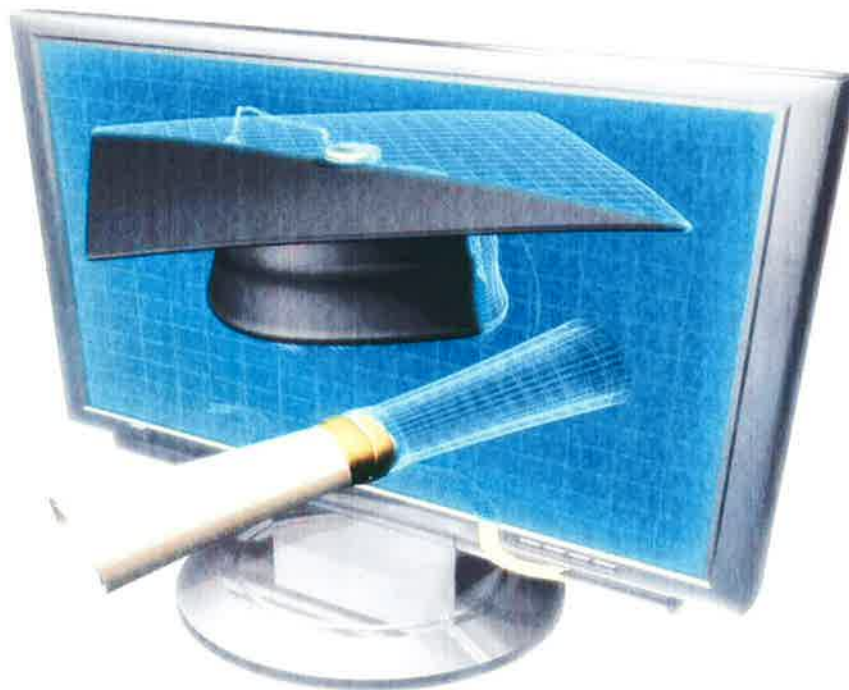


# **GRADE 5**

**CURRICULUM OVERVIEW  
2010 – 2011**

**CONCORD PUBLIC SCHOOLS**



**GRADE 5 TEACHERS  
2010 - 2011**

**NAMES**

**LOCATION**

ADAM GREGOR

ALCOTT

LISA LUBY

ALCOTT

EMILY O'HARA

ALCOTT

LAUREN OLIVER

ALCOTT

ANNE EGAN, SPED – GRADES 3,4,5

ALCOTT

THOMAS HOURIHAN

THOREAU

KAREN HOYT

THOREAU

KARLA KEEFE

THOREAU

ROBERT LEMAIRE

THOREAU

JUSTINE HEBERT, SPED – GRADES 3,4,5

THOREAU

CHRISTEN LEKORENOS

WILLARD

NANCY TRACY

WILLARD

KIM RIVERS/SHARON HEHN

WILLARD

JESSICA EDWARDS, SPED – GRADES 3,4,5

WILLARD

September 2010

Dear Concord Elementary School Parents:

Welcome to the fifth grade! During this year your child will grow and develop emotionally, socially, and intellectually as childhood begins to blend into early adolescence. We encourage you to become involved in your child's formal education, and ask you to review this overview of the fifth grade curriculum. You will see that there are many exciting adventures ahead as your child reads historical fiction, uses computers in various stages of the writing process, sees the connection between fractions and decimals, asks many questions about how the major systems of the human body work, uses electronic and print resources, and becomes a critic of one's own art work as well as the work of others.

We are proud of the curricular and instructional program of the elementary schools in Concord for many reasons. First, it is based on the central assumption that all children can and will learn. The dedicated teachers, principals, and other staff members of the elementary schools are committed to creating an environment which fosters the intellectual growth of each child.

Second, the program is comprehensive and guided by National Standards and Massachusetts Frameworks. At the core of the program is a strong, discipline-based curriculum which includes sequential instruction at every grade level in all of the traditional academic areas: language arts, social studies, science, and mathematics. We believe that children learn by doing, that they need to develop positive identifications as readers, writers, speakers, mathematicians, scientists, historians, and geographers. Because we also believe that children should develop all of their talents, art, music, physical education, health, computer, and library experiences are vital aspects of the curriculum.

Third, the schools are committed to promoting the well-being of the whole person which means cultivating strong minds and healthy bodies. In order to foster the development of caring, responsible, and committed people some themes, such as respect for human differences, permeate the curriculum and guide our interactions with children and our expectations for how children will treat each other. The Open Circle curriculum which is a comprehensive multi-year social and learning program for children is also implemented in K-5 classrooms.

The curricular and instructional program is dynamic with ongoing revisions and improvements. Grade-level standards for each grade and content area have been determined to identify what we expect students to know and learn at each grade level. Please access our website at [www.concordpublicschools.net](http://www.concordpublicschools.net) to review the grade-level standards. Each child's progress toward mastering the critical grade-level standards is evaluated and reported to parents mid-year in January and at the end of the year in June. Parent-teacher conferences in the fall and spring also provide the opportunity to further discuss your child's strengths and weaknesses.

No document can fully explain how general curricular and instructional goals will apply to the learning of an individual child. If you have any questions about how the curriculum applies to your child, please speak directly with your child's teacher. We hope that you will find the overview informative and that you will consider it an invitation to become involved in working with us to make this a very successful year.

Sincerely,

Kathryn Codianne  
Director of Teaching and Learning

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## LANGUAGE ARTS

Developing skillful readers and writers is one of the fundamental goals of our language arts program. Reading and writing are complementary skills which are taught through an integrated language arts program. Students are required to construct meaning from text, communicate through writing, listen effectively, and speak with clarity.

Reading is a dynamic process which encourages readers to apply their existing knowledge to text as they read. The major goal of our reading program is to develop students who use a variety of strategies in order to understand and interpret what is being read, and to reflect and respond in a thoughtful manner.

Systematic instruction in reading that challenges students to look beyond the literal meaning of text is reinforced in an age-appropriate manner. While reading for a variety of purposes, students are required to read more deeply, interpret accurately, and to support their interpretation with references to the text. They learn to draw valid inferences and to compare relationships in different parts of the text with their own personal experiences. They also learn to form critical judgments about the texts they read and to classify and organize information. As they continue to internalize the important reading strategies introduced in prior years, they become more independent readers who are encouraged to pursue reading as an enjoyable, enriching life-long pursuit.

Vocabulary development is also emphasized at this level with the focus on multiple meanings, synonyms, prefixes, suffixes and figurative language. Specific vocabulary relative to reading in math, science, social studies and language arts is taught. Students become more resourceful in using the dictionary, thesaurus, encyclopedia, index and glossary.

Students continue to broaden their experience of genre by reading realistic fiction, historical fiction, mystery, fantasy, poetry, biography/autobiography, and informational text. The goal is to match the level of the text to the needs of the student and, to this end, a variety of suitably leveled trade books are available for instruction. In addition, teachers have sustained silent reading periods several times a week as well as teacher read-aloud periods. Students are expected to read at home on a regular basis.

Writing is a dynamic, interactive and constructive process. Our instructional focus is to develop writers who can communicate to an intended audience, incorporating appropriate elements of composition and conventions of language. The steps of prewriting, drafting, revising, editing, and then finally “publishing” are reinforced in an age-appropriate way. Part of the writing process includes being open to receiving feedback from the teacher as well as from peers. It also involves students assuming greater responsibility for the mechanics of editing. While not all pieces of writing are revised, edited and recopied, at times students select one piece of writing to be brought to this final stage. Students’ writing samples are produced twice a year, in the fall and spring. The samples are dated and placed in the student’s cumulative writing folder which follows them to middle school.

A growing competence in both word processing and cursive writing is expected of fifth graders for all written work. Keyboarding skills for word processing and an efficient, legible handwriting style are emphasized. When word processing is not used, correct size, good form, neatness and good habits for letter formation, pencil grip and posture continue to be stressed.

The spelling program in fifth grade focuses on a core group of words derived from a list of high frequency words. While new priority words are introduced at fifth grade, students are expected to spell correctly the cumulative list of priority words they have had since first grade, as well as master their own list of personal spelling words.

## MATHEMATICS

The major goal of the elementary mathematics curriculum is to develop students who are proficient in and empowered by the effective use of mathematics. Students come to school with ideas about numbers, shapes, measurements, patterns, and data. If given the opportunity to learn in an environment that stresses making sense of mathematics, students build on the ideas they already have and learn about new mathematics they have never encountered. This goal is consistent with the philosophy of the National Council of Teachers of Mathematics as published in *Principles and Standards for School Mathematics* (2000) and *Curriculum Focal Points for Prekindergarten through Grade 8 Mathematics* (2006) that support the view of school mathematics as an experience that is “grounded in the belief that all students should learn important mathematical concepts and processes with understanding.”

Our K-5 Mathematics Program is *Investigations in Number, Data, and Space* (2008, Pearson Scott Foresman). The *Investigations* curriculum incorporates years of research about how children make sense of mathematical ideas. Major goals of the curriculum are to

- Support students to make sense of mathematics and learn that they can be mathematical thinkers.
- Focus on computational fluency with whole numbers as a major goal of the elementary grades.
- Provide substantive work in important areas of mathematics—rational numbers, geometry, measurement, data, and early algebra—and connections among them.
- Emphasize reasoning about mathematical ideas by demonstrating a variety of problem-solving strategies and communicating this thinking.

*(Implementing Investigations in Grade 5, 2008)*

In fifth grade, students complete activities or “investigations” in

- addition, subtraction and the number system
- multiplication and division
- 2-D and 3-D geometry and measurement

- decimals, fractions and percents
- patterns, functions and change
- data analysis and probability

Students also use a variety of hands-on materials and computer technology as tools to engage in thinking about and interacting with mathematical concepts.

In fifth grade the Continental Math League contest is administered to all students. This contest generally runs from November to March. Certificates are issued to all participating students by the Concord Public Schools. In addition, students are given the option of joining the Math Olympiad Team, which involves 5 contests beginning in November and ending in March.

## SCIENCE

Science literacy for all students is one of the fundamental goals of the elementary science program. The goals of the program are in align with Massachusetts Science and Technology/Engineering Curriculum Framework and the National Science Teacher's Association (NSTA). Science literacy is achieved when students are provided opportunities to develop understandings and skills necessary to function productively as problem-solvers in a scientific and technological world. NSTA also states that elementary students learn science best when they are involved in hands-on exploration and investigations where inquiry/process skills are nurtured. Experiential learning - "hands-on," "minds-on" science investigations, explorations and activities - are the core of the elementary science program. Throughout the elementary science curriculum emphasis is placed on the development of science process skills - including measuring; observing; predicting; collecting, organizing, recording, analyzing and interpreting data; formulating and generating questions; forming hypotheses; designing experiments; and drawing conclusions. The elementary science program includes three major content strands that reflect the major domains of science - physical sciences, life sciences, and earth and space sciences. Technology and Engineering standards are integrated throughout the various strands.

Fifth grade students begin the year with Earth Science. Students are introduced to several activities from two Delta Science Modules *Rocks and Minerals* and *Erosion* to study a variety of earth processes. Students explore the properties, uses, and origins of rocks and minerals. Students also explore the three ways rocks are made and infer the origins of the different specimens. Students will also investigate the causes of erosion and deposition and the landforms that are the results of these forces. Earth Science learning standards for grade 5 fall under the following three subtopics: *Rocks and Their Properties*; *Soil*; and *Earth's History*.

The Physical Science/Engineering/Technology unit focuses on the study of simple machines. Using the Delta Science Module *Simple Machines*, trade books, *Science Court Simple Machines* software and other web resources, the students engage in hands-on activities and collect and analyze data as they learn about simple and complex machines. During hands-on activities students explore the mathematical relationship between force and work, build classroom versions

of six simple machines: lever, wheel and axle, pulley, inclined plane, wedge, and screw. Learning standards for simple machines fall under the Physical Science strands of *Position and Motion of Objects*, *Properties of Objects* and *Materials*. Learning standards also integrate the Technology/Engineering strands of; *Materials*, *Tools and Machines*, and *Engineering Design*.

During the spring a portion of the 5<sup>th</sup> grade Life Science unit is integrated with the Health curriculum. Students participate in hands-on activities from the Delta Science Module *You and Your Body*. Students investigate the skeletal, muscular, respiratory, and circulatory systems. The Health component incorporates the reproductive system, and nutrition.

Students complete the year with a study of the Oceans. Learning standards include components from the life, physical and earth sciences. . Activities from Delta Science Module *Oceans* challenge students to investigate our watery planet. Students get their hands wet investigating several ocean phenomena. They learn about the composition of ocean water, features of the ocean floor, how ocean waters move, and how oceans affect weather and climate. They find out about the many resources the ocean provides. They also read about marine biologist Dr. Sylvia Earle and undersea explorer Jacques-Yves Cousteau. Finally, students learn about deep-ocean exploration.

## **SOCIAL STUDIES**

The content studied will provide a framework for defining values, skills and student experiences. This content is based on four central strands: United States and world history, geography, economics, civics and government. These strands will interact with the curriculum to unify and enrich the content across grade levels. They are introduced in the primary grades and regularly reappear through the years, each time deepened and extended. At various grade levels, some strands may reflect greater emphasis depending on the focus. Along with these strands we have constructed a conceptual framework when studying a culture or period of time in our own history. These concepts which include examining environment and resources, culture and diversity, adaptation and change, conflict and discrimination are important to consider when building a curriculum. Integrated into this framework of knowledge are study skills, critical thinking, participation skills and developing ‘historical habits of mind.’ We believe that connections should be made to the fine arts, literature, religions, ethics, sciences, mathematics and technology throughout the topics of study.

We will provide our students with experiences both in and out of the classroom and encourage using a wide variety of sources. ‘Hands on’ exploration and activities are vital to an elementary social studies program. They allow students to construct their own meaning and bring alive many of the historical people and stories they have studied.

The story of human history in prior grades has been presented through major themes. These themes were connected to the life of people, regardless of time or place. We shall continue this through participation in programs at the Concord Museum and Minuteman National Park. The

fifth grade curriculum is the study of United States history and its critical turning points from the pre-Columbian period up to 1806. This curriculum examines the story of the gathering of the many and diverse peoples and cultures that have created and are continuing to transform American society. The major units include the following:

**First Americans** – a view of the major cultures that were thriving on the American continents at the time the Europeans arrive;

**European Exploration and Settlement to 1585** – the study of early maritime explorers of the New World, their motivations and results of their explorations;

**European Colonization** – examination of the thirteen colonies and how their regional differences shaped their economies and societies;

**American Revolution** - examination of the political and economic factors that contributed to the American Revolution;

**The United States Constitution** – formation of the federal government and the basic principles of American democracy, examination of events leading to the Constitutional Convention, the three branches of the United States government, features of the Constitution, and the significance of the Bill of Rights and its guarantees.

## TECHNOLOGY

Computers are integrated throughout the curriculum to support, reinforce, apply and enhance learning in mathematics, science, social studies, writing, reading, health, and research. Selected software titles have been designated by grade level to support specific subject areas.

School-wide, generic software tools such as AppleWorks (word processing, database, spreadsheet, drawing, painting, presentation), Internet Explorer, Inspiration, EasyBook Deluxe, Kid Pix Studio Deluxe, iMovie, and HyperStudio are used to publish and create multimedia presentation of subject material. In addition, individual software programs are available in the computer lab for teachers to supplement and enrich students' classroom projects. Some examples include TimeLiner, Dreamweaver, TERC Math, Type To Learn, and interactive video CD-ROMS from National Geographic Society.

Facilities in every elementary school include a computer lab, a wireless mobile lab, and at least one computer in every classroom. Internet access is available in each classroom as well as the school library.

## HEALTH EDUCATION

The overall goal of the health education program is to provide students with the knowledge, skills and habits of mind needed to make healthy, self-enhancing decisions. This goal is further supported and aligned with the core concept of the Massachusetts Health Education Curriculum Framework, which states, “the aim of teaching comprehensive school health education is to develop and nurture resilience, which is the ability to thrive, persevere, and maintain a positive attitude and healthy body.... By beginning in the early years to educate and promote the well being of students, school health programs help them to avoid future problems like substance abuse, eating disorders and school failure. Students learn how to develop and maintain their own physical wellness and personal relationships; they discover that health means much more than the absence of disease or the avoidance of danger. Making choices that promote health and well-being can make life more productive and rewarding.”

Research on developing resiliency in children supports the notion that this overall goal is best achieved by continuing to build strong partnerships between parents, teachers, administrators and the community-at-large. In keeping with the spirit of this partnership, it is our practice to inform parents about the health education curriculum specific to each grade level, so that the topics taught can be discussed, supported and introduced at home.

This practice complies with the 1996 Massachusetts Parent Notification Law, which requires districts to inform parents/guardians about the content of the human sexuality component of the program. The law also requires districts to make materials available for parent viewing and to provide parents/guardians the option of whether or not their child participates in the teaching of human sexuality curriculum. These requirements have been common practice in Concord at the K-4 level since the inception of the human sexuality segment of the program since 1995.

In grades K-5, strands from the Department of Education Health Frameworks document organize the health education curriculum that are introduced in kindergarten and developed in an age appropriate way through grade 5. These include: Growth and Development, Physical Activity & Fitness, Nutrition, Reproduction and Sexuality, Mental Health, Family Life, Interpersonal Relationships, Disease Prevention, Safety & Injury Prevention, Tobacco, Alcohol & Other Drugs, Violence Prevention.

Throughout the K-5 curriculum, emphasis is on developing skills such as problem-solving, decision-making, and social skills including communication, empathy and assertiveness, and habits of mind, including open-mindedness, flexibility, curiosity, sense of interdependence and acceptance of personal, social and civic responsibility. Classroom teachers, with assistance from our school Social Workers and Health Curriculum Specialist, have been trained in the Wellesley College *Open Circle* Social Competency program to meet the health education standards in the Social Emotional Health Strand.

In grade 5, health education topics are incorporated within the science unit of study of the human body entitled: All Systems Go! Human Systems and Health Applications. Also, in collaboration with the Concord Police Department, the new Robert Wood Johnson, D.A.R.E.

program (Drug Abuse Resistance Education) taught by a trained officer, builds upon the tobacco, alcohol and other drug concepts introduced in grade 2. Concepts taught within the D.A.R.E. program are peer influence, tobacco, alcohol and other drugs, and skills such as refusal, decision-making and communication. These skills are central to the DARE program and are also integrated and reinforced during the yearlong study of the systems of the body. Health education concepts are integrated with conflict management and social skills and reinforced each day in the classroom. Media literacy is covered during the DARE program and library science time.

## ART

The K-5 art program gives children another language for learning. Children are encouraged to express themselves through their art. They draw inspiration from observation, imagination, personal experience and classroom study. Students explore a variety of two- and three-dimensional processes, which they use as a means to realize personal expression. The art program uses a spiraling curriculum, and each year will include developmentally appropriate units in any of, but not limited to, the following media: drawing, painting, printmaking, clay, papier-mache, paper sculpture, etc. Reflection and discussion are important elements of each art experience, fostering insights which may be applied to future learning. In grades 1-5, art classes are one hour in length to accommodate a dialogue and a presentation of the lesson, time for students to work through ideas, and a wrap-up with sharing of solutions and ideas.

## MUSIC

The Music program in Grade 5 (one forty-five minute class per week) is built on a foundation of feeling the steady beat, singing, listening and moving to a varied seasonal and multi-cultural repertory of songs, dances and games that establish the concepts of rhythm, melody, form and harmony. Music skills are refined through active participation in 2-part singing, playing rhythmic and melodic instruments, reading and writing standard notation, improvisation and composition.

Fifth graders may elect to sing in a choral group, which rehearses occasionally throughout the year. They may also continue the study of violin, viola, cello, or bass begun in Grade 4, or may elect to play flute, oboe, clarinet, saxophone, trumpet, French Horn, trombone, baritone horn or percussion (percussion instruction takes place separately before school). Lessons (one forty-five minute class per week) in similar instrument class groupings are offered during the regular school day.

All students who are studying Band instruments rehearse together starting in February in order to learn beginning ensemble performance skills. All Grade 5 instrumental students in the three elementary schools also have the opportunity to perform together as a large ensemble at the

CCHS auditorium. The Grade 5 Orchestra performs at the String Fling, while the Grade 5 All-Town Ban performs in early June.

## **PHYSICAL EDUCATION**

The physical education program (one hour class per week) offers children a variety of creative motor experiences that promote healthy attitudes towards exercise. The physical education program offers vigorous and non-vigorous activities that build skills, strength, speed, coordination, self-confidence, and self-image. Social and emotional development is addressed through the teaching of concepts such as cooperation, problem solving, team building, fair play, and respect for human differences. The physical education program clearly plays a vital role in the education of the whole child. Doing one's "personal best" is a theme at all grade levels.

In grade five the students show a mastery of skills necessary to participate in advanced games and activities. Cardio-respiratory activities, good sportsmanship and fair play continue to be emphasized. Students are expected to exemplify safe practices, adherence to rules and procedures, cooperation, teamwork, and positive social interaction in class activities.

## **LIBRARY MEDIA**

### **Learning Expectations - Grade 5**

Fifth grade students will build on skills learned in previous years. In addition, fifth grade students will develop the ability to:

- Readily identify books by genre, be familiar with Caldecott and Newbery winning books and appreciate a broad range of children's literature
- Successfully select and locate books for recreational reading and classroom assignments from all sections of the library
- Further develop search strategies
- Independently select print and electronic reference sources appropriate to the type of information being sought and use these sources to gather information
- Locate information on the Internet and evaluate sites for accuracy and usefulness
- Locate information on catalog cards such as the copyright date and use this

information as an aide in book selection

- Understand the Dewey Decimal System and locate books by Dewey number
- Further develop computer research skills
  - Clipping of images
  - printing of text selection
- Introduce bibliography and reinforce concepts of copyright and plagiarism

### **ALA Information Literacy Standards for Student Learning**

*Standards 2, 6, 7 performed to BASIC level*

*Standards 1, 3, 4, 5, 8, 9 performed to PROFICIENT level*

- Acquires and uses knowledge about media / advertising influence on their daily lives.

**Health - Safety and Prevention standards 11.2, 12.3**

## **CONCORD ELEMENTARY SCHOOLS - HOMEWORK GUIDELINES**

### **What Is Homework?**

Homework is any assigned activity done outside of school which relates to any phase of learning. It should be an enrichment and a reinforcement of learning activities. It should not be used to teach something new, to fulfill a time requirement, or to punish. From time to time homework may also be used to encourage discussion among family members and to provide linkages between home and school.

### **Purpose of Homework**

1. To supplement and reinforce skills and work done in class.
2. To enrich the child's school experience.
3. To provide opportunities to use skills/knowledge learned in school in creative ways outside of school.
4. To promote individual responsibility.
5. To teach the child how to budget time and organize materials.
6. To promote independent study and research skills.
7. To develop leisure interests in learning that will enhance later experiences in life.

### **Role of Student**

1. To be responsible for the completion of assignments.
2. To confer with parents and/or teachers if assignments are not clear or are too difficult.

### **Role of Teacher**

1. To communicate with parents early in the year about homework expectations.
2. To design homework to accomplish a specific purpose closely related to the curriculum for the grade level.
3. To insure that homework assignments are clear.
4. To assist student in learning how to study.
5. To examine completed assignments so that they can be utilized efficiently in instruction.
6. To communicate with the child and parents when problems concerning homework arise.
7. To vary types of assignments so as to hold the child's interest and to meet different needs.

*(continued on next page)*

## CONCORD ELEMENTARY SCHOOLS - HOMEWORK GUIDELINES (cont.)

### Role of Parent

1. To encourage the child to accept the responsibility for completing home assignments.
2. To provide a quiet study environment.
3. To assist the child when the teacher and parent have conferred and agreed that this assistance would be helpful.
4. To monitor the time spent on homework and to confer with the teacher if the amount of time appears to be consistently excessive or too little.
5. To confer with the teacher if assignments seem consistently unclear or too difficult.
6. To notify the teacher if an unforeseen occurrence prevents the child from completing an assignment.

### Guidelines for Time and Frequency

Grade Level	Time	Frequency
Kindergarten	Discretion of teacher	
Grade 1	Discretion of teacher	
Grade 2	Discretion of teacher	
Grade 3	20 minutes*	Monday through Thursday
Grade 4	30 minutes*	Monday through Thursday
Grade 5	45 minutes*	Monday through Thursday

*\*A guideline is by its nature an approximate standard meant to convey to parents the average amount of time the teacher anticipates a student will need to spend on homework. Homework time will vary from student to student and from day to day. Teachers may also give additional assignments such as reading independently, writing journals, or keeping up with current events. They may also give long-term assignments such as research reports or book-related projects.*