

# A Parent's Guide to Curriculum Standards

## Grade 5 2011



2310 Aldergrove Avenue, Escondido, CA 92029

### Grade Level Curriculum Standards

The Escondido Union School District is committed to providing all students the best education to enable them to reach their highest potential. To achieve this goal, the district has identified academic standards for each grade level, kindergarten through eighth grade. The grade level standards serve as the basis for instruction throughout the district.

### Focus Goals, 2011-2013

- I. Ensure multiple high quality teaching and learning opportunities for every student.
- II. Provide systemic student supports to promote high student expectations and achievement for all students.
- III. Through formal discussions with district stakeholders, explore how EUSD can increase employee support and accountability for student achievement.
- IV. Infuse innovation into teaching and learning. Emphasis will be on 21<sup>st</sup> century learning environments to include technology and project-based learning, resulting in greater student engagement.
- V. Ensure all students have equal access to a personalized, balanced, and challenging curriculum to meet individual students' academic, creative, social and physical needs.
- VI. Strengthen the district's fiscal resiliency to withstand current economic limitations.

### Parents Are Partners In Education

The Escondido Union School District recognizes that the foundation of a good education begins in the home. Research shows that when parents are involved in their children's education, students do better. There are many ways parents can become actively involved in the school. By being aware of what is being taught at each grade level, you will be able to support your child's education and help answer the question, "What should my child be learning in school?" Each section in this document contains suggestions on how parents can help.

## Language Arts - Reading

**Word Analysis, Fluency, and Systematic Vocabulary Development:** Students use their knowledge of word origins and word relationships, as well as historical and literary context clues, both to determine the meaning of specialized vocabulary and to understand the precise meaning of grade-level-appropriate words.

**Word Recognition:**

- Read narrative and expository text aloud with fluency and accuracy and with appropriate pacing, intonation, and expression

**Vocabulary and Concept Development:**

- Use word origins to determine the meaning of unknown words
- Understand and explain frequently used synonyms, antonyms, and homographs
- Know abstract, derived roots, and affixes from Greek and Latin, and use this knowledge to analyze the meaning of complex words
- Understand and explain the figurative and metaphorical use of words in context

**Reading Comprehension:** Students read and understand grade-level-appropriate material. They describe and connect the essential ideas, arguments, and perspectives of text, and they relate text structure, organization, and purpose. In addition, by grade 8, students read one million words annually on their own, including a good representation of narrative and expository text appropriate for each grade.

**Structural Features of Informational Materials:**

- Understand how text features make information accessible and usable
- Analyze text which is organized in sequential or chronological order

**Comprehension and Analysis of Grade-Level-Appropriate Text:**

- Discern main ideas and concepts presented in texts, identifying, and assessing evidence that supports those ideas

- Draw inferences, conclusions, or generalizations about text and support them with textual evidence and prior knowledge

**Expository Critique:**

- Distinguish among facts, supported inferences, and opinions in text

**Literary Response and Analysis:** Students read and respond to historically or culturally significant works of world literature, particularly American and British literature. They clarify the ideas and connect them to other literary works.

**Structural Features of Literature:**

- Identify and analyze the characteristics of poetry, drama, fiction, and non-fiction as literary forms chosen by an author for a specific purpose

**Narrative Analysis of Grade-Level-Appropriate Text:**

- Identify the main problem or conflict of the plot and how it is resolved
- Contrast the actions, motives, and appearances of characters in a work of fiction and discuss the importance of the contrasts to the plot or theme
- Understand that theme refers to the meaning or moral of a selection, and recognize themes whether implied or stated directly in sample works
- Describe the function and effect of key literary devices

**Literary Criticism:**

- Evaluate the meaning of archetypal patterns and symbols that are found in myth and tradition by using literature from different eras and cultures
- Evaluate the author's use of various techniques to influence readers' perspectives

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## Writing

**Writing Strategies:** Students write clear, coherent, and focused essays. Writing exhibits awareness of audience and purpose. Essays contain formal introductions, bodies of supporting evidence, and conclusions. Students successfully use the stages of the writing process, as needed.

**Organization and Focus:**

- Create a multiple-paragraph narrative composition that: (1) establishes and develops a situation or plot; (2) describes the setting; (3) presents an ending
- Create a multiple-paragraph expository composition that: (1) establishes a topic, key ideas or events in sequence, and/or chronological order; (2) provides details and transitional expressions which link paragraph to paragraph in a clear line of thought; (3) offers a concluding paragraph that summarizes the key ideas and details

**Research and Technology:**

- Use organizational features of printed text to locate relevant information
- Create simple documents using electronic media, employing organizational features
- Use a thesaurus to identify alternative word choices and meanings

**Revising and Evaluating Writing:**

- Edit and revise manuscripts to improve the meaning and focus of writing by adding, deleting, consolidating, clarifying, and rearranging words and sentences

**Writing Applications:** Students write narrative, expository, persuasive, and descriptive text of at least 500 to 700 words. Student writing demonstrates a command of standard English and of research, organizational, and drafting strategies.

- Write narratives that: (1) establish plot, point of view, setting, and/or conflict; (2) show rather than tell the events of the story
- Write responses to literature that: (1) demonstrate an understanding of a literary work; (2) support judgments through references both to the text and to prior knowledge; (3) develop interpretations that exhibit careful reading and understanding
- Write research reports about key ideas, issues, or events that: (1) frame questions that direct the investigation; (2) establish a controlling idea/topic; (3) develop the topic with simple facts, details, examples, and explanations
- Write persuasive letters or compositions that: (1) state clear position in support of proposal; (2) support position with relevant evidence; (3) follow simple organization pattern; (4) address reader concerns

## Written and Oral English Language Conventions

*English Language Conventions are integral both to Writing and to Listening and Speaking. Thus, these standards have been placed between the other two.*

**Written and Oral English Language Conventions: Students write and speak with a command of standard English conventions that are appropriate to each grade level.**

### Sentence Structure:

- Identify and correctly use prepositional phrases, appositives, and independent and dependent clauses; use transitions and conjunctions to elaborate ideas

### Grammar:

- Identify and correctly use verbs that are often misused; modifiers; and normative, objective, and possessive pronouns

### Punctuation:

- Use colon to separate hours and minutes and to introduce a list; use quotation marks around exact words of speaker and names of poems, songs, short stories, etc.

### Capitalization:

- Use correct capitalization

### Spelling:

- Spell roots, suffixes, prefixes, contractions, and syllable constructions correctly

## Listening and Speaking

**Listening and Speaking Strategies: Students deliver focused, coherent presentations that convey ideas clearly and relate to the background and interest of the audience. They evaluate the content of oral communication.**

### Comprehension:

- Ask questions that seek information not already discussed
- Interpret speaker's verbal and non-verbal messages, purposes, and perspectives
- Make inferences or draw conclusions based on an oral report

### Organization and Delivery of Oral Communication:

- Select a focus, organizational structure, and point of view for oral presentation
- Clarify and support spoken ideas with evidence and examples
- Engage audience with appropriate verbal cues, facial expressions, and gestures

### Analysis and Evaluation of Oral and Media Communications:

- Identify, analyze, and critique the persuasive techniques, and identify any logical fallacies used in oral presentations and media messages
- Analyze media as sources for information, entertainment, persuasion, interpretation of events, and transmission of culture

**Speaking Applications: Students deliver well-organized formal presentations employing traditional rhetorical strategies. Student speaking demonstrates a command of standard English and of organization and delivery strategies.**

- Deliver narrative presentations that: (1) establish a situation, plot, point of view, and setting with descriptive words and phrases; (2) show rather than tell the listener what happens
- Deliver informative presentations about a key idea, issue, or event that: (1) frame questions to direct the investigation; (2) establish a controlling idea/topic; (3) develop the topic with simple facts, details, examples, and explanations
- Deliver oral responses to literature that: (1) summarize significant events and details; (2) provide several clear ideas or images; (3) use examples and/or textual evidence

## POINTERS FOR PARENTS

### LANGUAGE ARTS

- ⇒ *Expose your child to all kinds of genres (e.g., short novels and stories, poetry, plays, essays, biographies, great speeches, and documents).*
- ⇒ *Pick a hero read about his/her life, write about him/her, and tell about what and why you admire this person.*
- ⇒ *Have your child write descriptions, essays, letters, poems, reports, and summaries about events, outings, or vacations. Use an introduction and conclusion and paragraphs in your writing.*
- ⇒ *Have your child use a word processing program (e.g., Microsoft Word) on the computer to detect and correct sentence fragments and run on sentences.*
- ⇒ *Practice telling your child about a topic and have your child take notes. Check for accuracy and review abbreviations and shorthand methods (e.g., @ for at, c/b for call back, w/ for with) that can be used to write notes faster.*



## Math

By the end of fifth grade, students increase their facility with the four basic arithmetic operations applied to positive and negative numbers, fractions, and decimals. They know and use common measuring units to determine length and area; they know and use formulas to determine the volume of simple geometric figures. Students know the concept of angle measurement and use a protractor and compass in solving problems. They use grids, tables, graphs, and charts to record and analyze data.

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### Number Sense

Students compute with very large and very small numbers, positive and negative numbers, decimals and fractions, and understand the relationship between decimals, fractions, and percents. They understand the relative magnitudes of numbers.

- Estimate, round, and manipulate very large (e.g., millions) and very small (e.g., thousandths) numbers
- Interpret percents as part of a hundred; find decimal and percent equivalents for common fractions; explain why they represent the same value; and compute a given percent of a whole number
- Understand and compute positive integer powers of non-negative integers; compute examples as repeated multiplication
- Determine the prime factors of all numbers through 100 and write numbers as the product of their prime factors using exponents to show multiples of a factor (e.g.,  $24 = 2 \times 2 \times 2 \times 3 = 2^3 \times 3$ )
- Identify and represent positive and negative integers, decimals, fractions, and mixed numbers on a number line

Students perform calculations and solve problems involving addition, subtraction, and simple multiplication and division of fractions and decimals.

- Add, subtract, multiply, and divide with decimals and negative whole numbers and verify the reasonableness of the results
- Become proficient with division, including division with positive decimals and long division with multiple digit divisors

- Solve simple problems including ones arising in concrete situations involving the addition and subtraction of fractions and mixed numbers (like and unlike denominators of 20 or less), and express answers in simplest form
- Understand the concept of multiplication and division of fractions
- Compute and perform simple multiplication and division of fractions, and apply these procedures to solving problems
- Multiply two factors of up to four digits each
- Add and subtract decimals through ten-thousandths
- Divide dividends up to four-digits by one- digit, two-digit, and three-digit divisors
- Move the decimal point when dividing by 10, 100, or 1,000
- Find the quotient given a dividend expressed as a decimal through ten-thousandths and divisor expressed as a decimal to the tenth's place
- Determine and express simple ratios and proportions
- Use ratio to create a simple scale drawing
- Solve problems on speed as a ratio, using the formula  $S = d/t$  (or  $D = r \times t$ )
- Identify the reciprocal of a given fraction; know that the product of a given number and its reciprocal = 1

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### Algebra and Functions

Students use variables in simple expressions, compute the value of the expression for specific values of the variable, and plot and interpret the results.

- Use information taken from a graph or equation to answer questions about a problem situation
- Use a letter to represent an unknown number; write and evaluate simple algebraic expressions in one variable by substitution
- Know and use the distributive property in equations and expressions with variables
- Identify and graph ordered pairs in the four quadrants of the coordinate plane
- Solve problems involving linear functions with integer values, write the equation, and graph the resulting ordered pairs of integers on a grid
- Know the commutative and associative properties for addition, and the commutative, associative, and distributive for multiplication and demonstrate understanding by usage and identifying examples

### Statistics, Data Analysis, and Probability

Students display, analyze, compare, and interpret different data sets, including data sets that are not the same size.

- Know the concepts of mean, median, and mode; compute and compare them in simple examples and notice that they can differ
- Organize and display single-variable data in appropriate graphs and representations (e.g., histogram, Venn diagram, circle graphs), and explain which types of graphs are appropriate for different kinds of data sets
- Use fractions and percentages to compare data sets of different size
- Identify ordered pairs of data from a graph, and interpret the meaning of the data in terms of the situation depicted by the graph
- Know how to write ordered pairs correctly (e.g.,  $(x, y)$ )

## Measurement and Geometry

### Students understand and compute volumes and areas of simple objects

- Derive and use the formula for the area of right triangles and of parallelograms by comparing with the area of rectangles (i.e., two of the same triangles make a rectangle with twice the area; a parallelogram is compared to a rectangle with the same area found by cutting and pasting a right triangle)
- Construct cube and rectangular boxes from two-dimensional patterns, and use this to compute the surface area for these objects
- Understand the concept of volume, and use the appropriate units in common measuring systems (cube centimeter, cubic meter, cubic inches, cubic feet, cubic yard) to compute the volume of rectangular solids
- Differentiate between and use appropriate units of measures for two- and three-dimensional objects (perimeter, area, and volume)
- Use the formula to determine the area of a circle
- Convert between customary and metric units of measurement in problems including length, volume, area, weight, distance, and rate (speed)
- Choose an appropriate measuring device and unit of measure to solve problems involving measurement of length in parts of an inch, inches, feet, yards, miles, millimeters, centimeters, meters, and kilometers; weight/mass in ounces, pounds, tons, grams, and kilograms; liquid volume in cups, pints, quarts, gallons, milliliters, and liters; area in square units of length; and temperature in degrees Celsius and Fahrenheit
- Estimating the conversion between Celsius and Fahrenheit

### Students identify, describe, draw, and classify properties of, and relationships between, plane and solid geometric figures.

- Measure, identify, and draw angles, perpendicular and parallel lines, rectangles and triangles, and circles, using appropriate tools (e.g., straight edge, ruler, compass, protractor, and drawing software)
- Know that the sum of the angles of any triangle is 180 degrees and the sum of the angles of any quadrilateral is 360 degrees and use this information to solve problems
- Visualize and draw two-dimensional views of three-dimensional objects made from rectangular solids

## Mathematical Reasoning

### Students make decisions about how to approach problems.

- Analyze problems by identifying relationships, discriminating relevant from irrelevant information, sequencing and prioritizing, and observing patterns
- Determine when and how to break a problem into simpler parts

### Students use strategies, skills, and concepts in finding solutions.

- Use estimation to verify the reasonableness of calculated results
- Apply strategies and results from simpler problems to more complex problems
- Use a variety of methods such as words, numbers, symbols, charts, graphs, tables, diagrams, and models to explain mathematical reasoning
- Express the solution clearly and logically using appropriate mathematical notation and terms and clear language, and support solutions with evidence, in both verbal and symbolic work
- Indicate the relative advantages of exact and approximate solutions to problems, and give answers to a specific degree of accuracy
- Make precise calculations, and check the validity of the results from the context of the problem

### Students move beyond a particular problem by generalizing to other situations.

- Evaluate the reasonableness of the solution in the context of the original situation
- Note method of deriving the solution, and demonstrate conceptual understanding of the derivation by solving similar problems
- Develop generalizations of the results obtained, and extend them to other circumstances

## POINTERS FOR PARENTS

### MATH

- ⇒ *Provide tips and helpful hints to your child to help solve problems with percentages and ratios and their relationship with decimals and fractions.*
- ⇒ *Have your child practice making diagrams and figures with a compass and protractor.*
- ⇒ *When doing a research project, encourage your child to use charts, graphs, grids, and tables to help analyze, gather, and record data. Use this information as a basis for interpretations. Explain that graphing is a way to visualize relationships between two quantities.*
- ⇒ *Continually practice reading, ordering, and writing numbers in the billions with your child.*
- ⇒ *Have your child practice finding decimal, fraction, and percent equivalents (e.g.,  $.33 = 1/3 = 33\%$ ). Always put fractions in the lowest terms.*



**History/Social Science****UNITED STATES HISTORY AND GEOGRAPHY:  
MAKING A NEW NATION**

**Students in grade five study the development of the nation up to 1850 with an emphasis on the population: who was already here, when and from where others arrived, and why people came.**

**Students learn about the colonial government founded on Judeo-Christian principles, the ideals of the Enlightenment, and the English traditions of self-government. They recognize that ours is a nation that has a constitution that derives its power from the people, that has gone through a revolution, that once sanctioned slavery, that experienced conflict over land with the original inhabitants, and that experienced a westward movement that took its people across the continent. Studying the cause, course, and consequences of the early explorations through the War for Independence and western expansion is central to students' fundamental understanding of how the principles of the American republic form the basis of a pluralistic society in which individual rights are secured.**

**Students describe the major pre-Columbian settlements including the cliff dwellers and pueblo people of the desert Southwest, the American Indians of the Pacific Northwest, the nomadic nations of the Great Plains, and the woodland peoples east of the Mississippi River, in terms of:**

- How geography and climate influenced the way various nations lived and adjusted to the natural environment, including locations of villages, the distinct structures that were built, and how food, clothing, tools and utensils were obtained
- The varied customs and folklore traditions
- The varied economies and systems of government

**Students trace the routes and describe the early explorations of the Americas, in terms of:**

- The entrepreneurial characteristics of early explorers (e.g., biographies of Columbus, Coronado) and the technological developments that made sea exploration by latitude and longitude possible (e.g., compass, sextant, astrolabe, seaworthy ships, chronometers, gunpowder)
- The aims, obstacles, and accomplishments of the explorers, sponsors, and leaders of key European expeditions, and the reasons Europeans chose to explore and colonize the world (e.g., the Protestant Reformation, the Spanish Reconquista)
- The routes of the major land explorers of the United States; the distances traveled by early explorers; and the Atlantic trade routes that linked Africa, the West Indies, the British colonies, and Europe
- Land claimed by Spain, France, England, Portugal, the Netherlands, Sweden, and Russia on maps of North and South America

**Students describe the cooperation and conflict that existed among the Indians and between the Indian nations and the new settlers, in terms of:**

- The competition among the English, French, Spanish, Dutch, and Indian Nations for control of North America
- The cooperation that existed between the colonists and Indians during the 1600s and 1700s (e.g., agriculture, the fur trade, military alliances, treaties, cultural interchanges)
- The conflicts before the Revolutionary War (e.g., the Pequot and King Philip's Wars in New England, the Powhatan Wars in Virginia, the French and Indian War)
- The role of broken treaties and massacres and the factors that led to the Indians' defeat, including the resistance of Indian nations to encroachments and assimilation (e.g., the story of the Trail of Tears)
- The internecine Indian conflicts, including the competing claims for control (e.g., actions of the Iroquois, Huron, Lakota (Sioux))
- The influence and achievements of significant leaders of the time (e.g., biographies of Abraham Lincoln, John Marshall, Andrew Jackson, Chief Tecumseh, Chief Logan, Chief John Ross, Sequoyah)

**Students understand the political, religious, social, and economic institutions that evolved in the colonial era, in terms of:**

- The influence of location and physical setting on the founding of the original 13 colonies, their location on a map along with the location of the American Indian nations already inhabiting these areas
- The major individuals and groups responsible for the founding of the various colonies and the reasons for their founding (e.g., John Smith and Virginia, Roger Williams and Rhode Island, William Penn and Pennsylvania, Lord Baltimore and Maryland, William Bradford and Plymouth, John Winthrop and Massachusetts)
- The religious aspects of the earliest colonies (e.g., Puritanism in Massachusetts, Anglicanism in Virginia, Catholicism in Maryland, Quakerism in Pennsylvania)
- The significance and leaders of the First Great Awakening that marked a shift in religious ideas, practices, and allegiances in the colonial period; the growth of religious toleration and free exercise
- How the British colonial period created the basis for the development of political self-government and a free market economic system, unlike Spanish and French colonial rule

- The introduction of slavery into America, the responses of slave families to their condition, the ongoing struggle between proponents and opponents of slavery, and the gradual institutionalization of slavery in the South
- The early democratic ideas and practices that emerged during the colonial period, including the significance of representative assemblies and town meetings

**Students explain the causes of the American Revolution, in terms of:**

- How political, religious, and economic ideas and interests brought about the Revolution (e.g., resistance to imperial policy, Stamp Act, Townshend Acts, tax on tea, Coercive Acts)
- The significance of the first and second Continental Congress and the Committees of Correspondence
- The people and events associated with the drafting and signing of the Declaration of Independence and the document's significance, including the key political concepts it embodies, the origins of those concepts, and its role in severing ties with Great Britain
- The views, lives, and impact of key individuals during this period (e.g., biographies of King George III, Patrick Henry, Thomas Jefferson, George Washington, Benjamin Franklin, John Adams)

**Students understand the course and consequences of the American Revolution, in terms of:**

- Identifying and mapping the major military battles, campaigns and turning points of the Revolutionary War, the roles of the American and British leaders, and the Indian leaders' alliances on both sides
- The contributions of France and other nations and individuals to the outcome of the Revolution (e.g., Benjamin Franklin's negotiations with the French, the French navy, the Treaty of Paris, The Netherlands, Russia, Marquis de Lafayette, Kosciuszko, Baron von Steuben.)
- The different roles women played during the Revolution (e.g., Abigail Adams, Martha Washington, Molly Pitcher, Phillis Wheatley, Mercy Otis Warren)
- The personal impact and economic hardship on families, problems of financing the war, wartime inflation, and laws against hoarding and profiteering
- How state constitutions established after 1776 embodied the ideals of the American Revolution and helped serve as models for the U.S. Constitution
- The significance of land policies developed under the Continental Congress (e.g., sale of western lands, the Northwest Ordinance of 1787) and their impact on American Indian land
- How the ideals of the Declaration of Independence changed the way people viewed slavery

**Students relate the narrative of the people and events associated with the development of the U.S. Constitution and analyze its significance as the foundation of the American republic, in terms of:**

- The shortcomings set forth by the Articles of Confederation's critics
- The significance of the new Constitution of 1787, including the struggles over its ratification and the reasons for the addition of the Bill of Rights
- The fundamental principles of American constitutional democracy including how the government derives its power from the people and the primacy of individual liberty
- How the Constitution is designed to secure our liberty by both empowering and limiting central government; the powers granted to the citizens, Congress, the President, the Supreme Court, those reserved to the states
- The meaning of the American creed that calls on citizens to safeguard the liberty of individual Americans within a unified nation, to respect the rule of law, and to preserve the Constitution
- The songs that express American ideals (e.g., know America the Beautiful, The Star Spangled Banner)

**Students trace the colonization, immigration, and settlement patterns of the American people from 1789 to the mid-1800's, with emphasis on the defining role of economic incentives and the effects of the physical and political geography and transportation systems, in terms of:**

- The waves of immigrants from Europe between 1789 and 1850 and their modes of transportation as they advanced into the Ohio and Mississippi Valley and through the Cumberland Gap (e.g., overland wagons, canals, flatboats, steamboats)
- The states and territories in 1850, their regional locations and major geographical features (e.g., mountain ranges, principal rivers, dominant plant regions)
- The explorations of the trans-Mississippi West following the Louisiana Purchase (e.g., draw from maps, biographies, and journals of Lewis & Clark, Zebulon Pike, John Fremont)
- Experiences on the overland trails to the West (e.g., location of the routes, purpose of each journey; the influence of terrain, rivers, vegetation, and climate; life in the territories at the end of these trails)
- The continued migration of Mexican settlers into Mexican territories of the West and Southwest
- How and when California, Texas, Oregon, and other western lands became part of the U.S., including the significance of the Texas War for Independence and the Mexican-American War

**Students know the location of the current 50 states and the names of their capitals**

## Science

### Physical Sciences

**Elements and their combinations account for all the varied types of matter in the world. As a basis for understanding this concept, students know:**

- During chemical reactions, the atoms in the reactants rearrange to form products with different properties
- All matter is made of atoms, which may combine to form molecules
- Metals have properties in common, such as electrical and thermal conductivity. Some metals, such as aluminum (Al), iron (Fe), nickel (Ni), copper (Cu), silver (Ag), gold (Au), are pure elements while others, such as steel and brass, are composed of a combination of elemental metals
- Each element is made of one kind of atom. These elements are organized in the Periodic Table by their chemical properties
- Scientists have developed instruments that can create images of atoms and molecules showing that they are discrete and often occur in well ordered arrays
- Differences in chemical and physical properties of substances are used to separate mixtures and identify compounds
- Properties of solid, liquid, and gaseous substances, such as sugar (C<sub>6</sub>H<sub>12</sub>O<sub>6</sub>), water (H<sub>2</sub>O), helium (He), oxygen (O<sub>2</sub>), nitrogen (N<sub>2</sub>), and carbon dioxide (CO<sub>2</sub>)
- Living organisms and most materials are composed of just a few elements
- Common properties of salts, such as sodium chloride (NaCl)

### Life Sciences

**Plants and animals have structures for respiration, digestion, waste disposal, and transport of materials. As a basis for understanding this concept, students know:**

- Many multicellular organisms have specialized structures to support the transport of materials
- How blood circulates through the heart chambers, lungs, and body, and how carbon dioxide (CO<sub>2</sub>) and oxygen (O<sub>2</sub>) are exchanged in the lungs and tissues
- The sequential steps of digestion, and the roles of teeth and mouth, esophagus, stomach, small intestine, large intestine, and colon in the function of the digestive system
- The role of the kidney in removing cellular wastes from blood and converting them into urine, which is stored in the bladder
- How sugar, water, and minerals are transported in a vascular plant
- Plants use carbon dioxide (CO<sub>2</sub>) and energy from sunlight to build molecules of sugar and release oxygen
- Plant and animal cells break down sugar to obtain energy, forming carbon dioxide (CO<sub>2</sub>) and water (respiration)

### Earth Sciences

**Water on Earth moves between the oceans and land through the processes of evaporation and condensation. As a basis for understanding this concept, students know:**

- Most of the Earth's water is present as salt water in the oceans, which cover most of the Earth's surface
- When liquid water evaporates, it turns into water vapor in the air and can reappear as a liquid when cooled, or as a solid if cooled below the freezing point of water
- Water moves in the air from one place to another in the form of clouds or fog, which are tiny droplets of water or ice, and falls to the Earth as rain, hail, sleet, or snow
- The amount of fresh water, located in rivers, lakes, underground sources, and glaciers, is limited, and its availability can be extended through recycling and decreased use
- The origin of water used by their local communities

**Energy from the sun heats the Earth unevenly, causing air movements resulting in changing weather patterns. As a basis for understanding this concept, students know:**

- Uneven heating of the Earth causes air movements (convection currents)
- The influence of the ocean on weather, and the role of the water cycle in weather
- Causes and effects of different types of severe weather
- How to use weather maps and weather forecasts to predict local weather, and that prediction depends on many changing variables
- The Earth's atmosphere exerts a pressure that decreases with distance above the Earth's surface, and is the same in all directions

**The solar system consists of planets and other bodies that orbit the sun in predictable paths. As a basis for understanding this concept, students know:**

- The sun, an average star, is the central and largest body in the solar system and is composed primarily of hydrogen and helium
- The solar system includes the Earth, moon, sun, eight other planets and their satellites, and smaller objects such as asteroids and comets
- The path of a planet around the sun is due to the gravitational attraction between the sun and the planet

### Investigation and Experimentation

**Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept, and to address the content of the other three strands, students should develop their own questions and perform investigations. Students will:**

- Classify objects (e.g., rocks, plant, leaves) based on appropriate criteria
- Develop a testable question
- Plan and conduct a simple investigation based on a student-developed question, and write instructions others can follow to carry out the procedure
- Identify the dependent and controlled variables in an investigation
- Identify a single independent variable in a scientific investigation and explain what will be learned by collecting data on this variable
- Select appropriate tools (e.g., thermometers, meter sticks, balances, and graduated cylinders) and make quantitative observations
- Record data using appropriate graphic representation (including charts, graphs, and labeled diagrams), and make inferences based on those data
- Draw conclusions based on scientific evidence and indicate whether further information is needed to support a specific conclusion
- Write a report of an investigation that includes tests conducted, data collected, or evidence examined, and conclusions drawn

## POINTERS FOR PARENTS

### HISTORY/SOCIAL SCIENCE

- ⇒ Visit art museums and expose your child to different forms of art.
- ⇒ Encourage your child to search for articles during the mid-1800's from a northern newspaper and from a southern newspaper and compare and contrast your findings.
- ⇒ Have your child locate most of these places on a map:
 

bodies of water	cities
countries	deserts
mountain ranges	islands
rivers	state capitols
time zones	U. S. Regions
	great lakes of

the world

- man-made landmarks
- ⇒ If you cannot take a vacation to the 13 Colonies with your child, have your child plan a mock vacation and include places you would like to see and highlight the points of interest you wish to cover.
- ⇒ Explore places you would like to visit on the Internet with your child to see what it would be like to be there. Find out what you would need to bring, considering factors such as weather, recreational activities, spending money, etc.

## SCIENCE

- ⇒ Discuss the evidence collected in your child's classroom experiments and draw conclusions based on the findings.
- ⇒ Encourage your child to use charts, diagrams, graphs, etc., to show his findings from a science experiment.
- ⇒ Enjoy playing science games with your child (e.g., *Dinomite*, *Petworld*®, *Glow Light Star Charger Bulb*, *Nova™ True Science*®).
- ⇒ Explain to your child the structures and processes of cells. Include the parts of cells, the differences between animal and plant cells, single-celled organisms, organization of cell, cells with and without nuclei, etc. Illustrate and label diagrams of an animal and plant cell.
- ⇒ Explore the process and structure of plants with your child (e.g., basic structure of nonvascular and vascular plants, photosynthesis in plants, main parts of flowers and their functions, plant reproduction).

## Mission Statement

The Escondido Union School District, in partnership with our community, commits to providing quality learning experiences for all students in a supportive environment, enabling them to be lifelong learners, productive members of the community, and positive contributors.



## Board of Education

Linda Woods, President • Zoe Carpenter, Vice President • Marv Gilbert, Clerk • Joan Gardner, Member • Marty Hranek, Member

## District Administration

Jennifer Walters, Superintendent

Bob Leon, Deputy Supt., Human Resources

Brenda Jones, Asst. Supt. Educational Services

Gina Manusov, Asst. Supt., Business Services

Kelly Prins, Asst. Supt., Special Education and Pupil Services