

California Learning Resource Network (CLRN) Supplemental Electronic Learning Resources Review Criteria and Process

This document contains the criteria and describes the process for the review of supplemental electronic learning resources by the California Learning Resource Network (CLRN). As required by the State Board of Education, the CLRN review criteria must be developed under the guidance of the CLRN Advisory Committee, submitted for review to the Curriculum Commission and approved by California State Board of Education.

CLRN is intended to provide educators with the information they need to make informed decisions about selection, procurement and instructional use of supplemental electronic learning resources. Electronic learning resources to be reviewed by the CLRN criteria are considered to be supplemental to materials intended as a full course of study at grades K-12. The review process will require resources to be aligned to the California Content Standards, as it is critical that supplemental electronic learning resources be utilized to support and enhance or extend standards-based learning opportunities.

I. Legal authority

Education Code Section 51872 (b) states that *Statewide Education Technology Services* (SETS) are to provide services which "address locally defined needs but that are more efficiently and effectively provided on a statewide basis." California Learning Resource Network (CLRN) is one of four SETS approved by the State Board of Education in July 1999. Summary of outcomes and deliverables for the CLRN service:

1. *Establish and maintain an electronic learning resource evaluation* system that rates software, video, CD's, online resources, and other similar media using criteria developed by the contractor and subsequently approved by the State Board that address both alignment with the State Board content standards and technical quality (i.e., ease of access and use). The results of the evaluation are maintained in a web-accessible database.
2. *Establish and maintain links to online standards-based learning units or lessons* that use the resources identified in #1 above as being in alignment with the evaluation criteria.
3. *Establish and maintain a model web site and web server(s)* that not only make evaluations and links accessible to a large volume of users in a cost-effective manner, but also serve as a major promotional center for other statewide education technology services (SETS).

II. Historical Background

CLRN is building on a long history in the state of providing information to educators about supplemental electronic learning resources. As lead agency for the CLRN project, Stanislaus County Office of Education brings to this project expertise as the former lead agency for the California Instructional Technology Clearinghouse (CITC). In addition, other partner County Offices of Education throughout the state (Humboldt, Kern, Kings, San Diego, San Bernardino,

and Sacramento) add experiences gained from the SCORE projects, as well as website and database management and development.

III. CLRN Review Process

Components of the Review Process

The CLRN review of supplemental electronic learning resources will consist of evaluating resources for alignment to the CLRN review criteria (**Attachments 1 a – j**) and will include the following three major components: California Content Standards Match verification, CLRN minimum requirements review, and legal compliance review. Resources that meet the CLRN review criteria will be included in the CLRN database and website.

Publisher Submission Process

Publishers will be allowed to submit resources for review on a continual basis throughout the year. Quarterly submission deadlines will be set to guarantee that resources are reviewed within 90 days. Publishers will be notified of review dates and submission deadlines at the beginning of the review year (traditional school year calendar). Publishers will be required to submit between 2 – 5 copies of each resource to be reviewed, plus the following required submission documents:

1. Electronic Learning Resource Profile (**Attachment 1a**)
2. Electronic Learning Resource Abstract (**Attachment 1b**)
3. Electronic Learning Resource Match to California Content Standards and Frameworks (English-Language Arts sample for Kindergarten - **Attachment 1c**; Mathematics sample for grade 5 - **Attachment 1d**; History-Social Science for grade 12 – **Attachment 1e**; and Science for grade 8 – **Attachment 1f**).
4. Model Technology Integrated Lesson/Unit Plans (**Attachment 1i**). Initially there will be a phase in period of this requirement. During review year 2000/2001, the lesson(s) must be submitted within 90 days following the date that a resource is approved by CLRN. Beginning in review year 2001/2000, the lesson(s) must be submitted at time of resource submission.

Publishers will complete the required submission documents electronically via a password-protected web database entry system. At the same time, they will mail the resource to be reviewed to the CLRN Office at the Stanislaus County Office of Education. CLRN staff will verify the catalogue data, technology data and distribution option sections of the Profile (**Attachment 1a**). Each resource will then be given a resource tracking number and review date, and then sent to one of the review sites.

Approval of Reviewer Selection and Training

Reviewer selection will be conducted in collaboration with the Curriculum Commission. Selection criteria will include but not be limited to: working knowledge of the California Curriculum Frameworks and Standards, experience with a variety of instructional applications of technology, good writing and analytical skills, and time to participate in the reviews. Reviewers will be reimbursed for their work at an hourly rate established by CLRN Management team. Each three-member review team will have curriculum expertise in the content area and in the use of educational technology. Efforts will be made to establish balanced reviewer teams in terms of geography, ethnicity, representation of men and women, the aged, and the disabled. Each reviewer will be required to complete a disclosure statement, which indicates any possible conflicts of interest. Individuals with conflicts of interest will not serve as reviewers.

CLRN reviewers and facilitators will be trained in the process of how to apply the CLRN criteria to determine if the products meet the minimum CLRN requirements and content standards match. Reviewer training will be developed and conducted in collaboration with the Curriculum Commission. The training will include actual practice in the review of resources, and reviewers will utilize a database driven system to guide their review. Reviewers also will be trained to evaluate resources for legal compliance. This training will be conducted by the CDE initially. If approved by CDE, the training may be provided by CLRN staff.

Reviewer Panels

Review sites will coordinate the formation of three member teams to meet at the review site (county office of education) on the review day. These teams will be composed of members with varying levels of technology skills to ensure that resources are reviewed by both advanced and new technology users. A facilitator, skilled in technology use and the content area being reviewed, will assign resources for review by team. Team members will fill one of three roles:

1. The Scribe completes review data documentation and notations.
2. The Operator navigates the Electronic Learning Resource.
3. The Researcher investigates support documentation for needed information.

Reviewer Instructions

The review team will follow the review procedures outlined below, evaluating each resource for alignment with the CLRN criteria. This is not a comparative review.

1. Resource Preview - The team will preview all parts of the resource so that they are familiar with the components and how the program is intended to be used, using the users manual and support documentation as a guide.
2. Legal Compliance Review (**Attachment 1j**) – The team will conduct the legal compliance review as detailed in the document entitled *Standards for Evaluation of Instructional Material with Respect to Social Content*. If all 3 team members do not reach consensus on legal compliance issues, then the facilitator and one additional reviewer will join the team. Resources found to be non-compliant with respect to social content will not be included in the CLRN web site and database. If a resource is found to be out of compliance with legal compliance requirements, the publisher will have an opportunity to appeal that finding.
3. Content Standards Match Review (**Attachment 1c - f**) - Reviewers will then verify the content standards match as completed by the publisher. They will check citations

submitted by the publisher; mark "Yes" for standards that are covered and "No" for standards that are not covered, providing an explanation for any standards they mark as a "No". Reviewers will also indicate if there is opportunity for practice ("P") and/or assessment. Resources that do not match at least one standard will not be included in the CLRN web site and database.

4. Minimum Review Requirements (**Attachment 1g**) - Reviewers will then verify that resources meet the CLRN minimum review requirements.
5. Additional Features Review (**Attachment 1h**) - Reviewers will identify additional features included in the resource. These additional features will be added to the database and become search items available on the website.
6. Profile (**Attachment 1a**) and Abstract (**Attachment 1b**) Review - Reviewers will then verify and augment as necessary the instructional data section of the Profile and the information submitted by publishers in the Abstract.
7. Model Technology Integrated Lesson/Unit Plan Review (**Attachment 1i**) - Reviewers will verify that submitted lesson/unit plans meet CLRN lesson/unit criteria. These model lesson/unit plans will be added to the database and become additional search items available on the web site intended to demonstrate how to use the resource in the classroom.

CLRN Web site and Posting Procedure

The CLRN web site will provide educators with a user-friendly searchable database of review results. Users will be able to tailor their search query to find resources that meet the specific needs of their classroom environment.

Before posting information to the web site CLRN will:

1. Compile review information and edit for common voice.
2. Notify publishers of results.
 - a. Approved resources and lesson/unit plans - Publisher has seven days to examine review data and recommend any changes.
 - b. Not approved resources and lesson/unit plans - Publishers will be given 30 days to correct and resubmit a product for verification of corrections. If products require major changes (i.e., a new ISBN number is necessary) then the product will require a complete new review and will be added to the review calendar at the next available opportunity.
 - c. Corrections vs. Changes - Consistent with the state level adoption process, the CLRN evaluation will distinguish between corrections vs. changes to a resource.
 - i. **Corrections and edits** (publishers will have 30 days to complete) are defined as: 1) Inexact language and imprecise definitions; 2) mistaken notations; 3) mislabeling of pictures, object, animal, plant, etc.; and 4) misspellings or grammatical errors. Corrections and edits can be identified, corrected, and verified without significant analysis or expertise in the subject area.

- ii. **Changes** (publishers will resubmit a resource for a new review) is defined as: 1) revising a resource to meet the criteria or standards; 2) rewriting a major portion of the resource; 3) adding new content; 4) moving content from one grade level to another; 5) revisions to correct data including definitions and factual errors. "Changes" to a resource means a publisher has added new content that requires the judgment of a review panel to determine whether the changes align the resource with the CLRN criteria and the content standards.

IV. CLRN Implementation Timeline

2000

February-May	Development of Criteria
April-August	Online survey of end-users
May	Criteria to Advisory Committee
July, September	Criteria to Curriculum Commission
August-September	Development of reviewer selection/training process
October	Criteria to State Board of Education
November	Initial site preview - fall CUE Conference
November-December	Selection of reviewers

2001

January	Reviewer training
February-June	Review of resources
March-April	Beta test final version of site
May	Gap analysis of standards addressed. Final site goes live

California Learning Resource Network (CLRN) Submission Documents and Review Criteria (Attachments 1a-j)

- **Publisher Submission Documents (1a-f)**
 - Profile
 - Abstract
 - Sample Standards Match – ELA, Math, History-Social Science and Science
(prepared by the publisher and verified by the reviewers)

- **CLRN Review Criteria (g-i)**
 - Minimum Requirements For All Resources
 - Additional Features
 - Minimum Requirements for Model Technology Integrated Lesson/Unit Plans

- **Legal Compliance Review Criteria (1j)**

Profile

This section provides for a profile of the publishers' descriptive information and technical requirements. It is completed by publishers and verified by reviewers based on information found in the resources.

Catalogue data

Resource Title:	Version (Edition):	Copyright Date:
Author(s):	Producer:	URL:
Grade Level(s): _____ Reading level: _____	Tech Support Phone:	Demo URL:
Series Title: Video length: _____	Primary Content Area: Mathematics ___ English-Language Arts ___ Science ___ History/Social Science ___	
Media: CD-ROM ___ Floppy Disk ___ Laser Disk ___ DVD ___ Video Cassette ___ Internet ___ Other _____		

Instructional data

Predominant Instructional Mode (one or more items): Tutorial ___ Simulation ___ Demonstration ___ Problem Solving ___ Educational Game ___ Skill building ___ Documentary ___ Dramatization ___ Literary adaptation ___ Supplemental Reference Resource ___ Assessment ___
Special Student Population(s) targeted by the ELR: Special Education ___ Below Grade Level ___ Advanced ___ English Language Learners ___ Other _____
Instructional Setting: Single student ___ Small Group ___ Whole Class ___ Computer Lab ___
Features: Close captioned ___ Digital Format ___ Indexing ___ Alternative language tracks ___ Alternative description for graphics, maps, etc ___ Bobbie approved _____
Student Technology Skills needed: Keyboarding ___ Mouse ___ Open and save files ___ (to be expanded)
Minimum Teacher Technology Skills needed: Keyboarding ___ Mouse ___ Open and save files ___ (to be expanded)
Languages Other than English: Spanish ___ Vietnamese ___ Hmong ___ Cantonese ___ Other _____

Technology Data

Hardware: CD Drive ___ DVD Drive ___ Printer ___ Sound capabilities ___ Other Platform Requirements and/or peripheral(s): _____
Operating Systems: Win 95 ___ Windows 98 ___ Windows 2000 ___ Windows NT ___ OS 7 ___ OS 8 ___ OS 9 ___ Other _____ Cross-platform (hybrid CD-ROM) _____
System: Minimum RAM needed ___ Minimum processor speed _____
Software: Word processor ___ Spreadsheet ___ Database ___ Graphics ___ Page layout ___ Multimedia ___ Other: _____
Connectivity: Minimum Bandwidth ___ Email _____
Plug-ins required: Acrobat Reader ___ Flash player ___ Audio player ___ Other _____
Browser version supported (specify min version required): Netscape ___ Internet Explorer _____
Video hardware: VCR ___ Cable access ___ WebTV ___ Laserdisc player ___ DVD player _____

Distribution options

Educator version ___ Lab Pack ___ Network version ___ Web distributed: Subscription ___ Free ___
Demo version available _____
Pricing Structure:

Abstract

This section provides for a narrative description of the product. It is completed by the publisher and verified by the reviewers.

1. A descriptive summary of the resource
2. ELR objectives and expected student outcomes
3. Summary of how the Content Standards are addressed by the Electronic Learning Resource
4. Summary of teacher activities/functions made possible by the resource
5. Summary of student activities/functions made possible by the resource
6. Summary of support material provided with the resource
7. Summary of research relevant to the Electronic Learning Resource, if available

SAMPLE Standards Match- English-Language Arts Content Standards

The first column (1) lists the California Content Standards by strands and grade level as stated in the Framework document. The second column (2) indicates a resource introduces and provides for systematic development of the standard (Yes or No) and if there is opportunity for practice (P). The third (3) column lists the citation documenting where instruction related to the standard can be found. The fourth (4) column identifies assessment if provided and the fifth (5) column lists the citation documenting where the specific assessment feature can be found in the ELR.

1. Standards-based instructional content as stated in the California Language Arts Frameworks listed by Domain, Strand, and standard	2. Standard Development			3. Citation(s)	4. Assessment Y/N	5. Assessment Citation(s)
	Y	N	P			
Kindergarten						
<i>Reading</i>						
1.0 Word Analysis, Fluency & Vocabulary (1.1–1.18)						
1.1 Identify the front cover, back cover, and title page of a book.						
1.2 Follow words from left to right and from top to bottom on the printed page.						
1.3 Understand that printed materials provide information.						
1.4 Recognize that sentences in print are made up of separate words.						
1.5 Distinguish letters from words.						
1.6 Recognize and name all uppercase and lowercase letters of the alphabet.						
1.7 Track (move sequentially from sound to sound) and represent the number, sameness/difference, and order of two and three isolated phonemes (e.g., /f, s, th/, /j, d, j/).						
1.8 Track (move sequentially from sound to sound) and represent changes in simple syllables and words with two and three sounds as one sound is added, substituted, omitted, shifted, or repeated (e.g., vowel-consonant, consonant-vowel, or consonant-vowel-consonant).						
1.9 Blend vowel-consonant sounds orally to make words or syllables.						
1.10 Identify and produce rhyming words in response to an oral prompt.						
1.11 Distinguish orally stated one-syllable words and separate into beginning or ending sounds.						
1.12 Track auditorily each word in a sentence and each syllable in a word.						
1.13 Count the number of sounds in syllables and syllables in words.						
1.14 Match all consonant and short-vowel sounds to appropriate letters.						
1.15 Read simple one-syllable and high-frequency words (i.e., sight words).						
1.16 Understand that as letters of words change, so do the sounds (i.e., the alphabetic principle).						
1.17 Identify and sort common words in basic categories (e.g., colors, shapes, foods).						

1. Standards-based instructional content as stated in the California Language Arts Frameworks listed by Domain, Strand, and standard	2. Standard Development			3. Citation(s)	4. Assessment Y/N	5. Assessment Citation(s)
	Y	N	P			
Kindergarten, continued						
1.18 Describe common objects and events in both general and specific language.						
2.0 Reading Comprehension (2.1–2.5)						
2.1 Locate the title, table of contents, name of author, and name of illustrator.						
2.2 Use pictures and context to make predictions about story content.						
2.3 Connect to life experiences the information and events in texts.						
2.4 Retell familiar stories.						
2.5 Ask and answer questions about essential elements of a text.						
3.0 Literary Response and Analysis (3.1–3.3)						
3.1 Distinguish fantasy from realistic text.						
3.2 Identify types of everyday print materials (e.g., storybooks, poems, newspapers, signs, labels).						
3.3 Identify characters, settings, and important events.						
<i>Writing</i>						
1.0 Writing Strategies (1.1–1.4)						
1.1 Use letters and phonetically spelled words to write about experiences, stories, people, objects, or events.						
1.2 Write consonant-vowel-consonant words (i.e., demonstrate the alphabetic principle).						
1.3 Write by moving from left to right and from top to bottom.						
1.4 Write uppercase and lowercase letters of the alphabet independently, attending to the form and proper spacing of the letters.						
<i>Written & Oral English Language Conventions</i>						
1.0 Writing & Oral English –Lang. Conventions (1.1-1.2)						
1.1 Recognize and use complete, coherent sentences when speaking.						
1.2 Spell independently by using pre-phonetic knowledge, sounds of the alphabet, and knowledge of letter names.						
<i>Listening and Speaking</i>						
1.0 Listening & Speaking Strategies (1.1–1.2)						
1.1 Understand and follow one- and two-step oral directions.						
1.2 Share information and ideas, speaking audibly in complete, coherent sentences.						
2.0 Speaking Applications (2.1–2.3)						
2.1 Describe people, places, things (e.g., size, color, shape), locations, and actions.						
2.2 Recite short poems, rhymes, and songs.						
2.3 Relate an experience or creative story in a logical sequence.						

SAMPLE Standards Match- Mathematics Content Standards

The first column (1) lists the California Content Standards by strands and grade level as stated in the Framework document. The second column (2) indicates a resource introduces and provides for systematic development of the standard (Yes or No), if there is opportunity for practice (P) and if there is a corresponding mathematical reasoning standard (see below). The third (3) column lists the citation documenting where instruction related to the standard can be found. The fourth (4) column identifies assessment if provided and the fifth (5) column lists the citation documenting where the specific assessment feature can be found in the ELR.

Mathematical Reasoning (MR) Strand

The following standards (MR 1, 2, and 3) are illustrative of mathematical reasoning. Indicate the specific MR standard addressed by the resource, where appropriate, in the MR column.

1. Students make decisions about how to approach problems:

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

2. Students use strategies, skills, and concepts in finding solutions:

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

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

- 3.1 Evaluate the reasonableness of the solution in the context of the original situation.
- 3.2 Note the method of deriving the solution and demonstrate conceptual understanding of the derivation by solving similar problems.
- 3.3 Develop generalizations of the results obtained and apply them in other circumstances.

1. Standards-based instructional content as stated in the California Mathematics Framework listed by Strand and standards (key standards in bold)	2. Standard Development				3. Citation(s)	4. Assessment Y/N	5. Assessment Citation(s)	
	Y	N	M R	P				M R
Fifth Grade								
<i>Number Sense</i>								
1. Students compute with very large and very small numbers, positive integers, decimals, and fractions and understand the relationship between decimals, fractions, and percents. They understand the relative magnitudes of numbers:								
1.1 Estimate, round, and manipulate very large (e.g., millions) and very small (e.g., thousandths) numbers.								
1.2 Interpret percents as a part of a hundred; find decimal and percent equivalents for common fractions and explain why they represent the same value; compute a given percent of a whole number.								
1.3 Understand and compute positive integer powers of nonnegative integers; compute examples as repeated multiplication.								
1. Standards-based instructional content as stated in the California Mathematics Framework listed by Strand and standards (key standards in bold)	2. Standard Development				3. Citation(s)	4. Assessment	5. Assessment Citation(s)	

	Y	N	M	P				
			R					
						Y/N		M
								R
Fifth Grade continued								
1.4 Determine the prime factors of all numbers through 50 and write numbers as the product of their prime factors using exponents to show multiples of a factor (e.g., $24 = 2 \times 2 \times 2 \times 3 = 2$ to the third power $\times 3$).								
1.5 Identify and represent on a number line decimals, fractions, mixed numbers, and positive and negative integers.								
2. Students perform calculations and solve problems involving addition, subtraction and simple multiplication and division of fractions and decimals:								
2.1 Add, subtract, multiply, and divide with decimals; add with negative integers; subtract positive integers from negative integers; and verify the reasonableness of the results.								
2.2 Demonstrate proficiency with division, including division with positive decimals and long division with multi-digit divisors.								
2.3 Solve simple problems, including ones arising in concrete situations, involving the addition and subtraction of fractions and mixed numbers (like and unlike denominators of 20 or less), and express answers in the simplest form.								
2.4 Understand the concept of multiplication and division of fractions.								
2.5 Compute and perform simple multiplication and division of fractions and apply these procedures to solving problems.								
<i>Algebra and Function</i>								
1. Students use variables in simple expressions, compute the value of the expression for specific values of the variable, and plot and interpret the results:								
1.1 Use information taken from a graph or equation to answer questions about a problem situation.								
1.2 Use a letter to represent an unknown number; write and evaluate simple algebraic expressions in one variable by substitution.								
1.3 Know and use the distributive property in equations and expressions with variables.								
1.4 Identify and graph ordered pairs in the four quadrants of the coordinate plane.								
1.5 Solve problems involving linear functions with integer values; write the equation; and graph the resulting ordered pairs of integers on a grid.								
<i>Measurement and Geometry</i>								
1. Students understand and compute volumes and areas of simple objects:								
1.1 Derive and use the formula for the area of a triangle and of a parallelogram by comparing it with the formula for the area of a rectangle (i.e., two of the same triangles make a parallelogram with twice the area; a parallelogram is compared with a rectangle of the same area by cutting and pasting a right triangle on the parallelogram).								
1. Standards-based instructional content as stated in the California Mathematics Framework listed by Strand and standards (key standards in bold)	2. Standard Development				3. Citation(s)	4. Assessment	5. Assessment Citation(s)	
	Y	N	M	P		Y/N		M
			R					R

Fifth Grade continued								
1.2 Construct a cube and rectangular box from two-dimensional patterns and use these patterns to compute the surface area for these objects.								
1.3 Understand the concept of volume and use the appropriate units in common measuring systems (i.e., cubic centimeter [cm to the third power], cubic meter [m to the third power], cubic inch [in to the third power], cubic yard [yd to the third power] to compute the volume of rectangular solids.								
1.4 Differentiate between, and use appropriate units of measures for, two- and three-dimensional objects (i.e., find the perimeter, area and volume).								
2. Students identify, describe, and classify the properties of, and the relationships between, plane and solid geometric figures:								
2.1 Measure, identify, and draw angles, perpendicular and parallel lines, rectangles, and triangles, by using appropriate tools (e.g., straightedge, ruler, compass, protractor, drawing software).								
2.2 Know that the sum of the angles of any triangle is 180 degrees and the sum of the angles of any quadrilateral is 360 degrees and use this information to solve problems.								
2.3 Visualize and draw two-dimensional views of three-dimensional objects made from rectangular solids.								
<i>Statistics, Data Analysis, & Probability</i>								
1. Students display, analyze, compare, and interpret different data sets, including data sets of different sizes:								
1.1 Know the concepts of mean median, and mode; compute and compare simple examples to show that they may differ.								
1.2 Organize and display single-variable data in appropriate graphs and representations (e.g., histogram, circle graphs) and explain which types of graphs are appropriate for various data sets.								
1.3 Use fractions and percentages to compare data sets of different sizes.								
1.4 Identify ordered pairs of data from a graph and interpret the meaning of the data in terms of the situation depicted by the graph.								
1.5 Know how to write ordered pairs correctly; for example, (x, y).								

SAMPLE Standards Match- History-Social Science Content Standards Attachment 1e

The first column (1) lists the California Content Standards by strands and grade level as stated in the Framework document. The second column (2) indicates a resource introduces and provides for systematic development of the standard (Yes or No) and if there is opportunity for practice (P). The third (3) column lists the citation documenting where instruction related to the standard can be found. The fourth (4) column identifies assessment if provided and the fifth (5) column lists the citation documenting where the specific assessment feature can be found in the ELR.

1. Standards-based instructional content as stated in the California History-Social Science Framework and listed by Strand and standard.	2. Standard Development			3. Citation(s)	4. Assessment	5. Assessment Citation(s)
	Y	N	P		Y/N	
Twelfth Grade						
<i>Principles of American Democracy</i>						
12.1.1 Students explain the fundamental principles and moral values of American democracy as expressed in the U.S. Constitution and other essential documents of American democracy, in terms of the influence of ancient Greek, Roman, English, and leading European political thinkers such as John Locke, Charles-Louis Montesquieu, Nicolo Machiavelli, and William Blackstone on the development American government.						
12.1.2 Students explain the fundamental principles and moral values of American democracy as expressed in the U.S. Constitution and other essential documents of American democracy, in terms of the character of American democracy and its promise and perils as articulated by Alexis de Tocqueville.						
12.1.3 Students explain the fundamental principles and moral values of American democracy as expressed in the U.S. Constitution and other essential documents of American democracy, in terms of how the U.S. Constitution reflects a balance between the classical republican concern with promotion of the public good and the classical liberal concern with protecting individual rights, and how the basic premises of liberal constitutionalism and democracy are joined in the Declaration of Independence, stated as "self-evident Truths".						
12.1.4 Students explain the fundamental principles and moral values of American democracy as expressed in the U.S. Constitution and other essential documents of American democracy, in terms of how the Founders' realistic view of human nature led directly to a constitutional system that limited the power of the governors and the governed as articulated in The Federalist.						
12.1.5 Students explain the fundamental principles and moral values of American democracy as expressed in the U.S. Constitution and other essential documents of American democracy, in terms of the systems of separated and shared powers; the role of organized interests (The Federalist Number 10); checks and balances (The Federalist Number 51); the importance of an independent judiciary (The Federalist Number 78); enumerated powers; rule of law; federalism; and civilian control of the military.						
1. Standards-based instructional content as stated in the California History-Social Science Framework and listed by Strand and standard.	2. Standard Development			3. Citation(s)	4. Assessment	5. Assessment Citation(s)
	Y	N	P		Y/N	

Twelfth Grade continued						
12.1.6 Students explain the fundamental principles and moral values of American democracy as expressed in the U.S. Constitution and other essential documents of American democracy, in terms of the Bill of Rights as a document limiting the power of the federal government and state governments.						
12.2.1 Students evaluate, and take and defend positions on the scope and limits of rights and obligations as democratic citizens, the relationships among them, and how they are secured, in terms of the meaning and importance of each of the rights guaranteed under the Bill of Rights and how each is secured (e.g., freedom of religion, speech, press, assembly, petition, privacy).						
12.2.2 Students evaluate, and take and defend positions on the scope and limits of rights and obligations as democratic citizens, the relationships among them, and how they are secured, in terms of how economic rights are secured and what their importance is to the individual and to society (e.g., right to acquire, use, transfer, and dispose of property; right to choose one's work; join or not join labor unions; copyright and patent).						
12.2.3 Students evaluate, and take and defend positions on the scope and limits of rights and obligations as democratic citizens, the relationships among them, and how they are secured, in terms of the legal obligations of obeying the law, serving as a juror, and paying taxes.						
12.2.4 Students evaluate, and take and defend positions on the scope and limits of rights and obligations as democratic citizens, the relationships among them, and how they are secured, in terms of the obligation of civic-mindedness including voting, being informed on civic issues, volunteering and performing public service, and serving in the military or alternative service.						
12.2.5 Students evaluate, and take and defend positions on the scope and limits of rights and obligations as democratic citizens, the relationships among them, and how they are secured, in terms of the reciprocity between rights and obligations, i.e., why enjoyment of one's rights entails respect for the rights of others.						
12.2.6 Students evaluate, and take and defend positions on the scope and limits of rights and obligations as democratic citizens, the relationships among them, and how they are secured, in terms of how one becomes a citizen of the United States, including the process of naturalization (e.g., literacy, language, and other requirements).						
12.3.1 Students evaluate, take and defend positions on what the fundamental values and principles of civil society are (i.e., the autonomous sphere of voluntary personal, social, and economic relations not part of government), their interdependence, and meaning and importance for a free society, in terms of how civil society provides opportunities for individuals to associate for social, cultural, religious, economic, and political purposes.						
12.3.2 Students evaluate, take and defend positions on what the fundamental values and principles of civil society are, their interdependence, and meaning and importance for a free society, in terms of how civil society makes it possible for people, individually or in association with others, to bring their influence to bear on government in ways other than voting and elections.						
1. Standards-based instructional content as stated in the California History-Social Science Framework and listed by Strand and standard.	2. Standard Development			3. Citation(s)	4. Assessment	5. Assessment Citation(s)
	Y	N	P		Y/N	
Twelfth Grade continued						

12.3.3 Students evaluate, take and defend positions on what the fundamental values and principles of civil society are, their interdependence, and meaning and importance for a free society, in terms of the historical role of religion and religious diversity.											
12.3.4 Students evaluate, take and defend positions on what the fundamental values and principles of civil society are, their interdependence, and meaning and importance for a free society, in terms of comparisons between the relationship of government and civil society in constitutional democracies and the relationship of government and civil society in authoritarian and totalitarian regimes.											
12.4.1 Students analyze the unique roles and responsibilities of the three branches of government as established by the U. S. Constitution, in terms of Article I of the U. S. Constitution as it relates to the legislative branch, including eligibility for office and lengths of terms of Representatives and Senators, election to office, the role of the House and Senate in impeachment proceedings, the role of the Vice President, the enumerated legislative powers, and the process by which a bill becomes a law.											
12.4.2 Students analyze the unique roles and responsibilities of the three branches of government as established by the U. S. Constitution, in terms of the process through which the U. S. Constitution is amended.											
12.4.3 Students analyze the unique roles and responsibilities of the three branches of government as established by the U. S. Constitution, in terms of the student's current representatives in the legislative branch of the national government.											
12.4.4 Students analyze the unique roles and responsibilities of the three branches of government as established by the U. S. Constitution, in terms of Article II of the U. S. Constitution as it relates to the executive branch including eligibility for office and length of term, election to and removal from office, the Oath of office, and the enumerated executive powers.											
12.4.5 Students analyze the unique roles and responsibilities of the three branches of government as established by the U. S. Constitution, in terms of Article III of the U. S. Constitution as it relates to judicial power including the length of terms of judges and the jurisdiction of the Supreme Court.											
12.4.6 Students analyze the unique roles and responsibilities of the three branches of government as established by the U. S. Constitution, in terms of the selection and confirmation of Supreme Court judges.											
12.5.1 Students summarize landmark U.S. Supreme Court interpretations of the U. S. Constitution and its amendments, in terms of the changing interpretations of the Bill of Rights over time, including the basic freedoms (religion, speech, press, petition, and assembly) articulated in the First Amendment, and the due process and equal protection of the law clauses of the Fourteenth Amendment.											

1. Standards-based instructional content as stated in the California History-Social Science Framework and listed by Strand and standard.	2. Standard Development			3. Citation(s)	4. Assessment	5. Assessment Citation(s)
	Y	N	P		Y/N	
Twelfth Grade continued						
12.5.2 Students summarize landmark U.S. Supreme Court interpretations of the U. S. Constitution and its amendments, in terms of judicial activism and judicial restraint and the effects of each policy over the decades (e.g., Warren vs. Rehnquist courts).						
12.5.3 Students summarize landmark U.S. Supreme Court interpretations of the U. S. Constitution and its amendments, in terms of the effect of the interpretations of the U.S. Constitution, including Marbury v. Madison , McCulloch v. Maryland, and U.S. v. Nixon, with emphasis on the arguments espoused by each side in these cases.						
12.5.4 Students summarize landmark U.S. Supreme Court interpretations of the U. S. Constitution and its amendments, in terms of the controversies that have resulted over changing interpretations of civil rights, including Plessy v. Ferguson, Brown v. Board of Education, Miranda v. Arizona, Regents of the University of California v. Bakke, Adarand Constructors, Inc. v. Pena and United States v. Virginia (VMI).						
12.6.1 Students evaluate issues regarding campaigns for national, state, and local elective office, in terms of the origin, development, and role of political parties noting those occasional periods in which there was only one major party or were more than two major parties.						
12.6.2 Students evaluate issues regarding campaigns for national, state, and local elective office, in terms of the history of the presidential candidate nomination process and increasing importance of primaries in general elections.						
12.6.3 Students evaluate issues regarding campaigns for national, state, and local elective office, in terms of the role of polls, campaign advertising and the controversies over campaign funding.						
12.6.4 Students evaluate issues regarding campaigns for national, state, and local elective office, in terms of the means that citizens use to participate in the political process (e.g., voting, campaigning, lobbying, filing a legal challenge, demonstrating, petitioning, picketing, running for political office).						
12.6.5 Students evaluate issues regarding campaigns for national, state, and local elective office, in terms of the features of direct democracy in numerous states such as the process of referendums and recall elections.						
12.6.6 Students evaluate issues regarding campaigns for national, state, and local elective office, in terms of trends in voter turnout, the causes and effects of reapportionment and redistricting, with special attention to spatial districting and the rights of minorities, and the function of the Electoral College.						
12.7.1 Students analyze and compare the powers and procedures of the national, state, tribal, and local governments, in terms of how conflicts between levels of government and branches of government are resolved.						
12.7.2 Students analyze and compare the powers and procedures of the national, state, tribal, and local governments, in terms of the major responsibilities and sources of revenue for state and local governments.						

1. Standards-based instructional content as stated in the California History-Social Science Framework and listed by Strand and standard.	2. Standard Development			3. Citation(s)	4. Assessment	5. Assessment Citation(s)
	Y	N	P		Y/N	
Twelfth Grade continued						
12.7.3 Students analyze and compare the powers and procedures of the national, state, tribal, and local governments, in terms of reserved powers and concurrent powers of state governments.						
12.7.4 Students analyze and compare the powers and procedures of the national, state, tribal, and local governments, in terms of the Ninth and Tenth Amendments and interpretations of the extent of the federal government's power.						
12.7.5 Students analyze and compare the powers and procedures of the national, state, tribal, and local governments, in terms of how public policy is formed, including the setting of the public agenda and how it is carried out through regulations and executive orders.						
12.7.6 Students analyze and compare the powers and procedures of the national, state, tribal, and local governments, in terms of the process of lawmaking at each of the three levels of government, including the role of lobbying and the media.						
12.7.7 Students analyze and compare the powers and procedures of the national, state, tribal, and local governments, in terms of the organization and jurisdiction of federal, state and local (e.g., California) courts, and the interrelationships between the federal state and local courts.						
12.7.8 Students analyze and compare the powers and procedures of the national, state, tribal, and local governments, in terms of the scope of presidential power and decision-making through the examination of case studies such as the Cuban Missile Crisis, passage of Great Society legislation, War Powers Act, Gulf War, and Bosnia.						
12.8.1 Students evaluate, take and defend positions on the influence of the media on American political life, in terms of the meaning and importance of a free and responsible press.						
12.8.2 Students evaluate, take and defend positions on the influence of the media on American political life, in terms of the role of electronic, broadcast, print media, and the Internet as means of communication in American politics.						
12.8.3 Students evaluate, take and defend positions on the influence of the media on American political life, in terms of how public officials use the media to communicate with the citizenry and to shape public opinion.						
12.9.1 Students analyze the origins, characteristics, and development of different political systems across time, with emphasis on the quest for political democracy, its advances and obstacles, in terms of how the different philosophies and structures of feudalism, mercantilism, socialism, fascism, communism, monarchies, parliamentary systems, and constitutional liberal democracies influence economic policies, social welfare policies and human rights practices.						
12.9.2 Students analyze the origins, characteristics, and development of different political systems across time, with emphasis on the quest for political democracy, its advances and obstacles, in terms of the various ways power is distributed, shared, and limited in systems of shared powers and in parliamentary systems, including the influence and role of parliamentary leaders (e.g., William Gladstone, Margaret Thatcher).						

1. Standards-based instructional content as stated in the California History-Social Science Framework and listed by Strand and standard.	2. Standard Development			3. Citation(s)	4. Assessment	5. Assessment Citation(s)
	Y	N	P		Y/N	
Twelfth Grade continued						
12.9.3 Students analyze the origins, characteristics, and development of different political systems across time, with emphasis on the quest for political democracy, its advances and obstacles, in terms of the advantages and disadvantages of federal, confederal, and unitary systems of government.						
12.9.4 Students analyze the origins, characteristics, and development of different political systems across time, with emphasis on the quest for political democracy, its advances and obstacles, in terms of the consequences of conditions that gave rise to tyrannies during certain periods applied to at least two countries (e.g., Italy, Japan, Haiti, Nigeria, Cambodia).						
12.9.5 Students analyze the origins, characteristics, and development of different political systems across time, with emphasis on the quest for political democracy, its advances and obstacles, in terms of the forms of illegitimate power that twentieth century African, Asian, and Latin American dictators used to gain and hold office and the conditions and interests that supported them.						
12.9.6 Students analyze the origins, characteristics, and development of different political systems across time, with emphasis on the quest for political democracy, its advances and obstacles, in terms of the ideologies, causes, stages, and outcomes of major Mexican, Central and South American revolutions of the 19th and 20th centuries.						
12.9.7 Students analyze the origins, characteristics, and development of different political systems across time, with emphasis on the quest for political democracy, its advances and obstacles, in terms of the ideologies that give rise to communism, methods to maintain control, and the movements to overthrow such governments in Czechoslovakia, Hungary, and Poland, including the role of individuals (e.g., Alexander Solzhenitsyn, Pope John Paul II, Lech Walesa, Vaclav Havel).						
12.9.8 Students analyze the origins, characteristics, and development of different political systems across time, with emphasis on the quest for political democracy, its advances and obstacles, in terms of the successes of relatively new democracies in Africa, Asia and Latin America and the ideas, leaders, and general societal conditions that have launched and sustained or failed to sustain them.						
12.10 Students formulate questions about and defend their analyses of tensions within the U.S. constitutional democracy and the importance of maintaining a balance between these concepts (e.g., majority rule and individual rights, liberty and equality, state and national authority in a federal system, civil disobedience and the rule of law, freedom of the press and right to a fair trial, the relationship of religion and government).						
<i>Principles of Economics</i>						
12.1.1 Students understand common economic terms and concepts and economic reasoning, in terms of the causal relationship between scarcity and the need for choices.						
12.1.2 Students understand common economic terms and concepts and economic reasoning, in terms of opportunity cost and marginal benefit and marginal cost.						
1. Standards-based instructional content as stated in the California History-Social Science Framework and listed by Strand and standard.	2. Standard Development			3. Citation(s)	4. Assessment	5. Assessment Citation(s)

	Y	N	P		Y/N	
Twelfth Grade continued						
12.1.3 Students understand common economic terms and concepts and economic reasoning, in terms of the difference between monetary and non-monetary incentives and how changes in incentives cause changes in behavior.						
12.1.4 Students understand common economic terms and concepts and economic reasoning, in terms of the role of private property as an incentive in conserving and improving scarce resources, including renewable and non-renewable natural resources.						
12.1.5 Students understand common economic terms and concepts and economic reasoning, in terms of the role of a market economy in establishing and preserving political and personal liberty (e.g., the works of Adam Smith)".						
12.2.1 Students analyze the elements of the United States market economy in a global setting, in terms of the relationship of the concept of incentives to the law of supply and the relationship of the concept of incentives and substitutes to the law of demand.						
12.2.2 Students analyze the elements of the United States market economy in a global setting, in terms of the effect of changes in supply and/or demand on the relative scarcity, price and quantity of particular products.						
12.2.3 Students analyze the elements of the United States market economy in a global setting, in terms of the role of property rights, competition, and profit in a market economy.						
12.2.4 Students analyze the elements of the United States market economy in a global setting, in terms of how prices reflect the relative scarcity of goods and services and perform the allocative function in a market economy.						
12.2.5 Students analyze the elements of the United States market economy in a global setting, in terms of the process by which competition among buyers and sellers determines a market clearing price.						
12.2.6 Students analyze the elements of the United States market economy in a global setting, in terms of the effect of price controls on buyers and sellers.						
12.2.7 Students analyze the elements of the United States market economy in a global setting, in terms of the role of domestic and international competition in a market economy in terms of goods and services produced, and the quality, quantity, and price of those products.						
12.2.8 Students analyze the elements of the United States market economy in a global setting, in terms of the role of profit as the incentive to the entrepreneurs in a market economy.						
12.2.9 Students analyze the elements of the United States market economy in a global setting, in terms of the functions of the financial markets.						
12.2.10 Students analyze the elements of the United States market economy in a global setting, in terms of the economic principles that guide the location of agricultural production and industry and the spatial distribution of transportation and retailing facilities.						

1. Standards-based instructional content as stated in the California History-Social Science Framework and listed by Strand and standard.	2. Standard Development			3. Citation(s)	4. Assessment	5. Assessment Citation(s)
	Y	N	P		Y/N	
Twelfth Grade continued						

12.3.1 Students analyze the influence of the U.S. government on the American economy, in terms of how the role of government in a market economy often includes providing for national defense, addressing environmental concerns, defining and enforcing property rights, attempting to make markets more competitive, and protecting consumer rights.						
12.3.2 Students analyze the influence of the U.S. government on the American economy, in terms of the factors that may cause the costs of government actions to outweigh the benefits.						
12.3.3 Students analyze the influence of the U.S. government on the American economy, in terms of the aims of government fiscal policies (taxation, borrowing, and spending) and their influence on production, employment, and price levels.						
12.3.4 Students analyze the influence of the U.S. government on the American economy, in terms of the aims and tools of monetary policy and their influence on economic activity (e.g., the Federal Reserve).						
12.4.1 Students analyze the elements of the United States labor market in a global setting, in terms of the operations of the labor market, including the circumstances surrounding the establishment of principal American labor unions, procedures used to gain benefits for its members, the effect of unionization, the minimum wage, and unemployment insurance.						
12.4.2 Students analyze the elements of the United States labor market in a global setting, in terms of the current economy and labor market including the types of goods and services produced, types of skills necessary, the effect of rapid technological change, and the impact of international competition.						
12.4.3 Students analyze the elements of the United States labor market in a global setting, in terms of wage differences among jobs and professions using the laws of demand and supply and the concept of productivity.						
12.4.4 Students analyze the elements of the United States labor market in a global setting, in terms of the effects of international mobility of capital and labor on the U.S. economy.						
12.5.1 Students analyze the aggregate economic behavior of the United States economy by distinguishing between nominal and real data.						
12.5.2 Students analyze the aggregate economic behavior of the United States economy by defining, calculating and explaining the significance of an unemployment rate, the number of new jobs created monthly, an inflation or deflation rate, and a rate of economic growth.						
12.5.3 Students analyze the aggregate economic behavior of the United States economy by distinguishing between short-term and long-term interest rates and explaining their relative significance.						
12.6.1 Students analyze issues of international trade, and explain how the U.S. economy affects, and is affected by, economic forces beyond its borders, in terms of the gains in consumption and production efficiency from trade with emphasis on the main products and changing geographic patterns of twentieth century trade among countries in the Western hemisphere.						
1. Standards-based instructional content as stated in the California History-Social Science Framework and listed by Strand and standard.	2. Standard Development			3. Citation(s)	4. Assessment	5. Assessment Citation(s)
	Y	N	P		Y/N	
Twelfth Grade continued						

<p>12.6.2 Students analyze issues of international trade, and explain how the U.S. economy affects, and is affected by, economic forces beyond its borders, in terms of the reasons for and the effect of trade restrictions in the Great Depression compared with the present day arguments among labor, business, and political leaders over the effects of free trade on the economic and social interests of various groups of Americans.</p>						
<p>12.6.3 Students analyze issues of international trade, and explain how the U.S. economy affects, and is affected by, economic forces beyond its borders, in terms of the changing role of international political borders and territorial sovereignty in a global economy.</p>						
<p>12.6.4 Students analyze issues of international trade, and explain how the U.S. economy affects, and is affected by, economic forces beyond its borders, in terms of explain foreign exchange, how exchange rates are determined, and the effects of the dollar gaining (or losing) value relative to other currencies a strong or weak dollar.</p>						

SAMPLE Standards Match- Science Content Standards

Attachment 1f

The first column (1) lists the California Content Standards by strands and grade level as stated in the Framework document. The second column (2) indicates a resource introduces and provides for systematic development of the standard (Yes or No), if there is opportunity for practice (P) and if there is a corresponding Investigation and Experimentation standard (see below). The third (3) column lists the citation documenting where instruction related to the standard can be found. The fourth (4) column identifies assessment, if provided, and the fifth (5) column lists the citation documenting where the specific assessment feature can be found in the ELR.

Investigation and Experimentation (I & E) Strand

(Indicate the specific I & E standard addressed by the resource, where appropriate, in the I & E column).

- 9a Plan and conduct a scientific investigation to test a hypothesis.
- 9b Evaluate the accuracy and reproducibility of data.
- 9c Distinguish between variable and controlled parameters in a test.
- 9d Recognize the slope of the linear graph as the constant in the relationship $y=kx$ and apply this to interpret graphs constructed from data.
- 9e Construct appropriate graphs from data and develop quantitative statements about the relationships between variables.
- 9f 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).
- 9g Distinguish between linear and non-linear relationships on a graph of data.

1. Standards-based instructional content as stated in the California Science Framework, listed by Strand and standards.	2. Standard Development				3. Citation(s)	4. Assessment Y/N	5. Assessment Citation(s)	
	Y	N	I & E	P				I & E
Eighth Grade								
Focus on Physical Science								
Motion								
1a Position is defined relative to some choice of standard reference point and a set of reference directions.								
1b Average speed is the total distance traveled divided by the total time elapsed. The speed of an object along the path traveled can vary.								
1c How to solve problems involving distance, time, and average speed.								
1d To describe the velocity of an object one must specify both direction and speed.								
1e Changes in velocity can be changes in speed, direction, or both.								
1f How to interpret graphs of position versus time and speed versus time for motion in a single direction.								
Forces								
2a A force has both direction and magnitude.								
2b When an object is subject to two or more forces at once, the effect is the cumulative effect of all the forces.								
2c When the forces on an object are balanced, the motion of the object does not change.								
2d 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.								
1. Standards-based instructional content as stated in the California Science Frameworks listed by Strand and standards (key standards in bold)	2. Standard Development				3. Citation(s)	4. Assessment	5. Assessment Citation(s)	

	Y	N	I & E	P		Y/N		I & E
Eighth Grade continued								
2e 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).								
2f The greater the mass of an object the more force is needed to achieve the same change in motion.								
2g The role of gravity in forming and maintaining planets, stars and the solar system.								
Structure of Matter								
3a The structure of the atom and how it is composed of protons, neutrons and electrons.								
3b Compounds are formed by combining two or more different elements. Compounds have properties that are different from the constituent elements.								
3c Atoms and molecules form solids by building up repeating patterns such as the crystal structure of NaCl or long chain polymers.								
3d The states (solid, liquid, gas) of matter depend on molecular motion.								
3e 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.								
3f How to use the Periodic Table to identify elements in simple compounds.								
Earth in the Solar System (Earth Science)								
4a Galaxies are clusters of billions of stars, and may have different shapes.								
4b The sun is one of many stars in our own Milky Way galaxy. Stars may differ in size, temperature, and color.								
4c How to use astronomical units and light years as measures of distance between the sun, stars, and Earth.								
4d 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.								
4e The appearance, general composition, relative position and size, and motion of objects in the solar system, including planets, planetary satellites, comets, and asteroids.								
Reactions								
5a Reactant atoms and molecules interact to form products with different chemical properties.								
5b 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.								
5c Chemical reactions usually liberate heat or absorb heat.								
5d Physical processes include freezing and boiling, in which a material changes form with no chemical reaction.								
5e How to determine whether a solution is acidic, basic or neutral.								

1. Standards-based instructional content as stated in the California Science Frameworks listed by Strand and standards (key standards in bold)	2. Standard Development				3. Citation(s)	4. Assessment	5. Assessment Citation(s)	
	Y	N	I & E	P			Y/N	I & E
Eighth Grade continued								

Chemistry of Living Systems (Life Science)								
6a 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.								
6b Living organisms are made of molecules largely consisting of carbon, hydrogen, nitrogen, oxygen, phosphorus and sulfur.								
6c 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								
7a How to identify regions corresponding to metals, nonmetals and inert gases.								
7b 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.								
7c Substances can be classified by their properties, including melting temperature, density, hardness, heat, and electrical conductivity.								
Density and Buoyancy								
8a Density is mass per unit volume.								
8b How to calculate the density of substances (regular and irregular solids, and liquids) from measurements of mass and volume.								
8c The buoyant force on an object in a fluid is an upward force equal to the weight of the fluid it has displaced.								
8d How to predict whether an object will float or sink.								

**Minimum Requirements
(For All Resources)**

1. The resource addresses standards as evidenced in the standards match and provides for a systematic approach to the teaching of the standard(s), and contains no material contrary to any of the other California student content standards.
2. Instructional activities (sequences) are linked to the stated objectives for this ELR.
3. Reading and/or vocabulary levels are commensurate with the skill levels of intended learners. (Note: Reading level has been added to profile to be determined by publishers and verified by CLRN staff.)
4. The ELR exhibits correct spelling, punctuation, and grammar, unless a primary source document.
5. Content is current, accurate and scholarly, including that taken from other subject areas.
6. The presentation of instructional content must be enhanced and clarified by the use of technology through approaches which may include: access to real-world situations (graphics, video, audio); multi-sensory representations (auditory, graphic, text); independent opportunities for skill mastery; collaborative activities and communication; access to concepts through hypertext, interactivity, or customization features; use of the tools of scholarship (research, experimentation, problem solving); simulated laboratory situations.
7. The resource is user friendly as evidenced by the use of features such as: effective help functions; clear instructions; consistent interface; intuitive navigational links.
8. Documentation and instruction on how to install and operate the ELR are provided and are clear and easy to use.
9. The model lesson/unit plan demonstrates effective use of the ELR in an instructional setting (refer to attachment 1g).

In addition, **Electronic Reference Resources** must meet additional minimum requirements:

1. Search function is thorough and accurate.
2. Index provides easy access to entire resource including text, illustrations, sounds, etc.
3. Content sources are accurately cited.

Additional Features

(for all resources)

Reviewers will indicate which of the following features are included in the electronic learning resource. These features will be included in the descriptive data and the database search function.

Instructional Design

- The resource enables or supports student-constructed or initiated projects or activities
- The resource allows opportunities for student collaboration or cooperative learning

Universal Access features (definitions will be based on information in the resource Universal Access Criteria)

- Design principles for challenged learners
- Design principles for advanced learners
- Design principles for English Language learners

Assessment

- The resource provides diagnostic entry-level assessments if appropriate.
- The resource monitors student, class or group progress in using the resource
- The resource provides summative assessments if appropriate.
- The resource provides corrective feedback such as, branching to skills or knowledge needing more development or complexity as a result of student performance
- Provides feedback to teachers which helps them determine student progress
- Students can review their own progress in the resource

Technology

- Templates or forms to use in creating projects or contributing data are provided
- The resource incorporates teacher-controlled features
- The resource incorporates student-controlled features
- Control over the pace at which a learner can progress through the resource is possible
- The resource allows for saving and printing of textual content

Support Materials

- Professional development is available with purchase
- Technical support is available

Features Unique to Internet Resources

- Student work is displayed on the site
- Collaborative features like e-mail, discussion groups, online mentors are provided
- The site provides primary sources information appropriate for student research

Additional Features for Lessons/Units only

- Pre-requisite technology skills or competencies are identified for student and/or teacher
- Adaptation of the lesson/unit for challenged learners is described
- Adaptation of the lesson/unit for advanced learners is described
- Adaptation of the lesson/unit for English language learners is described
- Adaptation of the lesson/unit for learners reading below grade level is described
- Interdisciplinary connections for the lesson/unit are apparent or described

Minimum Requirements For Model Technology Integrated Lesson/Unit Plan

The CLRN project will establish and maintain links to online standards-based learning units or lessons that demonstrate the use of electronic learning resource in the classroom. Reviewers will verify that submitted lesson/unit plan meet the following CLRN lesson/unit minimum requirements:

1. The lesson/unit plan addresses the California Content Standards and provides for a systematic approach to teaching the standards.
2. The objectives and expected student outcomes for the lesson/unit are stated.
3. Learning activities are sequenced to systematically develop skills or concepts.
4. The instructional content of the lesson must be enhanced and clarified by the use of technology through approaches which may include: access to available real-world situations (graphics, video, audio); multi-sensory representations (auditory, graphic, text); independent opportunities for skill mastery; collaborative activities and communication; access to concepts through hypertext, interactivity, or customization features; use of the tools of scholarship (research, experimentation, problem solving); simulated laboratory situations.
5. Student activities enabled by the lesson/unit are clearly stated and easy to implement.
6. All resources needed to successfully implement the lesson/unit are described.
7. Assessments for monitoring student progress towards meeting the lesson or unit objectives are included.

Publisher Submission Process

Publishers must submit either 1) an Internet link to a lesson/unit plan on the publisher's web site or 2) an electronic version of the lesson/unit plan to be posted on the CLRN web site. (Initially there will be a phase in period of this requirement. During review year 2000/2001, lesson(s) must be submitted within 90 days following the date that the resource is approved. Beginning in the 2001/2002 review year, lesson(s) must be submitted at time of resource submission).

Publishers will submit the required lesson/unit plan submission information electronically via a password-protected web database entry system, which will include: title of lesson/unit plan, grade level(s), subject area(s), and standards addressed in lesson. CLRN will provide guidelines for the effective use of technology and samples of model technology integrated lesson/unit plans. The process for publishers to make corrections to lesson/unit plans will be the same as the correction process for the resource (refer to page 4).

Note: The legal compliance criteria will be provided by the CDE, Curriculum Frameworks and Instructional Resources Division

**Standards for Evaluation of Instructional Materials with Respect to Social Content
1986 Edition (Abridged)
Updated March 2000**

Male/Female Roles – E.C. 60040(a), 60044(a)

- Depictions, descriptions or labels of male and female roles must not demean, patronize or stereotype
- Present equal illustrations, both in number and importance, of male/female figures
- Present equal portrayal in occupations and range of careers
- Represent equal presentation of male/female contributions and achievements
- Present equal presentation in mentally and physically active, creative, problem-solving roles and success/failure in those roles
- Present balanced random portrayal of emotions in males/females
- Use gender neutral language
- Show equal portrayal of both sexes in nurturing roles with family

Ethnic/Cultural Groups – E.C. 60040(b), 60044(a)

- Depictions, descriptions or labels of ethnic and cultural groups must not demean, patronize or stereotype
- Display a fair proportion of diverse ethnic groups
- Display positive depiction of customs from diverse ethnic or cultural groups
- Display professional roles or occupations in fair proportion to all groups
- Show similar socioeconomic ranges for different groups
- Present and discuss historical and current achievements of diverse groups with particular emphasis on prominent persons of the ethnic or cultural group
- Depict mentally and physically active, creative, problem-solving roles, and the success and failure in those roles, equally between male and female characters
- Depict diverse ethnic and cultural groups not only in their root culture, but also as Americans in mainstream U.S. life

Older Persons and the Aging Process – State Board of Education policy, July 12, 1979

- Depictions, descriptions or labels of older persons must not demean, patronize or stereotype
- Depict older persons in usual human activities
- Portrayal of older persons should not be significantly different from the portrayal of people of other age groups
- Portray aging as a continuous process spanning an entire lifetime

Disabled Persons – E.C. 60044 (a)

- Depictions, descriptions or labels of disabled persons must not demean, patronize or stereotype.
- Represent disabled persons in a broad range of human activities, except as limited by special purpose or the need for accuracy
- Portrayal of disabled persons should not be significantly different from the portrayal of nondisabled persons, except as is necessary to identify them as disabled
- Depict physically disabled people with normal emotions that show their ability to love and be loved.
- Include the contributions of disabled persons in historical and current achievements when it is appropriate and historically accurate to do so

Entrepreneur and Labor – E.C. 60040(c), 60044(a)

- Descriptions, depictions or labels of any persons engaged in any particular occupation or vocation should not demean, patronize or stereotype
- Accurate reference should be made to the role and contribution of the entrepreneur and labor in the total development of California and the United States

Religion – E.C. 60044(a) and (b)

- No religious practices or beliefs should be ridiculed nor should any religious group be portrayed as inferior
- Present descriptions or explanations of religious belief or practice in a manner which neither encourages, discourages nor indoctrinates students in any particular religious belief
- Portrayal of contemporary U.S. Society should reflect its religious diversity

Ecology and the Environment – E.C. 60041(a)

- Represent the interdependence of people and their environment
- Give direct attention to the responsibilities of people for creating and maintaining a healthy environment
- Encourage wise use of natural resources; discourage waste of resources

Dangerous Substance – E.C. 60041(b)

- Glamorizing and encouraging the use of tobacco, alcohol, narcotics, or restricted dangerous drugs is not condoned
- Hazards of the use of these substances should be depicted and pointed out in references and illustrations

Standards for Evaluation of Instructional Materials with Respect to Social Content (cont.)

**Thrift, Fire Prevention, and Humane Treatment –
E.C. 60042**

- Glamorizing and encouraging wasteful or wildly excessive behavior is unacceptable
- Depiction of practices that constitute fire hazards, except when clarifying a point, is not condoned nor encouraged
- Physical abuse, violence, inhumane or depraved treatment of people or animals must not be depicted, except for purposes of clarifying a point
- Illustrate and encourage the practice of thrift
- Explain and encourage fire prevention and safety rules through illustrations and/or text
- Humane treatment should be encouraged, but historical instances of inhumane treatment of people (such as slavery or the Holocaust) should not be omitted

**The Declaration of Independence and the Constitution
of the United States - E.C. 60043**

- When appropriate, the Declaration of Independence and the Constitution of the United States should be included in instructional materials for social science, history or civics classes
- Patriotism, freedom, and free enterprise will be reviewed in the educational content of textbooks

**Brand Names, Corporate Logos – SBE Policy,
December 8, 1977, AB 116,
(approved by SBE January 13, 2000)**

- Omit illustrations of brand names, products, corporate or company logo, unless necessary to educational purpose or incidental to a scene of general nature
- No prominent usage of any one brand or company

Diet and Exercise – SBE Policy, January 10, 1986

- Illustrations of foods should emphasize the selection of a variety of nutritious foods that are low in fat, salt, and sugar and high in fiber
- Minimize foods that contribute little nutritional value
- Emphasize the relationship of diet and exercise to the overall health and well-being of children

**Use of Correct Language, AB 116
(approved by SBE January 13, 2000)**

Instructional materials should use proper grammar and spelling; literature and tradebooks are exception