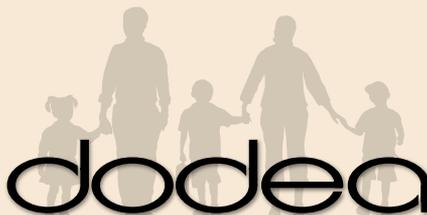
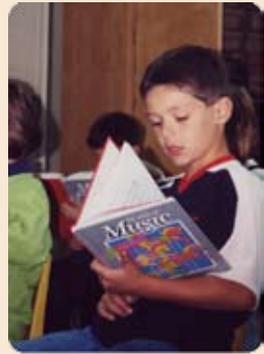
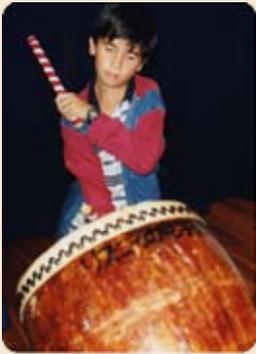


*Parents Guide To*

# FIFTH GRADE

*Instruction*



DEPARTMENT OF DEFENSE EDUCATION ACTIVITY

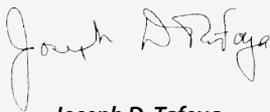
## Message from the Director

Dear Parents:

The Department of Defense Education Activity (*DoDEA*) is committed to providing the highest quality of education to its students. One way to provide a quality education is with an effective curriculum that reflects high standards and expectations. Thus, DoDEA has developed rigorous content standards aligned with national guidelines and standards. But even the most rigorous standards cannot make schools and students successful without the support of parents.

This booklet is designed to inform you, our parents, of DoDEA's expectations for students in the four major curriculum areas—reading/language arts, mathematics, science, and social studies—at the fifth grade level. These expectations are aligned with the fifth grade curriculum that is used by the classroom teacher for daily instruction. The booklet also provides examples of what your child is learning in the classroom, and what he or she should know and be able to accomplish upon exiting fifth grade. In addition, it provides suggestions and tips on how you can help your child at home.

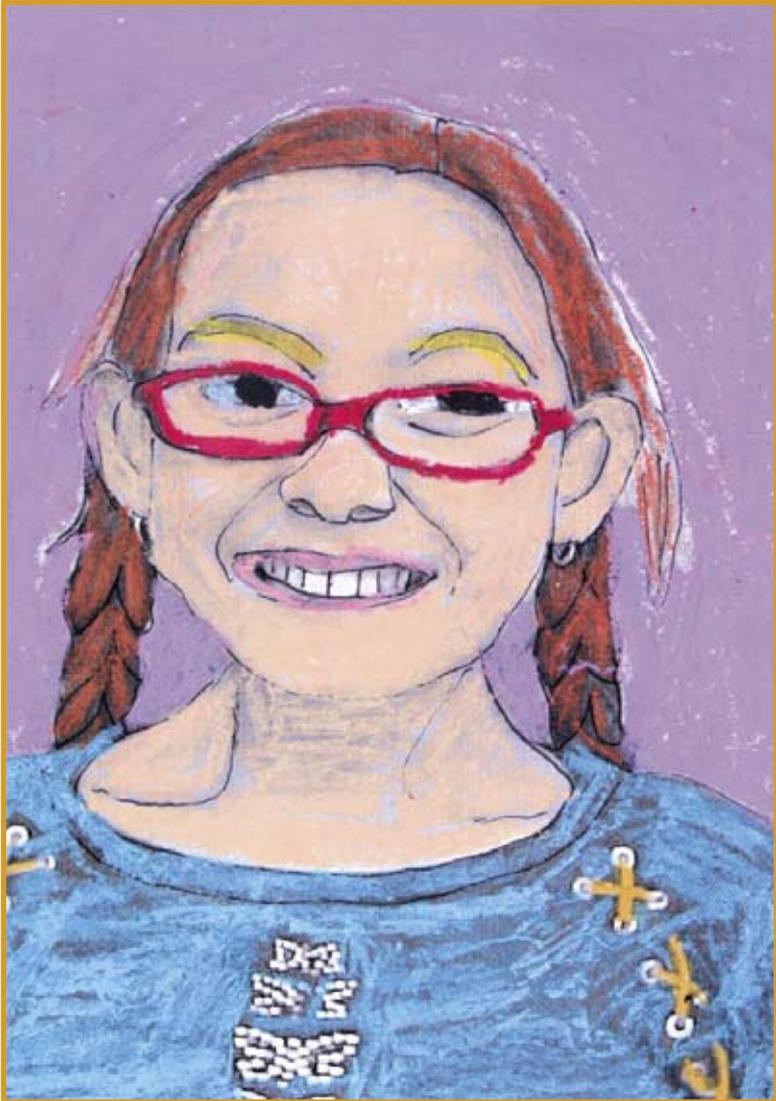
I hope this publication is informative and assists you with understanding DoDEA's educational goals for your child in fifth grade. Working together, we can ensure his or her success and start him or her down the path to life-long learning.



**Joseph D. Tafoya**  
**Director**

**Department of Defense Education Activity**

# Welcome to Fifth Grade



*Tiffany Hummel*  
*Mixed Media, "Me"*

# Help Your Child Find Success

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The physiological changes that 10- and 11-year-olds typically undergo create many challenges. Not only are their bodies changing, but the way they view the world is also different. They may be more emotionally sensitive or feel awkward in response to the physical changes in their bodies. Children in fifth grade may also seem more self-absorbed, requiring more external structure than before. During this transition in your child's life, he or she may need more emotional and structural support to stay on track for academic success.

The Department of Defense Education Activity (*DoDEA*) has used national curriculum standards and what research tells us about child development to establish standards for children attending our schools. These standards include expectations for student learning in all content areas from mathematics to health to art. The purpose of this booklet is to provide you with an overview of the standards for fifth grade in the four major content areas: mathematics, English/language arts, science, and social studies. Each academic area incorporates technology because we consider the use of technology to be a natural part of our school day.

It is important that you, the parent(s), understand the standards that guide the education of your child. The standards are made real through student work that demonstrates your child's understanding and knowledge of the expectations. Please log on to the DoDEA website, [www.dodea.edu](http://www.dodea.edu), for the complete standards. If you have concerns about your child's academic progress, talk with the classroom teacher or school counselor. In partnering with you, DoDEA seeks to help every student succeed in academic content areas. Here are some suggestions on how to help your child meet the DoDEA standards:

## **Take Time**

Ten-year-olds love to share what they know and show examples of their work to others, while 11-year-olds may be more self-absorbed, moody, and sensitive. Ten-year-olds generally enjoy family and friends, but 11-year-olds may be oppositional, testing the limits at home and school. Because of the many physical and emotional changes your child is experiencing, it is very important that you take time to show support by being involved in his or her life. Set up a daily time when the two or three of you can talk. Focus on helping

your child feel good about accomplishments. If he or she is involved in out-of-school or in-school activities, be interested and volunteer to help. Your child needs to be aware of your active support.

### ***Review Schoolwork***

Ten-year-olds are generally highly productive and conscientious about school assignments and homework. Eleven-year-olds generally need help with time-management skills and fulfilling homework requirements. Your child should take the lead in seeing that homework is accomplished. Children who are responsible for completing homework assignments learn to be self-reliant and self-motivated.

By this age your child should have a daily study routine established. As a parent, remind your child of his or her responsibilities and suggest ways that help is available. If your child continues to struggle after making a sincere effort, offer your assistance. You may wish to speak with the school counselor about a daily monitoring sheet if homework completion remains an issue. In addition, if your child regularly experiences difficulties with understanding homework, consult with the classroom teacher or school counselor.

### ***Encourage Curiosity and Creativity Through Technology***

Is your child progressing educationally by memorizing facts, or is your child naturally curious, developing an internal interest in learning more about the world? Children are more interested in learning if they are actively involved in the process. Technology can help learners take a more active role in learning. With the use of technology, your child can explore the world and get instantaneous feedback about discoveries. Projects done on the computer challenge creativity and develop skills and problem-solving tactics. Guide your child to discover the advantages of using technology to develop a creative mind. Be sure to monitor computer activity, however, so that curiosity doesn't lead to accessing inappropriate Internet sites.

In addition to technology, your child needs other ways to develop a creative mind. Hobbies and projects give children the opportunity to think abstractly and create new discoveries.

## ***Motivate Your Child with Praise***

How do you feel when you do something you perceive as really good and no one recognizes your efforts? Your child, just like you, needs support and encouragement for his or her efforts. Regular praise will boost your child's self-confidence and provide motivation to do the best job possible.

Notice specific accomplishments, no matter how small, and praise your child regularly both publicly and privately. You will soon see a big difference in your child's self-image.

## ***Help Your Child Learn Good Study Habits***

First, help your child be prepared. Having the right materials available to work with is important. If your child seems overwhelmed with the amount of homework, show how the work can be broken down into smaller parts. At this age, your child may have more long-term projects or assignments. Help your child review the project and record due dates on a calendar to avoid procrastination. A homework log to keep track of daily assignments is a great organizational tool. If your child has difficulty with concentration, suggest short breaks every hour. Organizing work and preparing for future tests is also very important. You have a lot to offer your child without actually doing the work. Remember, the responsibility of completing the homework belongs to your child - not you.

## ***Help Your Child Learn to Study for Tests***

Tests become harder and more detailed as students move up in grade levels. Helping your child learn the skills of how to study for a test will affect academic success at all grades. Guide your child in the use of the following study techniques which are correlated to academic success:

Review textbook chapters by looking at headings and subheadings, pictures, graphs, tables, and the summary at the end of the chapter.

Use index cards to note important information. Use these cards to study for tests.

Review class notes and homework. Use a highlighter to underline important points.

Review study questions if available. Study questions may be distributed by the classroom teacher or located at the end of a textbook chapter.

Have your child make a list of sample questions to study. Ask your child these questions to determine comprehension and test readiness.

Go over important notes several times for memory retention. If your child has difficulties retaining information, try to make the information more relevant.

### ***Establish Long-Term Goals***

Your child needs to see the relationship between effort in school and future success. If your child would like to be an engineer, find a professional engineer who can talk with him or her about the necessary educational preparation. Discuss different job opportunities. Help your child establish long-term goals, such as having the appropriate grades and courses to enter a good college. As your child discovers the importance of educational goals, studying should become a higher priority.

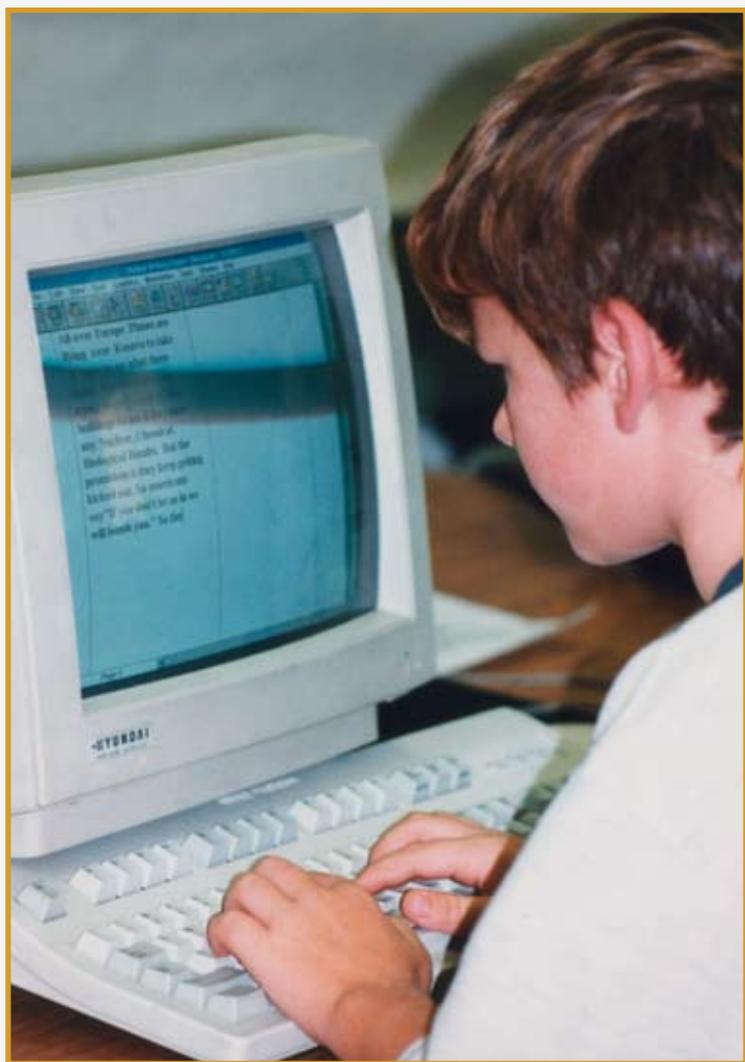
### ***Physical Activity, Nutrition, and Safety Tips***

As a parent, you have an important role in shaping your children's physical activity, nutrition, and safety attitudes and behaviors. Help keep them safe, healthy, and ready to learn. Here are some things you can do.

Encourage your children to find fun activities to do with family members or on their own that simply involve more activity (***walking, playing chase, dancing***). It is recommended that children participate in at least 60 minutes of moderate-intensity physical activity most days of the week.

Plan your children's snack choices. Dress up fruits and vegetables for maximum appeal. Prepare celery with peanut butter or carrots with low-fat dip. Encourage your children to experiment with simple snack recipes.

Create a safe home and community environment. Be sure your children wear the protective equipment made for the sport they are playing, such as shin pads, wrist guards, eye protection, and helmets.



# Reading and Writing

## Reading

### **Students are expected to read a lot, both at home and at school.**

*Students will read from a diverse collection of reading materials, such as traditional and contemporary literature (both fiction and nonfiction), magazines, newspapers, textbooks, and online material. Students should read books by at least five different authors during the school year.*

#### **As you support your child's efforts, encourage your child to do the following:**

- Keep a reading journal either in a notebook or on a computer to record books read, along with summaries, opinions, or recommendations.
- Participate in book discussions, both informal and formal. (*E.g., have a weekly family discussion time when each family member shares something he or she has read.*)

### **Students read and produce evidence of understanding what they have read.**

*Students will make a responsible interpretation of what they have read by making connections between parts of the story or book read, among several reading materials, and between reading materials and real-life experiences. Students will evaluate reading materials and apply information gained.*

#### **As you support your child's efforts, encourage your child to do the following:**

- Make and support statements about the story with proof. (*E.g., have your child use supporting details from the title, illustrations, captions, and the text itself to defend statements.*)
- Compare and contrast the themes, characters, and ideas in the books read. [E.g., the use of graphic organizers such as a Venn Diagram (*two circles overlapping in the middle*) or a T chart (*a chart using a capital letter T to separate two areas*) will help your child identify the similarities and differences among the themes, characters, and ideas.]
- Make a logical connection among the books read. (*E.g., help your child use clues from the words and illustrations to make guesses or inferences about the characters, plots, and themes of stories.*)

# Reading and Writing

- Remind your child that writers don't always state everything that happens in their stories, so sometimes one has to "read between the lines."
- Explain the writing strategies of the author. *(E.g., have your child explain how the author's opinion or attitude about a subject affects the viewpoint of the reader.)*
- Recognize and compare cultural differences within the text. *(E.g., have your child describe how cultural differences influence what the people in the story are feeling and/or thinking.)*
- Relate personal experiences to materials he or she has read, heard, or viewed. *(E.g., have your child create a graphic organizer to show how the materials relate to his or her personal experiences.)*

## Students read and understand informational materials for understanding and expertise.

*Students will comprehend material read to gain information and share it with others, either orally or in written format.*

### **As you support your child's efforts, encourage your child to do the following:**

- Restate or summarize information he or she has read. *(E.g., after reading the directions on how to put together a toy, have your child explain the instructions to a younger child.)*
- Connect new information from readings to prior knowledge and experience in order to build an understanding. *(Remind your child that the more information and evidence gathered, the more likely the conclusion will be correct. The evidence may come from prior knowledge, experience, personal interviews, or reading and research.)*
- Extend ideas gained from books read for other academic areas *(e.g., the use of content specific/technical vocabulary in oral or written presentations, or oral discussions).*



# Reading and Writing

**Students read familiar material, recognizing most of the words and in a way that makes meaning clear to listeners.**

*Students will independently read complex material fluently. Students will use reading skills to correct reading errors or determine pronunciation of new words.*

**As you support your child's efforts, encourage your child to do the following:**

- Self-correct reading errors.
- Use a variety of systems to help read words and determine pronunciation and meanings. *(E.g., have your child use phonics to answer the question "Does this sound right and does the word fit in the sentence?" and context clues to answer the question "Does this make sense given the rest of the sentence or paragraph?")*
- Read confidently and with appropriate expression.

**Students develop a written report.**

*Students will produce a report that is informative for a specific purpose and audience. They will support their interpretation of literature in a written format.*

**As you support your child's efforts, encourage your child to do the following:**

- Create a context or theme to interest the reader.
- Develop a viewpoint about the subject of the report. *(E.g., have your child visualize what it would be like in a similar time period or setting of the report.)*
- Create an organized format when writing. *(E.g., before your child writes a mystery story, have him or her identify the mysterious event or problem as well as the solution. Have your child plan and list possible events or clues leading to that solution.)*
- Include appropriate facts and details in writing. *(E.g., have your child imagine how a detective would solve a mystery when writing a report. Concentrate on clues that would support the solution.)*
- Analyze and interpret material read in a written report.
- Support interpretations by referencing the text, other works, or personal experiences.
- Demonstrate an understanding of the literary work throughout the writing.
- Provide a sense of closure in the report.

# Reading and Writing

## **Students produce a narrative account or narrative procedure.**

*Students will develop in writing an account of a personal or imaginative story, a set of rules, a set of procedures, or game instructions.*

### **As you support your child's efforts, encourage your child to do the following:**

- Organize the steps involved in writing. *(E.g., ask your child to help you plan a party. After thinking about the steps involved in the process, together write the plan, listing the steps needed for preparing a successful party. Steps should be clear and simple.)*
- Include details in writing to develop an account or procedure. *(E.g., after writing a set of procedures, have your child teach another person how to do the activity. Was enough detail provided to carry out the procedure?)*
- Exclude any information that is not needed.
- Use a range of strategies when writing. *(E.g., providing facts and details, analyzing the subject, comparing and contrasting, or explaining benefits and limitations are strategies used in reporting and writing. Check with the classroom teacher for more details.)*
- Provide a sense of closure in a piece of writing.

## **Speaking, Listening, and Viewing**

## **Students use speaking and listening to express, explore, and learn about ideas.**

*Students will appropriately talk with others about their reflections on written material.*

### **As you support your child's efforts, encourage your child to do the following:**

- Respond to questions with appropriate elaboration.
- Rephrase an adult's directions or instructions to confirm understanding.
- Display appropriate turn-taking behavior.
- Solicit others' opinions and comments when communicating with others. *(E.g., have your child pretend that he or she is a television reporter conducting an interview on a topic of interest.)*
- Clarify and illustrate appropriate dialogue when responding to speakers.

# Reading and Writing

## Students deliver an individual presentation.

*Students will develop skills that allow the preparation and presentation of information to a designated audience.*

**As you support your child's efforts, encourage your child to do the following:**

- Prepare a presentation that would be of interest to others. (*E.g., have your child take something that he or she has built or collected and prepare a presentation that would interest a variety of audiences.*)
- Prepare a presentation on a particular topic. (*E.g., help your child think of acquaintances and how they use problem solving in their everyday work. Arrange for your child to visit one of these individuals at work and conduct an interview. Discuss what your child learned about on-the-job problem solving.*)
- Use notes or other memory aids to structure a presentation. (*E.g., note cards, charts, or PowerPoint slides assist with the organization and flow of a presentation.*)
- Develop several main points relating to a single theme in the presentation.
- Use appropriate verbal cues and eye contact when presenting.
- Project a sense of individuality and personality in the selection of topics and delivery of information.

## Grammar and Usage of the English Language

## Students demonstrate a basic understanding of the English language in their writing and speaking.

*Students will select and use language that is appropriate for the purpose, audience, and context of the work. Students will analyze written work to ensure that it relays the intended message or thought.*

**As you support your child's efforts, encourage your child to do the following:**

- Use appropriate grammar and sentence structure in oral language, and appropriate grammar, sentence structure, paragraph structure, punctuation, and spelling in written language. (*E.g., encourage your child to write thank-you notes for gifts and to proofread the notes for grammar, spelling, and punctuation errors.*)

# Reading and Writing

- Revise written or oral communication by adding or deleting detail or explanations; clarifying difficult passages; and rearranging words, sentences, and paragraphs to improve meaning and sharpen focus.

## Literature

### Students respond to literature.

*Students will respond to nonfiction, fiction, poetry, and drama using interpretive, critical, and evaluative processes. Students will produce at least one piece of literature.*

#### **As you support your child's efforts, encourage your child to do the following:**

- Identify recurring themes across literary works.
- Analyze how the author's word choice and content affect the reader.
- Evaluate the literary merit of the literature he or she reads.
- Consider the purpose of the author's point of view. *(E.g., have your child think about why the author wrote this piece of literature.)*
- Examine the reasons for a character's actions. *(E.g., have your child defend a character's actions in a story by making a convincing argument that provides logical and factual information to support it.)*
- Critique a plot on whether it is realistic. *(E.g., after watching a movie together, discuss whether the story line was representative of real-life events.)*
- Make judgments and draw conclusions about contexts, events, characters, and settings. *(E.g., suggest that your child keep a character chart to track the different people in the story as a way to help make judgments and draw conclusions.)*
- Write a poem, short play, picture book, or story.



*Maggie Findall*  
*Mixed Media, "Mask"*

# Mathematics

## *Numbers and Operations*

**Students apply the appropriate order of operations for expressions involving addition, subtraction, multiplication, and division.**

*Students use, interpret, and construct multiple representations of a number and translate among equivalent relationships for integers, fractions, decimals, and percents.*

**As you support your child's efforts, encourage your child to do the following:**

- Help to determine an allowance for each week. Would it be better to receive \$5.00 for the week or to receive \$.10 for the first day and have the amount double each day until the end of the week? (\$.10, \$.20, \$.40, \$.80, \$1.60, \$3.20, \$6.40)
- Make a game out of rolling three die, forming numbers, and then rounding the numbers to 100s (*two die can be used for rounding to 10s if they want to play with their younger siblings*). Keep track of the 100s (or 10s) place rolled. Add up to see who can get to 3000 first.

## *Algebra*

**Students use symbolic algebra to represent and explain mathematical relationships.**

*Students apply algebraic skills to solve everyday problems.*

**As you support your child's efforts, encourage your child to do the following:**

- Help to decide how much milk your family drinks in a week. Count the number of glasses of milk each person in the family drinks per day and per week. Decide how many gallons of milk are needed. Help your child record the information with symbols (*M = Mom, D = Dad, J = Jack, etc.*)

# Mathematics

## Geometry

**Students compare and analyze attributes and other features of two- and three-dimensional geometric shapes.**

*Students gather information and make plans using geometry*

**As you support your child's efforts, encourage your child to do the following:**

- Draw and label different geometric shapes.
- Plan a garden in the backyard. Measure length, area, perimeter, and circumference (*if the space is round*) accurately and draw out a plan for the garden on paper first.

## Measurement

**Students use appropriate units of measurement to measure two- and three-dimensional objects.**

*For example, students understand that inches are used for small objects, while feet and yards are used for larger objects.*

**As you support your child's efforts, encourage your child to do the following:**

- Have your child measure the path that they walk around the house. Determine about how far your child will walk in a day.
- Have your child rearrange his or her room. Before moving the furniture, have your child draw a map of the room and place the furniture on the map in the new positions. Use a scale of 1 inch = 1 foot.
- Measure items with a ruler, tape measure, or yardstick to 1/8-inch precision.

# Mathematics

## Data Analysis and Probability

**Students project information for a larger population based on a sample.**

*Students explain the relationship between experimental and theoretical probabilities.*

**As you support your child's efforts, encourage your child to do the following:**

- Record how he or she spends an allowance for a month. Organize the amounts spent under categories such as snacks, entertainment, and savings. Have your child find the average amount spent in each category.
- Help you plan a family trip by deciding the amount of time to spend at different locations given the time you intend to be on vacation.



**Carol Chung**  
**Mixed Media, "Kind Monster Mask"**

## *Inquiry Skills*

### **Students conduct investigations using inquiry skills.**

*Students will learn to think scientifically by using all of their senses or scientific investigations to answer questions about their world. Students will collect and analyze data and verify experimental results. They will define the variables in the investigation and make simple predictions using picture, bar, and line graphs. They will use scientific words to describe and report their findings.*

#### **As you support your child's efforts, encourage your child to do the following:**

- Evaluate information from a variety of reliable sources (*e.g., books, Websites, scientific magazines, articles*).
- Design and conduct observational and experimental investigations. (*E.g., encourage your child to ask new questions and use all the senses-sight, hearing, smell, taste, and touch-when processing scientific information in daily life.*)
- Select and use appropriate tools to collect and record information from observations and experiments. (*E.g., ask a question such as "How does a car's shape affect its speed," and have your child tell you the tools and methods he or she would use to test possible answers.*)
- Use classification in the inquiry process (*e.g., size, shape, and color*).
- Organize and explain the information collected in scientific investigations [e.g., sequential steps, a cause-and-effect chart, or a Venn diagram (*two circles overlapping in the middle*) to organize and process science information].
- Use scientific words in explanations.
- Analyze, interpret, and evaluate information obtained from observations and/or experiments. (*E.g., encourage your child to break down the information into organized chunks to aid in understanding.*)
- Describe his or her observations and/or experiments, including procedures and results, orally and in writing.
- Summarize the data of his or her observations and/or experiments and state conclusions.

## Physical Science

### **Students compare properties and changes in properties and understand how energy is transferred.**

*Students will describe matter and energy by its properties and changes. They will investigate the physical and chemical changes in matter, as well as the processes that change the form of energy.*

#### **As you support your child's efforts, encourage your child to do the following:**

- Define matter as anything that has mass, takes up space, and occurs in solid, liquid, or gas form.
- Describe the changes to matter when heat is added or taken away (*e.g., a marshmallow that is toasted or sugar that is heated*).
- Explain the concepts of mass (*a measure of how much matter there is in an object*) and volume (*the amount of space an object occupies*).
- Conduct investigations of matter to compare physical properties (*such as color, texture, and odor*) and chemical properties (*e.g., iron becoming rusty when exposed to air*).
- Tell what happens when matter becomes a new substance. (*E.g., describe the processes of changing ice to liquid water and then to gas vapor.*)
- Explore ways that energy is transferred (*e.g., radiation, conduction, and convection*).
- Investigate how light can be refracted, reflected, and absorbed. (*E.g., light is refracted when a beam of white light passes through a glass prism; it is reflected in the image in a fun-house mirror; and it is absorbed in a solar cooker.*)
- Describe and demonstrate the characteristics of sound waves. (*E.g., a wavelength is the distance from one air compression to another; frequency is the number of complete waves produced in a unit of time; and amplitude is the measure of the amount of energy in a sound.*)
- Compare sound as it travels through different forms of matter. (*E.g., sound travels faster through solids than through air. Have your child lay his or her head on a table and listen to footsteps. Do the footsteps sound louder in this position or when sitting straight up?*)
- Provide examples of how different forms of energy are used in everyday applications (*e.g., light bulbs, heat from the sun, TV, and radio broadcasts*).

# Science

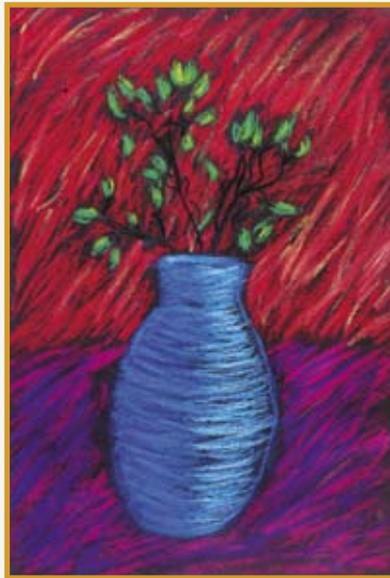
## Life Science

**Students learn about the relationships between structures and functions in living systems, how populations relate to each other within an ecosystem, and about diversity and adaptations among organisms.**

*Students will compare the life processes in plants and animals that enable them to grow, react to their environment, and reproduce. They will explore how living organisms are interdependent within an ecosystem. Students will learn how living organisms have changed through time to adapt and survive in their environment.*

**As you support your child's efforts, encourage your child to do the following:**

- Compare a variety of cells in plants and animals (e.g., *plant cell-cell membrane, nucleus, vacuole, cytoplasm, chloroplast, cell wall; animal cell-cell membrane, nucleus, vacuole, and cytoplasm*).
- Describe how the cell is the fundamental unit of life (*the basic unit that makes up living things*).



*Kalena Picard  
Pastel, "Almost Spring"*

# Science

- Compare single-cell and multicellular microorganisms.
- Explain the levels of organization found in plants and animals (*e.g., cells, tissues, organs, systems, and the whole organism*).
- Describe the structures and functions of the skeletal-muscular system.
- Understand how reproduction is essential to the continuation of all species.
- Understand the reproduction systems of plants and animals.
- Define an ecosystem (*e.g., a water ecosystem-animals and plants living and interacting with one another in and on water*).
- Define and describe the roles of producers, consumers, and decomposers in an ecosystem. (*E.g., trees are producers, squirrels are consumers, worms are decomposers.*)
- Illustrate a food web, identifying the relationships between producers, consumers, and decomposers. (*E.g., producers are organisms that can use the sun to produce food because they can carry on photosynthesis-trees, vines, shrubs, ferns, and mosses; consumers are organisms that obtain energy by eating other organisms-owls and squirrels; decomposers are organisms that feed on the waste of living organisms and on dead, decaying plants and animals-fungi, bacteria, and worms.*)
- Describe ways that organisms adapt to their environments. (*E.g., talk about how desert plants and animals survive in an environment with little water.*)
- Use examples of how plants and animals adapt to environmental changes to explain the function of diversity in community survival (*e.g., plant and animal adaptations to changes in the rain forest in South America*).

## Earth and Space Science

### Students explore the properties and changes in Earth's land and sky.

*Students will use a model of Earth to understand its composition and structure, including the study of factors that influence its geologic history. They will investigate the characteristics of planets and stars and study patterns involving Earth in the solar system.*

#### **As you support your child's efforts, encourage your child to do the following:**

- Discuss geological patterns based on the location of fault lines and incidents of earthquakes and volcanoes. *(E.g., working together, investigate the exposed layers of a highway hill. Look for locations in the rock layers that have been bent or folded. Discuss how scientists would compare the layers across a large area to show what has happened over time.)*
- Identify ways humans have studied Earth's crust to help predict earthquakes. *(E.g., have your child research an earthquake that has occurred on the West Coast. Talk about the factors that would indicate that more earthquakes are likely to follow.)*
- Identify the forces and processes that change the structure of Earth *(e.g., water, ice, wind, volcanoes, meteorites, earthquakes, and tidal waves).*
- Tell how fossils provide information about the history of Earth. *(E.g., go on a fossil hunt in your area, concentrating on locations where the layers of soil are exposed. Find a fossil and then together research its history.)*
- Explain how the celestial bodies in the solar system move in predictable patterns. *(E.g., take a family outing to a local planetarium or explore comets, meteorites, and micrometeorites on NASA's Website: <http://kids.msfc.nasa.gov/news/2002/news-mystery.asp>. The site has photos, explanations, and activities for students.)*
- Define solar and lunar eclipses.
- Describe how Earth is different from other planets in the solar system in terms of such things as size, atmosphere, and surface temperature.

## Science and Technology

### Students identify technologies and demonstrate abilities in technology design.

*Students will use technology to create a technological design. Students explore the benefits and consequences of technology in their environment.*

**As you support your child's efforts, encourage your child to do the following:**

- Design a solution for an identified problem using a technological design. *(E.g., discuss some possible inventions that would be needed to survive on the moon.)*
- Determine criteria that would be used to gauge the success of the solution.
- Evaluate the completed solution and determine ways to improve the design.
- Illustrate that technology is constantly changing. *(E.g., discuss how the size and capacity of computers has changed over the past 10-15 years.)*
- Compare the intended benefits of technology with the unintended consequences of technology. *(E.g., discuss how jobs may have been lost due to the use of e-mail.)*

## Science in Personal and Social Perspectives

### Students demonstrate safety in science.

*Students will practice safety in science activities; understand the interrelationships of populations, resources, and environments; and examine risks and benefits of personal and social decisions.*

**As you support your child's efforts, encourage your child to do the following:**

- Demonstrate personal safety in science activities at home and school.
- Define characteristics of a "quality" environment and a "polluted" environment.
- Investigate causes for environmental decline *(e.g., industrial waste as a source of water and air pollution).*
- Discuss how overpopulation depletes resources such as food, water, and land.

# Science

- Identify and analyze environmental risks in the local environment.
- Evaluate the balance between personal responsibility in taking care of the environment and consequences to the environment.

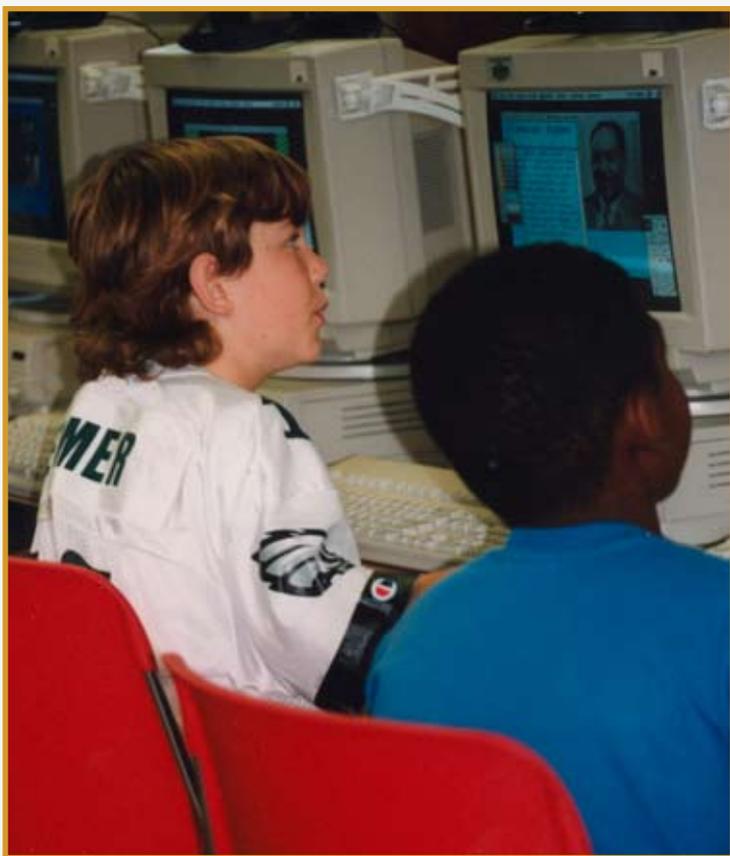
## *History of Science*

### **Students understand that science is a human effort.**

*Students will explore the history of science and how scientists through time have used new evidence to make changes to theories and accepted ideas.*

#### **As you support your child's efforts, encourage your child to do the following:**

- Identify scientists, both men and women, of various ethnic backgrounds.
- Provide examples of ways that scientists have used new evidence to modify existing explanations.
- Describe how scientists in the past have broken through the accepted ideas of their time to reach conclusions that we currently take for granted. *(E.g., together read about Galileo and his discoveries.)*



# Social Studies

## Citizenship

**Students study the ideals, principles, and practices of citizenship in a democratic republic.**

*Students study important United States documents such as treaties, the Constitution, the Bill of Rights, civil rights legislation, and federal regulations.*

**As you support your child's efforts, encourage your child to do the following:**

- Discuss the value of participation in community organizations (e.g., *Girl Scouts, Boys Town, and Little League*).
- Give examples of citizens' rights and responsibilities.
- Locate and organize information to draw conclusions, make judgments, and form opinions on how to solve community issues.
- Explain the key ideals of a democratic form of government. (E.g., *create a family plan that describes the rights and responsibilities of each family member*.)
- Participate as a responsible and involved citizen.

## Culture

**Students study cultures and cultural diversity.**

*Students will compare the United States and other countries to identify the commonalities and differences among cultures.*

**As you support your child's efforts, encourage your child to do the following:**

- Evaluate the causes and effects of immigration and migration (e.g., *the growth of cities at the end of the 1800s because of job opportunities*).
- Compare commonalities and differences among cultures.
- Analyze historical alternatives for dealing with social tensions and issues.
- Identify the contributions of people of various racial, ethnic, and religious groups to the United States.
- Analyze the impact of slavery and discrimination on the development of the nation.

# Social Studies

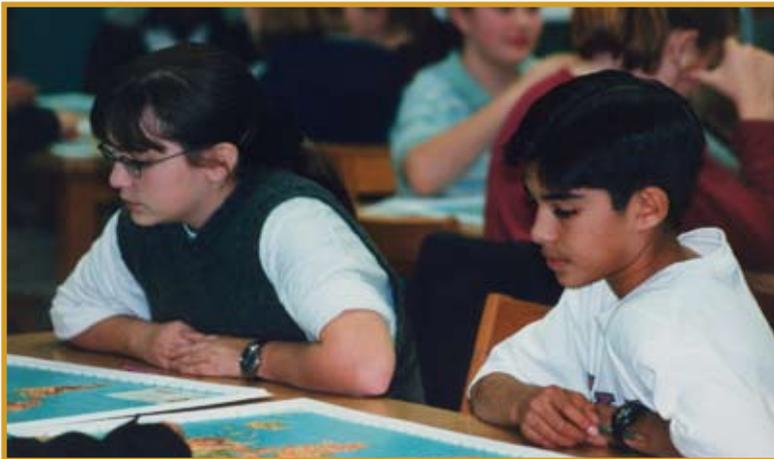
## *Time, Continuity, and Change*

**Students study the way human beings view themselves in and over time.**

*Students will use a variety of sources of historical information to explore the development of the United States.*

**As you support your child's efforts, encourage your child to do the following:**

- Trace changes over time in the United States and identify the reasons for the changes.
- Explain when, where, and why groups of people colonized and settled in the United States.
- Describe the changing concept of freedom in the historical development of the United States (*e.g., civil rights, the rights of women*).
- Identify the factors that altered the development of the United States (*e.g., agricultural, industrial, informational, economic*).



# Social Studies

## *Space and Place*

### **Students study space and place.**

*Students will study the geography of the United States and how it affected immigrants and settlers. They will explore the use and depletion of natural resources in the United States. They will learn how American citizens have modified the environment to meet their needs.*

#### **As you support your child's efforts, encourage your child to do the following:**

- Summarize how geography and location affect historical events.
- Use maps, globes, charts, graphs, technology, geographic tools, and symbols to gather and interpret data and to draw conclusions about American regions.
- Discuss the geography of an area in terms of its location, the human/environmental interaction, and the region where it is located.
- Summarize the relationship between physical features, natural resources, and land use.
- Describe how people in the United States have modified their environment.

## *Individual Development and Identity*

### **Students study individual development and identity.**

*Students will describe how national, ethnic, and cultural influences are a part of one's identity.*

#### **As you support your child's efforts, encourage your child to do the following:**

- Analyze how a connection to a geographic place influences the perceptions, values, and beliefs of that person and molds his or her personal identity.
- Discuss how social, racial, cultural, economic, and religious statuses influence an individual. (*E.g., discuss your family history and how national and world events have affected the growth and changes in your family.*)

# Social Studies

## *Individuals, Groups, and Institutions*

**Students study interactions among individuals, groups, and institutions.**

*Students will develop an understanding of the relationships among individuals, groups, and institutions within the United States.*

**As you support your child's efforts, encourage your child to do the following:**

- Explain the need for social institutions in providing safety, security, and order in life.
- Describe how groups and institutions promote the common good of the community.
- Identify how reform movements affect the existing values for all members in society through their institutions and practices. Identify how reform movements affect the existing values for all members in society through their institutions and practices.

## *Production, Distribution, and Consumption*

**Students study how people organize for the production, distribution, and consumption of goods and services.**

*Students will learn about the history of the new industries that developed in the United States in the late 1800s and the early 1900s. They will analyze the effects of new inventions and how they changed the lives of Americans for better or worse.*

**As you support your child's efforts, encourage your child to do the following:**

- Define social studies terms such as barter, mercantilism, tariff, national debt, taxation, duties, and credit.
- Describe how inventions have influenced the development of the United States economy (e.g., *the electric light, automobiles, television, computers, and airplanes*).
- Identify the impact of consumerism on the United States economy.
- Apply the concept of supply (*quantity of some good, product, or resource*) and demand (*people's desire for that particular item*) to a historical event (e.g., *the development of large companies in the United States during wartime to supply materials and equipment for military activity*).

# Social Studies

## *Power, Authority, and Governance*

**Students study how people create and change structures of power, authority, and governance.**

*Students will study the cause, course, and consequences of early historical events and how those events are central to the fundamental understanding of the principles of the United States. They will define the roles of the various branches of the American government and identify the contributions that all people have made to American history.*

**As you support your child's efforts, encourage your child to do the following:**

- Explain how and why laws and governments have changed.
- Distinguish the differences among privileges, obligations, rights, and duties.
- Define legislative, executive, and judicial functions at the national level.
- Identify the key leaders of the national government in a given historical period.

## *Science, Technology, and Society*

**Students study the relationships among science, technology, and society.**

*Students will examine the influence of science and technology on the government and economy of the United States. They will explore technological advances and how they have helped Americans and other people throughout the world.*

**As you support your child's efforts, encourage your child to do the following:**

- Describe how science and technology have influenced the economy and government of the United States (*e.g., development of computers, the space race*).
- Predict problems that arise when scientific advancements and social standards come into conflict (*e.g., improved communication threatens personal privacy*).
- Explain the need for laws and policies to regulate scientific and technological applications (*e.g., laws governing new technology that may threaten the personal safety of citizens*).

# Social Studies

## Global Connections

### Students study global connections and interactions.

*Students will study the connections and interdependence of the United States with other nations. They will identify global issues that affect the quality of life and security of all people.*

**As you support your child's efforts, encourage your child to do the following:**

- Explain how language, art, music, literature, belief systems, and other cultural elements both connect groups of people and cause misunderstandings.
- Identify factors that contribute to cooperation among societies.
- Explore global issues such as health, security, resource allocation, economic development, and environmental quality.



# Notes

# Appendix

# Resources for Children

## Recommended Reading Books

### Fiction

- Alexander, Lloyd. *Remarkable Journey of Prince Jen*. London: Puffin Books, 2004.
- Hannigan, Katherine. *Ida B: . . . and Her Plans to Maximize Fun, Avoid Disaster, and (Possibly) Save the World*. New York: HarperCollins, 2004.
- Hesse, Karen. *The Cats in Krasinski Square*. New York: Scholastic, 2004.
- Horvath, Polly. *The Pepins and Their Problems*. New York: Farrar, Straus & Giroux, 2004.
- Karr, Kathleen. *Exiled: Memoirs of a Camel*. Tarrytown, NY: Marshall Cavendish, 2005.
- Keatley Snyder, Zilpha. *The Unseen*. New York: Random House, 2004.
- Lawlor, Laurie. *The School at Crooked Creek*. New York: Holiday House, 2004.
- Munoz Ryan, Pam. *Becoming Naomi Leon*. New York: Scholastic, 2004.
- Oppel, Kenneth. *Airborn*. N.p.: Eos Publishing, 2004.
- Pilkey, Don. *Dog Breath: The Horrible Trouble with Hally Tosis*. New York: Blue Sky Press, 1994.
- Polacco, Patricia. *Thank You, Mr. Falker*. New York: Scholastic, 1998.
- Scieszka, Jon. *Science Verse*. New York: Penguin Group, 2004.
- Soto, Gary. *Pacific Crossing*. New York: Harcourt Brace, 1992.
- Wilson, Johnneice. *Oh, Brother*. New York: Scholastic, 1998.
- Yee, Lisa. *Millicent Min, Girl Genius*. New York: Scholastic, 2003.

### Nonfiction

- Halls, Kelly Milner. *Albino Animals*. Plain City, OH: Darby Creek Publishers, 2004.
- Hesse, Karen. *Cats in Krasinski Square*. New York: Scholastic, 2004.
- Montgomery, Sy. *The Tarantula Scientist*. Boston: Houghton Mifflin Co., 2004.
- Smith, Charles R. *Diamond Life: Baseball Sights, Sounds and Swings*. New York: Scholastic, 2004.

# Resources for Children

## Recommended Reading Websites

- Free Consumer Information — [http://www.ifginc.com/Consumer\\_Reports/LearnToRead.html](http://www.ifginc.com/Consumer_Reports/LearnToRead.html) — Activities for children from infancy to age 10.
- Houghton Mifflin Education Place — <http://www.eduplace.com/> — Resources for elementary school teachers, students, and parents; includes educational games and textbook support.
- Kid Source OnLine — <http://www.kidsource.com/kidsource/content/learread.html> — Article on helping your child with reading.
- Kid Source OnLine — <http://www.kidsource.com/kidsource/content3/RWNactivities/index.html> — Activities for reading and writing fun.
- Magic School Bus — <http://www.scholastic.com/magicschoolbus/home.htm> — Activities for children.
- Talespin — [www.pitara.com/talespin/folktales.asp](http://www.pitara.com/talespin/folktales.asp) — Children's folktales and stories.
- University of Florida — <http://web.uflib.ufl.edu/cm/africana/children.htm> — African children's literature.

## Recommended Mathematics Books

- Bennett Hopkins, Lee. *Marvelous Math: A Book Of Poems*. New York: Simon & Schuster 2001.
- Blum, Raymond. *Mathemania*. New York: Sterling Publishing, 2001.
- Blum, Raymond. *Mathamazing*. New York: Sterling Publishing, 2002.
- Blume, Judy. *Double Fudge*. New York: Penguin Group, 2005.
- Cooper, Jason. *Paying Without Money*. Vero Beach, FL: Rourke Publishing, 2003.
- Dobson, Christina. *Pizza Counting*. Watertown, MA: Charlesbridge Publishing, 2003.
- Evans, Douglas. *Math Rashes And Other Classroom Tales*. New York: Scholastic, 2001.
- Godfrey, Neale S. *Neale S. Godfrey's Ultimate Kids' Money Book*. New York: Simon & Schuster 2002.
- Hall, Margaret. *Your Allowance*. Chicago, IL: Heinemann Library, 2002.

# Resources for Children

- Kummer, Patricia K. *Currency*. New York: Scholastic, 2005.
- Long, Lynette. *Fabulous Fractions: Games and Activities That Make Math Easy and Fun*. Indianapolis: John Wiley & Sons, 2001.
- Long, Lynette. *Delightful Decimals and Perfect Percents: Games and Activities That Make Math Easy and Fun*. Indianapolis: John Wiley & Sons, 2003.
- Long, Lynette. *Groovy Geometry: Games and Activities That Make Math Easy and Fun*. Indianapolis: John Wiley & Sons, 2003.
- Long, Lynette. *Measurement Mania: Games And Activities That Make Math Easy*. Indianapolis: John Wiley & Sons, 2003.
- Littlefield, Cindy A. *Real-World Math Fun For Hands-On Fun!* Nashville, TN: Ideals Childrens Books, 2001.
- Schwartz, David M. *On Beyond A Million: An Amazing Math Journey*. New York: Random House, 2001.
- Whitehead Nagda, Ann. *Tiger Math: Learning To Graph From A Baby Tiger*. New York: Henry Holt & Co., 2002.
- Zaslavsky, Claudia. *Number Sense and Nonsense: Building Math Creativity and Confidence Through Number Play*. Chicago, IL: Chicago Review Press, 2001.

## Recommended Mathematics Websites

- Education by Design Kids Activities — <http://www.edbydesign.com/kidsact.html> — Online activities for kids, including a Pokemon scrambler, math games, and a place to publish stories, jokes, and poems.
- Everyday Math — <http://www.everydaymath.com> — Games and activities to build math knowledge.
- Kids Math Syvum Book — <http://www.syvum.com/math/arithmetic/level1.html> — Arithmetic problems and math exercises for kids.
- Math Cats Magic Chalkboard — <http://www.mathcats.com/> — Math art gallery and lots of interactive math activities, including magic squares, conversions, seasonal surveys, symmetry, tessellations, geometric designs, and games.
- Math Is Fun — <http://www.mathisfun.com/> — Math games and activities you can play with your child to help in understanding numbers and math concepts.
- Quia Mathematics Activities — <http://quia.com/dir/math> — Activities to practice addition, subtraction, multiplication, division, and rounding.

# Resources for Children

- Teach R Kids Math — <http://www.teachrkids.com/> — Math for elementary school kids.
- United States Department of Education — <http://www.ed.gov/parents/academic/help/math/index.html> — Fun activities to strengthen math skills and build a positive attitude toward math.

## Recommended Science Books

- Bartholomew, Alan. *Electric Mischief: Battery Powered Gadgets Kids Can Build*. Tonawanda, NY: Kids Can Press, 2002.
- Cole, Steve. *Kids' Easy Bike Care: Tune-Ups, Tools, & Quick Fixes*. Nashville, TN: Ideals Publications, 2003.
- Crossingham, John. *Life Cycle of a Snake*. New York: Crabtree Publishing, 2004.
- Donald, Rhonda Lucas. *Water Pollution*. New York: Scholastic, 2001.
- Gikow, Louise A. *Up Close: A Chapter Book*. New York: Scholastic, 2005.
- Graham, Ian. *Air: A Resource Our World Depends On*. Chicago: Heinemann-Raintree, 2004.
- Gutman, Dan. *Back in Time with Thomas Edison*. New York: Simon & Schuster, 2002.
- Hickman, Pamela. *Animals and Their Young: How Animals Produce and Care for Their Babies*. Tonawanda, NY: Kids Can Press, 2003.
- Kalman, Bobbie. *Desert Food Chains*. New York: Crabtree Publishing, 2004.
- Larson, Peter. *Bones Rock! Everything You Need to Know to Be a Paleontologist*. Montpelier, VT: Invisible Cities Press, 2004.
- Mason, Cherie. *Everybody's Somebody's Lunch*. Gardiner, ME: Tilbury House Publishers, 2002.
- Mitchell, Barbara. *Maker of Machines: A Story About Eli Whitney*. Minneapolis, MN: Lerner Classroom, 2004.
- Orr, Tamra. *Telescope*. New York: Scholastic, 2005.
- Pyers, Greg. *Rain Forest Explorer*. Chicago: Heinemann-Raintree, 2004.
- Roop, Connie. *Benjamin Franklin*. New York: Scholastic, 2005.
- Tagholm, Sally. *Rabbit*. New York: Larousse Kingfisher Chambers, 2003.

# Resources for Children

- Tagholm, Sally. *Barn Owl*. New York: Larousse Kingfisher Chambers, 2003.
- Wishinsky, Frieda. *Manya's Dream*. Toronto, Ontario: Owl Communications, 2003.

## Recommended Science Websites

- About.com The Human Internet —<http://kidscience.miningco.com/msub15.htm> —Science/nature activities.
- Canadian Broadcasting Corporation (CBC)—CBC 4 Kids: Time — <http://www.cbc4kids.ca/general/time/default.html>—Holiday features, cultural calendar, today in history, and children's TV and radio timelines.
- Discovery Channel —<http://school.discovery.com/sciencefaircentral/>—Activities and games related to science concepts.
- Disney Family Page —<http://family.go.com>—Activities, learning opportunities, parenting techniques, and more.
- Early Childhood Math and Science Activities— [http://members.tripod.com/~Patricia\\_F/mathscience.html](http://members.tripod.com/~Patricia_F/mathscience.html)—Science and math activities for ages 3 to 10.
- The Franklin Institute Online —<http://www.fi.edu/tfi/activity/>—science activities for children 5 to 12 years of age.
- NASA's Space Science Activities for Students—<http://www.nasa.gov/kids.html> —Space science activities for elementary students.
- National Geographic.com — <http://www.nationalgeographic.com/kids/index.html>—Games, activities, and articles for children.
- Science Nature for Kids—<http://kidscience.about.com/cs/theenvironment/>— Science experiments, projects, and games. Interact with the experts on tough science questions.
- The Science Spiders— <http://www.sciencespiders.com/TheScienceSpiders/default.htm>—Science books and activities for children ages 3 to 10.
- United States Department of Education— <http://www.ed.gov:80/pubs/parents/Science/index.html>—Activities to help your child learn science.
- United States Department of Education— <http://www.ed.gov/pubs/parents/Science/Introduction.html>—Ways to help your child learn science.
- Yahoo — [http://www.yahooligans.com/Science\\_and\\_Nature/](http://www.yahooligans.com/Science_and_Nature/)—science links for children.

# Resources for Children

- 2think.org — <http://www.2think.org/hycls.shtml> —Activities to help your child learn science.

## **Recommended Social Studies Books**

- Adler, David A. *Hilde and Eli: Children of the Holocaust*. New York: Holiday House, 1994.
- Bouchard, David. *If You're Not from the Prairie*. New York: Atheneum Books, 1995.
- Brown, Gene. *Anne Frank: Child of the Holocaust*. New York: Rosen, 1991.
- Coles, Robert. *Story of Ruby Bridges*. New York: Scholastic, Inc., 1995.
- Josephson, Judith Pinker. *Growing Up in World War II: 1941–1945*. New York: Lerner Publications Co., 2003.
- Krensky, Stephen. *Pearl Harbor*. New York: Simon & Schuster, 2001.
- Littlefield, Holly. *Children of the Orphan Train*. New York: Carolrhoda, 2001.
- Myers, Walter Dean. *Malcolm X: A Fire Burning Brightly*. New York: Harper Collins Publishers, 2000.
- Nordh, Connie. *When Esther Morris Headed West: Women, Wyoming, and the Rig*. New York: Holiday House, 2001.
- Quiri, Patricia Ryon. *Presidency*. New York: Children's Press, 1998.
- Quiri, Patricia Ryon. *Supreme Court*. New York: Children's Press, 1998.
- Ray, Kurt. *New Roads, Canals, and Railroads in Early-19th-Century America*. New York: Rosen, 2004.
- Turner, Ann. *Mississippi Mud: Three Prairie Journals*. New York: HarperCollins, 1997.
- Weitzman, David. *Jenny: The Airplane That Taught America to Fly*. New York: Roaring Brook Press, 2002.
- Welch, Catherine A. *Children of the Civil Rights Era*. New York: Carolrhoda, 2001.

# Resources for Children

## *Recommended Social Studies Websites*

- Explorations 4 Kids — <http://www.gomilpitas.com/homeschooling/explore/activism.htm> — A directory of Websites for learning.
- Fun Social Studies — <http://www.funsocialstudies.com/> — A child-friendly environment for learning social studies. Articles and links are primarily aimed at children from 7 to 12.
- National Geographic — <http://www.nationalgeographic.com/kids/> — Games, contests, articles, and activities.
- National Geographic Xpedition — <http://www.nationalgeographic.com/xpeditions/hall/index.html> — An interactive “museum” that takes visitors on geography journeys.
- National History Museum: London — <http://www.nhm.ac.uk/interactive/index.html> — Exhibits and activities, as well as research projects, features, and related sites.
- United States Department of Education — <http://www.kidsource.com/kidsource/content/history.html> — Activities to help children from 4 to 11 learn history.
- The Wagon Train — <http://www.siec.k12.in.us/~west/proj/lincoln/> — A picture gallery, an Internet treasure hunt, and class activities.



# Resources Bibliography

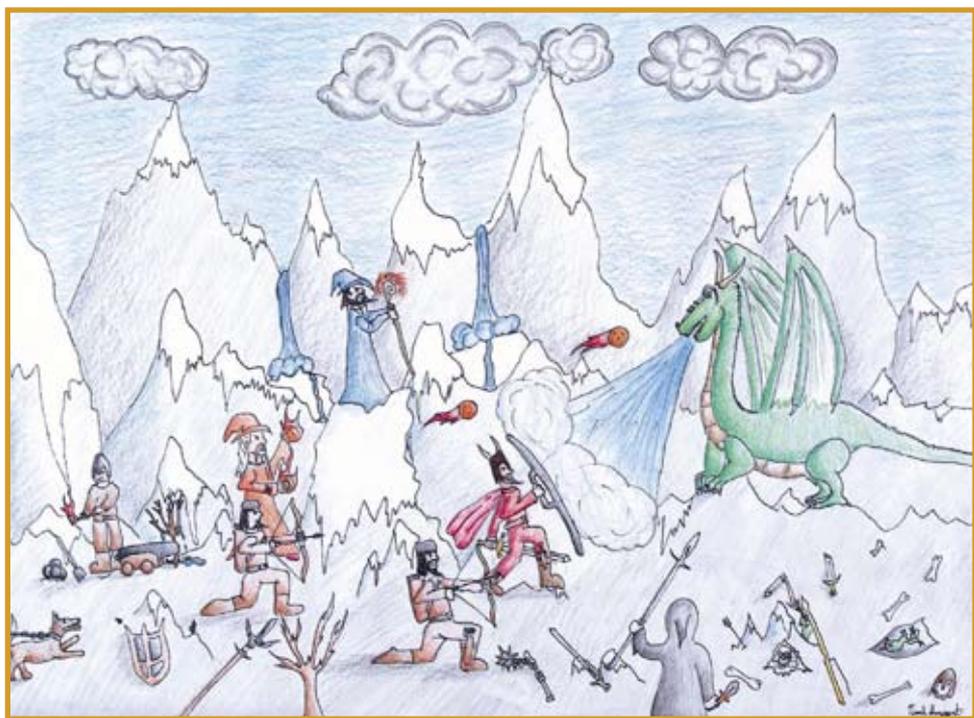
## **Publications**

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- *Department of Defense Education Activity (DoDEA) Content Standards for English/Reading/Language Arts. Draft for K–12. December 2001.*
- *Department of Defense Education Activity (DoDEA) Content Standards for Mathematics. January 2000.*
- *Department of Defense Education Activity (DoDEA) Content Standards for Science. 1997.*
- *Department of Defense Education Activity (DoDEA) Content Standards for Social Studies. Draft as of March 2000.*
- *Discovery Works*. Houghton Mifflin Science, 2000.
- *Helping Your Child Learn Science*. Nancy Paulu and Margery Martin. U.S. Department of Education, June 1991.
- *Math, Grade 5*. Scott Foresman – AddisonWesley, 2001.
- *Mega Skills, How Families Can Help Children Succeed in School and Beyond*. Dorothy Rich. Houghton Mifflin Company, 1988.
- *Parents on Your Side*. Lee Canter and Marlene Canter. Lee Canter and Associates, 1991.
- *Performance Standards, Volume I, Elementary School*. Learning Research and Development Center of the University of Pittsburgh and the National Center on Education and the Economy, 1998.
- *Promoting Your School*. Carolyn Warner. Corwin Press, 1994.
- *Science at Home*. Curriculum Associates, Inc., 1997.
- *Spotlight on Standards in the Classroom*. Red Clay Consolidated School District. Office of Standards and Curriculum, 1999.
- *United States*. McGraw-Hill School Division, 2001.
- *Working Parents Can Raise Smart Kids*. John E. Beaulieu and Alex Granzin. Parkland Press, 1999.
- *Yardsticks, Children in the Classroom Ages 4–12*. ChipWood. Northeast Foundation for Children, 1996.

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- "Curiosity, Creativity, and Technology in Education." Bob Avant. <http://www.esc13.net-avant/curiosity.html>, accessed 15 August 2001.
- "Helping Your Child Learn Science Activities at Home." 2think.org. <http://www.2think.org/home.shtml>, accessed 8 August 2001.
- "Helping Your Child Succeed in School." Dorothy Rich. Kid Source Online. <http://www.kidsource.com/kidsource/pages/Education.html>, accessed 8 August 2001.
- "How Parents and Families Can Help Their Children Do Better in School." Kid Source Online. <http://www.kidsource.com>, accessed 8 August 2001.
- "How to Get Ready for a New School Year." Jeanne Allen. Center for Education Reform. <http://www.edreform.com/pubs/parent.htm>, accessed 6 Aug. 2001.



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