

A Parent's Guide to Curriculum Standards

Grade 6 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.

Word Recognition:

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

Vocabulary and Concept Development:

- Distinguish and interpret figurative language and multiple-meaning words
- Recognize the origins and meanings of frequently-used foreign words in English, and use these words accurately in speaking and writing
- Monitor expository text for unknown words or words with novel meanings, using word, sentence, and paragraph clues to determine meaning
- Understand and explain "shades of meaning" for related words (e.g., softly and quietly)

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:

- Identify and use the structural features of, and differences among, newspapers, magazines, and editorials to gain meaning from text
- Analyze text which uses compare-and-contrast patterns

Comprehension and Analysis of Grade-Level-Appropriate Text:

- Connect and clarify main ideas, identifying their relationship to other sources and related topics
- Clarify understanding of texts by creating outlines, logical notes, summaries, or reports

- Follow multiple-step instructions for preparing applications (e.g., public library card, bank savings account, sports club, or league membership form)

Expository Critique:

- Determine the adequacy and appropriateness of an author's evidence for his or her conclusions
- Make reasonable assertions about text through accurate, supportive citations
- Note instances of unsupported inferences, fallacious reasoning, persuasion, and propaganda 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. The quality and complexity of the materials to be read by students are illustrated in the California Reading List.

Structural Features of Literature:

- Distinguish among forms of fiction, and describe the major characteristics of each form

Narrative Analysis of Grade-Level-Appropriate Text:

- Analyze how the qualities of the character (e.g., courage or cowardice, ambition, or laziness) affect the plot and resolution of the conflict
- Analyze the influence of setting on the problem and its resolution
- Define how tone or meaning is conveyed in poetry through word choice, figurative language, sentence structure, line length, punctuation, rhythm, repetition, and rhyme
- Identify the speaker and recognize the difference between first and third person narration (e.g., autobiography versus biography)
- Identify and analyze features of themes conveyed through characters, actions, and images
- Explain the effects of key literary devices in a variety of fictional and non-fictional texts (e.g., symbolism, imagery, metaphor)

Literary Criticism:

- Critique the credibility of characterization and the degree to which a plot is contrived or realistic (e.g., compare use of fact and fantasy in historical fiction)

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:

- Choose the form of writing that best suits the intended purpose (e.g., personal letter, letter to the editor, review, poem, report, narrative)
- Create a multiple-paragraph expository composition that: (1) engages the interest of the reader and states a clear purpose; (2) develops the topic with supportive details, precise verbs, nouns, and adjectives to paint a visual image in the mind of the reader; (3) concludes with a detailed summary linked to the purpose of composition
- Use a variety of effective and coherent organizational patterns, including comparison and contrast; organization by categories; and arrangement of spatial order, order of importance, or climatic order

Research and Technology:

- Use organizational features of electronic text (e.g., bulletin boards, databases, keyword searches, e-mail addresses) to locate information
- Compose documents with appropriate formatting by using word-processing skills and principles of design (e.g., margins, tabs, spacing, columns, page orientation)

Revising and Evaluating Writing:

- Revise writing to improve organization and consistency of ideas within and between paragraphs

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

- Write narratives that: (1) establish and develop plot and setting, and choose a point of view that is appropriate to stories; (2) include sensory details and concrete language to develop plot and character; (3) use a range of narrative strategies
- Write expository compositions that: (1) state the thesis or purpose; (2) explain the situation; (3) follow an organizational pattern appropriate to the type of composition (e.g., if problem/solution, then paired); (4) offer persuasive evidence for the validity of the description, proposed solutions, etc.
- Write research reports that: (1) pose relevant questions narrow enough to be thoroughly covered; (2) support the main idea(s) with facts, details, examples, and explanations from multiple authoritative sources (e.g., speakers, periodicals, on-line information searches); (3) use a bibliography
- Write responses to literature that: (1) develop an interpretation which exhibits careful reading, understanding and insight; (2) organize the interpretation around several clear ideas, premises, or images; (3) develop and justify the interpretation through sustained use of examples and textual evidence
- Write persuasive compositions that: (1) state a clear position in support of a proposition or proposal; (2) support the position with organized and relevant evidence; (3) anticipate and address reader concerns and counter-arguments

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 simple, compound, and compound-complex sentences; use effective coordination and subordination of ideas to express complete thoughts

Grammar:

- Identify and use present perfect, past perfect, and future perfect tenses; subject-verb agreement with compound subjects; and indefinite pronouns

Punctuation:

- Use colons in business letters, semi-colons to connect independent clauses, and commas when linking two clauses with a conjunction in compound sentences

Capitalization:

- Use correct capitalization

Spelling:

- Spell frequently misspelled words correctly (e.g., their, they're, there)

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:

- Relate the speaker's verbal communication (e.g., word choice, pitch, feeling, tone) and non-verbal messages (e.g., posture, gesture)
- Identify the tone, mood, and emotion conveyed in the oral communication
- Restate and execute multi-step oral instructions and directions

Organization and Delivery of Oral Communication:

- Select a focus, organizational structure, and point of view, matching purpose, message, occasion, and vocal modulation to the audience
- Emphasize salient points to assist the listener in following main ideas and concepts
- Support opinions expressed with detailed evidence and with visual or media displays that use appropriate technology
- Use effective rate, volume, pitch, and tone, and align non-verbal elements to sustain audience interest and attention

Analysis and Evaluation of Oral and Media Communications:

- Analyze the use of rhetorical devices for their intent and effects (e.g., cadence, repetitive patterns, use of onomatopoeia)
- Identify persuasive and propaganda techniques used in television, and identify false and misleading information

Speaking Applications: Students deliver well-organized formal presentations employing traditional rhetorical strategies (i.e., narration, exposition, persuasion, and description). Student speaking demonstrates a command of standard English and the organization and delivery strategies.

- Deliver narrative presentations that: (1) establish a context, plot, and/or point of view; (2) include sensory details and concrete language to develop plot and character; (3) use a range of narrative strategies (e.g., dialogue, tension, or suspense)
- Deliver informative presentations that: (1) pose relevant questions that are sufficiently limited to be completely and thoroughly answered; (2) develop the topic with facts, details, examples, and explanations from multiple authoritative sources (e.g., speakers, periodicals, on-line information)
- Deliver oral responses to literature that: (1) develop an interpretation which exhibits careful reading, understanding, and insight; (2) organize the selected interpretation around several clear ideas, premises, or images; (3) develop and justify the selected interpretation through sustained use of examples and textual evidence
- Deliver persuasive presentations that: (1) provide a clear statement of the position; (2) include relevant evidence; (3) offer logical sequence of information; (4) engage the listener; (5) foster acceptance of the proposition or proposal
- Deliver presentations theorizing on problems and solutions that: (1) establish connections among the situation, the postulated causes and effects, definition of the problem, and at least one solution; (2) offer persuasive evidence to validate the definition of the problem and the proposed solution(s)

POINTERS FOR PARENTS

LANGUAGE ARTS

⇒ *Play interactive board and strategy games with your child that make them read and think.*

⇒ *Discuss the main points in an area that your child is studying.*



⇒ *Have your child practice revising and editing essays, reports, stories, etc., in order to have a thoughtful and well-organized paper. Check for content, grammar, mechanics, and spelling.*

⇒ *Review common misspelled words (e.g., conscious, minimum, suburban, tactile) with your child.*

⇒ *Have your child memorize and practice reciting poems using expression and intonation.*

Math

By the end of sixth grade, students have mastered the four arithmetic operations with positive and negative numbers, whole numbers, fractions, and decimals; they accurately compute and solve problems. They apply their knowledge to statistics and probability. Students understand the concept of and how to calculate the range, mean, median, and mode of data sets. They analyze data and sampling processes for possible bias and misleading conclusions, and they use addition and multiplication of fractions routinely to calculate probabilities for compound events. Students conceptually understand and work with ratios and proportions; they compute percentages (e.g., tax, tips, interest). Students know about π , the formulas for the circumference, and area of a circle. They use letters for numbers in formulas involving geometric shapes and in representing an unknown part of a ratio. They solve 1-step and 2-step linear equations.

Number Sense

Students compare and order fractions, decimals, and mixed numbers. They solve problems involving fractions, ratios, proportions, and percentages.

- Compare and order positive and negative fractions, decimals, and mixed numbers, and place them on a number line
- Interpret and use ratios in different contexts (e.g., batting averages, mile per hour) to show the relative sizes of two quantities using appropriate notations (a/b , a to b , $a:b$), and give ratios in lowest terms
- Use proportions to solve problems (e.g., determine the value of N if $4/7 = N/21$, find the length of a side of a polygon similar to a known polygon). Use cross-multiplication as a method for solving such problems, understanding it as multiplication of both sides of an equation by a multiplicative inverse, and give solution in lowest terms
- Calculate given percentages of quantities, and solve problems involving discounts at sales, interest earned, and tips
- Read, write, interpret place value, and order positive and negative decimals to the nearest hundred-thousandth and positive and negative integers through trillions
- Round whole numbers to the nearest ten through million
- Round decimals (and decimal quotients) to the nearest whole number, tenth, hundredth, and thousandth
- Explore Roman numerals
- Round mixed numbers to the nearest whole number and to the nearest halves, thirds, fourths, fifths, eighths, and tenths
- Use ratios and proportions to interpret map scales and scale drawings

- Determine whether a number is a prime number or a composite number, and explain the concepts of prime and composite numbers

Students calculate and solve problems involving addition, subtraction, multiplication, and division of rational numbers.

- Solve problems involving addition, subtraction, multiplication, and division of fractions, and explain why a particular operation was used for a given situation
- Explain the meaning of multiplication and division of fractions, and perform the calculations (e.g., $5/8$ divided by $15/16 = 5/8 \times 16/15 = 2/3$)
- Solve addition, subtraction, multiplication, and division problems, including those arising in concrete situations that use positive and negative numbers, mixed numbers, decimals, and combinations of these operations
- Determine the least common multiple and greatest common divisor of whole numbers. Use them to solve problems with fractions (e.g., to find a common denominator in order to add two fractions or to find the reduced form for a fraction)
- Raise whole numbers to whole number powers beyond cubic powers and know powers of 10 to 10^6
- Translate among whole numbers, fractions, and decimals including repeating decimals, choosing the appropriate form for a given task
- Identify the reciprocal of a given fraction, and know that the product of a given number and its reciprocal = 1
- Associate prefixes used in metric system with quantities: kilo, hecto, deka, deci, centi, milli

Algebra and Functions

Students write verbal expressions and sentences as algebraic expressions and equations; they evaluate algebraic expressions, solve simple linear equations, and graph and interpret their results.

- Write and solve one-step and two-step linear equations in one variable
- Write and evaluate an algebraic expression for a given situation using up to three variables
- Apply algebraic order of operations and the commutative, associative, and distributive properties to evaluate expressions, and justify each step in the process
- Solve problems using correct order of operations manually and by using a scientific calculator
- Solve problems requiring interpretation and application of data from graphs and tables
- Plot points on a coordinate plane, using ordered pairs of positive and negative whole numbers and decimals
- Graph simple functions, and solve problems involving use of a coordinate plane

Students analyze and use tables, graphs, and rules to solve problems involving rates and proportions.

- Convert from one unit of measurement to another (e.g., from feet to miles, from centimeters to inches) temperature, weight mass, volume, length, time
- Demonstrate understanding that rate is a measure of one quantity per unit value of another quantity
- Solve problems involving rates, average speed, distance, and time

Students investigate geometric patterns and describe them algebraically.

- Use variables in expressions describing geometric quantities (e.g., $P = 2w + 2l$, $A = \frac{1}{2}bh$, $C = \pi d$), which give the perimeter of a rectangle, area of a triangle, and circumference of a circle, respectively
- Express simple relationships arising from geometry in symbolic form

Mathematical Reasoning

Students make decisions about how to approach problems.

- Analyze problems by identifying relationships, discriminating relevant from irrelevant information, identifying missing information, sequencing and prioritizing information, and observing patterns
- Formulate and justify mathematical conjectures based upon a general description of the mathematical question or problem posed
- Determine when and how to break a problem into simpler parts.
- Use mental math to solve problems involving simple fractions, decimals, and percents

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
- Estimate unknown quantities graphically, and solve for them using logical reasoning and arithmetic and algebraic techniques
- 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 the strategies used, and extend them to new problem situations

Statistics, Data Analysis, and Probability

Students compute and analyze statistical measurement for data sets.

- Compute the range, mean, median, and mode of data sets
- Understand how additional data added to data sets can affect these computations of measures of central tendency
- Understand how the inclusion or exclusion of outliers affect measures of central tendency
- Know why a specific measure of central tendency (mean, median, mode) provides the most useful information in a given context

Students use data samples of population, and describe the characteristics and limitations of the samples.

- Compare different samples from a population with the data from the entire population, and identify when it makes sense to use a sample
- Identify different ways of selecting a sample (e.g., convenience sampling, those who respond to a survey, random sampling) and which makes a sample more representative for a population
- Analyze data displays, and explain how the way the question was asked might have influenced the results obtained and/or how the way the results were displayed might have influenced the conclusions reached
- Identify data that represent sampling, and explain why the sample (and the display) may be biased
- Identify claims based on statistical data, and, in simple cases, evaluate the validity of the claims

Students determine theoretical and experimental probabilities, and use these to make predictions about events.

- Represent all possible outcomes for compound events in an organized way (e.g., tables, grids, tree diagrams), and express the theoretical probability of each outcome
- Use data to estimate the probability for future events (e.g., batting averages or number of accidents per mile driven)
- Represent probabilities as ratios, proportions, decimals, and percents between 0 – 100, and check that probabilities computed are reasonable; know how this is related to the probability of an event not occurring
- Understand that the probability of either of two disjoint events occurring is the sum of the two individual probabilities and that the probability of one event following another, in independent trials, is the product of the two probabilities
- Understand the difference between independent and dependent events and how this affects the results for specific probability situations

Measurement and Geometry

Students deepen their understanding of measurement of plane and solid shapes, and use this understanding to solve problems.

- Understand the concept of a constant number like π ; know the formula for the circumference and area of a circle
- Know common estimates of π (3.14; 22/7), and use these values to estimate and calculate the circumference and the area of circles; compare with actual measurements
- Know and use the formulas for the volume of triangular prisms and cylinders (area of base x height), compare and explain the similarity between these formulas and the formula for the volume of a rectangular solid, and find a missing dimension given the volume
- Identify and use symbols that mean: *is congruent to*, *is similar to*, *is parallel to*, and *is perpendicular to*
- Measure angles and degrees, know the meaning of right angle, acute angle, obtuse angle, and straight angle

Students identify and describe the properties of two-dimensional figures.

- Identify angles as vertical, adjacent, complementary, and/or supplementary, and provide descriptions of these terms
- Use the properties of complimentary and supplementary angles and of the angles of a triangle to solve problems involving an unknown angle
- Draw quadrilaterals and triangles given information about them (e.g., a quadrilateral having equal sides but no right angles, a right isosceles triangle)
- Bisect an angle
- Construct a figure congruent to a given figure using reflection over a line of symmetry; identify corresponding parts
- Show how congruent plane figures can be made to correspond through reflection, rotation, and translation
- Identify congruent angles, congruent sides, and axes of symmetry in parallelograms, rhombuses, rectangles, and squares
- Determine if geometric figures (quadrilaterals and triangles) are similar, and write proportions to express the relationships between corresponding parts of similar figures

POINTERS FOR PARENTS

MATH

- ⇒ *Periodically use shopping and eating out as an excellent opportunity for your child to figure out percentages, proportions, ratios in their head, especially when calculating discounts, taxes, tips, etc.*
- ⇒ *Make a recipe at home and have your child figure out how much would be needed if you doubled or halved the recipe.*
- ⇒ *When planning trips have your child figure out how many miles you will travel by reading the map and based on an average number of miles traveled in an hour (60 miles per hour) determine how long the trip will take. Have your child compute how much gasoline will need to be used based on the number of miles you get per gallon. Have them help you figure out how many miles to the gallon your car gets. Provide many real life opportunities as such to figure out what is being done and how much of something you are using.*
- ⇒ *Practice figuring out mean and median in a series of numbers with your child. Look at the sports section of the newspaper and keep record of some favorite team's scores and figure out the mean and median scores.*
- ⇒ *Expose your child to more advanced video programs (e.g., Decimal & Fraction Maze, Hi-Flyer Decimals, Math Blaster Algebra, Mathpert Algebra Assistant, Nothin' But ... The Fractions I).*

History/Social Science

WORLD HISTORY AND GEOGRAPHY: ANCIENT CIVILIZATIONS

Students in grade six expand their understanding of history by studying the people and events that ushered in the dawn of the major western and non-western ancient civilizations. Geography is of special significance in the development of the human story. Continued emphasis is placed on the everyday lives, problems, and accomplishments of people, their role in developing social, economic, and political structures, as well as in establishing and spreading ideas that helped transform the world forever. Students develop higher levels of critical thinking by considering why civilizations developed where and when they did, why they became dominant, and why they declined. Students analyze the interactions among the various cultures, emphasizing their enduring contributions and the link, despite time, between the contemporary and ancient worlds.

Students describe what is known through archaeological studies of the early physical and cultural development of mankind from the Paleolithic Era to the agricultural revolution, in terms of:

- The hunter-gatherer societies and their characteristics, including the development of tools and the use of fire
- The location of human communities that populated the major regions of the world and how humans adapted to a variety of environments
- The climatic changes and human modifications of the physical environment that gave rise to the domestication of plants and animals and the increase in the sources of clothing and shelter

Students analyze the geographic, political, economic, religious, and social structures of the early civilizations of Mesopotamia, Egypt, and Kush, in terms of:

- The location and description of the river systems and physical settings that supported permanent settlement and early civilizations
- The development of agricultural techniques that permitted the production of economic surplus and the emergence of cities as centers of culture and power
- The relationship between religion and the social and political order in Mesopotamia and Egypt
- The significance of Hammurabi's Code, Egyptian art, and architecture
- The location and description of the role of the Egyptian trade in the eastern Mediterranean and Nile Valley
- The significance of the lives of Queen Hatsheput and Ramses the Great
- The location of the Kush civilization and its political, commercial, and cultural relations with Egypt
- The evolution of language and its written forms

Students analyze the geographic, political, economic, religious, and social structures of the early civilizations of the Ancient Hebrews, in terms of:

- The origins and significance of Judaism as the first monotheistic religion based on the concept of one God who sets down moral laws for humanity
- The sources of the ethical teachings and central beliefs of Judaism (the Hebrew Bible, the Commentaries): belief in God, observance of law, practice of concepts of righteousness and justice, and importance of study; how the ideas of the Hebrew traditions are reflected in the moral and ethical traditions of Western civilization
- How Abraham, Moses, Naomi, Ruth, David, and Yohanan ben Zaccai influenced the development of the Jewish religion
- The location of the settlements and movements of Hebrew peoples, including the Exodus, the movement to and from Egypt, and the significance of the Exodus experience to the Jewish people and other people in history
- How Judaism survived and developed despite the continuing dispersion of much of the Jewish population from Jerusalem and the rest of the land of Israel after the destruction of the second Temple in 70 A.D.

Students analyze the geographic, political, economic, religious, and social structures of the early civilization of Ancient Greece, in terms of:

- The connections between geography and the development of city-states in the region of the Aegean Sea, including patterns of trade and commerce among Greek city-states and within the wider Mediterranean region
- The transition from tyranny and oligarchy to early democratic forms of government and back to dictatorship in ancient Greece, and the significance of the invention of the idea of citizenship
- The key differences between Athenian or direct democracy and representative democracy (e.g., draw from Pericles' Funeral Oration)

- The significance of Greek mythology to the everyday life of people in the region and how Greek literature continues to permeate our literature and language today, drawing from Greek mythology and epics such as the *Iliad* and the *Odyssey* and from *Aesop's Fables*
- The founding, expansion, and political organization of the Persian Empire
- Similarities and differences between life in Athens and Sparta, with emphasis on their roles in the Persian and Peloponnesian Wars
- The rise of Alexander the Great in the north and the spread of Greek culture eastward and into Egypt
- The enduring contributions of important Greek figures in the arts and sciences (e.g., biographies of Hypatia, Socrates, Plato, Aristotle, Euclid, Thucydides)

Students analyze the geographic, political, economic, religious, and social structures of the early civilizations of India, in terms of:

- The location and description of the river system and physical setting that supported the rise of this civilization
- The significance of the Aryan invasions
- The major beliefs and practices of Brahmanism in India and how they evolved into early Hinduism
- The social structure of the caste system
- The life and moral teachings of Buddha and how Buddhism spread in India, Ceylon, and Central Asia
- The growth of the Maurya empire and the political and moral achievements of the emperor Asoka
- Important aesthetic and intellectual traditions (e.g., Sanskrit literature, including the *Bhagavad Gita*, medicine, metallurgy, mathematics including Hindu-Arabic numerals and the zero)

Students analyze the geographic, political, economic, religious, and social structures of the early civilizations of China, in terms of:

- The location and description of the origins of Chinese civilization in the Huang-He Valley Shang dynasty
- The geographical features of China that made governance and movement of ideas and goods difficult and served to isolate that country from the rest of the world
- The life of Confucius and the fundamental teachings of Confucianism and Taoism
- The political and cultural problems prevalent in the time of Confucius and how he sought to solve them
- The policies and achievements of the emperor Shi Huangdi in unifying northern China under the Qin dynasty
- The political contributions of the Han dynasty to the development of the imperial bureaucratic state and the expansion of the empire
- The significance of the trans-Eurasian "silk roads" in the period of the Han and Roman empires and their locations
- The diffusion of Buddhism northward to China during the Han dynasty

Students analyze the geographic, political, economic, religious, and social structures in the development of Rome, in terms of:

- The location and rise of the Roman Republic, including such important mythical and historical figures as Aeneas, Romulus and Remus, Cincinnatus, Julius Caesar, and Cicero
- The character of the government of the Roman Republic and its significance (e.g., written constitution and tripartite government, checks and balances, civic duty)
- The location of and the political and geographic reasons for the growth of Roman territories and expansion of the empire, including how the Roman Empire fostered economic growth through the use of currency and trade routes
- The influence of Julius Caesar and Augustus in Rome's transition from republic to empire
- The migration of Jews around the Mediterranean region and the effects of their conflict with the Romans, including the Romans' restrictions on their right to live in Jerusalem
- The origins of Christianity in the Jewish Messianic prophecies, the life and teachings of Jesus of Nazareth as described in the New Testament, and the contribution of St. Paul the Apostle to the definition and spread of Christian beliefs (e.g., belief in the Trinity, resurrection, salvation)
- The circumstances that led to the spread of Christianity in Europe and other Roman territories
- The legacies of Roman art and architecture, technology and science, literature, language, and law

Science

FOCUS ON EARTH SCIENCE

Plate Tectonics and Earth's Structure

Plate tectonics explains important features of the Earth's surface and major geologic events. As the basis for understanding this concept, students know:

- The fit of the continents, location of earthquakes, volcanoes, and midocean ridges and the distribution of fossils, rock types, and ancient climatic zones provide evidence for plate tectonics
- The solid Earth is layered with cold, brittle lithosphere; hot, convecting mantle; and dense, metallic core
- Lithospheric plates that are the size of continents and oceans move at rates of centimeters per year in response to movements in the mantle
- Earthquakes are sudden motions along breaks in the crust called faults, and volcanoes/fissures are locations where magma reaches the surface
- Major geologic events, such as earthquakes, volcanic eruptions, and mountain building result from plate motions
- How to explain major features of California geology in terms of plate tectonics (including mountains, faults, volcanoes)
- How to determine the epicenter of an earthquake and that the effects of an earthquake vary with its size, distance from the epicenter, local geology, and the type of construction involved

Shaping the Earth's Surface

Topography is reshaped by weathering of rock and soil and by the transportation and deposition of sediment. As the basis for understanding this concept, students know:

- Water running downhill is the dominant process in shaping the landscape, including California's landscape
- Rivers and streams are dynamic systems that erode and transport sediment, change course, and flood their banks in natural and recurring patterns
- Beaches are dynamic systems in which sand is supplied by rivers and moved along the coast by wave action
- Earthquakes, volcanic eruptions, landslides, and floods change human and wildlife habitats

Heat (Thermal Energy) (Physical Science)

Heat moves in a predictable flow from warmer objects to cooler objects until all objects are at the same temperature. As a basis for understanding this concept, students know:

- Energy can be carried from one place to another by heat flow, or by waves including water waves, light and sound, or by moving objects
- When fuel is consumed, most of the energy released becomes heat energy
- Heat flows in solids by conduction (which involves no flow of matter) and in fluids by conduction and also by convection (which involves flow of matter)
- Heat energy is also transferred between objects by radiation; radiation can travel through space

Energy in the Earth System

Many phenomena on the Earth's surface are affected by the transfer of energy through radiation and convection currents. As a basis for understanding this concept, students know:

- The sun is the major source of energy for phenomena on the Earth's surface, powering winds, ocean currents, and the water cycle
- Solar energy reaches Earth through radiation, mostly in the form of visible light

- Heat from Earth's interior reaches the surface primarily through convection
- Convection currents distribute heat in the atmosphere and oceans
- Differences in pressure, heat, air movement, and humidity result in changes of weather

Ecology (Life Science)

Organisms in ecosystems exchange energy and nutrients among themselves and with the environment. As a basis for understanding this concept, students know:

- Energy entering ecosystems as sunlight is transferred by producers into chemical energy through photosynthesis, and then from organism to organism in food webs
- Over time, matter is transferred from one organism to others in the food web, and between organisms and the physical environment
- Populations of organisms can be categorized by the functions they serve in an ecosystem
- Different kinds of organisms may play similar ecological roles in similar biomes
- The number and types of organisms an ecosystem can support depends on the resources available and abiotic factors, such as quantity of light and water, range of temperatures, and soil composition

Resources

Sources of energy and materials differ in amounts, distribution, usefulness, and the time required for their formation. As a basis for understanding this concept, students know:

- The utility of energy sources is determined by factors that are involved in converting these sources to useful forms and the consequences of the conversion process
- Different natural energy and material resources, including air, soil, rocks, minerals, petroleum, fresh water, wildlife, and forests, and classify them as renewable or nonrenewable
- Natural origin of the materials used to make common objects

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:

- Develop a hypothesis
- Select and use appropriate tools and technology (including calculators, computers, balances, spring scales, microscopes, and binoculars) to perform tests, collect data, and display data
- Construct appropriate graphs from data and develop qualitative statements about the relationships between variables
- Communicate the steps and results from an investigation in written reports and verbal presentations
- Recognize whether evidence is consistent with a proposed explanation
- Read a topographic map and a geologic map for evidence provided on the maps, and construct and interpret a simple scale map
- Interpret events by sequence and time from natural phenomena (e.g., relative ages of rocks and intrusions)
- Identify changes in natural phenomena over time without manipulating the phenomena (e.g., a tree limb, a grove of trees, a stream, a hill slope)

POINTERS FOR PARENTS

HISTORY/SOCIAL SCIENCE

- ⇒ Have your child browse through an atlas and find more map features (e.g., Antarctic and Arctic circles, Prime Meridian, Time Zones). Become familiar with and recognize these geographical terms: Bay, canal, canyon, delta, deserts, equator, floodplain, glacier, gulf, hillside, isthmus, oasis, peninsula, plain, plateau, rainforests, reef, reservoir, strait, swamp, tributary.
- ⇒ Let your child explore what it would be like to live in great deserts of the world (e.g., Mojave).
- ⇒ Have active discussions with your child about the topics s/he is studying (e.g., early civilization of the Ancient Hebrews, Ancient Greece, India, China, and Rome. Make a timeline of events that occurred and illustrate pictures to highlight these events.
- ⇒ Include conversations of how some main ideas from Christianity, Judaism, Ancient Greece and Ancient Rome have made a difference in our nation's governmental policies.
- ⇒ Encourage your child to play some of the following educational history games: *The Best of Chronology*, *Diplomacy*, *Who Am I? The Biography® Game*, *National Geographic Mystery Voyage Game*, *Hounds and Jackals®*, *United States Presidents*, *Overthron®*.

SCIENCE

- ⇒ Give your child opportunities to practice collecting, recording, analyzing, and reporting data, stating clear hypotheses, and testing their predictions to experiments. Your child should be able to provide different explanations of his results.
- ⇒ Have your child investigate different forms of energy, how energy can change forms, transfer of heat energy by conduction, convection, and radiation, effects of adding and removing energy, heat and temperature, what happens during expansion and contraction of substances and what happens during condensation, freezing, melting, and boiling.
- ⇒ Explore the human body systems with your child, especially the lymphatic and immune systems. Look up a common disease, find out if it is a bacterial or viral infection, if it is communicable, what are the symptoms, etc.
- ⇒ Introduce the concept of physics to your child by learning about concepts of speed, force, work, energy, conservation, and power. Look at and figure out the uses of the equations (e.g., $Speed = Distance/Time$; $S = d/t$, $Work = Force \times Distance$; $W = fxd$).
- ⇒ Try to involve your child in educational science games and puzzles (e.g., *Game of Knowledge*, *Something Fishy (Impossible Puzzle)*, *Wow Science™ Mind Over Matter Kit™*, *Wow Science™ Visual Illusions Kit*).

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.



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