and contrasting. Students discuss current events regularly and learn about world relationships. Students learn the process and procedures for a research project through an in-depth study of a state. The Darien Social Studies curriculum for fourth grade aligns with the Connecticut State standards for social studies in the four key areas of history, civics and government, geography, and economics.

SCIENCE and HEALTH

Science

The Darien Public Schools K-5 Science Curriculum is designed to guide students to develop age-appropriate scientific knowledge and skills through the investigation of authentic problems in real-world settings. Students will take an active role in creating and testing hypotheses through scientific exploration using appropriate technology. This curriculum is student-centered, inquiry-based, and employs hands-on experimentation at all grade levels.

There are eleven units of study that are the foundation for the Darien K-5 Science Curriculum.

- I. Inquiry
- II. Properties of Matter
- III. Energy Transfer and Transformation
- IV. Forces and Motion
- V. Matter and Energy in Ecosystems
- VI. Structure and Function
- VII. Heredity and Evolution
- VIII. The Changing Earth
- IX. Energy in the Earth's Systems
- X. Earth in the Solar System
- XI. Science and Technology

Grade 4 Science

I. Forces and Motion

The position and motion of objects can be changed by pushing and pulling.

II. Matter and Energy in Ecosystems

All organisms depend on the living and non-living features of the environment for survival.

III. Energy in the Earth's Systems

Water has a major role in shaping the Earth's surface.

IV. Energy Transfer and Transformations

Electrical and magnetic energy can be transferred and transformed.

Health

New health curriculum for grades K-12 was approved by the Board of Education this past April after extensive study and a successful pilot program. The program entitled Health Promotion Waves fits extremely well with health at each grade level. The curriculum follows the State of Connecticut and national guidelines. The program focuses on children making age appropriate choices that affect their health and well being.

In the grade four Health Education program, students learn that good health depends upon the development of good health practices and attitudes. First aid and dealing with emergencies are covered as well as safety factors and risks. In the Family Studies curriculum, students begin to learn about the physical and emotional changes of puberty, and substance abuse prevention continues with emphasis on choices that sustain a healthy lifestyle.

ART

In grade four, students continue to develop their skills along with their own personal styles. Art works incorporate many different art elements such as varied line, repetition, color and form. Problem solving and decision-making play a larger role in the process of making art. The exploration of art as a means of expression becomes more sophisticated. Students will begin to understand how art affects their lives and the world around them.

Goals:

Learning Through Perception

Students develop their visual abilities as they produce works in various media in response to different stimuli. They learn to be better observers and recognize their visual environment as a part of their inspiration.

Criticizing and Judging Art

As students learn that art is enjoyable and each child's work is unique, they become aware of the positive aspects of criticism and learn to value art.

Building Productive Artistic Abilities

Students continue to develop the ability to solve problems creatively through critical thinking processes and to produce finished artwork which reflects the development of their art skills through a variety of methods and materials.

Learning to Use Art Tools and Materials

Students continue to be introduced to various tools and materials, their use and care. They are encouraged to work independently.

Learning About Artists and Artwork

Students will learn about the works of great artists and the emphasis on art in everyday life.

Learning the Language of Art

Students continue to learn art terms related to shapes, colors, textures and the various media.

Objectives:

Students will:

Demonstrate knowledge of composition in their work

Demonstrate knowledge of a variety of acquired methods and techniques in their work

Identify various artists and styles

Demonstrate a greater understanding of art as communication and how it affects their lives

Demonstrate advanced color mixing ability such as mixing complementary colors, values and tints

Demonstrate a knowledge of how different media cause different effects in personal responses

Recognize similarities and differences in the art of different cultures

Understand and use a more formal art vocabulary

Recognize and utilize more sophisticated visual elements in their work, e.g. perspective and spatial relationships

Practice personal assessment

Understand and communicate the meaning of their art

INSTRUCTIONAL TECHNOLOGY

At grade four, keyboarding is taught and practiced. Students independently load and start the computer and learn and demonstrate proper care of hardware and software. Simple editing tasks are taught through word processing activities, content-related activities reinforce classroom instruction and students have opportunities to use graphics programs for creative processes. The italicized information is the standard that guides the K-12 approach to the effective use of instructional technology. Below the italicized statement is the developmental objective for grades three through five students.

- 1. Basic Skills and Operations:** *Students demonstrate a sound understanding of the nature and operation of technology systems*
 - In grades three through five, students will develop keyboarding skills and use software to create products in a range of formats. Students will demonstrate ability to use basic features such as word processing, entering information and data, using spreadsheets and databases. Students will apply basic strategies for solving hardware and software problems.
- 2. Social, Ethical and Human Issues:** *Students understand the ethical, cultural and societal issues related to technology; students practice responsible use of technology systems, information and software; students develop positive attitudes toward technology use that support lifelong learning, collaboration, personal pursuits and productivity*
 - In grades three through five, students will exhibit legal and ethical behaviors when using technology and discuss the consequences of misuse. Students will understand the concepts of accuracy, relevance, comprehensiveness and bias of electronic information sources. Students will apply established citation standards for giving credit for information and ideas from electronic sources. Students will demonstrate awareness of ownership of ideas and information.
- 3. Technology Productivity and Communication Tools:** *Students will use a variety of media and formats to collaborate, publish and interact with peers, experts and other audiences.*
 - In grades three through five, students will use content-specific tools to support or remediate learning and research. Students will use technology tools for individual and collaborative communication and for publishing activities inside and outside of school. Students will use appropriate software to construct, organize, calculate, analyze and interpret ideas and data and to present conclusions.
- 4. Technology Resource Tools:** *Students select and use specific technology tools to accomplish specific purposes.*
 - In grade three through five, students will perform key word searches, use Internet and other electronic resources with assistance, and use on-line resources to participate in problem-solving activities.

LEARNING RESOURCE AND INFORMATION TECHNOLOGY (LIBRARY-MEDIA)

The “LRIT” program consists of eight learning standards. Each standard includes related skills that span Grades K-12. The italicized information is the standard that guides the K-12 approach to the effective use of learning resources and information technology. Below the italicized statement is the developmental objective for grade four students.

- 1. Defining Information Needs:** *Students will clearly define information needs and identify effective actions needed for research, problem solving and pursuing personal interests.*
 - At grade four, students identify and utilize key words for searching information and identify and confirm existing knowledge and list areas where more information is needed.
- 2. Information Systems:** *Students understand and utilize the systematic organization of resources.*
 - At grade four, students will use simple graphic and text menus to locate information from electronic media and they will describe principles of library-media organization (Dewey Decimal System, databases)

LIBRARY/MEDIA (continued)

3. **Information Strategies:** *Students will effectively use information skills and strategies to find information, solve problems and pursue personal interests.*
 - At grade four, students will describe how library-media resources have different characteristics, qualities and uses and their advantages and disadvantages
4. **Information Processing:** *Students will evaluate information critically and competently.*
 - At grade four, students will choose appropriate organizational format.
5. **Application:** *Students will use appropriate techniques to effectively communicate ideas, information or conclusions.*
 - At grade four, students will demonstrate the ability to take notes from a variety of media
6. **Evaluation:** *Students will reflect upon and evaluate the effectiveness and efficiency of their own performance.*
 - At grade four, students will evaluate and make judgments based on teacher-generated rubrics
7. **Responsible Information Use:** *Students will use information resources responsibly, legally and ethically.*
 - At grade four, students will demonstrate understanding of the concept of ownership of ideas and identify title page information to create bibliographies
8. **Appreciation of Literature:** *Students will read and appreciate various forms of literature.*
 - At grade four, students will recall, extend and summarize story in follow-up discussions and identify, compare and contrast among literary elements of character, setting and plot

The implementation of standards and skills is a joint effort between the library-media specialist and the classroom teacher. In teaching library-media skills, a spiraled approach is used, similar to that used in language arts and mathematics. After students master a skill at a basic level, this skill continues to be taught or reviewed in subsequent grades at a more advanced level.

MUSIC

The study of music on the elementary school level is critical for the development of potential musical aptitude and lifelong learning skills in music.

The Elementary Music curriculum in the Darien Public Schools is based on the three artistic processes of creating, performing and responding to music and is designed to offer a sequential, comprehensive, standards-based music education to all students in kindergarten through grade five.

Pitched and non-pitched classroom instruments, movement, singing and dance skills are an integral part of the general music curriculum. Recorders are introduced to third grade students as a tool to reinforce and develop musicianship during the second semester of the third grade.

Because of the importance of the inherent performance nature of music, General Music students will have the opportunity to participate in one performance or program to demonstrate their musical skills each year. General Music classes meet two times per week and are within the recommended state guidelines for the elementary general music time allotment.

Every elementary school in Darien has a school chorus that is open to all interested fourth and fifth grade students. Students at the elementary level have an opportunity to study a string instrument beginning in grade three and a wind or percussion instrument in grades four or five. Chorus, Band and Orchestra rehearsals meet one time per week for 45 minutes outside of the normal school hours and instrumental lessons are given during the school day in small homogeneous groupings. All Band, Chorus and Orchestra students participate in a formal winter and spring concert performance each year.

PHYSICAL EDUCATION

The students in the Darien elementary schools follow a well-planned program in Physical Education. Each grade level has its own particular emphasis and contributes to the child's well being in a slightly different way. The elementary curriculum emphasizes movement experiences designed to develop basic locomotor, manipulative and physical skills. The program also provides modified games and sport activities that are designed to accommodate the physical and emotional level of the students. Darien High school hosts a volleyball jamboree each year for the 4th grade students as the capstone to that activity. The intramural program at each elementary school is also very popular with sessions offered before and/or after school

Connecticut's K-12 Content Standards for physical education are as follows:

1. Physical Activity

Students will become competent in a variety of physical activities and proficient in a few physical activities.

2. Human Movement

Students will understand and apply principles of human movement to the learning and development of motor skills.

3. Fitness

Students will use fitness concepts to achieve and maintain a health-enhancing level of physical activity.

4. Responsible Behavior

Students will exhibit responsible personal and social behaviors in physical activity settings.

5. Respect for Differences

Students will exhibit an understanding of and respect for differences among people in physical activity settings.

6. Benefits of Physical Activity

Students will identify and understand how physical activity provides personal enjoyment, challenge, self-expression and social interaction.