

La Entrada School

Curriculum Guide for Fourth Grade Parents

La Entrada Middle School has traditionally maintained a comprehensive, rigorous course of study for all students. In recent years the State of California has developed content standards in the areas of mathematics, English-language arts, science, and history-social sciences designed to bring our state's public schools "*on par with those in the best educational systems in others states and nations*". Our curriculum has been reviewed and updated in the main academic areas to insure the state standards are the core of our academic program.

La Entrada Middle School has traditionally encouraged and supported teachers to implement curriculum using a variety of instructional strategies designed to meet the needs of each student. Each teacher's strengths and expertise are recognized and valued as the means and methods for delivering a quality education to every child. While the content standards describe what to teach, they are not intended to define how to teach. Teachers interpret and adapt the curriculum to reach all students through differentiated instruction.

Well-communicated standards provide you with the information you need to have a better understanding of what your child is to learn in a specific grade level and in a specific subject. Your knowledge of the standards will help you frame your questions for parent-teacher conferences and counselor conferences; select reading and writing materials for the home; and shape your visits to public libraries and other places of interest. This curriculum guide is intended to inform parents of what fourth graders need to know and be able to do by the **end** of fourth grade.

Websites

To obtain additional information about State of California standards, and curriculum instruction visit the following websites:

California Department of Education: www.cde.ca.gov

State Content Standards: <http://www.cde.ca.gov/be/st/ss/>

State Frameworks: <http://www.cde.ca.gov/be/st/fr/>

Physical Education: <http://www.cde.ca.gov/ci/pe/>

Las Lomas District: <http://www.llesd.org/>



Mathematics

The Mathematics Content Standards for California Public Schools Introduction states that:

- *Proficiency in most of mathematics is not an innate characteristic; it is achieved through persistence, effort, and practice on the part of students.*
- *Students require a strong foundation in basic skills. All students must be able to add, subtract, multiply, and divide easily.*
- *By the end of grade four, students understand large numbers and addition, subtraction, multiplication, and division of whole numbers. They describe and compare simple fractions and decimals. They understand the properties of, and the relationships between, plane geometric figures. They collect, represent, and analyze data to answer questions.*
- *Mathematics content standards* are organized into five strands.*

Number Sense

1.0 Students understand the place value of whole numbers and decimals to two decimal places and how whole numbers and decimals relate to simple fractions. Students use the concepts of negative numbers:

- 1.1 Read and write whole numbers in the millions
- 1.2 Order and compare whole number and decimals
- 1.3 Round whole numbers through the millions to the nearest ten, hundred, thousand, ten thousand, or hundred thousand
- 1.4 Decide when a rounded solution is called for and explain why
- 1.5 Explain different interpretations of fractions and equivalents of fractions
- 1.6 Write tenths and hundredths in decimal and fractions notations
- 1.7 Write fractions represented by a drawing; represent fraction as a drawing; relate fraction to decimal on number line
- 1.8 Use concepts of negative numbers on number line, in counting, etc.
- 1.9 Identify on number line relative positions of positive fractions, positive and mixed numbers, and positive decimals

2.0 Students extend their use and understanding of whole numbers to the addition and subtraction of simple decimals:

- 2.1 Estimate/compute sum or difference of whole numbers and decimals to two places
- 2.2 Round two-place decimals to one decimal or nearest whole number

3.0 Students solve problems involving addition, subtraction, multiplication, and division of whole numbers and understand the relationships among the operations:

- 3.1 Understand/use standard algorithms for addition and subtractions of multidigit numbers
- 3.2 Understand/use standard algorithms for multiplying multidigit numbers by two-digit numbers and for dividing multidigit numbers by one-digit numbers; check results
- 3.3 Solve problems involving multiplication of multidigit numbers by two-digit numbers
- 3.4 Solve problems involving division of multidigit numbers by one-digit numbers

4.0 Students know how to factor small whole numbers:

- 4.1 Understand many numbers break down differently (e.g., $12 = 4 \times 3 = 2 \times 6 = 2 \times 2 \times 3$)
- 4.2 Know that numbers such as 2, 3, 5, 7, and 11 do not have any factors except 1 and themselves and are called prime numbers

Algebra and Functions

1.0 Students use/interpret variables, mathematical symbols, and properties to write and simplify expressions and sentences:

- 1.1 Use letters/boxes/symbols to stand for any number in simple expressions/equations
- 1.2 Interpret/evaluate mathematical expressions that now use parentheses
- 1.3 Use parentheses to indicate which operation to perform first when writing expressions containing more than two terms and different operations
- 1.4 Use and interpret formulas (e.g., $\text{area} = \text{length} \times \text{width}$ or $A = lw$)
- 1.5 Understand equations such as $y = 3x + 5$ are a prescription for determining a second number when a first number is given

2.0 Students know how to manipulate equations:

- 2.1 Know and understand that equals added to equals are equal
- 2.2 Know and understand that equals multiplied by equals are equal

Measurement and Geometry

1.0 Students understand perimeter and area:

- 1.1 Measure area of rectangular shapes using appropriate units, such as cm^2 or yd^2
- 1.2 Recognize that rectangles that have the same area can have different perimeters
- 1.3 Understand that rectangles that have the same perimeter can have different areas
- 1.4 Understand/use formulas to find perimeters and areas of rectangles and squares.

2.0 Students use two-dimensional coordinate grids to represent points/graph lines/figures

- 2.1 Draw the points corresponding to linear relationships on graph paper
- 2.2 Understand length of a horizontal line segment equals difference of x -coordinates
- 2.3 Understand length of a vertical line segment equals the difference of y -coordinates

3.0 Students demonstrate an understanding of plane and solid geometric objects and use this knowledge to show relationships and solve problems:

- 3.1 Identify lines that are parallel and perpendicular
- 3.2 Identify the radius and diameter of a circle
- 3.3 Identify congruent figures
- 3.4 Identify figures that have bilateral and rotational symmetry
- 3.5 Know definitions of right, acute, and obtuse angles; understand that 90° , 180° , 270° , and 360° are associated with equivalent fractions and turns
- 3.6 Visualize/describe/make models of geometric solids using number/shape of faces, edges, vertices; interpret two-dimensional representations of 3-D objects
- 3.7 Know the definitions of different triangles and identify their attributes
- 3.8 Know the definition of different quadrilaterals (e.g., rhombus, square, trapezoid, etc.)

Statistics, Data Analysis, and Probability

1.0 Students organize, represent, and interpret numerical and categorical data and clearly communicate their findings:

- 1.1 Formulate survey questions; systematically collect/represent data on a number line; and coordinate graphs, tables, and charts
- 1.2 Identify the model(s) for sets of categorical data and the mode(s), median
- 1.3 Interpret one- and two-variable data graphs to answer questions about a situation

2.0 Students make predictions for simple probability situations:

- 2.1 Represent all possible outcomes for simple probability situations in organized way
- 2.2 Express outcomes of experimental probability verbally and numerically

Mathematical Reasoning

1.0 Students make decisions about how to approach problems:

- 1.1 Analyze problems, identify relationships/patterns
- 1.2 Determine when/how to break problems into simpler parts

2.0 Students use strategies, skills, and concepts in finding solutions:

- 2.1 Use estimation to verify reasonableness of results
- 2.2 Apply strategies/results from simpler problems to complex problems
- 2.3 Use variety of methods to explain math reasoning
- 2.4 Express solutions clearly and logically
- 2.5 Indicate appropriateness of exact or approximate solutions
- 2.6 Make precise calculations and check validity of results in context

3.0 Students more beyond a particular problem by generalizing to other situations:

- 3.1 Evaluate reasonableness of solution
- 3.2 Note method of deriving solution and solve similar problems
- 3.3 Develop generalizations of results and apply in other circumstances

* A more detailed guide to the content standards is located at the back of the textbook.

Adopted text: *California Mathematics*, Macmillan/McGraw Hill, 2008

Websites: <http://macmillanmh.com/math/2009/ca>

English-Language Arts

The English-Language Arts Standards for California Public Schools Introduction states that:

- *“The ability to communicate well -to read, write, listen, and speak- runs to the core of human experience. Language skills are essential tools not only because they serve as the necessary basis for further learning and career development but also because they enable the human spirit to be enriched, foster responsible citizenship, and preserve the collective memory of a nation.”*
- *“Reading, writing, listening, and speaking are not disembodied skills. Each exists in context and in relation to the others...(and should be linked) to other core curricula including history, social science, mathematics, and science.”*
- *The English-language arts standards are organized into four sections.*

Reading

1.0 Word Analysis, Fluency, and Systematic Vocabulary Development

- 1.1 Read aloud narrative and expository text aloud with grade-appropriate fluency and accuracy and with appropriate pacing, intonation, and expression
- 1.2 Use word origins, derivations, synonyms, antonyms, and idioms to determine the meaning of unknown words
- 1.3 Use root words to determine meaning of unknown words
- 1.4 Know common roots and affixes from Greek and Latin and use this knowledge to analyze meaning of complex words (e.g., international)
- 1.5 Use a thesaurus to determine related words and concepts
- 1.6 Distinguish and interpret words with multiple meanings

2.0 Reading Comprehension

Students read and understand grade-level appropriate material. They draw upon a variety of comprehension strategies as needed. In addition to regular school reading, students read one-half million words annually, including a good representation of grade-level-appropriate narrative and expository text.

- 2.1 Identify structural patterns in informational text (e.g. compare/contrast, cause /effect, sequential/chronological order, proposition/support) to strengthen comprehension
- 2.2 Use appropriate strategies when reading for different purposes
- 2.3 Make/confirm predictions by using prior knowledge and ideas from text
- 2.4 Evaluate new information and hypotheses by testing them against known
- 2.5 Compare/contrast information on same topic
- 2.6 Distinguish between cause and effect and fact and opinion in expository text
- 2.7 Follow multiple-step instructions in basic technical manual

3.0 Literary Response and Analysis

- 3.1 Describe structural differences of imaginative forms of writing including fantasies, etc.
- 3.2 Identify main events of plot, their causes, influence of each event on future actions
- 3.2 Use knowledge of situation/setting/character traits/motivations to determine causes for character’s actions
- 3.4 Compare/contrast tales from different cultures
- 3.5 Define figurative language (simile, etc.) and identify use in literary works

Writing

1.0 Writing Strategies

Students write clear, coherent sentences/paragraphs that develop a central idea and show they consider audience/purpose. Students progress through the stages of the writing process.

- 1.1 Select focus/organizational structure/point of view based on purpose/audience/length/format
- 1.2 Create multiple-paragraph compositions with introductory paragraph, establish/support central idea with topic sentence, supporting paragraphs, conclusion, and indentation
- 1.3 Use traditional structures for conveying information
- 1.4 Write fluidly and legibly in cursive or joined italic
- 1.5 Quote/paraphrase information sources, citing them appropriately
- 1.6 Locate information in reference texts by using organizational features
- 1.7 Use various reference materials as an aid in writing
- 1.8 Understand organization of almanacs, newspapers, and periodicals and how to use them
- 1.9 Demonstrate basic keyboarding skills and familiarity with computer terminology
- 1.10 Edit/revise selected drafts to improve coherence and progression

2.0 Writing Applications

- 1.5 Write narratives: relate ideas, observations, or recollections; provide context, use concrete sensory details; provide insight into why events or experiences are memorable
- 2.2 Write responses to literature to demonstrate understanding, support judgments
- 2.3 Write information reports that frame central question, include facts and details, draw from more than one source
- 2.4 Write summaries that contain main ideas and most significant details

Written and Oral Language Conventions

- 1.1 Use simple and compound sentences in writing and speaking
- 1.2 Combine short, related sentences with appositives, participial phrases, adjectives, adverbs, and prepositional phrases
- 1.3 Identify/use regular/irregular verbs, adverbs, prepositions, coordinating conjunctions
- 1.4 Use parentheses, commas in direct quotations, and apostrophes in possessive case
- 1.5 Use underlining, quotation marks, or italics to identify titles of documents
- 1.6 Capitalize names of magazines, newspapers, first work in quotations, etc. as appropriate
- 1.7 Spell correctly roots, inflections, suffixes, prefixes, and syllable constructions

Listening and Speaking

Students listen critically, respond to oral communication using proper phrasing, pitch, and modulation.

- 1.1 Ask thoughtful questions and respond to questions with appropriate elaboration
- 1.2 Summarize major ideas and supporting evidence
- 1.3 Identify how language usages (e.g., sayings, expressions) reflect regions and cultures
- 1.4 Give precise directions and instructions
- 1.5 Present effective introductions and conclusions that guide/inform understanding
- 1.6 Use traditional structures for conveying information
- 1.7 Emphasize points to help listener/viewer follow important ideas and concepts
- 1.8 Use details, examples, anecdotes, or experiences to explain/clarify information
- 1.9 Use volume, pitch, phrasing, pace, modulation, and gestures to enhance meaning
- 1.10 Evaluate role of media in focusing attention on events and in forming opinions

1.0 Speaking Applications

Students deliver brief recitations and oral presentations about familiar experiences or interests that are organized around a coherent thesis statement.

- 1.1 Make narrative presentations: relate ideas/observations/recollections; provide context/insight
- 1.2 Make informational presentations: frame key question; include facts/details; use more than one source of information
- 1.3 Deliver oral summaries of articles/books that include main ideas, significant details
- 1.4 Recite brief poems/soliloquies/dramatic dialogues using clear diction, tempo, volume, phrasing

Adopted program: *HSP California Excursions*, Harcourt School Publishers, 2009

Program includes reading, writing, grammar, and spelling.

Website: <http://www.harcourtschool.com/reading/>

In addition, all students will study the following core books:

Sid Fleischman, *By the Great Horn Spoon!*

Kate DeCamillo, *Because of Winn-Dixie*

Robert C. O'Brien. *Mrs. Frisby and the Rats of NIMH*

Science

The Science Content Standards for California Public Schools Introduction states that:

- "...the content of science education includes the essential skills and knowledge students will need to be scientifically literate citizens in the twenty-first century.
- "Elementary and middle school standards provide foundational skills and knowledge for students to learn core concepts, principles, and theories of science at the high school level.
- "The Investigation and Experimentation standards should be integral to, and directly and specifically support, the teaching of content strands and disciplines.
- "Students have the opportunity to build connections that link science to technology and societal impacts.... community health, population, natural resources, environmental quality, natural and human-induced hazards, and other global challenges."
- During the fourth grade year students will have the opportunity to learn science by doing laboratory investigations and experiments, solving problems, and reading textbooks and supplemental materials.

Physical Sciences

1. Electricity and magnetism are related effects that have useful applications in everyday life.

Life Sciences

2. All organisms need energy and matter to live and grow.
3. Living organisms depend on one another and on their environment for survival.

Earth Sciences

4. The properties of rocks and minerals reflect the processes that formed them.
5. Waves, wind, water, and ice shape and reshape Earth's land surface.

Investigation and Experimentation

6. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigation.

Adopted program: FOSS (Full Option Science System California Edition 2007), Delta Education

Websites: www.fossweb.com/CA and www.deltaeducation.com

History-Social Science

The History-Social Science Standards for California Public Schools Introduction states that:

- "Mastery of the standards ensure that students not only know facts, but also understand common/complex themes throughout history, making connections among their own lives, the lives of people who came before them, and the lives of those to come."
- "These standards emphasize historical narrative, highlight the roles of significant individuals throughout history, and convey the rights and obligations of citizenship... Students develop the critical thinking skills that historians and social scientists employ to study the past and its relationship to the present."
- "Beginning at grade four, each discipline: history/geography/civics/economics... is woven within the standards at each grade."
- Students in grade four learn the story of their home state, unique in American history in terms of its vast and varied geography, its many waves of immigration beginning with pre-Columbian societies, its continuous diversity, economic energy, and rapid growth. In addition to the specific treatment of milestones in California history, students examine the state in the context of the rest of the nation, with emphasis on the U.S. Constitution and the relationship between state and federal government.

- 4.1 Students demonstrate understanding of physical/human geographic features that define California.
- 4.2 Students describe social, political, cultural, and economic life and interactions among people of California from pre-Columbian societies to the Spanish mission and Mexican rancho periods.
- 4.3 Students explain economic, social, and political life in California from the establishment of the Bear Flag Republic through the Mexican-American War, the Gold Rush, and the granting of statehood.
- 4.4 Students explain how California became an agricultural and industrial power, tracing the transformation of the California economy and its political and cultural development since the 1850s.
- 4.5 Students understand structures/functions/powers of local/state/federal governments in Constitution.

Adopted program: Harcourt Reflections for California, 2006, Harcourt School Publishers

Website: www.harcourtschool.com/hss