

Peninsula School District

Elementary Schools

Artondale Elementary	253-530-1100
Discovery Elementary	253-530-1200
Evergreen Elementary	253-530-1300
Harbor Heights Elementary	253-530-1800
Minter Creek Elementary	253-530-4300
Purdy Elementary	253-530-4600
Vaughn Elementary	253-530-4700
Voyager Elementary	253-530-4800

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Please visit our website at www.psd401.net for more information and ideas regarding parent resources and curriculum in Peninsula School District.

April, 2009

Fifth Grade

Parent Guide for Curriculum in the Peninsula School District



*Students Learning...
Teachers Teaching*

A Message to Parents

The goal of this guide is to assist parents in supporting the learning of their children.

It provides information regarding what students are expected to learn at each grade level. This resource provides ideas for what parents can do at home to support the learning goals.

Skills will be introduced at various times throughout the school year. For concepts already taught, practice and review at home is valuable.

Parents and teachers share a tremendous and wonderful responsibility. Together they can provide the motivation for students to work hard and foster the desire to learn.

The Peninsula School District believes in the abilities of our students to achieve the high standards that have been set for them. The partnership of parents, teachers, and community is crucial for student success.

Together we can make a difference for every child.

TABLE OF CONTENTS

A Message to Parents.....	Page 1
What Parents Can Do.....	Page 2
Reading.....	Pages 3, 4
Writing.....	Pages 5, 6
Mathematics	Pages 7, 8
Science.....	Pages 9, 10
Social Studies	Pages 11, 12
Health and Fitness	Pages 13, 14
Visual Arts and Music	Pages 15, 16
Communication	Page 17
Washington State Learning Goals	Page 18
Peninsula School District.....	Page 19

Information in this booklet was gathered from various services including the Washington State Essential Academic Learning Requirements (EALRs) and several school districts throughout the state.



Washington State Learning Goals

- GOAL 1** *Read with comprehension, write with skill, and communicate effectively and responsibly in a variety of ways and settings;*
- GOAL 2** *Know and apply the core concepts and principles of mathematics; social, physical, and life sciences; civics and history; geography; arts; and health and fitness;*
- GOAL 3** *Think analytically, logically, and creatively, and to integrate experience and knowledge to form reasoned judgments and solve problems; and*
- GOAL 4** *Understand the importance of work and how performance, effort, and decisions directly affect career and educational opportunities.*

COMMUNICATION
Washington State Grades K-10
Essential Academic Learning Requirements (EALRs)

Students Will . . .

1. Use listening and observation skills to gain understanding
 - ☎ focus attention.
 - ☎ listen and observe to gain and interpret information.
 - ☎ check for understanding by asking questions and paraphrasing.
2. Communicate ideas clearly and effectively
 - ☎ communicate clearly to a range of audiences for different purposes.
 - ☎ develop content and ideas.
 - ☎ use effective delivery of speech.
 - ☎ use effective language and style.
 - ☎ effectively use action, sound, and/or images to support presentations.
3. Use communication strategies and skills to work effectively with others
 - ☎ use language to interact effectively and responsibly with others.
 - ☎ work cooperatively as a member of a group.
 - ☎ seek agreement and solutions through discussion.
4. Analyze and evaluate the effectiveness of formal and informal communication
 - ☎ assess strengths and need for improvement.
 - ☎ seek and offer feedback.
 - ☎ analyze mass communication.
 - ☎ analyze how communication is used in career settings.

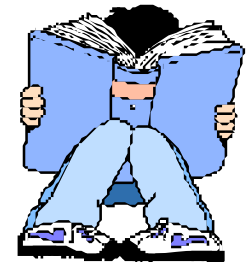


Ways Parents Can Help

- ☎ Be your child's audience when he/she practices for oral reports. In fifth grade, the focus is on persuasive speaking.
- ☎ Share your points of view with your child and encourage your child to state his/her opinions.
- ☎ Discuss with your child various advertisements and how they try to persuade the consumer.
- ☎ With your child, tell each other about what happened during the day.
- ☎ Encourage your child to ask related questions as you tell them about something.
- ☎ Provide opportunities for your child to participate in family projects and problem solving. Ask your child to solve problems and offer possible solutions.
- ☎ Discuss the effectiveness of advertising techniques seen on television, billboards, in newspapers or magazines.
- ☎ Provide opportunities for your child to interact and have discussions with people of all ages and cultures.
- ☎ Help your child to continue development of working well with others and developing a working understanding of how groups work well together.
- ☎ Assist your child in demonstrating courtesy and tact in personal and group interactions.
- ☎ With your child, focus on effective listening skills.

**What Parents Can do to Support
 The Learning Process**

1. Prepare your children to learn. Let them know that school and learning are important and that parents are important partners.
2. Talk often about what is happening in school. Ask specific questions about schoolwork, teachers, and activities.
3. Attend events at your child's school. Back-to-school events, parent/teacher conferences, and other activities give parents a chance to get to know the teacher and to support their students.
4. Create a good learning environment at home. Support and reinforce what is being taught in the classroom. Ask questions that may have more than one answer. Provide supervision for the completion of homework assignments.
5. Visit community resources including libraries and museums. Explore cultural events. Take advantage of varied learning opportunities in the community.
6. Set high expectations and praise children often.
7. Limit television and video games.
8. Be involved in your school by volunteering or assisting teachers in other ways.
9. Allow your child to see you read, write, and use mathematics for pleasure as well as necessity.
10. Read with and to your child daily, no matter his/her age.



READING


Washington State Grades K-10

Essential Academic Learning Requirements (EALRs)

In fifth grade, students broaden and deepen their understanding of informational and literary text. Students reflect on their skills and adjust their comprehension and vocabulary strategies to become better readers. Students discuss, reflect, and respond, using evidence from text, to a wide variety of literary genres and informational text.

Students read for pleasure, choosing books based on personal preference, topic, genre, theme, or author.

SKILLS AND STRATEGIES	ORAL READING	COMPREHENSION
<ul style="list-style-type: none"> Identifies main ideas or messages of text and evaluates how these influence meaning and the reading Selects and uses synonyms and antonyms for adjectives, adverbs, verbs Reruns and self-corrects over longer passages and on a range of writing forms Identifies similes and metaphors and provides alternatives 	<ul style="list-style-type: none"> Uses pace and intonation to reflect purpose and meaning when reading to others 	<ul style="list-style-type: none"> Summarizes orally and in writing information gained from text and/or illustrations Gathers and synthesizes information from paragraphs and longer texts and from a variety of sources Identifies author's intention and purpose for writing
READS DIFFERENT MATERIALS FOR A VARIETY OF PURPOSES	RESEARCH SKILLS	EFFORT
<ul style="list-style-type: none"> Uses charts and tables to read and present new information, comparing, recording, summarizing, or reorganizing Uses library for specific purposes as well as for browsing Uses reading to explore ideas and gain new knowledge 	<ul style="list-style-type: none"> Gathers and synthesizes information from paragraphs, longer texts and a variety of sources (e.g. reference material and technical texts) Analyzes the appropriateness of a variety of resources Considers how different text forms present a different view or emphasis on the same theme Uses tables and charts to gather information 	<ul style="list-style-type: none"> Reads independently Participates in reading experiences Shows interest in improving reading skills

 The above criteria match the expectations listed on the fifth grade report card



VISUAL ARTS AND MUSIC

Ways Parents Can Help

VISUAL ARTS

- Provide paints for your child to explore mixing colors and provide a variety of other art materials.
- With paper and pencil or a crayon have your child make a rubbing. Use objects such as leaves and long grass (found on a nature walk with your child) as the rubbing design.
- Provide opportunities for your child to carefully observe and draw from their environment.
- Observe and discuss with your child the designs of various buildings and products in the environment.
- Encourage your child to explore and create artwork.
- Using art prints, sculptures, objects and the surrounding world observe sensory and formal properties of art with your child.
- Provide opportunities for your child to learn about professional artists' work through books and visits to art museums, art shows, galleries, special exhibitions, street fairs, malls, etc. Have your child observe and discuss the artwork you see. Use art vocabulary if you can.

MUSIC

- Listen with your child to a wide variety of music (classical, pop, country, jazz, rhythm & blues) and discuss whether it has a "happy" or "sad" quality to the overall sound. Discuss what other feelings you feel when listening to the music and what part of the music makes you feel that way.
- Clap the rhythm of a verse or a simple song like "BINGO" and challenge your child to write the rhythm using conventional notation.
- Provide opportunities for your child to go to a parade, musical performance or festival and discuss how and why the music captures the audience's attention and creates a reaction.
- Regularly play an informal game of "Name That Tune" using either the radio or singing when driving in the car, traveling, or hanging around the home.
- With your child attend a concert and have your child classify instruments into these categories: percussion, woodwind, brass and string.
- Challenge your child to focus on subtle musical differences in volume such as from very-soft to soft or medium to medium-loud.
- Challenge your child to create a poem that uses vocal sound effects such as a bird chirping or people laughing and perform it for the family.
- Encourage your child to join the school music groups.



VISUAL ARTS AND MUSIC

Washington State Grades K-10

Essential Academic Learning Requirements (EALRs)

Students Will . . .

1. Understand and apply arts knowledge and skills
 - ♪ understand arts concepts and vocabulary.
 - ♪ develop arts skills and techniques.
 - ♪ understand the history and traditions of the arts in various cultures.
 - ♪ apply audience skills in a variety of arts settings and performances.
2. Demonstrate thinking skills using artistic processes
 - ♪ apply a creative process in the arts.
 - ♪ apply a performance process in the arts.
3. Communicate through the arts
 - ♪ use the arts to express and present ideas and feelings.
 - ♪ use the arts to communicate for a specific audience and purpose.
 - ♪ evaluate the effectiveness of art presentations of self and others using a responding process.
 - ♪ analyze dance, music, theatre, film, television, electronic media and visual arts encountered in daily life.
4. Make connections within and across the arts, to other disciplines, cultures, life, and work
 - ♪ demonstrate and analyze the connections among the arts disciplines.
 - ♪ demonstrate and analyze the connections between the arts and other content areas.
 - ♪ apply aesthetic criteria to personal and community decision making.
 - ♪ understand the influence of the arts in shaping and reflecting cultures and history.
 - ♪ understand the influence and role of the arts in the world of work.



READING

Ways Parents Can Help

- 📖 Continue to read to your child as often as you can everyday. Ask questions about the story as you read and discuss what you are reading.
- 📖 Together look up new words in the dictionary and make a family list of these new and interesting words. Encourage your child to use a new word in context several times to reinforce its meaning.
- 📖 After reading ask your child to summarize the main points of a story.
- 📖 Discuss with your child your reactions to different types of books.
- 📖 Provide opportunities for your child to be exposed to a wide range of reading materials such as magazines, schedules, directories, cookbooks, newspapers, brochures and maps as well as materials from other cultures.
- 📖 Make regular library visits a part of your family routine and discuss with your child why he/she chose a particular book. Create a home library for your child.
- 📖 Assist your child in establishing and succeeding in reading goals.
- 📖 If your child makes a mistake while reading aloud, allow time for self-correction and then gently explain and correct mistakes.
- 📖 Encourage your child to read with you chapter books, or those that are broken up into short sections, one chapter each night.
- 📖 Reinforce the importance of reading by letting your child see you and other members of the family enjoy reading on a regular basis.
- 📖 Encourage reading beyond schoolwork by helping your child read the cereal box or newspaper at breakfast, etc.
- 📖 Provide reference materials at home such as dictionaries, simple encyclopedias and atlases. Make sure there are always books, magazines and other reading materials in the house that are appropriate for your child's reading level and interests.
- 📖 Use school assignments or casual questions from your child as an opportunity to have your child use his/her skills to look up new and needed information.
- 📖 Provide for your child a variety of fiction materials such as poetry (haiku, cinquain, ballads), idioms and science fiction.
- 📖 Provide for your child a variety of nonfiction materials such as manuals, promotional material and editorials.
- 📖 Support your child in his/her understanding of text features such as forewords, bibliographies and chapter summaries.
- 📖 Provide opportunities for your child to summarize information from tables, graphs and maps.

WRITING

We teach and assess the Six Traits of Writing in our classrooms.

The Traits are:

Ideas: Does the message make sense and are there details?

Organization: Is there a beginning and ending? Does the sequencing make sense?

Voice: Does the writing have personality and pizzazz? Does it show individuality?

Word Choice: Are words used correctly? Are new words attempted? Are lively verbs used?

Sentence Fluency: Do the sentences hang together? Do they have a rhythm and flow?

Conventions: Are capitals, punctuation, and readable spelling used? These should be appropriate to the child's developmental level; i.e., depending on whether she/he is a kindergartner or third grader.



WRITING

Washington State Grades K-10 Essential Academic Learning Requirements (EALRs)

By the end of the fifth grade most students have developed a strong personal voice in their writing. This is reflected by the way they inject humor and tension into their narrative writing and how they add emphasis or opinion into informational and persuasive writing, especially in the content areas. Collaborative writing efforts are taken more seriously, often with assigned responsibilities and checklists. Scoring guides, often student-initiated, provide criteria for critiquing their own work and that of others. These guides are often detailed, addressing content, organization, style, and conventions.

WRITES CLEARLY AND EFFECTIVELY	UNDERSTANDS AND USES CONVENTIONS	UNDERSTANDS AND USES WRITING PROCESS
<ul style="list-style-type: none"> Increases range of topics, but writing shows preference Identifies time and setting and refers to those beyond introductory sections when narrating story or event Uses transitional phrases and sentences to connect episodes, descriptions, explanations, or fact 	<ul style="list-style-type: none"> Spells most grade-level words accurately (though often exhibits some carelessness in verbs and tenses) 	<ul style="list-style-type: none"> Gathers information and takes notes as part of prewriting and drafting Works for accuracy and detail at draft stage Uses more than one reference when editing - including dictionary, books, simple thesaurus
WRITES IN A VARIETY OF FORMS	HANDWRITING	EFFORT
<ul style="list-style-type: none"> Includes more specialized vocabulary in informational writing Uses adjectives, adverbs, and some similes and metaphors to form imagery or provide details Shows increasing awareness of purposes and formats in a wider range of forms 	<ul style="list-style-type: none"> Uses legible, cursive handwriting in upper and lower case letters 	<ul style="list-style-type: none"> Writes independently Participates in writing experiences Shows interest in improving writing skills

The above criteria match the expectations listed on the fifth grade report card

HEALTH AND FITNESS

Ways Parents Can Help



- ⌘ Have your child participate in community sports programs. Walk, hike, climb, jog, bicycle or play active games (e.g., Frisbee, golf, tennis) with your child.
- ⌘ Create a short aerobic activity with your child.
- ⌘ Encourage your child to make a homemade obstacle course that requires strength, flexibility and balance.
- ⌘ With your child create yearlong activity and fitness goals.
- ⌘ Have your child identify foods that fuel the body with energy for physical performance.
- ⌘ Bring other parents and children together in game-like situations to develop appropriate communication skills in your child.
- ⌘ Select an area of fitness you and your child would like to improve or maintain. Chart and record the results.
- ⌘ Discuss with your child the number of calories in the food he/she is eating and how many calories are burned through specific activities.



HEALTH AND FITNESS

Washington State Grades K-10

Essential Academic Learning Requirements (EALRs)

Students Will . . .

1. Acquire the knowledge and skills necessary to maintain an active life--movement, physical fitness, and nutrition
 - Y develop fundamental physical skills and progress to complex movement activities as physically able.
 - Y incorporate rules and safety procedures into physical activities.
 - Y understand the concepts of physical fitness and develop and monitor progress on personal fitness goals.
 - Y understand nutrition and food nutrients and how they affect physical performance and the body.
2. Acquire the knowledge and skills necessary to maintain a healthy life
 - Y recognize patterns of growth and development, reduce health risks, and live safely.
 - Y understand the transmission and control of communicable and non-communicable diseases.
 - Y acquire skills to live safely.
3. Analyze and evaluate the impact of real-life influences on health
 - Y understand how environmental factors affect one's health.
 - Y gather and analyze health information.
 - Y use social skills to protect health and safety in a variety of situations.
 - Y understand how emotions affect decision-making.
4. Analyze health and safety information to develop health and fitness plans based on life goals
 - Y assess needs and resources.
 - Y develop a health and fitness plan and a monitoring system.



WRITING

Ways Parents Can Help

- Write for various audiences and from various perspectives.
- Encourage your child to keep a writer's notebook including a list of topics and ideas for future writing.
- Encourage writing by letting your child see you write regularly with enjoyment and for communication with others.
- Set up a family message board for everyone to use and encourage writing your child to write on it.
- Make a collection of your child's favorite writings in a folder or book and read them together regularly to encourage more writing.
- Provide different types of literature for your child such as historical novels, biographies, atlases, mysteries, poetry and other books that interest your child and family. Let your child freely explore a variety of books.
- Provide a dictionary and thesaurus for your child to check spelling and look up new words for writing.
- Challenge your child to write a persuasive note to you to explain why he/she needs a particular item.
- Encourage your child to write pieces that include cause and effect, opinions and points of view.
- Share different kinds of writing pieces with your child such as newspaper articles, business letters, journals, short stories, how-to manuals, promotional materials, etc.
- Discuss with your child his/her writing, what he/she likes or dislikes about it, and how he/she can improve the writing piece. Talk about its effectiveness (the word choice in an advertisement, the voice of a letter, the details in a news article). Revise in a variety of ways including adding, deleting, reordering or substituting.
- Encourage your child to use technology to gather information, revise work or to create a final copy.
- Provide highlighting pens, scissors and glue or tape to encourage your child to revise his/her work. This will help your child add, delete, cut apart and rearrange his/her ideas to achieve clearer, more complete and focused writing.
- Discuss with your child a piece of writing and identify the author's elements of style.
- In your child's writings, you should always look for what is done well and encourage your child to continue to write.
- Provide a variety of writing for your child to use as models for his/her own writing. These should include editorials, interviews and minutes from meetings.



MATHEMATICS

Washington State Grades K-10

Essential Academic Learning Requirements (EALRs)

In fifth grade, students become proficient using non-negative rational numbers to solve problems. They apply procedures to measure a variety of geometric figures and collect, display, and analyze data. Students examine the basis of probability, and also the mean. They solve problems involving area and perimeter and further develop algebraic sense through variable expressions and open sentences. **Students will. . . .**

Number Sense	Measurement	Geometric Sense
<ul style="list-style-type: none"> • Visually represent multi digit division • Classify numbers as prime or composite • Determine quotients for multiples of 10 and 100 by applying knowledge of place value and properties of operations • Determine greatest common factor and least common multiple of 2 or more numbers • Represent addition & subtraction of decimals and fractions • Use estimation strategies with operations 	<ul style="list-style-type: none"> • Determine the formula for the area of a triangle and parallelogram by relating it to other shapes • Determine perimeters and areas for triangles and parallelograms 	<ul style="list-style-type: none"> • Classify quadrilaterals • Identify, sketch and measure acute, right and obtuse angles • Identify, describe and classify triangles by angle measure and number of congruent sides • Draw quadrilaterals and triangles from given information about sides and angles • Determine lines of symmetry
Probability and Statistics	Algebraic Sense	Computation
<ul style="list-style-type: none"> • Determine and interpret the mean of a small sized data set • Construct and analyze line graphs • Graph ordered pairs on the coordinate plane for two sets of data related by a linear rule and draw the line they determine 	<ul style="list-style-type: none"> • Describe, extend, and create numeric and geometric patterns • Use and evaluate variables • Write and evaluate expressions using () • Use the symbols +, -, ×, =, ≠, >, or < 	<ul style="list-style-type: none"> • Fluently divide numbers up to 4 digits by 1 and 2 digit divisors accurately using the long division algorithm • Fluently add and subtract fractions and decimals
Problem Solving and Communicating Mathematically		Effort
<ul style="list-style-type: none"> • Identify the question asked in a problem • Identify necessary and unnecessary information • Select from a variety of problem solving strategies and use one or more strategies to solve a problem • Describe how a problem is solved • Analyze and evaluate whether a solution to a problem is reasonable • Summarize mathematical information, draw conclusions and explain reasoning 		<ul style="list-style-type: none"> • Persevere and does not give up • Be flexible and willing to try different approaches to solve problems • Extend thinking beyond minimum requirements

The above criteria match the expectations listed on the fifth grade report card.

SOCIAL STUDIES

Ways Parents Can Help

- ✦ Challenge your child to find locations on a map such as cities where relatives live, places you have gone (or might go) on vacation and other major cities in the United States. Then have your child find those cities on a globe. Have your child compare the different uses of maps and globes.
- ✦ Discuss with your child historical changes by looking at the jobs of grandparents, parents and what your child might like to do. Compare this to the change from an agricultural society to a technological society.
- ✦ With your child plan a historical tour of the United States. Decide on places you would want to visit based on their historical importance. Design itineraries, determine costs and plan the travel together.
- ✦ Discuss with your child national documents in terms of personal citizenship. Ask questions such as “What rights are guaranteed in the Bill of Rights? The Constitution?”
- ✦ Encourage your child to read books focusing on U.S. development (the early years, westward movement, Civil War, etc.) as well as biographies of Americans who have made a difference.
- ✦ Encourage your child to create a map of important places in your community such as schools, parks, grocery stores, libraries and other places of interest. Your child might like to give the map to a family new to the neighborhood, or to your public library to keep available for newcomers.
- ✦ Play “Where in the World?” Your child can track down unfamiliar cities, states and countries by recording places he/she hears or reads about, and then locate them on a world map or globe. Encourage your child to keep a list of places that can’t be found so he/she can get help with the search from a family member, a librarian, or people at school.



SOCIAL STUDIES

Washington State Grades K-10 Essential Academic Learning Requirements (EALRs)

Students Will . . .

1. Understand the major concepts of Geography
 - ♦ use maps, charts, and other geographic tools to understand the spatial arrangement of people, places, resources, and environments on Earth's surface.
 - ♦ understand the physical and human characteristics of places and regions.
 - ♦ observe and analyze the interaction between people, environment, and culture.
2. Understand major ideas in History
 - ♦ examine and understand major ideas, themes and cause and effect relationships in the U.S., World, and Washington State.
 - ♦ investigate, compare and contrast interpretations of historical events.
 - ♦ understand the origin and impact of ideas and technological developments on history and social change.
3. Understand the basic principles of Civics
 - ♦ understand and explain the core values of democracy as set forth in documents such as the Declaration of Independence and the Constitution.
 - ♦ analyze the purpose of government and laws.
 - ♦ understand the purpose and organization of international relationships and how U.S. policy is made.
 - ♦ understand the rights and responsibilities of citizenship and democratic involvement.
4. Understand the basic concepts of Economics
 - ♦ understand and analyze the effect of economic systems on individuals, groups, and society.



MATHEMATICS

Ways Parents Can Help

- ☞ Provide consistent fact practice with +, -, x and ÷.
- ☞ Collect grocery store receipts and hide the total. Ask your child to estimate the total, then add or use a calculator to check.
- ☞ Provide opportunities to review math facts together regularly. Practice the few facts that seem to be the most difficult for your child to learn.
- ☞ Let your child plan meals and cook with you, focusing on measuring foods and how foods and liquids change. Cooking together can help practice fractions by trying to make half a recipe or doubling the recipe.
- ☞ Encourage your child to estimate and then measure objects in the environment. Provide rulers, tape measures, scales, cups, etc.
- ☞ Regularly read math books with your child such as *The Greedy Triangle*, by Marilyn Burns, and *A Grain of Rice*, by Helen Clare Pittman.
- ☞ Have your child practice one number fact-family a day (e.g., $9 \times 5 = 45$, $5 \times 9 = 45$, $45 \div 5 = 9$, $45 \div 9 = 5$).
- ☞ Have your child roll dice and record the sum of the 2 numbers. Do this 20 times. Predict what would happen for 40 rolls and 80 rolls. Discuss your findings.
- ☞ Regularly play strategy math games with your child such as chess, checkers, Master Mind® or Othello®.
- ☞ Regularly create problems for your child to solve; such as to find out how many times his/her heart beats in a minute, day and year. Ask and listen to your child explain how he/she would go about solving the problem and ask questions like, "What do you have to figure out?" "How will you get started?" "What do you already know?"
- ☞ Provide opportunities for your child to practice fractions. Have your child cut a round cake into equal pieces and determine what fraction of the whole is 1, 2 or 3 pieces; e.g., a cake has 16 pieces and 2 pieces equal $\frac{2}{16}$ th of the whole or $\frac{1}{8}$ th.
- ☞ Have your child put varied fractions in order from smallest to largest. Do the same with decimals.
- ☞ Together with your child identify mathematical patterns and relationships in a variety of subject areas.
- ☞ Help your child to check answers for reasonableness of results.
- ☞ Make conversions within the U.S. customary system and the metric system.
- ☞ Work with your child to determine mean, median, mode and range for a variety of data.

For additional resources: www.psd401.net/math

SCIENCE

Washington State Grades K-10 Essential Academic Learning Requirements (EALRs)

Students Will . . .

1. Know and apply scientific concepts and principles to understand the properties, structures, and changes in physical, earth/space, and living systems
 - ✓ understand how properties are used to identify, describe, and categorize substances, materials, and objects and how characteristics are used to categorize living things.
 - ✓ understand how components, structures, organizations, and interconnections describe systems.
 - ✓ understand how interactions within and among systems cause changes in matter and energy.
2. Know and apply the skills, processes, and nature of scientific inquiry
 - ✓ develop the knowledge and skills necessary to do scientific inquiry.
 - ✓ understand the nature of scientific inquiry.
3. Know and apply science concepts and skills to develop solutions to human problems in societal contexts
 - ✓ apply knowledge and skills of science and technology to design solutions to human problems or meet challenges.
 - ✓ analyze how science and technology are human endeavors, interrelated to each other, society, the workplace, and the environment.



SCIENCE

Ways Parents Can Help

- ▶ Have your child research the speeds of motion of a variety of animals or machines and place them in order from slowest to fastest. Discuss what would make one animal or machine move faster than another.
- ▶ With your child conduct an experiment to explore different states of water. See whether boiling water or cold water freezes faster in the freezer by setting a timer to check the water every five minutes.
- ▶ Have your child select a city and record the high and low daily temperatures and daily rainfall of that city. Graph and draw conclusions using the data.
- ▶ Have your child find out why black plastic fences are used near new construction. Is runoff water natural pollution or man-made?
- ▶ Encourage your child to pose interesting questions and allow them to answer these questions through research, reading or experimentation. Example question: "Why would a long stick help you move a heavy rock?" Try to move a heavy object with different length boards.
- ▶ Challenge your child to design a rain gauge. Place it in your yard to measure rainfall or the amount of water coming from a sprinkler. See how much water different soils hold before the water runs out. Use a coffee can with 8 to 20 nail holes in the bottom.
- ▶ Talk to your child about how you use knowledge of science in your daily life such as when voting on environmental initiatives, planting a garden, or even using the weather report to choose your clothes or select a place to visit.
- ▶ Read and discuss with your child stories and biographies about famous scientists and inventors like Edison, Orville and Wilbur Wright, Da Vinci, and Franklin.

