Parents Guide To FOURTH 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 fourth grade level. These expectations are aligned with the fourth 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 fourth 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 fourth grade. Working together, we can ensure his or her success and start your child down the path to life-long learning.

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Joseph D. Tafoya Director Department of Defense Education Activity

Welcome to Fourth Grade



MichaelAnn Leonard Tempera, "Turtle Discovery"

Help Your Child Find Success

Students are expected to be active learners in today's world. The more involved they are in learning, the more information they will have to transfer to their natural environment. A powerful motivator for your child is your approval and involvement. Research indicates that when parents are involved, students do better academically and behaviorally.

Standards describe the student learning expectations. Standards help educators and parents know what to expect of children at each grade level. Understanding the standards will assist you in helping your child achieve greater success in school.

This booklet reflects many of DoDEA's content standards in the core academic areas of English/language arts, mathematics, science, and social studies. To view the actual standards, please log onto the DoDEA Web page: *www.dodea.edu*. The following are some suggestions on how to help your child meet the DoDEA standards:

Read Aloud

Reading aloud to your fourth grader continues to be important. It not only improves the reading and listening skills of a child, but it also motivates the child to read. Select a book that interests your child. When you finish a chapter, talk about the section in a conversational tone. You may ask your child to summarize a passage or a chapter and tell you what he or she liked about the story. Make reading aloud and discussing books a natural part of communicating with your child.

Reading Habits

By fourth grade, children usually have acquired the reading skills that are necessary for reading independently. To check comprehension, discuss the significant points from books, chapters, or passages. Ask your child to tell you what he or she thinks and feels about the characters in the story, and how he or she visualizes the events that took place. Discuss how a story's event seems real or similar to an experience your child may have had. If needed, focus on particular details by asking specific questions such as "Find the sentence in the passage that tells why Frank decided to enter the swimming competition." Your child will appreciate your input and will learn when you share your thoughts about the book.

Set a Daily Routine

Children do better when they know what is expected of them. Your child will benefit by developing good homework habits if you set up a daily homework schedule. At this age, your child is old enough to have some input in the decision about the best time for completing homework. If balancing schoolwork, play, and chores is difficult, help your child develop a schedule that includes a definite time for schoolwork each night. Be sure the work area is well lit and quiet. Having materials readily available maximizes learning time. Let your child take responsibility for completing homework. If he or she forgets the routine, a reminder is appropriate. Provide help only if you think your child has made a real effort on the assignment. Most importantly, praise your child when homework is done independently and appropriately. *(E.g., "I really am proud of the way you complete your homework each night. You are doing the work without reminders."*)

Help Your Child Learn to Study for Tests

Tests at the fourth grade level are more difficult and detailed. Helping your child learn the skills of how to study for a test will affect academic success at all grade levels.

You have started the routine of establishing good study habits by setting aside a time each day to study. Encourage your child to use the following techniques for studying for a test:

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 how well he or she understands the information and how ready he or she is to take the test.

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

Encourage Curiosity and Creativity

Your child will continue to explore the world and will have questions about daily discoveries. Take time to help your child learn ways to get answers to questions. Use the library and educational resources on the Internet. Children at this age love to invent and create. Encourage your child to conduct research on areas of interest and work on projects that develop creative ability.

Stay Involved and Offer Praise

Your child will respond to school positively if you show an ongoing interest. Attend parent-teacher conferences and other schoolsponsored events. Volunteer, if possible, to help in school. Your child may frown on this at first, but will be glad that you are involved. Remember that children who are motivated feel good about their efforts. Offer praise regularly.

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.

Find a convenient place for your children to be active regularly. Set a positive example by leading an active lifestyle yourself, and make physical activity part of your family's daily routine; *(e.g., designate time for family walks or playing active games together.)* It is recommended that children participate in at least 60 minutes of moderate-intensity physical activity most days of the week, preferably daily.

Plan your children's snack choices. Offer healthy choices such as yogurt, frozen yogurt, apples, oranges, celery, and carrots.

Create a safe home and community environment. Hand washing is recognized as a major factor in preventing infectious disease, including food-borne illness. Remind your children of proper handwashing techniques to use whenever hands are unclean and always after toilet use and before eating.

Reading

Students 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 materials. 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 discussions about books read. (E.g., choose a series such as the Harry Potter books to read with your child. Discuss how the author hooked readers into reading the entire series.)

Students read and show an understanding of what they have read.

Students will build an understanding of what they read by connecting their own experiences and knowledge to the written text.

- Make responsible statements about stories or books read.
- Use statements that include facts and details when discussing or explaining a character's actions in the story.
- Compare and contrast the themes, characters, and ideas in stories or books read. (E.g., compare a traditional folktale with a contemporary children's story to show the differences in style, characters, settings, and conclusions-"they lived happily ever after" versus a realistic contemporary conclusion.)
- Make a connection between the book your child is currently reading and other books that he or she has read. (Making a chart that shows the similarities and differences between the books will help your child understand the connection.)
- Explain how a writer's style sets the mood of the story.

Students read informational materials for understanding and expertise.

Students will share their understanding of what they have read with others, either orally or through a written product.

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

- Restate or summarize information from books or stories read. (E.g., ask your child to share with the family a magazine article that he or she has read. Encourage your child to present the facts in an interesting and entertaining way.)
- Extend the information from readings. (E.g., have your child rewrite or explain for a younger reader instructions for how to play a video or computer game.)
- Connect new knowledge to related topics of information. (E.g., after reading a story on how a boy and his father used a compass on a hike in the forest, have your child experiment with a compass using information from science lessons to find out how it works.)

Students read familiar material aloud, recognizing most of the words.

Students will read familiar stories and books with accuracy and in a way that makes the meaning clear to listeners.

- Cross-check or self-correct words to confirm that they make sense in the context of the entire passage. (E.g., have your child look at the word in context - the way it is used within the reading material. Have your child ask the silent question: "Does the word make sense when I read the rest of the sentence or paragraph?")
- Use a variety of systems to help read words and determine pronunciation and meanings (e.g., phonics to sound out unknown words, a dictionary to help pronounce words or find meaning, and/or context clues to determine the meaning of the word).
- Read with a rhythm and flow that sounds like every day speech. (E.g., use a tape recorder or video camera to record your child's reading. Ask "Does your reading present the mood and expressions of the characters and setting, and does it flow smoothly?")

Writing

Students become writers who shape language to communicate effectively by producing a written report.

Students will learn the process of developing a written report through informal feedback from others and the revision of multiple drafts.

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

- Develop an idea that communicates a viewpoint on a specific topic. (E.g., when the family is discussing a current event, ask your child to share his or her viewpoint on what has happened.)
- Create an organized structure for report writing that is appropriate to a specific purpose, audience, and context. (E.g., before your child begins to write, have him or her jot down the purpose of the writing and the intended reading audience. Notes that are arranged in an outline form, including a beginning, a middle, and an ending, will help organize thoughts and ideas.)
- Include appropriate facts and details in written reports. (E.g., during the writing process, remind your child to include only details and events that are relevant.)
- Use a range of appropriate strategies in writing a report (e.g., providing facts and details, or describing and contrasting the subject).
- Provide a sense of closure in the written product.

Students produce a written response to literature.

Students will learn the skills to develop a response paper, a book review, a parody, or a comparison of children's classics.

- Engage the reader by setting a context to develop reader interest. (E.g., have your child review the first paragraph of his or her writing to determine if it invites the reader to read further. Remind your child that the setting includes the time and place of the story and affects the way the characters interact and behave.)
- Support interpretations or judgments of the literature by making references to the text, other written works, other authors, or personal knowledge.

Students produce a narrative account.

Students will use writing skills to create an autobiographical account, an imaginative story, a narrative picture book, and a retelling of a traditional tale. Students will develop drafts of their writing and then, through informal feedback, edit and revise the draft to produce a final copy.

- Establish a context that develops reader interest. (E.g., have your child tell a funny story that would help someone feel better. Discuss what elements in the story would make a written version funny.)
- Establish a situation, plot, point of view, and setting for a fictional or autobiographical piece of writing.
- Organize the format of the written piece. (E.g., an autobiography could be organized by using photographs to sequentially record events in your child's life.)
- Include visual and auditory details and specific language to develop and portray a story's plot and character. (E.g., if your child is writing about a circus, encourage him or her to provide the reader with a picture of "what it looks like" by using words that describe the costumes, sounds, and circus acts. Encourage the use of language that reflects what a ringmaster, juggler, and acrobat might say.)
- Eliminate nonessential details and inconsistencies in the written product.
- Use a variety of strategies to interest the reader (*e.g., dialogue or suspense*).



Speaking, Listening, and Viewing

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

Students will develop skills to gather and share information, persuade others, express and understand ideas, coordinate activities with others, and analyze messages.

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

- Initiate new topics of conversation in addition to responding to adult-initiated topics.
- Ask relevant questions during conversations.
- Respond to questions with appropriate explanations.
- Use language cues to indicate different levels of certainty (e.g., "what if," "very likely," "I'm unsure").
- Confirm understanding of a message by restating an adult's directions or suggestions.

Students participate in group meetings.

Students will use appropriate speaking and listening skills in group discussions or meetings.

- Demonstrate appropriate turn-taking behavior when speaking.
- Solicit another person's comment or opinion politely.
- Offer an opinion assertively, but not aggressively.
- Respond appropriately to comments and questions.
- Give reasons in support of an opinion or comments.
- Clarify, illustrate, or expand on a response when asked.

Students prepare and deliver an individual presentation.

Students will develop a presentation with a particular purpose in mind that will keep the listeners interested.

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

- Shape a presentation to achieve a purpose and interest the listeners.
- Organize the content of the presentation according to established criteria for importance and impact.
- Use notes or other memory aids to structure the presentation (e.g., index cards, overhead projector images, or PowerPoint slides).
- Engage the audience with appropriate verbal cues and eye contact.
- Project a sense of individuality and personality in selecting the content of the presentation and in the delivery.

Students make informed judgments about media productions.

Students will develop awareness about television, radio, and film productions, and informally judge the extent to which the media provide a source of entertainment or information.

- Become aware of the presence of media in daily life. (E.g., have your child keep a weekly log to document television viewing habits. Together, analyze and discuss the information from the log.)
- Evaluate the role of the media in forming his or her opinions.
- Judge the extent to which the media are a source of entertainment as well as a source of information. (E.g., together watch an informational television program such as Crocodile Hunter. Ask your child to tell you what he or she learned from the program. Then discuss other television shows that provide information as well as entertainment.)
- Define the role of advertising as part of the media. (E.g., have your child keep a tally of the number of times advertisements interrupt television programs for a one-hour period. Discuss why a company might use television as a medium to advertise its product.)

Grammar and Usage of the English Language

Students express themselves using appropriate current standards of the English language.

Students will follow appropriate grammar and English language standards (e.g., spelling, punctuation, paragraphing, capitalization, and subject-verb agreement) in both spoken and written formats.

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

- Use appropriate grammar when speaking, and appropriate grammar, punctuation, sentence construction, and spelling when writing.
- Edit drafts of written work for appropriate punctuation, grammar, and spelling.
- Revise written work by adding or deleting details, information, or phrases to improve or clarify meaning.

Literature

Students read literature that consists of poetry, fiction, nonfiction, and essays.

Students will interpret and evaluate works of literature.

- Identify and make connections between literary works according to a common theme. (E.g., compare several books by the same author to determine if they have common themes.)
- Determine why certain characters (either fictional or nonfictional) behave as they do. (E.g., after reading a book, have your child give reasons for the main characters' actions. Be sure the reasoning is logical and supported by the content in the book. Ask your child how the author's word choice influenced his or her thinking.)
- Examine and critique the degree to which the plot in a story or book is creative or realistic.
- Produce a poem, a short play, a picture book, or a story. (E.g., after a family outing, your child could write a poem, develop a picture book, or write a short story about the outing.)



Numbers and Operations

Students explain and represent with models the relationship between whole numbers, common fractions, and decimals.

Students select and use estimation strategies and judge the reasonableness of the answer.

- Accompany you on a trip to pick up a few items at the grocery. Have your child estimate the total cost in dollars.
- Play a mental computation game. While driving in the car ask your child to mentally compute a problem with numbers from 1 to 10. For example, "Start with the number 5, multiply it by 2, subtract 8, and multiply by 3. What number do you have?" Start by pausing after each step, and then see how fast he or she can do multiple steps.
- Play a rounding game by rolling three die, putting the numerals in any order, and then rounding to the hundreds place. For example, a 3, 2, 7 for the number 327 would round to 300. The number 372 (more than 350) would round to 400.
- Play games that require identifying equivalent fractions. For example, divide an apple into eighths and then divide another apple into halves to show that four-eighths of an apple is the same as one-half of an apple.
- Figure the cost of going to the movie. If one ticket costs \$3.50, how much will two tickets cost? Three tickets? Four tickets?
- Describe and compare quantities. For example, compare the number of people who could sit in the school cafeteria or a classroom to the number of people who could sit in the stadium, the living room, the local movie theater. Ask your child to explain his or her reasoning for getting the answer.

Algebra

Students use relationships in patterns to make predictions by using tables, charts, physical objects, and symbols.

Students apply math processes to solve real-world problems.

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

- Count by multiples of a number to determine an amount. For example, the number of legs for eight horses: 4 x 8 = 32 legs.
- Participate in activities to find patterns in numbers. For example, give your child a pattern such as 1, 1, 2, 3, 5, 8, 13, 21 (each number is determined by adding the two numbers to the left: 1 + 1 = 2, 1 + 2 = 3, 2 + 3 = 5, etc.). Have your child determine the pattern.
- Play a license plate game with a partner. Each player writes down the letters from a different license plate. Assign each letter a number value (A = 1, B = 2, C = 3). Add them up to see who has the highest value.

Geometry

Students describe geometric properties and relationships using appropriate vocabulary.

Students use two-dimensional coordinate grids to represent points and to graph lines and simple figures.

- Use coordinates to find locations on a map. For example, make a list of places that are of interest to your family such as cities where you might take a trip. Help your child locate these places of interest on a map using the coordinates given in the map key.
- When taking a trip, help calculate the mileage to your destination using the scale of distance on the map key.

Measurement

Students carry out simple unit conversions within a system of measurement.

Students comfortably use inches and feet, ounces and pounds, etc.

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

- Make a poster for your next yard sale. Include the what, when, where, and time of the sale on the poster. Make measurements on the poster so that the letters are the same height and lines are spaced equally. Mark the lines with pencil so they can be erased when the lettering is completed.
- Estimate and measure the volume of objects. Set a goal for each member of the family to drink a gallon of water during the day. Have your child figure the volume of household glasses to see how many glasses each member of the family will have to drink to reach that goal. Before measuring, have your child estimate how many glasses are in each container.
- Compute with fractions and whole numbers. Take the ingredients for a favorite cookie recipe. Have your child double the amounts so that you will be able to make more cookies.

Data Analysis and Probability

Students appropriately represent and interpret data.

Students use basic statistics to answer everyday questions.

- Collect and organize data to make comparisons. For example, before a family gathering or an event such as a birthday party, have your child survey the people attending to determine their favorite flavor of soda or drink. From this survey, determine the amount of each drink that you should buy.
- Compare data to make a decision. For example, your child is using money he or she has earned to buy a video game. Find three places where the game can be bought and compare the prices. Remember to include shipping and tax.

• Gather data about an entire group by sampling individual members. For example, to decide whether to have chocolate or oatmeal cookies at the class picnic, your child could survey the group by asking 10 out of 25 classmates for their preference.



Jordin Hartwig Mixed Media, "Twin Lizards"

Inquiry Skills

Students conduct investigations using inquiry skills.

Students will observe and collect data, and analyze experimental results. They will use no more than two variables in their investigations and make simple predictions using picture, bar, and line graphs. At this level the student's ability to question and hypothesize (**predict**) is more detailed and specific.

- Access scientific information from a variety of reliable sources (e.g., books, children's science magazines, educational websites).
- Conduct scientific investigations to answer questions. (E.g., to determine under what condition molds grow best, your child could put one cup of coffee or leftover food on a sunny windowsill, one cup in the refrigerator, and one cup in a dark cupboard. After several days, comparing the samples will help your child determine what kind of condition encourages the development of mold.)
- Select and use appropriate tools to collect, record, and measure data when conducting observations (e.g., ruler, measuring cup, balance, magnifying lens, thermometer, and computer).
- Ask questions about data, make predictions, and develop a hypothesis.
- Develop a classification system to record data. (E.g., a collection of rocks and minerals can be sorted using the following categories hardness, color, shininess, and magnetic properties.)
- Use scientific words to report observations.
- Organize and report data using a graph.
- Use mathematics to report the results of an experiment.

Physical Science

Students identify the properties of objects and materials.

Students will examine and classify matter and its properties. Students will investigate the changes in matter under certain conditions. Students will also explore characteristics of light, heat, electricity, and magnetism.

- Conduct investigations that demonstrate how matter can change states [e.g., how water can change from a liquid into a solid (ice) and a gas (steam)].
- Explore how materials react with other substances (e.g., the physical reaction that occurs when baking soda is mixed with vinegar).
- Conclude that objects are made up of one or more materials. (E.g., make lemonade using fresh lemons, water, and sugar. Talk about how these ingredients combine to make a tasty drink.)
- Investigate the properties of matter that are not obvious. [E.g., obvious properties of sugar crystals are size, weight, shape, and color. Other properties your child can investigate are hardness, solubility (ability to dissolve in a solution), and melting point (temperature at which sugar breaks down).]
- Identify and describe the position and motion of objects relative to other objects. (E.g., play the game "I Spy." Take turns describing and guessing objects around you. Be sure your child describes the location of the object in relation to other nearby objects.)
- Describe the position of objects in numerical terms related to distance and measurement (*e.g., three meters away, 20 feet away*).
- Understand the position and motion of an object by tracking and measuring the relationship of speed and force (*e.g., describing and measuring the bouncing pattern of a ball under different conditions*).
- Compare materials for their ability to conduct or insulate heat. [E.g., compare the following objects to determine if they are conductors (allow heat to flow through them) or insulators (do not allow heat to flow through them easily): a copper wire, a penny, a drinking straw, a toothpick, a paper clip, a rubber band, a cardboard strip, or an aluminum foil strip.]

Life Science

Students identify characteristics of organisms.

Students will classify plants and animals based upon their physical and behavioral characteristics. They will explore how physical structures and behavioral characteristics help living things meet their survival needs.

- Understand how the structural parts of organisms relate to their functions. (E.g., a penguin uses its strong wings to paddle underwater; an elephant uses its tusks to dig underground for water.)
- Investigate how organisms' physical characteristics meet their need for survival [e.g., hard outer coverings to keep them safe (armadillo); front teeth, sharp claws, and flexible bodies to dig shelters when in danger (pocket gopher); feathers for warmth (birds)].
- Identify how animals respond instinctively to external stimuli.
 (E.g., a mother crocodile instinctively keeps her young safe by cradling them in her mouth and throat until danger is past. When she senses danger is past, she spits out her young.)
- Investigate how an environment can affect the behavior of plants and animals. (E.g., ask your child what he or she thinks would happen to animals such as deer, rabbits, and squirrels during a drought. Would it affect their ability to protect themselves from predators?)
- Investigate how organisms cause changes in their environments. (E.g., in the book Piranhas and Other Wonders of the Jungle, author Q. L. Pearce describes how the environment is changed when driver ants go "marching.")
- Examine the beneficial and detrimental effects that accompany human alteration of the environment. (E.g., cutting down trees is beneficial because it provides wood for home construction; it is detrimental because deforestation causes erosion.)

Earth and Space Science

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

Students will investigate the physical properties of Earth's resources and how they are vital to the survival of life on Earth. They will examine the predictors and changes in Earth's weather and climate.

- Investigate the properties of air, rocks, and minerals. (E.g., building a small terrarium or visiting a local greenhouse will allow your child to investigate how air temperature is affected by the design of the building. Research what life on Earth would be like without the greenhouse effect.)
- Explain the water cycle (the movement of water into the air and back to the earth's surface) and how humans obtain their water supply. (E.g., have your child explain or draw a picture to show how the earth gets its water supply through precipitation in the forms of either rain, snow, or hail, and the collection of the precipitation in oceans, lakes, and rivers.)
- Observe and describe the movements and properties of clouds. (E.g., have your child observe the types of clouds in the sky twice a day for one week and record the names of the clouds - such as cumulus or cirrus - using a science book as a guide. At the same time, record the actual weather conditions. At the end of the week, ask your child to explain how clouds can help predict the weather. Using this information, ask him or her to be the family weather forecaster and predict the daily weather for a week based upon the properties of the daily clouds.)
- Predict the local weather by understanding measurements obtained from simple scientific tools. (E.g., after viewing a televised weather report, ask your child to draw a weather map for the next day. Help him or her use weather map symbols for weather conditions - rain, snow, sunny, cloudy, party cloudy, cloudy, wind direction, high or low pressure. Ask your child to use this map to predict the weather for the next two days.)
- Describe the processes that create turbulent weather conditions (e.g., the changes within Earth's atmosphere before and during a thunderstorm).

Science and Technology

Students identify technologies and demonstrate abilities in technology design.

Students will explore technological tools that are used to collect data, make and organize observations, analyze results, and accomplish tasks effectively.

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

- Recognize and demonstrate some understanding of the appropriate tools to use in gathering data for scientific investigations (e.g., thermometers, scales, graph paper, software programs, physical models, weighing systems).
- Use organizational materials to store and/or record information (e.g., portfolios, digital camera, graphic organizers, spreadsheets, software).
- Acquire information from multiple sources such as print, audio, and video media.
- Recognize that specific technologies, tools, and instruments help humans work more efficiently or live more comfortably.
- Summarize and communicate methods and solutions using a technological tool (e.g., a Power Point presentation, word processing, computer drawing programs).

Science in Personal and Social Perspectives

Students practice safety in science, describe characteristics of and changes in the population, and describe changes in the environment.

Students will practice safety when conducting scientific investigations. They will describe the many changes, both natural and manufactured, that affect the quality of life on Earth.

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

• Use safety rules when working on scientific projects at home. (E.g., continually remind your child of safety practices such as wearing appropriate clothing, staying away from flames, making wise choices about the materials to use, being careful with sharp objects, keeping hands dry around electricity, and washing hands after an investigation is finished.)

- Tell how population growth affects the quality of life among different cultures. (E.g., review picture books or articles in magazines such as National Geographic to compare the quality of life among different cultures. In what way does the number of people in relationship to resources affect the quality of life?)
- Identify different types of natural resources and their related products (*e.g., trees and paper, water and electricity*).
- Investigate how basic resources are endangered by pollution. (E.g., toxic dumping in oceans and rivers results in unsafe and polluted drinking water.)
- Categorize types of pollution and determine which ones are most threatening to living organisms (*e.g., hazardous wastes and litter*).

History and Nature of Science

Students identify science as a human effort.

Students will compare science and technology of the past with science and technology of today. They will learn about scientists of various backgrounds.

- Compare science and technology of past cultures with science and technology of today. (E.g., ask your child to select a technological device that was not used 30 years ago, such as a computer or a CD player, and give up using it for one or two weeks. Have your child tell you how this tool affects everyday life, and if he or she could do without it for a longer period of time.)
- Show how people from diverse cultures are involved in scientific endeavors of varying degrees of complexity. (E.g., together gather information about space programs such as the space station or the Challenger flights to find out how people from different cultures or countries are involved.)



Citizenship

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

Students will identify the rights and responsibilities of an American citizen and will demonstrate responsible citizenship at home and at school. They will also recognize ways individuals can work with others to improve a community.

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

- Explain citizens' rights and responsibilities in given regions, states, counties, and cities. (E.g., a citizen's responsibility to pay taxes affects the region where he or she lives and his or her own life because taxes provide funds for building roads, paying salaries of workers, taking care of parks and streets, improving school buildings, and buying textbooks.)
- Participate as a responsible and involved citizen. (E.g., help your child select one action that he or she can take to improve the neighborhood, such as cleaning up the local playground or picnic area, writing a local community official with suggestions on improving services for children, or volunteering to help an elderly or disabled person. If possible, help your child act on the community improvement idea.)

Culture

Students study culture and cultural diversity.

Students will explore the many cultures that have come together to create the national heritage of the United States.

- Describe cultural characteristics including customs, arts, and traditions. (E.g., have your child write a letter to a friend describing the customs and foods of the region in which your family lives.)
- Explain the value of cultural diversity among groups. (E.g., talk about how different cultural groups have contributed to and enriched the culture of the United States through art, music, foods, and costumes. Together, listen to music from different cultures and discuss.)
- Identify the influence of immigration. (E.g., work together to trace your family's ancestry and identify any carryover of customs from the country of origin.)

Time, Continuity, and Change

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

Students will explore the history of the five regions of the United States (the Northeast, the Southeast, the Midwest, the Southwest, and the West).

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

- Identify and trace factors that influence population movement (*e.g., availability of jobs, land, and freedom*).
- Explain the developmental stages of a region. (E.g., working together, develop a pamphlet that shows the history of the region of the United States where your family lives or where other relatives live. Make copies of the pamphlet and let your child distribute it to neighbors.)
- Identify political, religious, and economic factors that influence the settlement of specific geographical locations (e.g., New Orleansport of the Mississippi River; Southeast region-coal mining; Williamsburg, Virginia-political and religious freedom; Boston, Massachusetts-political freedom and port access).

Space and Place

Students study space and place.

Students will learn that the United States is a huge country with many different types of land, bodies of water, weather, and resources. They will explore how the environment varies greatly from region to region by working with maps, and will learn how geographic factors influenced the development of the United States.

- Use a variety of geographic tools such as maps, globes, charts, graphs, map keys, and symbols as a means to gather and interpret data about his or her environment and landforms of the United States.
- Explain how historical events have been influenced by geographic factors (e.g., the settlement of people in the Northeast near rivers and other bodies of water because of the availability of water power to operate machinery for mills and factories; discovery of gold in the West).

• Identify demographic factors as they relate to geography, economics, shelter, the environment, jobs, and health. (E.g., ask your child to describe a mining community during the gold rush. Then ask him or her to describe a ghost town-a mining town that "died" because gold was either depleted or not found-and explain what happened.)

Individual Development and Identity

Students study individual development and identity.

Students will describe how regional, 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:

- Explore factors that contribute to his or her identity. (E.g., have your child make a video in which he or she tells about himself or herself, including interests, strong points, and family traditions.)
- Describe his or her connection to family and school.
- Identify and describe ways that regional, ethnic, and national cultures influence his or her life and the daily lives of other citizens in the community.

Individuals, Groups, and Institutions

Students study the interaction among individuals, groups, and institutions.

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

- Interpret a group's or institution's influence on society (e.g., women's fight in the 1800s for a variety of rights such as voting, holding public office, and serving on juries).
- Describe the basic institutions that serve the needs of individuals and groups (e.g., labor unions, industries, and transportation networks).

Production, Distribution, and Consumption

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

Students will explore the range and diversity of resources, industries, and goods and services within the five regions of the United States.

- Explain how natural resources, transportation, and geographic factors determine the kinds of jobs available in a particular region. (E.g., in the early 1800s, factories and mills were built near rivers. Factories used water from the river or waterfalls as a power source and as a way to transport goods.)
- Use economic concepts such as supply, demand, and price to explain events in a region. (E.g., the invention of automobiles and the consumer interest that followed helped the Middle West grow into a manufacturing region.)
- Describe the various institutions that make up economic systems (e.g., households, business firms, banks, government agencies, labor unions, and corporations).



Ryan Lattanzi Pen and Ink, "Mandala"

Power, Authority, and Governance

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

Students will compare the different branches of government and describe the powers of each branch. They will explore how citizens in a democracy have responsibilities or duties and participate in making decisions about their country.

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

- Describe the purpose of the government and its powers (e.g., the three branches of the United States government: executive-president; legislative-Congress; and judicial-Supreme Court).
- Tell how local, state, and national governments differ.
- Identify political leaders and their roles. (E.g., a mayor oversees city government, a governor oversees state government, and the president oversees national government.)
- Examine the rights and responsibilities of individuals in various situations (e.g., the rights and responsibilities of the handicapped as indicated by such accommodations as parking spaces, wheelchair access, and Braille in elevators).

Science, Technology, and Society

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

Students will develop an understanding of how technology has changed the working conditions for many workers within the United States. Students will explore how technology is not only part of our history, but also part of our lives today.

- Explain the need for laws and policies that affect scientific and technological applications (e.g., new medicines, medical treatments, and computer equipment).
- Use environmental terms to explain how humans shape and adapt to their environment (e.g., natural resource, erosion, and irrigation).

 Recognize how the needs of a region influence scientific and technological choices and advancements. (E.g., to boost its economy, the Southeast region of the United States now includes manufacturing and high-tech industries as well as agriculture.)

Global Connections

Students study global connections and interdependence.

Students will learn how trade strengthens a region's economy. They will understand how people in different regions are connected.

- Explain how regions are interdependent. (E.g., wheat grown in Kansas is used to make bread that feeds people nationwide; fruits and vegetables that come from warmer states such as California and Florida are shipped to colder regions.)
- Show how cultural elements such as language, art, music, and belief systems can both connect people and cause misunderstandings.
- Explain the relationships among national, regional, and state interests.



Notes

Appendix

Recommended Reading Books

Fiction

- Avi. Never Mind! A Twin Novel. New York: HarperCollins, 2005.
- Balliett, Blue. Chasing Vermeer. New York: Scholastic, 2005.
- Birney, Betty G. *The World According to Humphrey.* New York: Penguin Group, 2004.
- Collins, Suzanne. Gregor the Overlander. New York: Scholastic, 2004.
- Cowell, Cressida. *How to Train Your Dragon.* New York: Little, Brown, 2004.
- Cromer Byars, Betsy. *The SOS File*. New York: Henry Holt & Co., 2004.
- Edwards, Wallace. *Monkey Business*. Tonawanda, NY: Kids Can Press, 2004.
- Finney, Patricia. I, Jack. New York: HarperCollins, 2004.
- Gleitzman, Morris. Toad Rage. New York: Random House, 2004.
- Pilkey, Don. Dog Breath: The Horrible Trouble with Hally Tosis. New York: Blue Sky Press, 1994.
- Prelutsky, Jack. It's Raining Pigs & Noodles. London: Puffin Books, 2000.
- Roth, Carol. *Who Will Tuck Me In Tonight?* New York: North-South Books, 2004.
- Smith, Janice Lee. Jess and the Stinky Cowboys. New York: Penguin Group, 2004.
- Stanley, Diane. *The Giant and the Beanstalk*. New York: HarperCollins, 2004.
- Weeks, Sarah. If I Were a Lion. New York: Simon & Schuster, 2004.

Nonfiction

- Arbogast, Joan Marie. Buildings in Disguise: Architecture That Looks Like Animals, Food, and Other Things. Honesdale, PA: Boyds Mills Press, 2004.
- Bennett Hopkins, Lee. Wonderful Words: Poems About Reading, Writing, Speaking, and Listening. New York: Simon & Schuster, 2004.
- Gibbs Davis, Katherine. *Wackiest White House Pets.* New York: Scholastic, 2004.
- Hesse, Karen. Cats in Krasinski Square. New York: Scholastic, 2004.

Recommended Reading Websites

- Houghton Mifflin Education Place <u>http://www.eduplace.com/</u> — 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 <u>http://www.kidsource.com/kidsource/content3/</u> <u>RWNactivities/index.html</u> — 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 Children's folktales and stories.
- United States Department of Education http://www.udel.edu/ETL/ RWN/Encourage.html — Reading and writing activities.
- University of Florida http://web.uflib.ufl.edu/cm/africana/children.htm — African children's literature.

Recommended Mathematics Books

- Bauer, Joan. Sticks. New York: Penguin Group, 2005.
- Berger, Melvin. Round and Round the Money Goes: What Money Is and How We Use It. Nashville, TN: Ideals Childrens Books, 2001.
- Greenberg, Dan. 200 Super-Fun, Super-Fast Math Story Problems: Quick & Fun. New York: Scholastic, 2002.
- Mills, Claudia. 7×9=Trouble! New York: Sunburst Books, 2004.
- Ho, Oliver. *Amazing Math Magic*. New York: Sterling Publishing, 2002.
- Cooper, Jason. *American Coins And Bills*. Vero Beach, FL: Rourke Publishing, 2003.
- Cooper, Jason. Around The World With Money. Vero Beach, FL: Rourke Publishing, 2003.
- Cooper, Jason. *How Coins And Bills Are Made.* Vero Beach, FL: Rourke Publishing, 2003.
- Cooper, Jason. *Keeping Money Safe*. Vero Beach, FL: Rourke Publishing, 2003.
- Cooper, Jason. *Money Through The Ages: Money Power*. Vero Beach, FL: Rourke Publishing, 2003.

- Greene, Stephanie. *Owen Foote, Money Man.* Boston: Houghton Mifflin Co., 2003.
- Harris, Nicholas. *How Long?* San Diego: Blackbirch Press, 2004.
- Long, Lynette. Wacky Word Problems: Games and Activities That Make Math Easy and Fun. Indianapolis: John Wiley & Sons, 2005.
- Murphy, Stuart J. Earth Day-Hooray! New York: HarperTrophy, 2004.
- Murphy, Stuart J. *Treasure Map.* New York: HarperTrophy, 2004.
- Murphy, Stuart J. Polly's Pen Pal. New York: HarperTrophy, 2005.
- Neuschwander, Cindy. Sir Cumference And The Sword In The Cone: A Math Adventure. Watertown, MA: Charlesbridge Publishing, 2003.
- Scillian, Devin. One Nation: America By The Numbers. Chelsea, MI: Sleeping Bear Press, 2002.
- Wells, Robert E. *How Do You Know What Time It Is?* Morton Grove, IL: Albert Whitman & Co., 2002.
- Wells, Robert E. *What's Older Than A Giant Tortoise?* Morton Grove, IL: Albert Whitman & Co., 2002.

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.
- Eisenhower National Clearinghouse http://www.enc.org/ professional/timesavers/lessonplans/math/0,1544.1%2DCounting.00shtm — Math activities
- Everyday Mathematics <u>http://www.everydaymath.com</u> 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 <u>http://www.mathisfun.com/</u> 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.

- Teach R Kids Math <u>http://www.teachrkids.com/</u> 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

- Berger, Melvin. Hurricanes Have Eyes but Can't See: And Other Amazing Facts About Wild Weather (Speedy Facts). New York: Scholastic, 2004.
- Capeci, Anne. Food Chain Frenzy (Magic School Bus Science Chapter Books). New York: Scholastic, 2003.
- Dispezio, Michael. Weather Mania: Discovering What's Up and What's Coming Down. New York: Sterling Publishing, 2003.
- Fredericks, Anthony D. Around One Cactus: Owls, Bats and Leaping Rats. Nevada City, CA: Dawn Publications, 2003.
- Greenstein, Elaine. *Ice-Cream Cones for Sale!* New York: Scholastic, 2004.
- Hopkinson, Deborah. *Fannie in the Kitchen*. New York: Simon & Schuster, 2004.
- Kalman, Bobbie. *Life Cycle of a Sea Turtle*. New York: Crabtree Publishing, 2002.
- Kaner, Etta. *Animal Groups: How Animals Live Together*. Tonawanda, NY: Kids Can Press, 2004.
- Lang, Aubrey. *Baby Fox.* Markham, Ontario: Fitzhenry & Whiteside, 2002.
- Lauber, Patricia. *What You Never Knew About Fingers, Forks, & Chopsticks.* New York: Simon & Schuster, 2002.
- McPherson, Stephanie Sam. *Albert Einstein*. Minneapolis, MN: Lerner Classroom, 2004.
- Nye, Bill. Bill Nye the Science Guy's Big Blue Ocean. New York: Hyperion Press, 2002.
- Ogren, Cathy Stefanec. Adventures of Archie Featherspoon. New York: Simon & Schuster, 2002.
- Pfeffer, Wendy. Dolphin Talk: Whistles, Clicks, and Clapping Jaws. New York: HarperTrophy, 2003.
- Schwabacher, Martin. Fishy Field Trip. New York: Scholastic, 2004.

- Scrace, Carolyn. Growing Things. New York: Scholastic, 2002.
- Simon, Seymour. *Danger! Volcanoes.* New York: Seastar Books, 2002.
- St. George, Judith. So You Want to Be an Inventor? New York: Penguin Group, 2003.
- Stone, Tanya Lee. *Ilan Ramon: Israel's First Astronaut*. Minneapolis, MN: Lerner Classroom, 2003.
- Tocci, Salvatore. *Experiments with Colors*. New York: Scholastic, 2003.
- Wadsworth, Ginger. *Wright Brothers.* Minneapolis, MN: Lerner Classroom, 2004.

Recommended Science Websites

- About.com The Human Internet —<u>http://kidscience.miningco.com/</u> msub15.htm —Science/nature activities.
- Discovery Channel *http://school.discovery.com/sciencefaircentral/* Activities and games related to science concepts.
- Disney Family Page <u>http://family.go.com</u>—Activities, learning opportunities, parenting techniques, and more.
- Early Childhood Math and Science Activities— <u>http://members.</u> <u>tripod.com/~Patricia_F/mathscience.html</u>—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— <u>http://www.nasa.</u> gov/kids.html—Space science activities for elementary students.
- National Geographic.com <u>http://www.nationalgeographic.com/kids/</u> 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—<u>http://www.ed.gov/pubs/</u>

parents/Science/Introduction.html—Ways to help your child learn science.

- Yahoo http://www.yahooligans.com/Science_and_Nature/—Science links for children.
- 2think.org <u>http://www.2think.org/hycls.shtml</u> —Activities to help your child learn science.

Recommended Social Studies Books

- Bunting, Eve. *How Many Days to America?* New York: Clarion Books, 1988.
- Cherry, Lynne. *A River Ran Wild: An Environmental History.* San Diego, CA: Harcourt Brace Jovanovich, 1992.
- Ekoomiak, Normee. Arctic Memories. New York: Henry Holt and Co., 1988.
- Foster, Joanna. *Cartons, Cans, and Orange Peels: Where Does Your Garbage Go?* New York: Clarion Books, 1991.
- Hailey, Gail E. *Mountain Jack Tales.* New York: Dutton Children's Books, 1992.
- Hamburger, Kenneth E., Fischer, Joseph R., & Gravlin, Steven C.. *Why America Is Free*. Washington, DC: Society of the Cincinnati, 1998.
- Lawlor, Veronica. I Was Dreaming to Come to America: Memories from the Ellis Island Oral History Project. New York: Viking, 1995.
- Locker, Thomas. *Water Dance*. San Diego, CA: Harcourt Brace & Co., 1997.
- Loewen, Nancy. *We Live Here Too! Kids Talk About Good Citizenship*. New York: Picture Window Books, 2003.
- Lord, Bette Bao. In the Year of the Boar and Jackie Robinson. New York: HarperCollins, 1984.
- Middleton, Don. *Dealing with Discrimination*. New York: Power Kids Press, 1999.
- Mochizuki, Ken. Passage to Freedom: The Sugihara Story. New York: Lee & Low Books, 1997.
- Turner, Ann. *Mississippi Mud: Three Prairie Journals*. New York: HarperCollins Publishers, 1997.
- Winter, Jeanette. Follow the Drinking Gourd. New York: Alfred A.

Knopf, 1988.

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 childfriendly environment for learning social studies. Articles and links are primarily aimed at children from 7 to 12.
- National Geographic <u>http://www.nationalgeographic.com/kids/</u> — Games, contests, articles, and activities.
- 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 <u>http://www.siec.k12.in.us/~west/proj/lincoln/</u> A picture gallery, an Internet treasure hunt, and class activities.
- Yahooligans http://www.yahooligans.com/School_Bell/Social_Studies/ Mythology_and_Folklore — Mythology and folklore site.

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- Bridges to Home. Creative Publications, 1997.
- 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. 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.
- Literary Place. Scholastic Inc., 1996.
- *Math, Grade 4.* 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. CarolynWarner. Corwin Press, 1994.
- Regions. McGraw-Hill School Division, 2001.
- Science at Home. Curriculum Associates, Inc., 1997.
- Spotlight on Standards in the Classroom. Red Clay Consolidated School District. Office of Standards and Curriculum, 1999.
- 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 2000.
- "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. <u>http://www.edreform.com/pubs/parent.htm</u>, accessed 6 Aug. 2001.



Samuel Watts Paper, "Green Imagination"

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