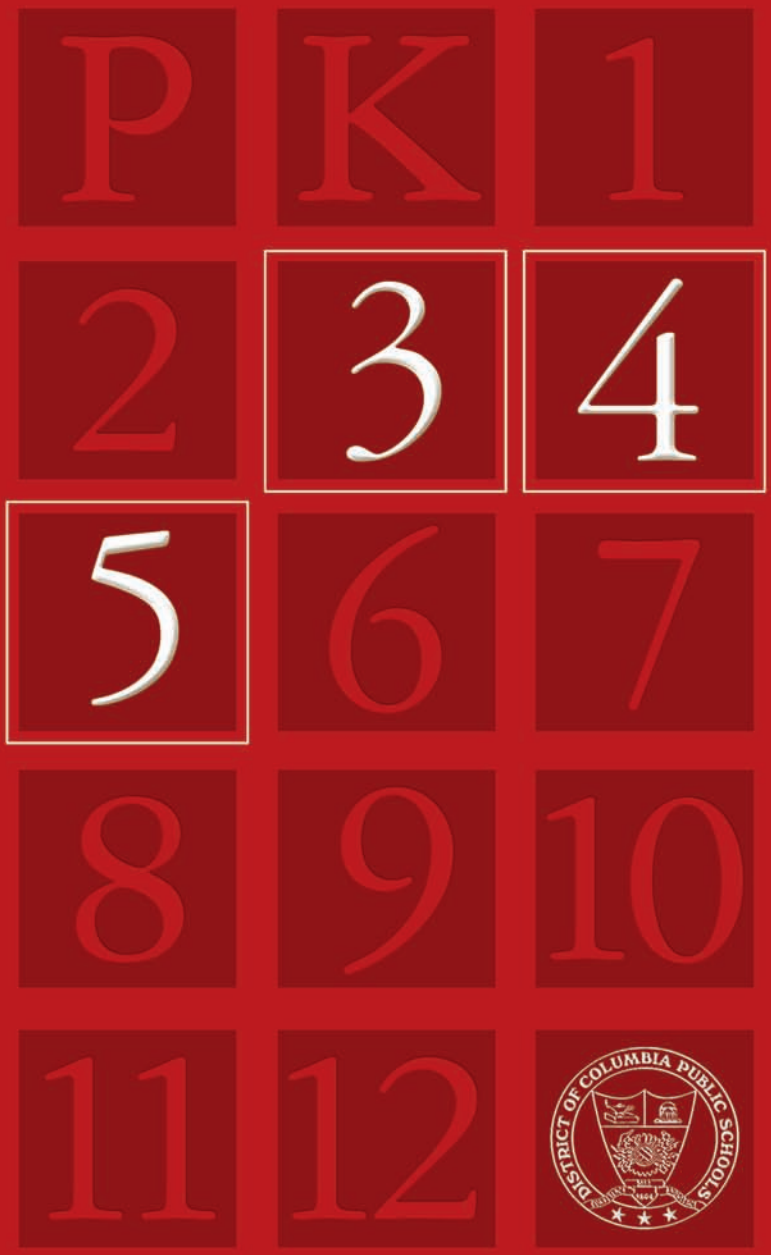
Expect *the Best* for Your Child



How to use the ***new learning standards*** in reading/English language arts, mathematics, science, and social studies to help your child do well in ***grades 3 through 5.***

DISTRICT OF COLUMBIA PUBLIC SCHOOLS

Contents

New Standards = Better Goals for Learning

DC Public Schools has adopted new learning standards for core subjects, including reading/English language arts, mathematics, science, and social studies. The new standards show what students should know and be able to do:

- in each subject,
- at each grade level, and
- in every school.

Standards tell **all** students that we expect them to succeed in school. This is a powerful message: When children know we expect them to do well, they will believe in themselves more and work harder.

Our new learning standards are among the best in the nation. They are the first step toward creating a world-class school system in the District of Columbia.

Standards in the Classroom

Lessons and activities should reflect the standards for that grade. Textbooks and year-end tests also should match the standards. Parent-teacher conferences should focus on how well your child is meeting the standards.

If your child is having trouble meeting the standards, frequent informal tests will help teachers and you find out early so your child can get extra help.

Talk to Your Child's Teacher

Talk to your child's teacher about the standards and how your child is doing in school. Here are some questions you may want to ask.

To learn more about a standard:

- What does this standard mean? Can you show me examples of work that meet this standard?
- When will my child work on this during the school year?
- What activities, materials, and lessons are you using in school to help my child meet the standard? What are the class work and homework for this standard?
- How is my child tested on this standard? How do you know if my child has mastered it?
- May I look at some of my child's work on this standard?

To learn how your child is doing in school:

- Is my child reading at grade level? Can you show me some books that my child can read?
- How did you decide the grades on my child's report card?
- How much time each day does my child spend reading in class? Writing? Doing mathematics?
- In what subjects is my child ahead or behind?
- What do the end-of-year tests tell about how my child is doing?

If your child is behind:

- How are you helping him/her catch up?
- What extra help do you suggest for my child?
- What can I do at home to help my child do better in school?

Reading/English Language Arts in *Grade 3*

In grade 3, students move from decoding words to learning more about what words mean. They learn longer and more difficult words and words that express abstract ideas, such as time.

Readers also start thinking more about what they read. They learn how to find main ideas and supporting details in a story. They write clear sentences and paragraphs. They also get to know different kinds of writing, such as fairy tales, plays, and textbooks.

These skills help students learn to read fluently, without stopping to figure out what each word means. Students read stories, poems, and reports aloud with understanding and expression.

TOPICS COVERED

Reading/English language arts standards cover the following eight topics, or strands. Expectations for what a child should be able to do increase from one grade to the next.

- Using and understanding spoken words *(Language Development)*
- Moving from spoken language to print *(Beginning Reading)*
- Getting facts from books and other writing *(Informational Text)*
- Learning from and enjoying stories, poems, and plays *(Literary Text)*
- Using materials to find out information *(Research)*
- Using written words to share information, ideas, and feelings *(Writing)*
- Getting information from television, film, Internet, or videos *(Media)*
- Knowing how to spell and use grammar correctly *(English Language Conventions)*

WHAT YOUR CHILD SHOULD KNOW

BY THE END OF GRADE 3, YOUR CHILD SHOULD KNOW AND BE ABLE TO PERFORM THESE SKILLS:

Use the context of a sentence to determine the intended meaning of a word with multiple meanings (such as *hatch*, *arm*, *boot*).

Apply basic rules for dividing words into syllables when reading words of four or five syllables (such as *information* or *pepperoni*).

Identify main ideas and supporting details in text.

Ask questions about readings and locate facts to answer the questions.

Identify themes as lessons in children's folk tales, fables, and myths. For example, discuss the lessons the stories demonstrate.

Identify rhyme, rhythm, repetition, similes, and sensory images in poetry. For instance, point out ways that words create pictures and music in poetry (stars like "diamonds in the sky").

Write stories with beginnings, middles, and ends. Include details about the settings and characters.

Identify three basic parts of speech: adjective (*friendly*, *orange*), noun (*school*, *George*), and verb (*speak*, *are*).

Identify and correctly use common punctuation marks, including end marks, such as periods, question marks, and exclamation points; commas for series; punctuation for dates; punctuation for addresses; and punctuation in titles of books.

HOME ACTIVITIES

Encourage your child to read at home.

Some suggested titles are *Summer Wheels,* by Eve Bunting; *Julian, Dream Doctor,* by Ann Cameron; and *Chicken Sunday,* by Patricia Polacco.

Talk with your child about a book he/she is reading.

Ask your child to tell you the story in his/her own words.

Ask your child to clip pictures from a magazine.

Write words under the pictures to tell a story.

Read a short poem aloud with your child.

Together, make up a tune that fits the words.

Reading/English Language Arts in *Grade 4*

Grade 4 students continue to build their vocabularies, adding letters at the beginnings and ends of root words to create new words, such as *happy/unhappy* or *wonder/wonderful.* Students also learn variations in word meanings — synonyms, antonyms, idioms, and words with more than one meaning.

Students recognize key features of informational text, including the main idea; compare-and-contrast patterns; and use of facts, details, and examples. They learn the basics of narrative, such as plot, characterization, and setting, and use these standards in their writing and speaking. Grade 4 students use correct grammar in their oral and written communications.

TOPICS COVERED

Reading/English language arts standards cover the following eight topics, or strands. Expectations for what a child should be able to do increase from one grade to the next.

- Using and understanding spoken words *(Language Development)*
- Moving from spoken language to print *(Beginning Reading)*
- Getting facts from books and other writing *(Informational Text)*
- Learning from and enjoying stories, poems, and plays *(Literary Text)*
- Using materials to find out information *(Research)*
- Using written words to share information, ideas, and feelings *(Writing)*
- Getting information from television, film, Internet, or videos *(Media)*
- Knowing how to spell and use grammar correctly *(English Language Conventions)*

WHAT YOUR CHILD SHOULD KNOW

BY THE END OF GRADE 4, YOUR CHILD SHOULD KNOW AND BE ABLE TO PERFORM THESE SKILLS:

Follow agreed-on rules for class discussion. In self-run small group discussions, pose relevant questions and build on the ideas of others.

Organize and express an opinion of a political speech using supporting details.

Identify the meanings of common idioms and figurative phrases (such as *last straw*, *cold feet*).

Read out loud from familiar literary and informational text fluently, accurately, and with comprehension.

Identify the purpose and main points of a text (reading). Summarize its supporting details.

Identify similarities and differences between the characters or events in a story and the experiences in an author's life (for example, Laura Ingalls Wilder and the *Little House* books).

Write short poems that contain sensory details (like the sound of the sea or the way a pet's fur feels) and include elements of rhyme, meter, and verse.

Revise writing to improve word choice and level of detail after determining what could be added or deleted.

Compare stories in print with their film versions, considering characters, plot, and settings.

Identify four basic parts of speech (adjective, noun, verb, adverb).

HOME ACTIVITIES

Keep reading with your child.

Take turns reading from the same book or read your own books side by side. Many fourth-grade students enjoy these books: *Tales of a Fourth Grade Nothing,* by Judy Blume; *Witcracks: Jokes and Jests from American Folklore,* by Alvin Schwartz; and *Your Mother Was a Neanderthal,* by Jon Scieszka.

Ask your child to write a review of a film you have seen together.

Discuss what your child thinks about characters, plot, and other elements.

Ask your child to defend an opinion using facts and logical thinking.

Encourage your child to write poems for special days: Mother's Day, Father's Day, or birthdays.

Talk about words that express the colors, emotions, and other qualities of each day.

Reading/English Language Arts in *Grade 5*

Grade 5 students increase their vocabulary and their ability to understand and explain words, including those that convey ideas and images. Students use roots, prefixes, or suffixes to analyze the meanings of complex words.

As readers, they explore different kinds of literature, such as poetry, drama, fiction, and nonfiction. In their reading, they find the main ideas and analyze the evidence that supports the ideas. As writers, grade 5 students create stories or essays that are several paragraphs long. They establish a topic or plot, describe details that link one paragraph to another, and write a closing paragraph. Students also become familiar with research skills and resources.

TOPICS COVERED

Reading/English language arts standards cover the following eight topics, or strands. Expectations for what a child should be able to do increase from one grade to the next.

- Using and understanding spoken words *(Language Development)*
- Moving from spoken language to print *(Beginning Reading)*
- Getting facts from books and other writing *(Informational Text)*
- Learning from and enjoying stories, poems, and plays *(Literary Text)*
- Using materials to find out information *(Research)*
- Using written words to share information, ideas, and feelings *(Writing)*
- Getting information from television, film, Internet, or videos *(Media)*
- Knowing how to spell and use grammar correctly *(English Language Conventions)*

WHAT YOUR CHILD SHOULD KNOW

BY THE END OF GRADE 5, YOUR CHILD SHOULD KNOW AND BE ABLE TO PERFORM THESE SKILLS:

Identify the meanings of common Greek and Latin roots and affixes to determine meanings of unfamiliar words. For example, *coronation* has the Greek root "coron," which means crown; *archaeology* has the root "arch," meaning ancient.

Summarize the main idea and critical details of expository text. (Expository text communicates facts or details.)

Determine an author's position (what the author is arguing) by using evidence from the text.

Identify several kinds of literature, such as poetry, nonfiction, or short story. Tell what makes each different.

Explain why an author used specific sensory details, images, and nonliteral language.

Obtain and organize information from a variety of sources. Document and present research in individual and group projects.

Write an explanation of a process, such as how to make lemonade or play tic-tac-toe. Include a topic statement, supporting details, and a conclusion.

Revise writing to make it more coherent and improve its flow.

Identify and analyze persuasive techniques used in media messages. Techniques might include promises, dares, flattery, glittering generalities, or logical fallacies.

Identify seven basic parts of speech (noun, pronoun, verb, adverb, adjective, conjunction, and preposition).

HOME ACTIVITIES

Encourage your child to read for fun.

Some choices include *How Thunder and Lightning Came to Be,* by Joseph Bruchac; *Morning Girl,* by Michael Dorris; and *Nonstop Nonsense,* by Margaret Mahy.

Collect ads from newspapers or magazines.

Look for words and figures of speech (for example, *New! Exclusive!*) that are meant to change your mind about a product. Talk about what you find.

With your child, tell family stories using different kinds of literature: a poem, a short story, a play.

Discuss how each form affects the telling of the story.

Encourage your child to read to a younger child.

Mathematics in *Grade 3*

Grade 3 students learn more about adding, subtracting, multiplying, and dividing whole numbers. They learn to find patterns in numbers, such as what number comes next in a series (2, 4, 6, 8, 10, 12, ?).

Students learn how to identify geometric elements, such as the length or shape of sides, corners, or curves. They use these elements to describe, measure, or estimate different objects with models and grids.

Grade 3 students conduct simple experiments to learn how often certain events happen — for example, how often will a coin come up heads? They use these data to predict whether or not the next coin will come up heads.

TOPICS COVERED

Mathematics standards for prekindergarten through grade 8 are presented in the following five strands. Expectations for what a child should be able to do increase from one grade to the next.

- Understanding numbers and how they work, such as adding, subtracting, multiplying, and dividing *(Number Sense and Operations)*
- Investigating patterns and using symbols (such as $x + y = z$) to analyze mathematical situations and change *(Patterns, Relations, and Algebra)*
- Identifying shapes, sizes, and relationships *(Geometry)*
- Using number relationships to find out size and volume *(Measurement)*
- Doing experiments, collecting data, and using the information to decide what will happen *(Data Analysis, Statistics, and Probability)*

WHAT YOUR CHILD SHOULD KNOW

BY THE END OF GRADE 3, YOUR CHILD SHOULD KNOW AND BE ABLE TO PERFORM THESE SKILLS:

Represent, compare, and order numbers up to 10,000 using various forms, including expanded notation (for example, 3,206 = 3 x 1,000 + 2 x 100 + 6) and written out in words (three thousand two hundred six).

Add and subtract up to four-digit numbers accurately and efficiently (3,201 – 2,100 = ?).

Solve problems involving the addition and subtraction of money amounts in decimal notation ($140.05 + $22.50 = ?).

Know the meanings of 0.75, 0.50, and 0.25 as they relate to money. Know that fractions and decimals are two ways to represent the same concept (for instance, 50 cents is 1/2 of one dollar).

Know multiplication facts through 10 x 10 and related division facts (for example, 9 x 8 = 72 and 72 ÷ 9 = 8). Use these facts to solve related problems (9 x 8 = 72, so 9 x 80 = 720).

Create, describe, extend, and explain symbolic (geometric) patterns and addition and subtraction patterns. Describe the patterns in a variety of ways.

Understand and correctly use operational symbols such as +, –, x, and =. Fill in the blanks of an equation with the symbol that makes the equation true. For example, if 4 _ 3 = 12, what operational symbol goes in the blank?

Identify and draw lines that are parallel , perpendicular  , and intersecting  .

HOME ACTIVITIES

Go shopping for groceries together.

Ask your child to add the cost of different items or multiply to get the cost of a bag of 20 oranges. Use the correct operational symbols.

Help your child use scissors to cut shapes out of cardboard.

Ask your child to put the shapes together to form common objects, like a house or a truck.

Cook a meal together.

Use recipes that call for fractions: 1/4 of a cup, 1/2 of a teaspoon.

Measure a small room or closet.

Add the length of the sides to find the perimeter.

Mathematics in *Grade 4*

Fourth grade students are comfortable working with numbers as large as 100,000; with adding, subtracting, multiplying, and dividing whole numbers; and with rounding numbers up or down. They describe and compare simple fractions and decimals and learn how to factor small whole numbers (in 2 x 3 = 6, 2 and 3 are factors). They see that a prime number such as 5 or 7 is a number that can be divided evenly only by 1 and itself.

Grade 4 students explore basic concepts of algebra, in which symbols take the place of numbers (for example, $2 + x = 5$). They also explore properties and relationships of two-dimensional figures studied in plane geometry. They use grids, tables, graphs, and charts to record and analyze data.

TOPICS COVERED

Mathematics standards for prekindergarten through grade 8 are presented in the following five strands. Expectations for what a child should be able to do increase from one grade to the next.

- Understanding numbers and how they work, such as adding, subtracting, multiplying, and dividing *(Number Sense and Operations)*
- Investigating patterns and using symbols (such as $x + y = z$) to analyze mathematical situations and change *(Patterns, Relations, and Algebra)*
- Identifying shapes, sizes, and relationships *(Geometry)*
- Using number relationships to find out size and volume *(Measurement)*
- Doing experiments, collecting data, and using the information to decide what will happen *(Data Analysis, Statistics, and Probability)*

WHAT YOUR CHILD SHOULD KNOW

BY THE END OF GRADE 4, YOUR CHILD SHOULD KNOW AND BE ABLE TO PERFORM THESE SKILLS:

Round whole numbers as large as 100,000 to the nearest 10, 100, 1,000, 10,000, and 100,000. Round 98,218 to the nearest ten (98,220) and to the nearest hundred (98,200).

Recognize, name, and generate equivalent forms of decimals (0.5, 0.25, 0.2, 0.1) and fractions (1/2, 1/4, 1/5, 1/10). Show why 0.5 is equal to 1/2, 0.25 is equal to 1/4, and so forth.

Find all factors of any whole number up to 50 (for example, factors of 12 are 2, 6, 3, and 4). Know that numbers such as 2, 3, 5, 7, and 11 are prime numbers, which means they have no factors except 1 and themselves.

Select and use appropriate operations (addition, subtraction, multiplication, and division) to solve problems — including those involving money.

Solve problems involving proportional relationships, including unit pricing (for example, four apples cost 80 cents, so one apple costs 20 cents).

Know the definitions of a right angle (exactly 90 degrees), an acute angle (less than 90 degrees), and an obtuse angle (greater than 90 degrees).

Select, use, and explain the commutative properties of whole numbers, where the result is the same no matter which order two or more terms or quantities are placed. For example, 37 x 46 = 46 x 37.

Estimate and find the areas and perimeters of shapes, including irregular shapes. Do this using diagrams, models, and grids and by measuring.

HOME ACTIVITIES

Help your child learn new mathematics terms.

When you find a new word, help your child figure out what it means. How can you use the word in your daily life?

Recognize mathematics in games or hobbies.

For example, record the number of points scored each game by a favorite team. Are the scores going up or down? What other patterns does your child see?

Find a recipe that serves four people.

Ask your child to calculate how much of each ingredient it would take to make twice as much or half as much of the recipe.

Using newspaper ads, ask your child to add how much it would cost to buy a whole new outfit: shirt, jeans, shoes, and socks.

How long would your child have to save to buy one item?

Mathematics in *Grade 5*

In grade 5, students learn to work with numbers from one one-thousandth to many billions. They add, subtract, multiply, and divide fractions and decimals and calculate percentages.

Grade 5 students explore algebraic concepts as they learn to replace numbers with variables. They also learn the geometrical concepts of symmetry (matching on both sides of a shape, like a heart) and congruence (having the same shapes and sizes). They plot points on graphs. They know and use common measuring units, including common metric units (meters, kilometers, liters, etc.), to determine length and area. They find the volumes and surface areas of figures. In data analysis, they begin to work with measures of central tendency — the mean, median, or mode of a distribution — as one possible way to describe an average.

TOPICS COVERED

Mathematics standards for prekindergarten through grade 8 are presented in the following five strands. Expectations for what a child should be able to do increase from one grade to the next.

- Understanding numbers and how they work, such as adding, subtracting, multiplying, and dividing *(Number Sense and Operations)*
- Investigating patterns and using symbols (such as $x + y = z$) to analyze mathematical situations and change *(Patterns, Relations, and Algebra)*
- Identifying shapes, sizes, and relationships *(Geometry)*
- Using number relationships to find out size and volume *(Measurement)*
- Doing experiments, collecting data, and using the information to decide what will happen *(Data Analysis, Statistics, and Probability)*

WHAT YOUR CHILD SHOULD KNOW

BY THE END OF GRADE 5, YOUR CHILD SHOULD KNOW AND BE ABLE TO PERFORM THESE SKILLS:

Estimate, round, and manipulate very large numbers (billions) and very small numbers (thousandths). Show understanding of place value to billions and thousandths — for example, know why 0.002 is two-thousandths and 2,000,000,000 is two billion.

Interpret percentages as parts of 100 — for example, know that 20 percent is 20/100. Use the percentage sign (%). Express a part of a whole as a percentage — for example, 1/4 of a pizza is 25%.

Multiply positive fractions with whole numbers (for example, 1/4 x 3).

Show proficiency with division, including division with positive decimals and long division with divisors that have more than one digit.

Replace variables with given values. Evaluate and simplify. For example, what is 2(M) + 3 when M = 4?

Match and construct congruent shapes, such as two triangles that are the same shape and size. Also match and construct symmetric shapes, such as two halves of a heart divided by a center line.

Graph points and identify coordinates of those points on the *x*- and *y*-axes. Then give a picture of the first two quadrants.

Use formulas to find the areas of triangles, rectangles, and parallelograms. Recognize that shapes that have the same number of sides but look different can have the same area.

HOME ACTIVITIES

Look around your home for examples of symmetry — for example, drapes in a window.

Ask your child to hang towels so that they are symmetrical.

Using a pattern, estimate how much fabric is needed to make a dress or a shirt.

Follow the directions to make the garment.

Challenge your child to collect 100 pennies, which equals 100% of one dollar.

Add and subtract pennies to show percentages.

Check out a book on astronomy from the library.

Ask your child to write out the very large numbers found in the book. Talk together about what the numbers represent.

Science in *Grade 3*

In grade 3, students conduct longer, more complex investigations. They work by themselves or in teams, and they keep records of what they find out. They know science can be used in different ways to solve problems.

Grade 3 students see patterns in Earth's movement and in the sky in the day and at night. They recognize forms of energy, such as light, sound, heat, and electricity. They know sources of different kinds of energy and describe how they are used. Students also know that plants and animals can be sorted into groups based on different features, such as how they look or where they live. They learn that humans need certain things to stay healthy, including food, air, and water.

TOPICS COVERED

Science in grade 3 is organized by the different branches of science, with separate categories for how scientists find things out and how science can be used. Expectations for what a child should be able to do increase from one grade to the next. Grade 3 topics include:

- *Scientific Thinking and Inquiry* — A way that scientists ask questions, form theories about the natural world, and collect accurate information to find the answers.
- *Science and Technology* — Using what we know of the natural world to solve problems or meet our needs. For example, we use natural laws to build tools that help us do work.
- *Earth Science* — The branch of science that studies the origins of Earth and things that are part of it, such as rocks, soil, water, and air. Earth science includes meteorology (the study of weather), oceanography (oceans), astronomy (planets, moon, sun, stars), and geology (rocks, mountains, and other structures).
- *Physical Science* — The branch of science that explores the nature and properties of nonliving materials (such as water and air) and energy (such as electricity) and how they interact. Chemistry (the study of substances and their properties) and physics (the study of matter and energy) are two of the physical sciences.
- *Life Science* — The branch of science that investigates how people, animals, plants, and other living things function; how they interact; and how they work.

WHAT YOUR CHILD SHOULD KNOW

BY THE END OF GRADE 3, YOUR CHILD SHOULD KNOW AND BE ABLE TO PERFORM THESE SKILLS:

Work in a team. Respect the ideas of other team members and communicate his or her own ideas.

Keep a notebook to record and save observations.

Show how an invention can be used in different ways. For example, a radio can be used to get news and to play music.

Describe the movements of the sun and moon during one day and night.

Describe how the moon seems to change its shape a little bit each day over a four-week cycle.

Know that energy can change from one form to another — for example, from wind (windmills) to electricity.

Compare the life cycles of different kinds of animals, such as a mouse and a butterfly.

Explain that eating the right foods and getting enough exercise and rest can help human beings stay healthier.

HOME ACTIVITIES

Together, plant a small indoor window garden — for example, different kinds of herbs or different kinds of flowers in small pots.

Keep a record of how each plant grows.

Look on the Internet or in the newspaper for a schedule of the phases of the moon. Each night, ask your child to draw a picture of the moon and compare it to the schedule.

Talk about how — and why — the shape of the moon appears to change over time.

Cook breakfast together, with eggs and toast.

Talk about how heat from the stove changes the food: What happens to the egg? What happens to the bread when you make toast?

Ask your child to keep a log of everything he or she eats for a week.

Talk about the results. Which are the healthy choices — and why?

Science in *Grade 4*

In grade 4, students use data to compare objects and events. They find that different materials, tools, or methods of observation may give different results.

Grade 4 students see that forces, such as wind, ice, and water, shape our earth, and they study rocks and minerals to find clues to how they were formed. They know that energy can change from one form to another. They see that the forces of electricity and magnetism are related to each other and that they have many uses in everyday life. They also learn that living things need energy and matter to live and grow and that human beings have many systems to help them fight disease.

TOPICS COVERED

Science in grade 4 is organized by the different branches of science, with separate categories for how scientists find things out and for ways science can be used. Expectations for what a child should be able to do increase from one grade to the next. Grade 4 topics include:

- *Scientific Thinking and Inquiry* — A way that scientists ask questions, form theories about the natural world, and collect accurate information to find the answers.
- *Science and Technology* — Using what we know of the natural world to solve problems or meet our needs. For example, we use natural laws to build tools that help us do work.
- *Earth Science* — The branch of science that studies the origins of Earth and things that are part of it, such as rocks, soil, water, and air. Earth science includes meteorology (the study of weather), oceanography (oceans), astronomy (planets, moon, sun, stars), and geology (rocks, mountains, and other structures).
- *Physical Science* — The branch of science that explores the nature and properties of nonliving materials (such as water and air) and energy (such as electricity) and how they interact. Chemistry (the study of substances and their properties) and physics (the study of matter and energy) are two of the physical sciences.
- *Life Science* — The branch of science that studies how people, animals, plants, and other living things function; how they interact; and how they work.

WHAT YOUR CHILD SHOULD KNOW

BY THE END OF GRADE 4, YOUR CHILD SHOULD KNOW AND BE ABLE TO PERFORM THESE SKILLS:

Know the difference between feelings and facts. Explain why it is important to use facts, not feelings, in science.

Discuss how tools, such as computers and X-rays, have helped doctors and others provide better medical care.

Explain how wind and water erosion, volcanoes, landslides, and other natural forces change the surface of the Earth.

Describe different minerals by their colors, hardness, brightness, and other properties.

Know that rocks are made of one or more minerals.

Explain that energy in fossil fuels, such as coal or oil, comes from the sunlight that was used by plants to grow centuries ago.

Show that magnets attract objects made of iron. Magnets do not attract objects made by most other materials.

Show that most plants make more seeds than actually grow into new plants.

Explain that all organisms need a source of energy to stay alive and grow.

Know that some diseases are caused by germs — tiny organisms, such as bacteria and viruses, that we cannot see without magnification. Diseases caused by germs can spread to other people.

HOME ACTIVITIES

With your child, plan menus for a week of healthy lunches for school.

Together, shop for the food and pack the lunches each day.

As a family, study an animal species, such as a black bear, dolphin, or gorilla.

Ask your child to find out facts about the species, such as what these animals need to live and grow.

Invite your child to start a rock collection.

Ask friends and relatives to bring back small stones when they travel. How are these rocks different from stones found here?

Start a family medical history.

Ask your child to interview family members, collecting information on each person's illnesses, allergies, and other facts.

Science in *Grade 5*

In grade 5, students learn that Earth is part of the solar system and that objects in the solar system appear to move because Earth is moving. Students also learn that all matter is made of tiny particles called atoms, that each kind of atom forms a different element, and that elements combine to form compounds.

Students in grade 5 also learn that all living things are made of cells that are too small to see. They learn that living things get some features from their parents — for example, the shape of their heads. Other features result from the environment — for example, leaves may become dry from too much sun.

TOPICS COVERED

Science in grade 5 is organized by the different branches of science, with separate categories for how scientists find things out and for ways science can be used. Expectations for what a child should be able to do increase from one grade to the next. Grade 5 topics include:

- *Scientific Thinking and Inquiry* — A way that scientists ask questions, form theories about the natural world, and collect accurate information to find the answers.
- *Science and Technology* — Using what we know of the natural world to solve problems or meet our needs. For example, we use natural laws to build tools that help us do work.
- *Earth Science* — The branch of science that studies the origins of Earth and things that are part of it, such as rocks, soil, water, and air. Earth science includes meteorology (the study of weather), oceanography (oceans), astronomy (planets, moon, sun, stars), and geology (rocks, mountains, and other structures).
- *Physical Science* — The branch of science that explores the nature and properties of nonliving materials (such as water and air) and energy (such as electricity) and how they interact. Chemistry (the study of substances and their properties) and physics (the study of matter and energy) are two of the physical sciences.
- *Life Science* — The branch of science that studies how people, animals, plants, and other living things function; how they interact; and how they work.

WHAT YOUR CHILD SHOULD KNOW

BY THE END OF GRADE 5, YOUR CHILD SHOULD KNOW AND BE ABLE TO PERFORM THESE SKILLS:

Read and follow directions when doing new experiments and learning new investigations. Write instructions for others to follow.

Explain that predictions tend to be more accurate when they are based on a large collection of similar data.

Give some examples of technologies that have had both good and bad effects on society.

Know that Earth is the third planet from the sun and is part of the solar system.

Identify stars that are unusually bright and stars that have different colors, such as red or blue.

Know that clouds are made of tiny drops of water or crystals of ice.

Use a map or globe to show that all of Earth's oceans are connected as one body of water covering most of Earth's surface.

Show that when an object is close to Earth, gravity will pull the object toward the Earth's center.

Know that some organisms are just one cell that depends on its environment for food, water, and other needs. Other organisms are made of many cells that benefit from cooperating.

HOME ACTIVITIES

Together, place a thermometer outside a window and check the temperatures at the same times each day for a week.

Ask your child to use the data to predict what the temperatures will be for the next week.

As a family, discuss what the Internet has meant to each of you. How has it made your lives easier or better?

Make a plan that will help your family use the Internet wisely.

Cut a leaf from a begonia or other plant that is easy to grow from a cutting. Keep the leaf in water until it grows roots, then plant it in soil.

Ask your child why it is possible to grow a plant from just a leaf or a seed.

Pick an animal, such as a polar bear, that lives in a harsh environment.

Ask your child to find out what climate, food, and other things the animal needs to survive. Together, imagine an "ideal home" for the animal.

Social Studies in *Grade 3*

In grade 3, children learn about the history, geography, and government of the District of Columbia by using books, museums, libraries, historic sites, and other resources. They also learn the history of their own neighborhoods.

Children in grade 3 read biographies of well-known residents of Washington, DC, who made contributions to science, technology, the arts, business, education, government, and other areas. Students learn how these people made a difference to the city and nation.

TOPICS COVERED

Social studies standards cover four major areas:

- *History* — the study of past events that have important effects on our country and our world
- *Geography* — the study of the Earth's physical features, as well as the effects of human life and activity on Earth
- *Economics* — the study of how people and societies produce, buy, sell, and use goods and services
- *Civics* — the study of politics, government, and the rights and duties of citizens

In each grade, students focus on different ideas within the main areas. In grade 3, standards include the following topics: geography and government of the District of Columbia; economy of the Washington, DC, region; and history of the District of Columbia, from its founding in 1790 through the 20th century.

WHAT YOUR CHILD SHOULD KNOW

BY THE END OF GRADE 3, YOUR CHILD SHOULD KNOW AND BE ABLE TO PERFORM THESE SKILLS:

Compare current maps of the District of Columbia with maps of the city from other times.

Describe different communities in the District of Columbia, such as Adams Morgan, Anacostia, Chinatown, and Shaw. Also, describe the neighborhood around his or her elementary school.

Explain the duties, structure, and functions of the District of Columbia government.

Describe the ways people can influence their local governments — for example, by voting and attending meetings.

Give examples of bartering, such as trading baseball cards with each other. Explain how money makes it easier for people to get things that they want.

Describe Washington, DC, in 1800, 1900, and 2000. Point out the main differences among the times.

Make a timeline of the key people who shaped Washington, DC, and describe what each person did.

Explain how Washington, DC, was chosen and named our capital city.

HOME ACTIVITIES

With your child, talk to a family member or neighbor who has lived in the District of Columbia for many years.

How have the city and your neighborhood changed over the years?

Together, visit the Martin Luther King, Jr., library or your local branch library.

Find a book on a person important to the history of our city, such as Frederick O. Douglass or Duke Ellington, that your child can read and discuss.

Ask your child to use the Internet or other resources to learn the names of and facts about the people who represent his/her neighborhood in city government — for example, on the DC City Council or the Board of Education.

What does each person do?

Make a map of your neighborhood.

Include landmarks such as parks, churches, stores, and schools.

Social Studies in *Grade 4*

In grade 4, children learn how the United States developed into a nation of immigrants from all the world's countries. They study how the new world was first settled by indigenous peoples, such as the cliff dwellers of the Southwest, how it was found by European explorers, and how the early European colonies developed.

Students also explore the growth of our country's government, including events that led the colonies to form their own national government and create the Constitution. Students view events and ideas through the eyes of people who lived them, such as explorers, Native Americans, European colonists, free blacks and slaves, and pioneer families.

TOPICS COVERED

Social studies standards cover four major areas:

- *History* — the study of past events that have important effects on our country and our world
- *Geography* — the study of the Earth's physical features, as well as the effects of human life and activity on Earth
- *Economics* — the study of how people and societies produce, buy, sell, and use goods and services
- *Civics* — the study of politics, government, and the rights and duties of citizens

In each grade, students focus on different ideas within the main areas. In grade 4, standards include the following topics: land and people before European exploration, the age of exploration in the 15th and 16th centuries, colonial settlement up to the 1700s, and the War for Independence (1760–1789).

WHAT YOUR CHILD SHOULD KNOW

BY THE END OF GRADE 4 YOUR CHILD SHOULD KNOW AND BE ABLE TO PERFORM THESE SKILLS:

Describe the different peoples, such as the Inuits, the Anasazi, and the Mound Builders, who traveled from Asia across the Bering Strait, then spread out over North and South America.

Describe religious beliefs, customs, and folklore traditions of major settlements of indigenous people.

Trace the routes of early European explorers in America. Describe their explorations.

Describe how new settlers and Native Americans cooperated and fought with each other.

Locate and identify the first 13 colonies. Explain how each colony's location and environment influenced its development.

Explain how political, religious, and economic ideas and interests of the times brought about the American Revolution.

Name the major military campaigns, battles, and turning points of the Revolutionary War, and locate them on a map.

Describe the people and events associated with the creation of the U.S. Constitution.

HOME ACTIVITIES

Together, compose and sing a patriotic song that includes American ideals, such as freedom, courage, and respect for the law.

Ask your child to write a play or story about a young person who lived in the time of the American Revolution.

Share it with your family and discuss how life is different today.

On a map of North and Central America, find the sites of major settlements of indigenous peoples, for example, the Anasazi and the pueblo dwellers.

What states or nations exist in those places today?

Together, make a list of names of important places and things in and near our city — for example, the Potomac River, Anacostia, Virginia, and Alexandria.

Use the Internet and other resources to investigate where the names originally came from.

Social Studies in *Grade 5*

In grade 5, students explore major trends and events in the United States in the late 18th and 19th centuries — for example, the settlement of the Western territories and the practice of slavery in the Southern states and territories. Students learn about the growing conflict between the North and South, how conflict led to the Civil War, and the consequences of that war, such as Reconstruction.

Students also study the nation's growing role in world affairs from the 1800s to the present, its economic growth from the Industrial Revolution through the 20th century, its role in wars around the world, and important social trends, such as the Civil Rights movement.

TOPICS COVERED

Social studies standards cover four major areas:

- *History* — the study of past events that have important effects on our country and our world
- *Geography* — the study of the Earth's physical features, as well as the effects of human life and activity on Earth
- *Economics* — the study of how people and societies produce, buy, sell, and use goods and services
- *Civics* — the study of politics, government, and the rights and duties of citizens

In each grade, students focus on different ideas within the four main areas. In grade 5, standards include the following topics: westward expansion (1790–1860), growth of the republic (1800–1860), Civil War and Reconstruction (1860–1877), industrial America (1870–1940), World War II (1939–1945), and economic growth and reform in contemporary America (1945–present).

WHAT YOUR CHILD SHOULD KNOW

BY THE END OF GRADE 5, YOUR CHILD SHOULD KNOW AND BE ABLE TO PERFORM THESE SKILLS:

Know the main waves of immigration from Europe between 1789 and 1850. Describe the methods immigrants used to travel through the Ohio and Mississippi Valleys to their new homes — for example, by overland wagons, canal boats, flatboats, and steamboats.

Explain how the demand for cotton led to more and bigger plantations and the increased use of slaves.

Know leaders of important movements for social justice in America — for example, Dorothea Dix (prison reform), Horace Mann (public education), Susan B. Anthony (equality for women), and Frederick Douglass (abolishing slavery).

Summarize the causes and consequences of the Civil War.

Discuss how labor unions developed in the United States during the Industrial Revolution.

Describe the causes and results of the global depression of the 1930s and the nature of the United States' response.

Explain the main events of World War II and how the Allies prevailed. Identify key events and leaders of the Civil Rights movement in the United States.

Identify key events and leaders of the Civil Rights movement in the United States.

HOME ACTIVITIES

Together, make a list of 10 inventions that are important in your home — for example, the light bulb, gas stove, radio, iPod.

Ask your child to research when and where each was invented.

Use the Internet and other resources to learn about the Civil War sites in DC and your neighborhood. For example, the basement of the U.S. Capitol building was used as a hospital for wounded Union soldiers.

Create a report of what you learn.

Check with the Historical Society of DC (www.citymuseum.org) to learn how our city became an important place for freed slaves to settle during and after the Civil War.

Find historic African American neighborhoods in DC, Alexandria, and other nearby areas.

As a family, visit important buildings constructed in our city at the time of the Great Depression, such as the Supreme Court and the Jefferson Memorial.

Find out more about these and other public works projects of that era and how they affected the economy of the region.

How Is *Your Child* Doing?

New tests will let you and the teacher know how well your child is meeting the standards.

Standardized reading/English language arts and mathematics tests are given to students in grades 3–8 and 10 every spring. A composition test to measure students' writing skills is given in grades 4, 7, and 9. Different tests also monitor reading progress for children in grades kindergarten–2.

Beginning in spring 2008, a new end-of-year science test will be given to at least one grade each in elementary, middle, and high schools. Other tests are being developed to measure students' progress in Algebra I and Geometry, high school English, and the sciences.

In addition to these districtwide tests, your child's teacher will be giving informal tests and quizzes throughout the year.

Checklist

As a parent, you are your child's most important teacher — and best advocate. Let your child know you care about his/her school performance. Make sure your child's teacher knows that you are engaged as well.

Here are some ways you can help your child meet the new standards. ***Don't feel you must do everything on this list. Just letting your child know that you expect him/her to do well in school is very important.***

- ☐ Talk to your child about what he/she learned and did in school that day.
- ☐ Praise your child when he/she does well or makes a good effort.
- ☐ Ask to see and sign homework every day.
- ☐ Attend parent-teacher conferences. Ask the teacher how you can help your child succeed.
- ☐ If you think your child could use extra help, ask the teacher to help you find a tutor, a reading specialist, or other resources.
- ☐ Visit your child's classroom, and volunteer for school activities.
- ☐ Read the material your child brings home from school. If your child has not brought home any material, find out why.
- ☐ Learn your rights and options for tutoring help and transferring schools under the No Child Left Behind Act. On the Web, visit www.NCLB.gov.

Learn More

You can view the complete standards for reading/English language arts, mathematics, science, and social studies on the DCPS Web site, www.k12.dc.us.

For a printed copy of this standards guide for parents, call (202) 724-4222. The parent guides are available in six languages: English, Amharic, French, Mandarin Chinese, Spanish, and Vietnamese.

District of Columbia Public Schools | 825 North Capitol Street, NE | Washington, DC 20002
T (202) 724-4222 | F (202) 442-5418 | www.k12.dc.us