

A Parent's Guide to Curriculum Standards

Grade 8 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 21st 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.

Vocabulary and Concept Development:

- Use idioms, analogies, metaphors, and similes to infer the literal and figurative meanings of phrases
- Understand the most important points in the history of English language, and use common word origins to determine the historical influences on English word meanings
- Use word meanings within the appropriate context and be able to verify those meanings by definition, restatement, example, comparison, or contrast

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 (i.e., classic and contemporary literature) and expository (e.g., magazines, newspapers, on-line information) text appropriate for each grade.

Structural Features of Informational Materials:

- Compare and contrast the features and elements of consumer materials to gain meaning from documents (e.g., warranties, contracts, product information, instructional manuals)
- Analyze text which uses proposition-and-support patterns

Comprehension and Analysis of Grade-Level-Appropriate Text:

- Find similarities and differences among texts in the treatment, scope, or organization of ideas
- Compare original text to a summary for accuracy of the main ideas, inclusion of critical details, and the extent to which it conveys the underlying meaning of the original text

- Understand and explain the use of a complex mechanical device by following technical directions
- Use information from a variety of consumer, workplace, and public documents to explain a situation or decision and/or to solve a problem

Expository Critique:

- Evaluate the unity, coherence, logic, internal consistency, and structural patterns of 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. The quality and complexity of the materials to be read by students are illustrated in the *California Reading List*.

Structural Features of Literature:

- Determine and articulate the relationship among the purposes and characteristics of different forms of poetry

Narrative Analysis of Grade-Level-Appropriate Text:

- Evaluate the structural elements of the plot (e.g., subplots, parallel episodes, climax), the plot's development, and how (and whether) conflicts are (or are not) addressed and resolved
- Compare and contrast motivations and reactions of literary characters from different historical eras confronting similar situations or conflicts
- Analyze relevance of setting (place, time, and customs) to the mood, tone, and meaning of text
- Identify and analyze recurring comparative themes across works, (e.g., good and evil, traditional and contemporary)
- Identify significant literary devices that define a writer's style (e.g., metaphor, symbolism, dialect, irony); use those elements to interpret the work

Literary Criticism:

- Analyze how a work of literature reflects the heritage, traditions, attitudes, and beliefs of its author (Biographical Approach)

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 compositions that establish a controlling impression, have a coherent thesis, and/or make a clear and well-supported conclusion
- Establish coherence within and among paragraphs through effective transitions, parallel structures, and similar writing techniques
- Support thesis or conclusions with analogies, paraphrases, quotations, and opinions from authorities, comparisons, and similar devices

Research and Technology:

- Plan and conduct multiple-step information searches using computer networks and modem-delivered services
- Achieve effective balance between researched information and original ideas

Revising and Evaluating Writing:

- Revise writing for word choice, appropriate organization, consistent point of view, and transitions among paragraphs, passages, and ideas

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, research, organizational, and drafting strategies.

- Write biographies, autobiographies, short stories, and/or narratives that: (1) relate a clear, coherent incident, event, or situation by using well-chosen details; (2) reveal the significance of, or the writer's attitude about, the subject

- Employ narrative and descriptive strategies
- Write responses to literature that: (1) develop interpretations which exhibit careful reading and insight; (2) connect the student's own responses to the writer's techniques and to specific textual references; (3) draw supported inferences about the effects of a literary work on its audience; (4) support judgments through references to the text, other works, other authors, or to personal knowledge
- Write research reports that: (1) define a thesis; (2) record important ideas, concepts, and direct quotations from significant information sources, paraphrasing and summarizing all perspectives on the topic, as appropriate; (3) use a variety of primary and secondary sources, distinguishing the nature and value of each; (4) organize and record information on charts, maps, and graphs
- Write persuasive compositions that: (1) include a well-defined thesis that makes a clear and knowledgeable judgment; (2) support arguments with detailed evidence, examples, and reasoning, differentiating between evidence and opinion; (3) arrange details, reasons, and examples, effectively anticipating and answering reader concerns and counter-arguments
- Write documents related to career development, including simple business letters and job applications, that: (1) are purposeful and reflect the intended audience; (2) meet the needs of the audience efficiently; (3) follow the conventional style for the type of document (e.g., letter of inquiry, memorandum)
- Write technical documents that explain a complex operation or situation (e.g., design a system, operate a tool, or bylaws of an organization) that: (1) identify the sequence of activities needed to create the product, service, or system; (2) include all the factors and variables that need to be considered; (3) use formatting techniques (e.g., headings, differing fonts) to aid comprehension

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:

- Use correct and varied sentence types and sentence openings to reinforce the presentation of a lively and effective personal style
- Identify and use parallel structure in all written discourse, including similar grammatical forms to present items in a series, complements, and items juxtaposed for emphasis
- Use subordination, coordination, apposition, and other devices to indicate the relationship between ideas clearly

Grammar:

- Edit written manuscripts to reflect proper grammar

Punctuation and Capitalization:

- Use correct punctuation and capitalization

Spelling:

- Use correct spelling conventions

Listening and Speaking

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

Comprehension:

- Analyze oral interpretations of literature, including language choice and delivery, and how they affect the listener(s)
- Paraphrase a speaker's purpose and point of view; ask relevant questions concerning the speaker's content, delivery, and purpose

Organization and Delivery of Oral Communication:

- Organize information to achieve particular purposes, matching message, vocabulary, voice modulation, expression, and tone to audience and purpose
- Prepare a speech outline based upon a chosen pattern of organization, generally including an introduction, transitions, previews, summaries, a logically developed body, and an effective conclusion
- Use precise language, action verbs, sensory details, appropriate and colorful modifiers, and active rather than passive voice in ways that enliven oral presentations
- Use appropriate grammar, word choice, enunciation, and pace during formal presentations
- Use audience feedback (i.e. verbal and non-verbal cues) to: (1) reconsider and modify organizational structure/plan; (2) rearrange words and sentences to clarify meaning

Analysis and Evaluation of Oral and Media Communications:

- Evaluate the credibility of a speaker (e.g., hidden agendas, slanted or biased material)
- Interpret and evaluate various ways that visual image-makers (e.g., graphic artists, illustrators, news photographers) communicate information and affect impressions and opinions

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

- Deliver narrative presentations (e.g., biographical, autobiographical) that: (1) relate a clear, coherent incident, event, or situation by using well-chosen details; (2) reveal the significance of or the subject's attitude about the incident, event, or situation; (3) employ narrative and descriptive strategies (e.g., relevant dialogue, specific action, physical description, background description, comparison or contrast of characters)
- Deliver oral responses to literature that: (1) interpret reading and provide insight; (2) connect own responses to the writer's techniques and to specific textual references; (3) draw supported inferences about the effects of a literary work on its audience; (4) support judgments through references to the text, other works, other authors, or personal knowledge
- Deliver research presentations that: (1) define a thesis; (2) record important ideas, concepts, direct quotations from significant information sources, paraphrasing and summarizing all relevant perspectives on the topic, as appropriate; (3) use a variety of primary and secondary sources, distinguishing the nature and value of each; (4) organize and record information on charts, maps, and graphs
- Deliver persuasive presentations that: (1) include a well-defined thesis that makes a clear and knowledgeable judgment; (2) support arguments with detailed evidence, examples, and reasoning, and differentiating evidence from opinion; (3) effectively anticipate and answer listener concerns and counter-arguments through the inclusion and arrangement of details, reasons, examples, and other elements (4) maintain a reasonable tone
- Recite poems, sections of speeches, or dramatic soliloquies, using voice modulation, tone, and gestures expressively to enhance meaning

POINTERS FOR PARENTS

LANGUAGE ARTS

⇒ *Help your child analyze what they read.*

⇒ *Continually read from a variety of literary works (e.g., essays, novels, poetry, short stories, speeches).*



⇒ *Remind your child to make an outline to organize their writing.*

⇒ *Reinforce writing descriptive essays, reports, stories, summaries, etc.*

⇒ *Always review and practice using punctuation with your child (e.g., apostrophes, clauses, colons, commas, hyphens, italics, semi-colons, slashes).*



ALGEBRA I

Symbolic reasoning and calculations with symbols are central in algebra. In the study of algebra, a student develops an understanding of the symbolic language of mathematics and the sciences. In addition, algebraic skills and concepts are developed and used in a wide variety of problem solving situations.

Students identify and use the arithmetic properties of subsets of integers, rational, irrational, and real numbers. This includes closure properties for the four basic arithmetic operations, where applicable.

• **Students use properties of numbers to demonstrate that assertions are true or false**

* **Students convert decimal numbers and measurements to scientific notation from 10^{-12} (pico) to 10^{12} (tera) and add, subtract, multiply, and divide numbers in scientific notation**

Students understand and use such operations as taking the opposite of a number, taking the reciprocal of a number, raising a number to a power, and taking a root of a number. This includes the understanding and use of the rules of exponents.

Students solve equations and inequalities involving absolute values.

Students simplify expressions prior to solving linear equations and inequalities in one variable such as $3(2x-5) + 4(x-2) = 12$.

Students solve multi-step problems, including word problems, that involve linear equations and linear inequalities in one variable, and they justify each step.

Students graph a linear equation, and compute the x- and y- intercepts (e.g., graph $2x + 6y = 4$). They are also able to sketch the region defined by linear inequality (e.g., sketch the region defined by $2x + 6y < 4$).

Students verify that a point lies on a line given an equation of the line. Students are able to derive linear equations using the point-slope formula.

Students understand the concepts of parallel and perpendicular lines and how their slopes are related. Students are able to find the equation of a line perpendicular to a given line that passes through a given point.

Students solve a system of two linear equations in two variables algebraically, and are able to interpret the answer graphically. Students are able to use this to solve a system of two linear inequalities in two variables and to sketch the solutions sets.

* **Students solve a system of three linear equations in three variables algebraically, and with matrices**

Students add, subtract, multiply, and divide monomials and polynomials. Students solve multi-step problems, including word problems, and they use these techniques.

Students apply basic factoring techniques to second and simple third degree polynomials. These techniques include finding a common factor to all of the terms in a polynomial, recognizing the difference of two squares, and recognizing perfect squares of binomials.

Students simplify fractions with polynomials in the numerator and denominator by factoring both and reducing to lowest terms.

Students add, subtract, multiply, and divide rational expressions and functions. Students solve both computationally and conceptually challenging problems using these techniques.

Students solve a quadratic equation by factoring or completing the square.

Students apply algebraic techniques to rate problems, work problems, and percent mixture problems.

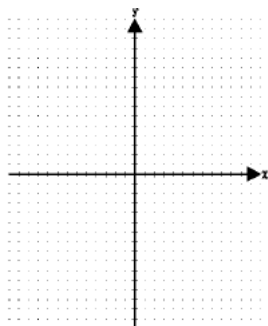
Students understand the concepts of a relation and a function, determine whether a given relation defines a function, and give pertinent information about given relations and functions.

Students determine the domain of independent variables, and range of dependent variables defined by a graph, a set of ordered pairs, or symbolic expression.

Students determine whether a relation defined by a graph, a set of ordered pairs, or symbolic expression is a function and justify the conclusion.

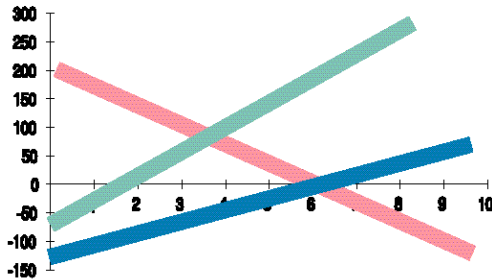
Students know the quadratic formula and are familiar with its proof by completing the square.

Students use the quadratic formula to find the roots of a second degree polynomial and to solve quadratic equations.



Students graph quadratic functions and know that their roots are the x-intercepts.

Students use the quadratic formula and/or factoring techniques to determine whether the graph of a quadratic function will intersect the x-axis in zero, one, or two points.



Students apply quadratic equations to physical problems such as the motion of an object under the force of gravity.

Students use and know simple aspects of a logical argument.

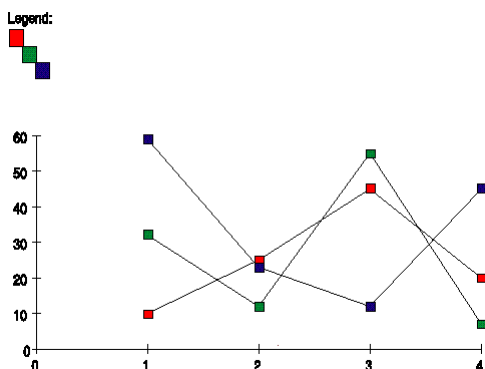
- **Students explain the difference between inductive and deductive reasoning and identify and provide examples of each**
- **Students identify the hypothesis and conclusion in logical deduction**
- **Students use counterexamples to show that an assertion is false and recognize that a single counterexample is sufficient to refute an assertion**

Students use properties of number system to judge the validity of results, to justify each step of a procedure, and to prove or disprove statements.

- **Students use properties of numbers to construct simple valid arguments (direct and indirect) for, or formulate counterexamples to, claimed assertions**
- **Students judge the validity of an argument based on whether the properties of the real number system and order of operations have been applied correctly at each step**
- **Given a specific algebraic statement involving linear, quadratic or absolute value expressions, equations or inequalities, students determine if the statement is true sometimes, always, or never**

* Students know the basic trigonometry functions (sine, cosine, tangent), the definitions, and their uses in calculating unknown sides and angles of a triangle.

*Advanced



POINTERS FOR PARENTS

MATH

- ⇒ *Encourage your child to read biographies about famous mathematicians. Read and discuss the books with them. Discuss what we learned from them has benefited us today.*
- ⇒ *When looking at the sports section in the newspaper or keeping score at a game ask your child questions about a team's rank or an athlete's standings.*
- ⇒ *Look at and explore software programs with your child (e.g., Math & Music, Conquer the S.A.T., LOGAL Algebra Animator, Riverdeep, Inc., LOGAL Geometry Inventory, Riverdeep, Inc.).*
- ⇒ *Use of computers for performing graphing functions will help with your child's understanding of math concepts making it all the more interesting than just creating a physical graph.*
- ⇒ *Your child will spend more time analyzing and interpreting data when they use a computer as a resource, (refdesk.com, collab.mathsoft.com, and mathleague.com/help/help.htm are excellent resources for help with homework). Research has shown that computers can play a vital role in making mathematics real, dynamic, and engaging for students.*

History/Social Science

UNITED STATES HISTORY AND GEOGRAPHY: GROWTH AND CONFLICT

Students in grade eight study the ideas, issues, and events from the framing of the Constitution up to World War I, with an emphasis on America's role in the war. After reviewing the development of America's democratic institutions founded in the Judeo-Christian heritage and English parliamentary traditions, particularly the shaping of the Constitution, students trace the development of American politics, society, culture, and economy and relate them to the emergence of major regional differences. They learn about the challenges facing the new nation, with an emphasis on the causes and the course and consequences of the Civil War. They make connections between the rise of industrialization and contemporary social and economic conditions.

Students understand the major events preceding the founding of the nation and relate their significance to the development of American constitutional democracy, in terms of:

- The relationship between the moral and political ideas of the Great Awakening and the development of revolutionary fervor
- The philosophy of government expressed in the Declaration of Independence with an emphasis on government as a means of securing individual rights (e.g., key phrases such as "...all Men are created equal, that they are endowed by their Creator with certain unalienable Rights")
- The significance of the American Revolution as it affected other nations especially France
- Its blend of civic republicanism, classical liberal principles, and English parliamentary traditions

Students analyze the political principles underlying the U.S. Constitution and compare the enumerated and implied powers of the federal government, in terms of:

- The significance of the Magna Carta, the English Bill of Rights, and the Mayflower Compact
- The Articles of Confederation and the Constitution and the success of each in implementing the ideals of the Declaration of Independence
- The major debates that occurred during the development of the Constitution and their ultimate resolutions in areas such as shared power among institutions, divided state-federal power, slavery, the rights of individuals and states (later addressed by the addition of the Bill of Rights), and the status of American Indian nations under the commerce clause
- The political philosophy underpinning the U.S. Constitution as specified in *The Federalist* (authored by James Madison, Alexander Hamilton, and John Jay) and the role of such leaders as James Madison, George Washington, Roger Sherman, Gouverneur Morris, and James Wilson in the writing and ratification of the Constitution
- The significance of Jefferson's Statute for Religious Freedom as a forerunner of the First Amendment, and the origins, purpose, and differing views of the founding fathers on the issue of the separation of church and state
- The powers of government enumerated in the Constitution and the fundamental liberties ensured by the Bill of Rights
- The principles of federalism, dual sovereignty, separation of powers, checks and balances, the nature and purpose of majority rule, and how the American idea of constitutionalism preserves individual rights

Students understand the foundation of the American political system and the ways in which citizens participate in it, in terms of:

- The principles and concepts codified in the state constitutions between 1777 and 1781 that create the context out of which American political institutions and ideas developed
- How the ordinances of 1785 and 1787 privatized national resources and transferred federally owned lands into private holdings, townships, and states
- The advantages of a "common market" among the states as foreseen and protected by the Constitution's clauses on interstate commerce, common coinage, and full-faith and credit
- The conflicts between Thomas Jefferson and Alexander Hamilton that resulted in the emergence of two political parties (e.g., view of foreign policy, Alien and Sedition acts, economic policy, National Bank, funding and assumption of the revolutionary debt)
- The significance of domestic resistance movements and ways in which the central government responded to such movements (e.g., Shays' Rebellion, the Whiskey Rebellion)
- The basic law-making process and how the design of the U.S. Constitution provides numerous opportunities for citizens to participate in the political process and to monitor and influence government (e.g., function of elections, political parties, interest groups)
- The function and responsibilities of a free press

Students analyze the aspirations and ideals of the people of the new nation, in terms of:

- Its physical landscapes and political divisions and the territorial expansion of the U.S. during the terms of the first four presidents

- The policy significance of famous speeches (e.g., George Washington's Farewell Address, Jefferson's Inaugural, John Q. Adams Fourth of July 1821 Address)
- The rise of capitalism and the economic problems and conflicts that arose (e.g., Jackson's opposition to the National Bank; early decisions of the U.S. Supreme Court that reinforced the sanctity of contracts and a capitalist economic system of law)
- The daily lives of people, including the traditions in art, music, and literature of early national America (e.g., writings by Washington Irving, James Fenimore Cooper)

Students analyze U.S. foreign policy in the early Republic, in terms of:

- The political and economic causes and consequences of the War of 1812 and the major battles, leaders, and events leading to a final peace
- The changing boundaries and the principal relationships between the United States, its neighbors (current Mexico and Canada) and Europe, including the influence of the Monroe Doctrine and how those relationships influenced westward expansion and the Mexican American War
- The major treaties with Indian nations during the administrations of the first four presidents and their varying outcomes

Students analyze the divergent paths of the American people from 1800 to the mid-1800's and the challenges they faced, with emphasis on the Northeast, in terms of:

- The influence of industrialization and technological developments on the region, including human modification of the landscape and how physical geography shaped human actions (e.g., growth of cities, deforestation, farming, mineral extraction)
- The physical obstacles to, and the economic and political factors in (e.g., Henry Clay's American System), building a network of roads, canals, and railroads
- The reasons for the wave of immigration from Northern Europe to the U.S. and growth in the number, size, and spatial arrangements of cities (e.g., Irish immigrants and the Great Irish Famine)
- The lives of black Americans who gained freedom in the North and founded schools and churches to advance black rights and communities
- The development of the American education system from its earliest roots, including the role of religious and private schools, Horace Mann's campaign for free public education, and its assimilating role in American culture
- The women's suffrage movement (e.g., biographies, writings, and speeches of Elizabeth Cady Stanton, Margaret Fuller, Lucretia Mott, Susan B. Anthony)
- Common themes in American art as well as Transcendentalism and individualism (e.g., writings about and by Emerson, Thoreau, Melville, Alcott, Hawthorne, Longfellow)

Students analyze the divergent paths of the American people from 1800 to the mid-1800's and the challenges they faced, with emphasis on the South, in terms of:

- The development of the agrarian economy in the South, the location of the cotton producing states, and the role of cotton and the cotton gin
- The origins and development of the institution of slavery; its effects on black Americans and on the region's political, social, religious, economic, and cultural development; and the various attempted strategies to both overturn and preserve it (e.g., biographies of Nat Turner, Denmark Vesey)
- The different characteristics of white Southern society and how the physical environment influenced events and conditions prior to the Civil War
- The lives and opportunities of free-blacks in the North as compared with free-blacks in the South

Students analyze the divergent paths of the American people from 1800 to the mid-1800's and the challenges they faced, with emphasis on the West, in terms of:

- The election of Andrew Jackson in 1828, the importance of Jacksonian democracy and his actions as president (e.g., spoils system, veto of National bank, policy of Indian removal, opposition to The Supreme Court)
- The purpose, challenges, and economic incentives associated with westward expansion including the concept of Manifest Destiny (e.g., Lewis and Clark expedition, accounts of the removal of Indians and the Cherokees' "Trail of Tears," settlement of the Great Plains) and the territorial acquisitions that spanned numerous decades
- The role of pioneer women and the new status that western women achieved (e.g., biographies, journals, diaries, and other original documents on Laura Ingalls Wilder, Annie Bidwell, slave women gaining freedom in the West, Wyoming granting suffrage to women in 1869)
- The role of the great rivers and the struggle over water rights
- Mexican settlements (i.e., their locations, cultural traditions, attitudes toward slavery, land-grant system, the economies they established)
- The Texas War for Independence and the Mexican-American War (i.e., territorial settlements, the aftermath of the wars and the effect on the lives of Americans, including Mexican-Americans today)

Students analyze the early and steady attempts to abolish slavery and realize the ideals of the Declaration of Independence, in terms of:

- The leaders of the movement (e.g., biographies and other literature on John Quincy Adams and his proposed constitutional amendment, John Brown and the armed resistance, Harriet Tubman and the underground railroad, Benjamin Franklin, Theodore Weld, William Lloyd Garrison, Frederick Douglass)
- How early state constitutions abolished slavery
- The role of the Northwest Ordinance in education and in banning slavery in new states north of the Ohio River
- The slavery issue as raised by the annexation of Texas and the effect of California coming into the union as a free state as part of the Compromise of 1850
- The significance of the States' Rights Doctrine, Missouri Compromise (1820), Wilmot Proviso (1846), the Compromise of 1850, Henry Clay's role in the Missouri Compromise and the Compromise of 1850, the Kansas-Nebraska Act (1854), *Dred Scott v. Sandford* (1857), and the Lincoln-Douglas debates (1858)
- The lives of free blacks and the laws that curbed their freedom and economic opportunity

Students analyze the multiple causes, key events and complex consequences of the Civil War, in terms of:

- The conflicting interpretations of state and federal authority as emphasized in the speeches and writings of statesman such as Daniel Webster and John C. Calhoun
- The boundaries constituting "the North" and "the South," the geographical differences between the two regions, and the differences between agrarians and industrialists
- The constitutional issues posed by the doctrine of nullification and secession and the earliest origins of that doctrine
- Abraham Lincoln's presidency and his significant writings and speeches and their relationship to the Declaration of Independence such as his "House Divided" speech (1858), the Gettysburg Address (1863), the Emancipation Proclamation (1863), his inaugural addresses (1861 and 1865)
- The views and lives of leaders and soldiers on both sides of the war, including black soldiers and regiments (e.g., biographies of Ulysses S. Grant, Jefferson Davis, Robert E. Lee)
- Critical developments in the war, including the major battles, geographical advantages and obstacles, technological advances, and Lee's surrender at Appomattox
- How the war affected combatants, with the largest death toll of any war in American history, and the physical devastation, the effect on civilians, and the effect on future warfare

Students analyze the character and lasting consequences of Reconstruction, in terms of:

- The original aims of Reconstruction and the effects on the political and social structure of different regions
- The push-pull factors in the movement of former slaves to the cities in the North and to the West, and their differing experiences in those regions (e.g. the experiences of Buffalo Soldiers)
- The effects of the Freedman's Bureau and the restrictions on the rights and opportunities of freedman, including racial segregation and "Jim Crow" laws
- The rise and effects of the Ku Klux Klan
- The thirteenth, fourteenth, and fifteenth amendments to the Constitution, and their connection to Reconstruction

Students analyze the transformation of the American economy and the changing social and political conditions in the United States in response to the Industrial Revolution, in terms of:

- Patterns of agricultural and industrial development as they relate to climate, natural resource use, markets, and trade, including their location on a map
- The reasons for the development of federal Indian policy and the Plains wars with American Indians and their relationship to agricultural development and industrialization
- How states and the federal government encouraged business expansion through tariffs, banking, land grants, and subsidies
- Entrepreneurs, industrialists, and bankers in politics, commerce, and industry (e.g., Andrew Carnegie, John D. Rockefeller, Leland Stanford)
- The location and effects of urbanization, renewed immigration, and industrialization (e.g., effects on social fabric of cities, wealth and economic opportunity, and the conservation movement)
- Child labor, working conditions, laissez-faire policies toward big business, and the labor leaders of (e.g., Samuel Gompers), and the rise of the labor movement, including collective bargaining, strikes, and protests over labor conditions
- The new sources of large-scale immigration and the contribution of immigrants to the building of cities and the economy; the ways in which new social and economic patterns encouraged assimilation of newcomers into the mainstream amidst growing cultural diversity; and the new wave of nativism
- The characteristics and impact of Grangerism and Populism.
- The significant inventors and their inventions (e.g., biographies of Thomas Edison, Alexander Graham Bell, Orville and Wilbur Wright); the incentives that prompted the quality of life (e.g., inventions in transportation, communication, agriculture, industry, education, medicine)

Science

FOCUS ON PHYSICAL SCIENCE

Motion

The velocity of an object is the rate of change of its position. As a basis for understanding this concept, students know:

- Position is defined relative to some choice of standard reference point and a set of reference directions
- Average speed is the total distance traveled divided by the total time elapsed. The speed of an object along the path traveled can vary
- How to solve problems involving distance, time, and average speed
- To describe the velocity of an object one must specify both direction and speed
- Changes in velocity can be changes in speed, direction, or both
- How to interpret graphs of position versus time and speed versus time for motion in a single direction

Forces

Unbalanced forces cause changes in velocity. As a basis for understanding this concept, students know:

- A force has both direction and magnitude
- When an object is subject to two or more forces at once, the effect is the cumulative effect of all the forces
- When the forces on an object are balanced, the motion of the object does not change
- How to identify separately two or more forces acting on a single static object, including gravity, elastic forces due to tension or compression in matter, and friction
- When the forces on an object are unbalanced the object will change its motion (that is, it will speed up, slow down, or change direction)
- The greater the mass of an object the more force is needed to achieve the same change in motion
- The role of gravity in forming and maintaining planets, stars, and the solar system

Structure of Matter

Elements have distinct properties and atomic structure. All matter is comprised of one or more of over 100 elements. As a basis for understanding this concept, students know:

- The structure of the atom and how it is composed of protons, neutrons, and electrons
- Compounds are formed by combining two or more different elements. Compounds have properties that are different from the constituent elements
- Atoms and molecules form solids by building up repeating patterns such as the crystal structure of NaCl or long chain polymers
- The states (solid, liquid, gas) of matter depend on molecular motion
- In solids the atoms are closely locked in position and can only vibrate, in liquids the atoms and molecules are more loosely connected and can collide with and move past one another, while in gases the atoms or molecules are free to move independently, colliding frequently
- How to use the Periodic Table to identify elements in simple compounds

Earth in the Solar System (Earth Science)

The structure and composition of the universe can be learned from the study of stars, galaxies, and their evolution. As a basis for understanding this concept, students know:

- Galaxies are clusters of billions of stars, and may have different shapes
- The sun is one of many stars in our own Milky Way galaxy. Stars may differ in size, temperature, and color
- How to use astronomical units and light years as measures of distance between the sun, stars, and Earth
- Stars are the source of light for all bright objects in outer space. The moon and planets shine by reflected sunlight, not by their own light
- The appearance, general composition, relative position and size, and motion of objects in the solar system, including planets, planetary satellites, comets, and asteroids

Reactions

Chemical reactions are processes in which atoms are rearranged into different combinations of molecules. As a basis for understanding this concept, students know:

- Reactant atoms and molecules interact to form products with different chemical properties
- The idea of atoms explains the conservation of matter: in chemical reactions, the number of atoms stays the same no matter how they are arranged, so their total mass stays the same
- Chemical reactions usually liberate heat or absorb heat
- Physical processes include freezing and boiling, in which a material changes form with no chemical reaction
- How to determine whether a solution is acidic, basic, or neutral

Chemistry of Living Systems (Life Science)

Principles of chemistry underlie the functioning of biological systems. As a basis for understanding this concept, students know:

- Carbon, because of its ability to combine in many ways with itself and other elements, has a central role in the chemistry of living organisms
- Living organisms are made of molecules largely consisting of carbon, hydrogen, nitrogen, oxygen, phosphorus, and sulfur
- Living organisms have many different kinds of molecules including small ones such as water and salt, and very large ones such as carbohydrates, fats, proteins, and DNA

Periodic Table

The organization of the Periodic Table is based on the properties of the elements and reflects the structure of atoms. As a basis for understanding this concept, students know:

- How to identify regions corresponding to metals, nonmetals, and inert gases
- Elements are defined by the number of protons in the nucleus, which is called the atomic number. Different isotopes of an element have a different number of neutrons in the nucleus
- Substances can be classified by their properties, including melting temperature, density, hardness, heat, and electrical conductivity

Density and Buoyancy

All objects experience a buoyant force when immersed in a fluid. As a basis for understanding this concept, students know:

- Density is mass per unit volume
- How to calculate the density of substances (regular and irregular solids, and liquids) from measurements of mass and volume
- The buoyant force on an object in a fluid is an upward force equal to the weight of the fluid it has displaced
- How to predict whether an object will float or sink

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 the other three strands, students should develop their own questions and perform investigations. Students will:

- Plan and conduct a scientific investigation to test a hypothesis
- Evaluate the accuracy and reproducibility of data
- Distinguish between variable and controlled parameters in a test
- Recognize the slope of the linear graph as the constant in the relationship $y=kx$; apply this to interpret graphs constructed from data
- Construct appropriate graphs from data; develop quantitative statements about the relationships between variables
- Apply simple mathematical relationships to determine one quantity given the other two (including speed = distance/time, density = mass/volume, force = pressure x area, volume = area x height)
- Distinguish between linear and non-linear relationships on a graph of data

POINTERS FOR PARENTS

HISTORY/SOCIAL SCIENCE

- ⇒ *Encourage your child to look for heroes in history. What made them a hero? Why were they looked up to? Why were they admired? Research and read about a favorite hero in history. Write them a letter why they are your heroes. Make a timeline of your heroes through history; try to include different eras you've studied. Find pictures of your heroes to include in your timeline.*
- ⇒ *Look at and review the meaning of unfamiliar parts of American documents (e.g., The Constitution, Declaration of Independence, Lincoln's Inaugural Address). Reflect on why the documents were so important to the people of that time. What is the significance of these documents to people today?*
- ⇒ *Have your child become familiar with names, places, events, and phrases from American history, World history, and American Democracy. Make up and play trivial pursuit games to help recall important dates and facts.*
- ⇒ *Use current event stories for your child to see how history has impacted world events that are occurring. Have family discussions about these events, your opinions/views, discuss other views, look up important names of people, find places on the map, etc.*
- ⇒ *Give your child a weekly-earned allowance to help him/her learn how to manage money and to teach responsibility. Have an expected set amount to help your child budget his money. Sometimes it helps to earn the allowance since children are more inclined to spend it more wisely if they have to work for it. Teach them they can save part of it and earn interest in a savings account.*

SCIENCE

- ⇒ *Reinforce math skills with your child since decimals, fractions, percentages, etc., will be used often in Science. Help your child with his/her research skills since they will constantly be using reference books, magazine articles, and the Internet to do research on a scientific topic.*
- ⇒ *Your child will probably find geology very interesting living in California. Review and explore the following suggested topics with your child: how plates move on the earth's surface; characteristics of the earth's crust, mantle, inner and outer core; causes of earthquakes, volcanoes, etc.*
- ⇒ *Explore and research the following topics with your child: how living cells get energy, energy in plants-photosynthesis, energy in animals-respiration, human nutrition, human health, etc. It is important for your child to learn and investigate more about his body.*
- ⇒ *Have your child make a map showing the locations of some historic earthquakes and volcanoes. Explain the relationship that tectonic plates have with earthquakes and volcanoes.*
- ⇒ *WOW Science, Dolphin Mosaic Puzzle (Wild Ones™), Into the Forest are some fun puzzles and games to play with your child.*

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

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