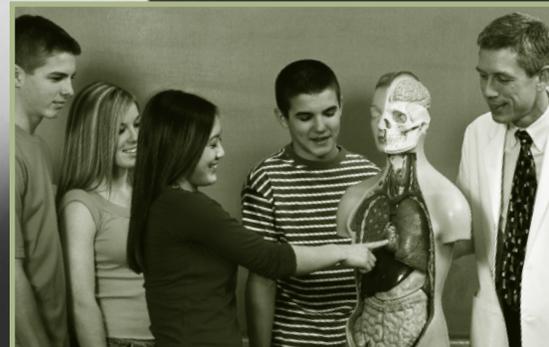


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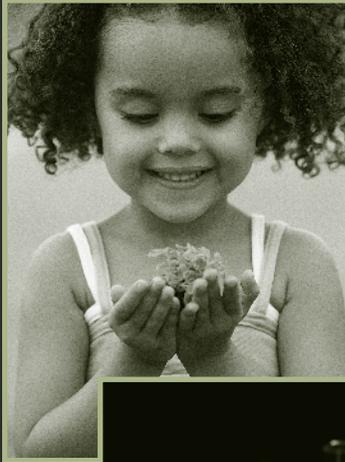
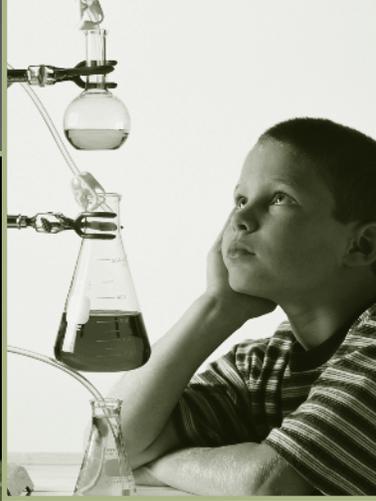
Science Primary Adoption Report



California Department of Education
Sacramento, 2007





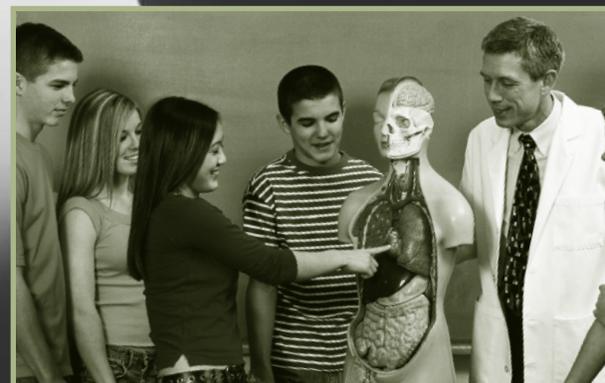


2006

Science Primary Adoption Report



California Department of Education
Sacramento, 2007





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THIS PROGRAM IS NOT ADOPTED

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Foreword

The 2006 Science Primary Adoption advances the goal of providing California's students with instructional materials that are rigorous, standards based, and useful as teaching and learning resources.

This report recounts the events and activities that constituted the 2006 Science Primary Adoption and provides individual program descriptions.

The principal work of framework development and instructional materials evaluation was performed under the auspices of the Curriculum Development and Supplemental Materials Commission, with the approval of the State Board of Education, and involved panels of advisers that included science experts, classroom teachers, administrators, parents, and university professors. Commissioners and panel members alike were volunteers, and we are most grateful for the many hours of dedicated service they contributed to this work.

California must provide its children with an education in science that prepares them to be competitive in the global, information-based economy of the twenty-first century. The science adoption supports this goal by delivering more choices of high-quality science instructional materials that are both effective teaching tools and engaging texts designed to foster in students an interest in science and inspire them to become the next generation of scientists, engineers, researchers, and inventors.



JACK O'CONNELL
State Superintendent of Public Instruction



KENNETH NOONAN
President, State Board of Education

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The State Board also thanks the publishers that participated in the 2006 Science Primary Adoption.

Introduction

In October 1998 the State Board of Education (SBE) adopted the *Science Content Standards for California Public Schools, Kindergarten Through Grade Twelve*. The standards affirmed the SBE’s commitment to provide a world-class science education for all California students and include the essential skills and knowledge students will need to become scientifically literate citizens in the twenty-first century. They provide a comprehensive, specific vision of what students should know and be able to do at every grade level.

The 2004 updated edition of the *Science Framework for California Public Schools, Kindergarten Through Grade Twelve*, included “Criteria for Evaluating Instructional Materials in Science, Kindergarten Through Grade Eight,” adopted by the SBE on March 10, 2004. The criteria are used to determine whether instructional materials align with the content standards and the framework. They were given to publishers at a briefing in June 2004 and are posted on the California Department of Education’s (CDE’s) Web site.

The criteria are organized into five categories:

1. **Science Content/Alignment with Standards:** The content as specified in the *Science Content Standards for California Public Schools* and presented in accord with the guidance provided in the *Science Framework for California Public Schools*
2. **Program Organization:** The sequence and organization of the science program that provide structure to what students should learn each year
3. **Assessment:** The strategies presented in the instructional materials for measuring what students know and are able to do
4. **Universal Access:** The resources and strategies that address the needs of special student populations, including students with disabilities, students whose achievement is either significantly below or above that typical of their class or grade level, and students with special needs related to English-language proficiency
5. **Instructional Planning and Support:** The instructional planning and support information and materials, typically including a separate edition specially designed for use by the teacher, that enable the teacher to implement the science program effectively

The SBE adopted the timeline for the 2006 Science Primary Adoption on January 12, 2005. Minor revisions were approved by the Curriculum Development and Supplemental Materials Commission (Curriculum Commission) to allow additional time for recruitment of qualified reviewers. The timeline reflected the requirements of *Education Code* Section 60200(b)(1). They call for adoptions to occur “not less than two times every six years” for language arts, mathematics, science, and history–social science and “not less than two times every eight years” in other subjects. Adoption of instructional materials after the SBE adoption of new evaluation criteria is termed a “primary adoption” and establishes a new adoption list. The last primary adoption for science took place in 2000.

Standards maps were developed by the CDE and the Curriculum Commission to help publishers identify where their instructional materials were aligned with the *Science Content Standards for California Public Schools*. Publishers completed the maps and submitted them with their programs. The Content Review Panel (CRP) experts and Instructional Materials Advisory Panel (IMAP) members used the maps in evaluating a program's alignment with the content standards.

Only basic instructional material programs for kindergarten through grade eight (K–8) were reviewed and recommended for the 2006 Science Primary Adoption. Supplemental materials (covering less than an entire course) are not considered within a primary adoption. Programs recommended for this adoption were full basic programs evaluated for appropriate grade-level content, alignment with the content standards and the *Science Framework*, and compliance with the evaluation criteria.

Adoption Process

Publishers Invitation to Submit Meeting

A Publishers Invitation to Submit (ITS) meeting was held on January 10, 2006. At the ITS meeting publishers learned about the process and procedures for submitting K–8 instructional materials for the 2006 Science Primary Adoption. Each publisher received a copy of the *Publishers Invitation to Submit: 2006 Science Primary Adoption*, a document that contains the information necessary for a publisher to participate effectively in the adoption process.

The meeting agenda covered technical information on the schedule of significant events, publisher's responsibilities for participating in the adoption, the adoption process, the content standards, the *Science Framework*, the evaluation criteria, and the logistics of the submission process.

CRP/IMAP Appointment and Training

In January and March 2006, the SBE appointed 24 CRP experts and 51 IMAP members recommended by the Curriculum Commission to evaluate 12 science programs. The CRP experts included individuals with doctoral degrees in science. The IMAP members included classroom teachers, district coordinators, and administrators with experience in science.

The Curriculum Frameworks and Instructional Resources (CFIR) Division staff assisted the Curriculum Commission in its training of reviewers from March 27 through March 30, 2006, for the 2006 Science Primary Adoption. The training included sessions on the *Science Framework*, content standards, evaluation criteria, legal and social compliance standards, and adoption process. Publishers made formal presentations on their programs at the training and responded to questions from the panel members.

The training was conducted in accordance with the California Bagley-Keene Open Meeting Act. Various publishers' representatives and interested members of the public attended the training. There was also an opportunity for public comment at a designated time every day during the training.

CRP/IMAP Review, Deliberations, and Report of Findings

In April 2006, the IMAP members, CRP experts, and Curriculum Commission members received complete sets of instructional materials assigned to each panel to review and evaluate according to the criteria. The IMAP members and CRP experts conducted their independent reviews of the science instructional materials during the months of April, May, and June and the beginning of July.

During deliberations, July 10–13, 2006, the IMAP members and CRP experts met in their assigned review panels. The IMAP members and CRP experts shared personal notes and citations developed while performing their independent review. A member of the Curriculum Commission was assigned to act as a facilitator for each panel. During deliberations the publishers individually had an opportunity to respond to three to five questions about their programs that were posed by panel members.

The IMAP members and CRP experts worked collaboratively during the deliberations week to produce a *Report of Findings* for each program. Each report contained the following sections: Program Components, Summary, Science Content/Alignment with Standards, Program Organization, Assessment, Universal Access, and Instructional Planning and Support. The reports included citations that were exemplary (not exhaustive) of the panels' findings and recommendations.

Minor edits and corrections identified in each *Report of Findings* were made to the instructional materials as a requirement for adoption. *Edits and corrections* are defined as inexact language, imprecise definitions, mistaken notions, mislabeling, misspellings, and grammatical errors. They do not include complete revisions or rewriting of chapters or programs or the addition of new content to a program. (Such changes are not allowed during the adoption process.)

Deliberations were conducted in accordance with the California Bagley-Keene Open Meeting Act. Various publishers' representatives and interested members of the public attended the panel deliberations. There was also an opportunity for public comment at a designated time every day during deliberations.

Legal and Social Compliance Review

The purpose of the legal and social compliance (LSC) review is to ensure that instructional materials used in California schools contribute positive influences, healthy messages, and overall positive images of American society. The California Legislature has established laws and the SBE has adopted policies and guidelines for instructional materials to reflect California's diversity and reduce the influence of brand names and corporate logos in instructional materials. The LSC review process was an important part of the 2006 Science Primary Adoption and provided an opportunity for the public to review the instructional materials for social content.

An LSC review was conducted by CRP experts and IMAP members, who were trained to review instructional materials for social content on March 27–30, 2006. In addition, the CDE contracted with several county offices of education to review materials for the LSC.

The reviewers used the standards contained in *Education Code* sections 60040–60045, 60048, and 60200 and SBE policy outlined in the *Standards for Evaluating Instructional Materials for Social Content* (2000 edition). The standards address such areas as the accurate portrayal of cultural and racial diversity, equitable and positive roles for males and females, disabled people, ethnic and cultural groups, and the elderly. The standards include the provisions of Assembly Bill 116, *Mazzoni* (Chapter 276, Statutes of 1999), which prohibits (with certain exceptions) the inclusion of commercial brand names, specific references to commercial products, and corporate or company logos in adopted instructional materials.

Reviewers completed a citation form with specific information on perceived violations of the LSC standards. On June 21, 2006, two commissioners met to review the citations for concurrence. As a result of this review, 15 citations were forwarded to publishers. All of the publishers cited elected to revise their materials to comply with the LSC standards.

Public Comment and Review

Instructional materials submitted for adoption were displayed for public review and comment beginning on April 13, 2006, at 21 Learning Resource Display Centers (LRDCs) throughout the state (see Appendix B). The general public was given an opportunity to provide written comments to the SBE on the Curriculum Commission's recommendations throughout October 2006.

In addition, the Curriculum Commission held two public hearings, one in the Science Subject-Matter Committee (SMC) meeting on September 28, 2006, and one in the full Curriculum Commission meeting on September 29, 2006. Public comment was received by the Curriculum Commission, both in writing and in testimony at the public hearings. All public comments received by the Curriculum Commission were forwarded to the SBE.

The SBE also held a public hearing during its November 9, 2006, meeting prior to taking action on the Curriculum Commission's recommendations.

Curriculum Commission Review and Deliberations

On September 28–29, 2006, the members of the Curriculum Commission considered the recommendations from the IMAP members and CRP experts in conjunction with other information in determining whether each program met the SBE-adopted evaluation criteria for this adoption. The criteria included a requirement that the instructional materials provide comprehensive teaching of all the science content standards as discussed and prioritized in the framework.

On September 28, 2006, the Science SMC discussed each program in depth, including each *Report of Findings*, the recommended minor edits and corrections, and the findings from each commissioner's independent review. After discussion by the Science SMC, each program submission received a roll-call vote. The motion was stated in the affirmative. A majority vote from the Science SMC was required for any program to be recommended. The Science SMC forwarded its recommendations to the full Curriculum Commission.

On September 29, 2006, the full Curriculum Commission also discussed each program, including each *Report of Findings* and the individual commissioners' findings for each program reviewed. After the discussion the commission chair asked for a motion and a second on each program submission. Again, the motion was stated in the affirmative, and there was a final roll-call vote for each program. The recommendation for each program was made for specific grade levels and included edits and corrections. To be recommended for adoption, a program had to receive nine affirmative votes from the commissioners.

State Board Action

The Curriculum Commission's recommendations were presented to the SBE at its meeting on November 9, 2006. The SBE held a public meeting to take testimony on the Curriculum Commission's recommendations and the programs submitted for adoption. After discussion the SBE accepted the Curriculum Commission's recommendations, adopting 11 of the 12 programs

submitted by publishers. A complete list of the programs adopted by the SBE can be found on page 7 of this report.

Edits and Corrections Meetings

Edits and corrections meetings were held on November 15–16, 2006. These meetings with publishers covered (1) the edits and corrections identified in each IMAP/CRP *Report of Findings* and approved by the Curriculum Commission at its September 28–29, 2006, meeting; (2) additional edits and corrections identified by the Curriculum Commission and included in its recommendation to the SBE; and (3) errata listing nonsubstantive edits, such as additional corrections of errors in spelling and grammar submitted by the publishers at the meeting.

The Science SMC Chair, a former member of the CRP, and the CFIR Division staff met with publishers' representatives and reviewed 786 edits and corrections. The publishers had opportunities to show where they made the edits and corrections identified in each IMAP/CRP *Report of Findings* or provide evidence as to why a particular edit or correction should either not be made or be made in a different way. Publishers of adopted instructional materials were required to submit final print editions of their materials that reflected all required edits and corrections and revisions for legal and social compliance by January 18, 2007, unless they requested an extension of the deadline in writing. Once the CDE approves the final print editions, the adopted instructional materials are added to the CDE Price List and Order Form Web page.

Publishers' Responsibilities for Adopted Instructional Materials

The provisions of *Education Code* sections 60061 and 60061.5 and the *California Code of Regulations, Title 5, Education*, require publishers to comply with the “most favored nation” clause. That clause requires publishers to furnish instructional materials to every school district in California at the lowest price or the same price offered to other districts in this state or any other state in the nation. In addition, publishers are required to fill a textbook order within 60 days of the date of receipt of a purchase order. If the publisher or manufacturer fails to deliver instructional materials within 60 days of the receipt of a purchase order from a California school district, the school district may assess as damages an amount up to \$500 for each working day the order is delayed beyond 60 calendar days.

Summary of Science Adoption Recommendations

Adopted by the State Board of Education on November 9, 2006

These Programs Are Adopted		
<i>Publisher</i>	<i>Program Title</i>	<i>Grade Levels</i>
CPO Science	<i>Focus on Earth, Life, and Physical Science</i>	6–8
Delta Education	<i>Full Option Science System</i>	K–5
Glencoe/McGraw-Hill	<i>Glencoe Science Focus On Series</i>	6–8
Harcourt School Publishers	<i>California Science</i>	K–6
Holt, Rinehart and Winston	<i>Holt California Science: Earth, Life, and Physical Science</i> ©2007	6–8
Houghton Mifflin	<i>Houghton Mifflin California Science</i> ©2007	K–6
It's About Time	<i>Investigating Earth Systems, InterActions in Physical Science</i>	6, 8
Macmillan/McGraw-Hill	<i>Macmillan/McGraw-Hill California Science</i>	K–6
McDougal Littell	<i>McDougal Littell California Middle School Science Series</i>	6–8
Pearson Prentice Hall	<i>Prentice Hall California Science Explorer: Focus on Earth, Life, and Physical Science</i>	6–8
Pearson Scott Foresman	<i>Scott Foresman California Science</i>	K–6

This Program Is Not Adopted		
<i>Publisher</i>	<i>Program Title</i>	<i>Grade Levels</i>
TPS Publishing, Inc.	<i>California State Standards Aligned 2006 Science Program</i>	4, 5

Special Issues

New Definition of the Term *Planet*

Scientists at a meeting of the International Astronomical Union (IAU) in Prague, Czech Republic, on August 24, 2006, voted to approve a new definition of the term *planet* that recognizes only eight planets. Because the IAU is responsible for naming solar system objects like planets and their moons, its definition of a planet is the official one.

The IAU members gathered at the 2006 General Assembly passed Resolution 5A, which states that a *planet* is defined as a celestial body that (a) is in orbit around the Sun; (b) has sufficient mass for its self-gravity to overcome rigid body forces so that it assumes a hydrostatic equilibrium (nearly round) shape; and (c) has cleared the neighborhood around its orbit. This definition of a planet means that the Solar System consists of eight planets—Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, and Neptune. The members also passed Resolution 6A, creating a new distinct class of objects called *dwarf planets*. It was agreed that planets and dwarf planets are two distinct classes of objects. The first members of the dwarf planet category are Ceres, Pluto, and Eris.

To provide the most current information in the instructional materials submitted for the 2006 Science Primary Adoption for K–8, the State Board of Education (SBE) acted at its November 2006 meeting to require publishers of adopted science programs to (1) modify their instructional materials to address the new definition of the term *planet* as defined in IAU Resolution 5A: Definition of a planet, and Resolution 6A: Definition of Pluto-class Objects; and (2) make only those edits required to provide scientific accuracy. The verification of the publishers' edits to address the new definition was incorporated into the edits and corrections review already established as part of the adoption process.

Instructional Materials Funding Realignment Program

Assembly Bill (AB) 1781 (Chapter 802, Statutes of 2002) established the Instructional Materials Funding Realignment Program (IMFRP) starting with the 2002-03 fiscal year. The IMFRP (*Education Code* sections 60420–24) provides that school districts or county offices of education must use IMFRP funds to ensure that each pupil in K–8 is provided an adopted standards-aligned textbook or basic instructional materials in reading/language arts, mathematics, science, or history–social science by the beginning of the first school term that commences no later than 24 months after those materials were adopted by the SBE. Because AB 1781 took effect on January 1, 2003, and that provision was not made retroactive, the 24 month rule applies to all future primary adoptions in the four core academic areas. A primary adoption is the first adoption of instructional materials that occurs after the SBE adopts evaluation criteria.

The 2005 History–Social Science Primary Adoption was the first standards-aligned state primary adoption to take place since the IMFRP was established in January 2003. Therefore, it is the first adoption requiring school districts and county offices that accept IMFRP funds to provide each pupil in K–8 with instructional materials from this adoption list no later than the start of the school term in fall 2007. The 2006 Science Primary Adoption is the next state K–8 primary

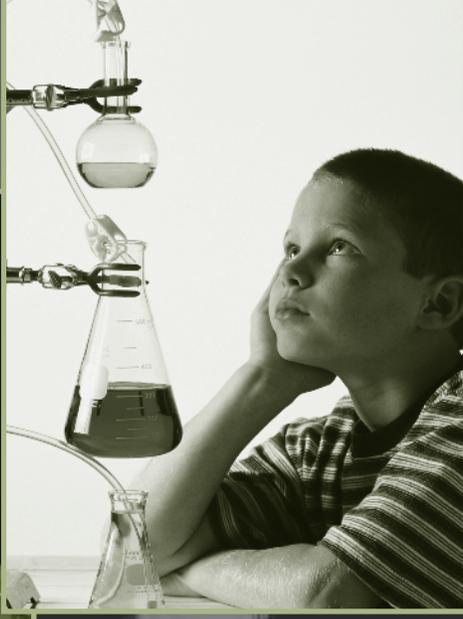
adoption. School districts and county offices that accept IMFRP funds are required to provide each pupil in K–8 with instructional materials from this adoption list no later than the start of the school term in fall 2008.

For school districts and county offices that operate schools for grades 9–12, the standards-aligned instructional materials must be adopted by the local school district governing board. These adoptions must be made by a resolution of the governing board.

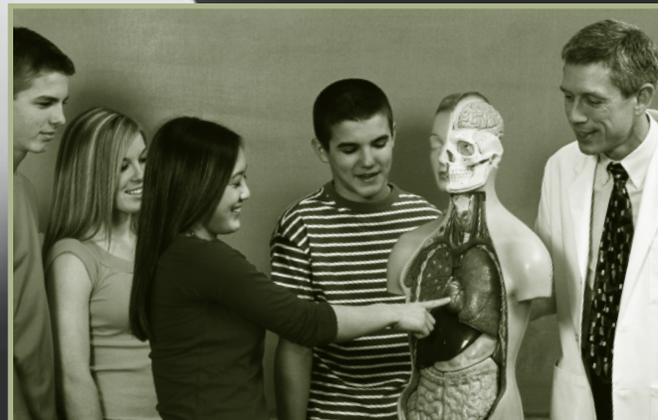
Once a governing board certifies that it has provided each pupil with standards-aligned instructional materials, the school district or county office may use 100 percent of any remaining IMFRP funds to purchase other instructional materials consistent with the content and cycles of the curriculum frameworks. For K–8 the local educational agency may purchase instructional materials from other state adopted-materials lists.

The funding provided in the 2006-07 state budget for the IMFRP is \$402,969,000, approximately \$66 per pupil.

Note: The IMFRP becomes inoperative on July 1, 2007, and is to be repealed on January 1, 2008, unless a statute enacted later becomes operative on or before January 1, 2008, that deletes or extends those dates. The CDE is supporting legislation to reauthorize the IMFRP.



These Programs Are Adopted



Publisher: CPO Science

Title of Program: *Focus on Earth, Life, and Physical Science*

Grade Level(s): 6, 7, 8

COMPONENTS

CPO Science's *Focus on Earth, Life, and Physical Science* includes a Student Edition (SE), Teacher's Guide (TE), Investigation Manual (INV), Skill and Practice Worksheets (SP), Teaching Illustrations (TI), Equipment Kit, Black-line Answer Sheets, Pre-Assessment Questions, English Language Learner (ELL) Strategies, ExamView CD and booklet, and Electronic Book (includes SE and INV).

SUMMARY

The SBE adopted CPO Science's *Focus on Earth, Life, and Physical Science*, with minor edits and corrections, because it aligns with the content standards and meets the evaluation criteria.

Science Content/Alignment with Standards

The program is aligned to the Science Content Standards and contains content that is scientifically accurate.

Program Organization

The program is organized in a sequence to enable teachers to convey the science content efficiently and effectively.

Assessment

The program provides suggestions on how to use assessment data and guiding questions for monitoring students' comprehension.

Universal Access

The program is accessible to all students, including advanced learners, English learners, and students whose reading, writing, listening, and speaking skills are below grade level.

Instructional Planning and Support

The program provides support for the teacher, including suggestions on how to present the content, address common student misconceptions, and communicate with parents and guardians about the science program.

Publisher: Delta Education

Title of Program: *Full Option Science System*

Grade Level(s): K–5

COMPONENTS

Delta Education's *Full Option Science System* includes a Teacher Guide (TG), FOSS Science Resources Student Book (SB), FOSSWeb CD-ROM (CD), and Equipment Kit (EK).

SUMMARY

The SBE adopted Delta Education's *Full Option Science System*, with minor edits and corrections, because it aligns with the content standards and meets the evaluation criteria.

Science Content/Alignment with Standards

The program is aligned to the Science Content Standards and contains content that is scientifically accurate.

Program Organization

The program is organized in sequence to enable teachers to convey the science content efficiently and effectively.

Assessment

The program presents strategies for measuring what students know and are able to do.

Universal Access

The program is accessible to all students, including students with disabilities, students whose achievement is either below or above that typical of the class or grade level, and students with special needs related to English language proficiency.

Instructional Planning and Support

The program provides support for the teacher in implementing the instructional program.

Publisher: Glencoe/McGraw-Hill

Title of Program: *Glencoe Science Focus On Series*

Grade Level(s): 6, 7, 8

COMPONENTS

Glencoe/McGraw-Hill's *Glencoe Science Focus On Series* includes a Student Edition (SE), Teacher Wraparound Edition (TWE), Reading Essentials (RE), Science Notebook (SN), Chapter Resource Books (CRB), CA Color Transparencies (CT), CA 4-in-1 Lab Manual (LM), CA Science Activities for Advanced Learners (SAAL), CA Culturally Responsive Teaching: Activities for Teaching (CRTA), CA Chapter Outlines for Teaching (CCOT), CA Language Arts Support for Science (LASS), CA School-to-Home Connection Activities (SHCA), CA Mathematics Skill Activities (MSATE), CA Reading and Writing Skill Activities (RWSK), Strategies for Success (SS), CA Guide to Daily Intervention (DI), Performance Assessment in the Science Classroom (PASC), Lab Management and Safety (LMS), ELL Strategies for Science (ELLSS), ActiveFolders, CA Student Tech Tools (STT), CA Teacher Tech Tools, Super DVD (TTTSD), What's Science Got to do With It? DVD (WSGTD), Weather Classroom DVD (WC), Virtual Lab (VL), and Chapter Resource Fast Files (CRFF).

SUMMARY

The SBE adopted Glencoe/McGraw-Hill's *Glencoe Science Focus On Series* for adoption, with minor edits and corrections, because it aligns with the content standards and meets the evaluation criteria.

Science Content/Alignment with Standards

The program is aligned to the Science Content Standards and contains content that is scientifically accurate.

Program Organization

The program contains support materials integral to the instruction. The program presents instructional objectives and content overviews that outline the science concepts.

Assessment

The program presents strategies for measuring what students know and are able to do.

Universal Access

The program is accessible to all students, including students with disabilities, students whose achievement is either below or above that typical of the class or grade level, and students with special needs related to English language proficiency.

Instructional Planning and Support

The program provides support for the teacher in implementing the instructional program.

Publisher: Harcourt School Publishers

Title of Program: *California Science*

Grade Level(s): K–6

COMPONENTS

Harcourt School Publishers' *California Science* includes a Student Edition (SE), Teacher Edition (TE), Big Book (BB), Science Content Support (CS), Lab Manual (LM), Activity Book (AB), Assessment Guide (AG), Science Content Reader (SCR), Success for English Learners (EL), Reading Intervention Strategies (RS), Teaching Transparencies (TT), Visual Summary/Inquiry Transparencies (VT), Picture Cards (PC), Science Content Standards Vocabulary Cards (VCards), Hands-on Resources (HR), Activity Video on DVD, Science Up Close CD-ROM, Materials Kits (MK), Big Book of Science Songs and Rhymes, and Science Songs.

SUMMARY

The SBE adopted Harcourt School Publishers' *California Science* for adoption, with minor edits and corrections, because it aligns with the content standards and meets the evaluation criteria.

Science Content/Alignment with Standards

The program is aligned to the Science Content Standards and contains content that is scientifically accurate.

Program Organization

The program is organized in sequence to enable teachers to convey the science content efficiently and effectively.

Assessment

The program presents strategies for measuring what students know and are able to do.

Universal Access

The program is accessible to all students, including students with disabilities, students whose achievement is either below or above that typical of the class or grade level, and students with special needs related to English language proficiency.

Instructional Planning and Support

The program provides support for the teacher in implementing the instructional program.

Publisher: Holt, Rinehart and Winston

Title of Program: *Holt California Science: Earth, Life, and Physical Science* ©2007

Grade Level(s): 6, 7, 8

COMPONENTS

Holt, Rinehart and Winston's *California Science: Earth, Life, and Physical Science* ©2007 includes a Student Edition (SE), Teacher's Edition (TE), Standards Review Workbook (SRW), Interactive Reader and Study Guide (IRSG), Chapter Resource File (CRF) (includes Lab Datasheets A, B, C, Vocabulary and Section Summary A, B, Science Skills Activity), Student Edition CD-ROM (SE-CD), Premier Online Edition (POE), Live Link® Online Reading Help, Interactive Reader and Study Guide Answer Key, Study Guide A, Study Guide B, On Course Mapping Instruction with Lesson Plans for Universal Access, Multilingual Glossary, Strategies for English Learners, Section and Chapter Reviews, Standards Review Transparencies, Standards Review Workbook Answer Key, Brain Food Video Quizzes (VHS, DVD), Chapter Resources, Additional Transparencies, Teaching Transparencies, Holt Anthology of Science Fiction, Holt Science Skills Workshop Reading in the Content Area, Teacher's Edition Holt Science Skills Workshop Reading in the Content Area, Science Kit® Consumable, Science Kit® Non-consumable, Holt Forensic Science Kit, Chapter Resources CD-ROM, Visual Concepts CD-ROM, Transparencies CD-ROM, Lab Videos (VHS, DVD), and Lab Generator CD-ROM.

SUMMARY

The SBE adopted Holt, Rinehart and Winston's *California Science: Earth, Life, and Physical Science* ©2007 for adoption, with minor edits and corrections, because it aligns with the content standards and meets the evaluation criteria.

Science Content/Alignment with Standards

The program is aligned to the Science Content Standards and contains content that is scientifically accurate.

Program Organization

The program is organized in a sequence to enable teachers to convey the science content efficiently and effectively.

Assessment

The program presents strategies that teachers can use to determine students' entry level skills, offers multiple measures of the individual students' progress, and provides answer keys for all student resources.

Universal Access

The program is accessible to all students, including advanced learners, English learners, and students whose reading, writing, listening, and speaking skills are below grade level.

Instructional Planning and Support

The program provides lesson plans, strategies for informing parents and guardians about the science program, and suggestions on how to present the content.

Publisher: Houghton Mifflin Company

Title of Program: *Houghton Mifflin California Science* ©2007

Grade Level(s): K–6

COMPONENTS

Houghton Mifflin's *California Science* ©2007 includes a Pupil Edition (PE), Big Book (BB), Directed Inquiry Activity Cards (DI), Teacher's Edition (TE), Picture Cards (PC), Study Guide (SG), California English Learners' Resources (EL), Leveled Science Independent Books, Leveled Readers with Teacher Resources, California Science Notebook, Professional Development Handbook, Unit Resource Folders/BLMs, Picture Cards (PCard), Vocabulary Card (VCard), Equipment Kits, Try It Yourself Manipulative, California Science Safety Kit, Lesson Planner CD-ROM, e-Book Pupil Edition CD-ROM (e-PE), e-Book Pupil Edition Online (e-PE Online), e-Book Teacher's Edition (e-TE), Teacher Resource Package (TRP), Audio Student's Book, National Geographic Content Videos, Interactive Lab Videos on CD-ROM, Lab Videos in VHS/DVD, Discover More! Simulations CD-ROM, Science Songs Audio CD, and eduplace.com Internet Website.

SUMMARY

The SBE adopted Houghton Mifflin's *California Science* ©2007 for adoption, with minor edits and corrections, because it aligns with the content standards and meets the evaluation criteria.

Science Content/Alignment with Standards

The program is aligned to the Science Content Standards and contains content that is scientifically accurate.

Program Organization

The program is organized in sequence to enable teachers to convey the science content efficiently and effectively.

Assessment

The program presents strategies for measuring what students know and are able to do.

Universal Access

The program is accessible to all students, including students with disabilities, students whose achievement is either below or above that typical of the class or grade level, and students with special needs related to English language proficiency.

Instructional Planning and Support

The program provides support for the teacher in implementing the instructional program.

Publisher: It's About Time

Title of Program: *Investigating Earth Systems, InterActions in Physical Science*

Grade Level(s): 6, 8

COMPONENTS

It's About Time's *Investigating Earth Systems* (IES) Grade 6 includes a Student Edition (IES-SE), Teacher's Edition (IES-TE), and California Teacher's Edition CD (IES-TECD). *InterActions in Physical Science* (IPS) Grade 8 includes a Student Edition (IPS-SE), Teacher's Edition (IPS-TE), Videos (V), Simulators, Wall Maps, Unit Lab Kits, Posters, and InterActions Game.

SUMMARY

The SBE adopted It's About Time's *Investigating Earth Systems* and *InterActions in Physical Science* for adoption, with minor edits and corrections, because it aligns with the content standards and meets the evaluation criteria.

Science Content/Alignment with Standards

The program is aligned to the Science Content Standards and contains content that is scientifically accurate.

Program Organization

The program is organized in sequence to enable teachers to convey the science content efficiently and effectively.

Assessment

The program presents strategies for measuring what students know and are able to do.

Universal Access

The program is accessible to all students, including students with disabilities, students whose achievement is either below or above that typical of the class or grade level, and students with special needs related to English language proficiency.

Instructional Planning and Support

The program provides support for the teacher in implementing the instructional program.

Publisher: Macmillan/McGraw-Hill

Title of Program: *California Science*

Grade Level(s): K–6

COMPONENTS

Macmillan/McGraw-Hill's *California Science* includes a Student Edition (SE); Teacher's Edition (TE); Flipbook (FB); Activity Lab Book (ALB); Activity Lab Book Teacher's Guide; Reading and Writing in Science; Reading and Writing in Science Teacher's Guide; Visual Literacy; Math in Science; Assessment; Activity Flipchart; Standards Tests and Intervention; Teacher's Guide to Standards Tests and Intervention; A to Z Activities; Concept Summaries; Pocket Science Activities; School to Home Activities; Vocabulary Cards; Photo Sorting Cards; Science on the Go; Floor Puzzles; Key Concept Transparencies; Visual Literacy Transparencies; Acquisition of Academic Language; Student Edition Big Books; Literature Big Books; and Leveled Readers.

SUMMARY

The SBE adopted Macmillan/McGraw Hill's *California Science* for adoption, with minor edits and corrections, because it aligns with the content standards and meets the evaluation criteria.

Science Content/Alignment with Standards

The program is aligned to the Science Content Standards and contains content that is scientifically accurate.

Program Organization

The program is organized in sequence to enable teachers to convey the science content efficiently and effectively.

Assessment

The program presents strategies for measuring what students know and are able to do.

Universal Access

The program is accessible to all students, including students with disabilities, students whose achievement is either below or above that typical of the class or grade level, and students with special needs related to English language proficiency.

Instructional Planning and Support

The program provides support for the teacher in implementing the instructional program.

Publisher: McDougal Littell

Title of Program: *McDougal Littell California Middle School Science Series*

Grade Level(s): 6, 7, 8

COMPONENTS

McDougal Littell's *California Middle School Science Series* includes a Pupil Edition (PE), Teacher's Edition (TE), Assessment Books with Benchmark Tests (AB), Standards Review and Practice (SRP), Unit Resource Books (URB), Modified Lesson Plans for English Learners (MLP), Lab Manual-Pupil Edition (LMPE), Lab Manual-Teacher Edition (LMTE), Lab Generator CD-ROM, Content Review CD-ROM, City Science (CS), Multi-Language Glossary (MLG), Visual Glossary (VG), Note Taking/Reading Study Guide in English and Spanish (NTRSG), Science Toolkit (ST), Transparency Books (TB), Test Generator (TG), Power Presentations (PP), Scientific American Frontiers Videos (SAFV), Easy Planner DVD (EP DVD), and Audio CD (ACD).

SUMMARY

The SBE adopted McDougal Littell's *California Middle School Science Series* for adoption, with minor edits and corrections, because it aligns with the content standards and meets the evaluation criteria.

Science Content/Alignment with Standards

The program is aligned to the Science Content Standards and contains content that is scientifically accurate.

Program Organization

The program is organized in sequence to enable teachers to convey the science content efficiently and effectively.

Assessment

The program presents strategies for measuring what students know and are able to do.

Universal Access

The program is accessible to all students, including students with disabilities, students whose achievement is either below or above that typical of the class or grade level, and students with special needs related to English language proficiency.

Instructional Planning and Support

The program provides support for the teacher in implementing the instructional program.

Publisher: Pearson Prentice Hall (Pearson Education, Inc.)

Title of Program: *Prentice Hall California Science Explorer: Focus on Earth, Life, and Physical Science*

Grade Level(s): 6, 7, 8

COMPONENTS

Pearson Prentice Hall's *California Science Explorer: Focus on Earth, Life, and Physical Science* includes a Teachers Edition (TE), Student Edition (SE), Student Express (SX), Consumable Materials Kit (CMK), Non-consumable Materials Kit (NMK), Teaching Resources Units (TRU1-4), Chapter Tests (CTA & CTB), Probeware Lab Manual (PLM) & CD-ROM (CD), Discovery Channel School DVD Library (DLib), Discovery Channel School Video Library (VLib), Reading and Note Taking Guide (RNTG A or B), Reading and Note Taking Guide Answer Key (RNTG AK), Progress Monitoring Assessments (PMA), Vocabulary Flashcards (VF), Lab Manual Teacher's Edition (LMTE), Lab Manual (LM), Color Transparencies (CTR), Teaching Guidebook for Universal Access (TGUA), Exam View Test Bank CD-ROM (EVTB CD), Virtual Physical Science Lab (Grade 8) (VPS), and Earth (ESLA) / Life (LSLA) / Physical (PSLA) Science Lab Activity DVDs.

SUMMARY

The SBE adopted Pearson Prentice Hall's *California Science Explorer: Focus on Earth, Life, and Physical Science* for adoption, with minor edits and corrections, because it aligns with the content standards and meets the evaluation criteria.

Science Content/Alignment with Standards

The program is aligned to the Science Content Standards and contains content that is scientifically accurate.

Program Organization

The program is organized in sequence to enable teachers to convey the science content efficiently and effectively.

Assessment

The program presents strategies for measuring what students know and are able to do.

Universal Access

The program is accessible to all students, including students with disabilities, students whose achievement is either below or above that typical of the class or grade level, and students with special needs related to English language proficiency.

Instructional Planning and Support

The program provides support for the teacher in implementing the instructional program.

Publisher: Pearson Scott Foresman (Pearson Education, Inc.)

Title of Program: *Scott Foresman California Science*

Grade Level(s): K–6

COMPONENTS

Pearson Scott Foresman's *California Science* includes a Teacher's Edition (TE), Student Edition (SE), Content Reader Grade Level Package (Below-Level, On-Level, Above-Level), Content Reader Bookshelf Collection (Below-Level, On-Level, Above-Level), Content Reader Super Kit, Grade Level Equipment Kit (Physical, Life, Earth), Teacher's Activity Guide (TAG), Multi-Use Consumables, Grade Level Replacement Kit, Teacher Demonstration Kit, Safety Kit, Assessment Book (AB), Progress Monitoring Assessments (PM), Lab Manual, Science Study Notebook (SSN), Science and Language Arts Connections Workbook (SLAC), Reading and Notetaking Guide (RNG), and Intervention Study Guide (ISG).

SUMMARY

The SBE adopted Pearson Scott Foresman's *California Science* for adoption, with minor edits and corrections, because it aligns with the content standards and meets the evaluation criteria.

Science Content/Alignment with Standards

The program is aligned to the Science Content Standards and contains content that is scientifically accurate.

Program Organization

The program is organized in sequence to enable teachers to convey the science content efficiently and effectively.

Assessment

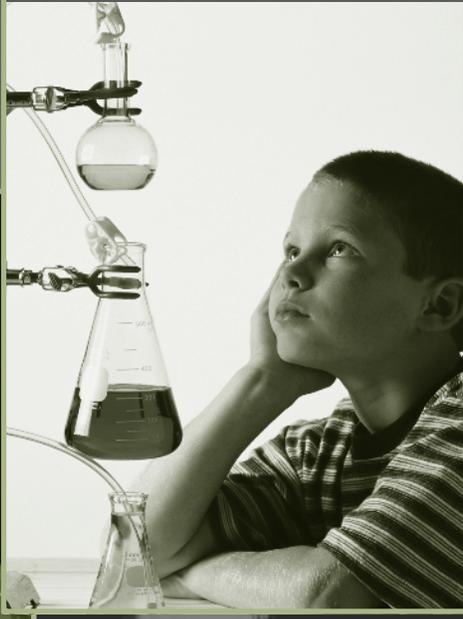
The program presents strategies for measuring what students know and are able to do.

Universal Access

The program is accessible to all students, including students with disabilities, students whose achievement is either below or above that typical of the class or grade level, and students with special needs related to English language proficiency.

Instructional Planning and Support

The program provides support for the teacher in implementing the instructional program.



This Program Is Not Adopted



Publisher: TPS Publishing, Inc.

Title of Program: *California State Standards Aligned 2006 Science Program*

Grade Level(s): 4, 5

COMPONENTS

TPS Publishing's *California State Standards Aligned 2006 Science Program* includes a Teacher's Edition Textbook (TT), Student Edition Textbook (ST), Student Workbook (SW), Teacher's Support Guide (TG), Parent Guide (PG), Pre-Program Test Pack (BA), Post-Program Test Pack (AA), Textbook Section Test Pack (AS), Assessment Test CD-ROM (AC), Focused Science Tutoring CD-ROM (FC), Transparency Pack by Standard Set – Physical, Life, Earth (TPP, TPL, TPE) and Reproducible Pack by Standard Set – Physical, Life, Earth (RPP, RPL, RPE).

SUMMARY

The SBE did not adopt TPS Publishing's *California State Standards Aligned 2006 Science Program* for adoption because it does not meet the criteria in Categories 1 and 4.

Science Content/Alignment with Standards

The program is not aligned to Category 1 to ensure that students master the Science Content Standards. Some of the content is scientifically inaccurate. Additionally, there is not extensive, grade-level appropriate practice in the use of mathematics.

Program Organization

The program is organized in sequence to enable teachers to convey the science content efficiently and effectively.

Assessment

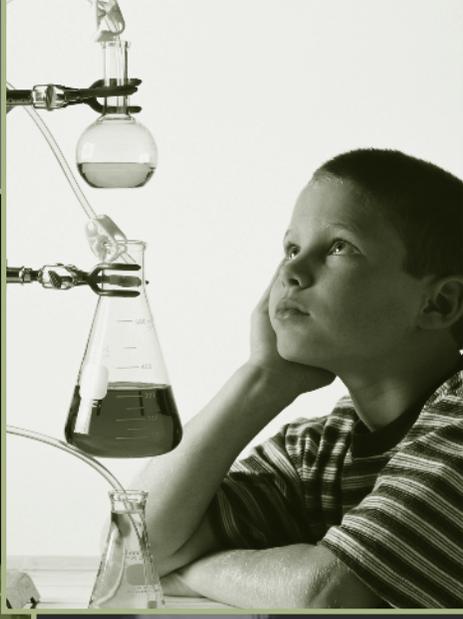
This program presents strategies for measuring what students know and are able to do.

Universal Access

This program is not accessible to all students, because it provides minimal resources and strategies for advanced learners. It provides minimal specific help to meet the needs of students whose reading, writing, listening, and speaking skills are below grade level, and it provides minimal specific help to ensure that these students know, understand, and use appropriate academic language in science.

Instructional Planning and Support

The program does provide support for the teacher in implementing the instructional program.



Appendixes



Appendix A

Criteria for Evaluating Instructional Materials in Science Kindergarten Through Grade Eight

Instructional materials are adopted by the state for the purpose of helping teachers present the content set forth in the *Science Content Standards for California Public Schools* (referred to in this document as the “California Science Standards”). To accomplish that purpose, this document provides the criteria for evaluating the alignment of the instructional materials with the California Science Standards, as defined in *Education Code* Section 60010. These criteria will govern the evaluation of instructional materials for kindergarten through grade eight (K–8) that are submitted for adoption, beginning with the 2006 Adoption of Science Instructional Materials, and will be helpful to publishers in developing their submission.

The California Science Standards are challenging. In the initial years of implementing the 2003 *Science Framework for California Public Schools* (referred to in this document as the “California Science Framework”), a major goal of most local educational agencies across the state is to facilitate the transition from what many students have traditionally been taught in science to the rigorous content presented in the California Science Standards. Instructional materials play a central role in facilitating that transition. Students should have the opportunity to learn science by direct instruction, by reading textbooks and supplemental materials, by solving standards-based problems, and by doing laboratory investigations and experiments.

The State Board of Education (State Board) will adopt science programs that provide effective learning materials for all students—those students who have mastered most of the content taught in the earlier grades and those who have not—and that specifically address the needs of teachers who instruct a diverse student population. Some teachers may not have specialized in science and may not have an extensive background in science; others may hold supplemental authorizations in life or physical sciences or may have had extensive training in science content and pedagogy. The publishers shall develop and submit programs that offer the flexibility to meet the diverse needs of students and teachers with varying science backgrounds.

These criteria, in keeping with the California Science Framework, do not specify a single pedagogical approach, although the framework incorporates certain commonsense pedagogical features. The State Board encourages publishers to select research-based pedagogical approaches that comprehensively cover the rigorous California Science Standards, reflect the California Science Framework, make judicious use of instructional time, present science in interesting and engaging ways, and otherwise give teachers the resources they need to teach science effectively.

The criteria are organized into five categories:

1. **Science Content/Alignment with Standards:** The content as specified in the

California Science Standards and presented in accord with the guidance provided in the California Science Framework

2. **Program Organization:** The sequence and organization of the science program that provide structure to what students should learn each year
3. **Assessment:** The strategies presented in the instructional materials for measuring what students know and are able to do
4. **Universal Access:** The resources and strategies that address the needs of special student populations, including students with disabilities, students whose achievement is either significantly below or above that typical of their class or grade level, and students with special needs related to English language proficiency
5. **Instructional Planning and Support:** The instructional planning and support information and materials, typically including a separate edition specially designed for use by the teacher, that enable the teacher to implement the science program effectively

In kindergarten through grade five, the California Science Standards are organized by grade level in three content strands: physical sciences, life sciences, and earth sciences. The standards for grades six through eight provide for a specific content focus in each year: earth sciences in grade six, life sciences in grade seven, and physical sciences in grade eight. Investigation and Experimentation standards are also provided at each grade level (K–8) and must be taught in the context of these content strands.

In grades nine through twelve, the California Science Standards are organized by discipline. A set of Investigation and Experimentation standards common to all the disciplines is also presented. Most high schools provide the grade nine through grade twelve science curriculum in discipline-specific courses, and some either exclusively provide integrated science courses that combine the various disciplines or provide integrated courses in addition to discipline-specific courses. To allow local educational agencies and teachers flexibility in presenting the material, the standards do not identify a particular discipline with a particular grade. Moreover, the standards do not specify a particular organization of the content of each discipline, although the California Science Framework suggests the logical sequencing of content in some places. Instructional materials may group related standards and address them simultaneously for purposes of coherence and utility.

Submissions that fail to meet Category 1, the Science Content/Alignment with Standards criteria, will not be considered satisfactory for adoption. Categories 2 through 5 will be considered as a whole, each submission passing or failing these criteria as a group. However, every submission will be expected to have strengths in each of categories 2 through 5 to be worthy of adoption.

CATEGORY 1: Science Content/Alignment with Standards

Science instructional materials must support the teaching and learning of the California Science Standards in accord with the guidance provided in the California Science Framework. To be considered suitable for adoption, instructional materials must provide:

1. Content that is scientifically accurate.
2. Comprehensive teaching of all California Science Standards at the intended grade level(s) as discussed and prioritized in the California Science Framework, chapters 3 and 4. The only standards that may be referenced are the California Science Standards. There should be no reference to national standards or benchmarks or to any standards other than the California Science Standards.
3. Multiple exposures to the California Science Standards (introductory, reinforcing, and summative), leading to student mastery of each standard through sustained effort.
4. A checklist of California Science Standards in the teacher edition, with page number citations or other references that demonstrate multiple points of student exposure, and a reasonable and judicious allotment of instructional time for learning the content of each standard. Extraneous lessons or topics that are not directly focused on the standards are minimal, certainly composing no more than 10 percent of the science instructional time.
5. A table of evidence in the teacher edition, demonstrating that the California Science Standards can be comprehensively taught from the submitted materials with hands-on activities composing at least 20 to 25 percent of the science instructional program. Hands-on activities must be cohesive, be connected, and build on each other to lead students to a comprehensive understanding of the California Science Standards.
6. Investigations and experiments that are integral to and supportive of the grade-appropriate physical, life, and earth sciences standards so that investigative and experimental skills are learned in the context of those content standards. The instructional materials must include clear procedures and explanations, in the teacher and student materials, of the science content embedded in hands-on activities.
7. Evidence in the teacher edition that each hands-on activity directly covers one or more of the standards in the California Science Standards (in the grade-appropriate physical, life, or earth sciences strands); demonstrates scientific concepts, principles, and theories outlined in the California Science Framework; and produces scientifically meaningful data in practice. All hands-on activities must be safe and age appropriate.
8. Explicit instruction in science vocabulary that emphasizes the meanings of roots, prefixes, and suffixes and the usage and meaning of common words in a scientific context.
9. Extensive, grade-level-appropriate reading and writing of expository text and practice in the use of mathematics, aligned with the *Reading/Language Arts Framework for California Public Schools* and the *Mathematics Framework for California Public Schools*, respectively.
10. Examples, when directly supportive of the California Science Standards, of the historical development of science and its impact on technology and society. The

contributions of minority persons, particularly those individuals who are recognized as prominent in their respective fields, should be included and discussed when it is historically accurate to do so.

11. Examples, when directly supportive of the California Science Standards, of the principles of environmental science, such as conservation of natural resources and pollution prevention. These examples should give direct attention to the responsibilities of all people to create and maintain a healthy environment and to use resources wisely.

CATEGORY 2: Program Organization

The sequence and organization of the science program provide structure to what students should learn each year and allow teachers to convey the science content efficiently and effectively. The program content is organized and presented in a manner consistent with the guidance provided in the California Science Framework. To be considered suitable for adoption, instructional materials must provide:

1. A logical and coherent structure that facilitates efficient and effective teaching and learning within a lesson, unit, and year.
2. Specific instructional objectives that are identified and sequenced so that prerequisite knowledge is introduced before more advanced content.
3. Clearly stated student outcomes and goals that are measurable and are based on standards.
4. Materials and assessments that include a cumulative or spiraled review of skills.
5. A program organization that provides the option of preparing for or pre-teaching the science content embedded in any hands-on activities.
6. A program organization that supports various lengths of instructional time and helps make efficient use of small blocks of time (that may be available during the instructional day) in kindergarten through grade three.
7. An overview of the content in each lesson or instructional unit that outlines the scientific concepts and skills to be developed. Topical headings need to reflect the framework and standards and clearly indicate the content that follows.
8. Support materials that are an integral part of the instructional program. These may include video and audio materials, software, and student workbooks.
9. Tables of contents, indexes, glossaries, content summaries, and assessment guides that are designed to help teachers, parents/guardians, and students.
10. For grades four through eight, explicit statements of the relevant grade-level standards in both the teacher and student editions.

CATEGORY 3: Assessment

Instructional materials should contain strategies and tools for continually measuring student achievement, following the guidance provided in Chapter 6 of the California Science Framework. To be considered suitable for adoption, instructional materials must provide:

1. Strategies or instruments teachers can use to determine students' entry-level skills and knowledge and methods of using that information to guide instruction
2. Multiple measures of the individual student's progress at regular intervals and at strategic points of instruction, such as lesson, chapter, and unit tests or laboratory reports
3. Suggestions on how to use assessment data to guide decisions about instructional practices and to help teachers determine the effectiveness of their instruction
4. Guiding questions for monitoring students' comprehension
5. Answer keys for all workbooks and other related student resources

CATEGORY 4: Universal Access

The instructional materials must provide resources and strategies to enable the effective teaching of students with special needs, allowing them full access to the rigorous academic content specified in the Science Content Standards, in accordance with the guidance set forth in Chapter 7 of the California Science Framework. The resources and strategies must support compliance with applicable state and federal requirements for providing instruction to diverse populations and students with special needs and should be consistent with any applicable policies of the State Board toward that end. To be considered suitable for adoption, instructional materials must provide:

1. Suggestions, based on current and confirmed research, for strategies to adapt the curriculum and the instruction to meet students' identified special needs
2. Strategies to help students who are below grade level in science learning, including more explicit explanations of the science content, to accelerate their knowledge to grade level
3. Teacher and student editions that include suggestions or reading materials for advanced learners who need an enriched or accelerated program or more complex assignments
4. Suggestions to help teachers pre-teach and reinforce science vocabulary and concepts with English learners
5. Resources that provide specific help to meet the needs of students whose reading, writing, listening, and speaking skills are below grade level (in relation to the *English–Language Arts Content Standards for California Public Schools* and the *Reading/Language Arts Framework for California Public Schools*) and help to ensure that these students know, understand, and use appropriate academic language in science

6. Evidence of adherence to the Design Principles for Perceptual Alternatives, Design Principles for Cognitive Alternatives, and Design Principles for Means of Expression, as detailed below, to allow access for all students:

Design Principles for Perceptual Alternatives

- Provide all student text in digital format, consistent with federal copyright law, so that it can easily be transcribed, reproduced, modified, and distributed in braille, large print (only if the publisher does not offer such an edition), recordings, American Sign Language videos, or other specialized accessible media for use by pupils with visual disabilities or other disabilities that prevent the use of standard materials.
- Provide written captions or written descriptions in digital format for the audio portions of visual instructional materials, such as videotapes (for those students who are deaf or hard of hearing).
- Provide educationally relevant descriptions of the images, graphic devices, or pictorial information included in the materials that are essential to the teaching of key concepts. (When important information is presented solely in graphic or pictorial form, it limits access for students who are blind or who have low vision. Digital images with verbal descriptions provide access for those individuals and also provide flexibility for instructional emphasis, clarity, and direction.)

Design Principles for Cognitive Alternatives

- Use “considerate text” design principles, including the following techniques and practices:
 - Adequate titles for each selection
 - Introductory subheadings for chapter sections
 - Introductory paragraphs for new chapters and sections
 - Concluding or summary paragraphs, where appropriate
 - Complete paragraphs, including clear topic sentences, relevant support for the topic, and transitional words and expressions (e.g., *furthermore*, *similarly*)
 - Effective use of typographical aids, such as boldface print, italics
 - Adequate, relevant visual aids connected to the text, such as illustrations, photos, graphs, charts, maps
 - Manageable, not overwhelming, visual and print stimuli

- Identification and highlighting of important terms
- List of reading objectives or focus questions at the beginning of each selection
- List of follow-up comprehension and application questions
- Provide optional information or activities to enhance students' background knowledge. (Some students face barriers because they lack the necessary background knowledge. Pretesting before an activity will alert teachers to the need for advanced preparation. Instructional materials may include optional supports for background knowledge, to be used by students who need them.)
- Provide cognitive supports for content and activities, including the following items:
 - Assessments to determine background knowledge
 - Summaries of those key concepts from the standards that the content addresses
 - Scaffolds for learning and generalization
 - Opportunities to build fluency through practice

Design Principles for Means of Expression

- Explain in the teacher edition that there are various ways for students with special needs to use the materials and demonstrate their competence, and suggest modifications that teachers might use to allow students to do so. For example, for students who have dyslexia (or difficulties physically forming letters, writing legibly, or spelling words), appropriate modifications of means of expression might be (but are not limited to) students' use of computers to complete pencil-and-paper tasks, including the use of on-screen scanning keyboards, enlarged keyboards, word prediction, and spellcheckers.
- Provide support materials that will give students opportunities to develop oral and written expression.

CATEGORY 5: Instructional Planning and Support

Instructional materials must contain a clear road map for teachers to follow when planning instruction. To be considered suitable for adoption, instructional materials must provide:

1. A teacher edition that includes ample and useful annotations and suggestions on how to present the content in the student edition and in the ancillary materials.

2. A checklist of program lessons in the teacher edition, with cross-references to the standards covered, and details regarding the instructional time necessary for all instruction and hands-on activities.
3. Lesson plans, including suggestions for organizing resources in the classroom and ideas for pacing lessons.
4. Blackline masters that are accessible in print and in digitized formats and are easily reproduced. Dark areas are to be minimized to conserve toner.
5. Prioritization of critical components of lessons. Learning objectives and instruction are explicit, and the relationship of lessons to standards or skills within standards is explicit.
6. Clear, grade-appropriate explanations of science concepts, principles, and theories that are presented in a form that teachers can easily adapt for classroom use.
7. Lists of necessary equipment and materials for any hands-on activities, guidance on obtaining those materials inexpensively, and explicit instructions for organizing and safely conducting the instruction.
8. Strategies to address and correct common student errors and misconceptions.
9. Suggestions for how to adapt each hands-on activity provided to other methods of teaching, including teacher modeling, teacher demonstration, direct instruction, or reading, as specified in the California Science Framework.
10. Charts of time and cost of staff development services available for preparing teachers to fully implement the science program.
11. Technical support and suggestions for appropriate use of audiovisual, multimedia, and information technology resources associated with a unit.
12. Strategies for informing parents and guardians about the science program and suggestions for how they can help to support student achievement.
13. Teacher editions containing full, adult-level explanations and examples of the more advanced science concepts, principles, and theories that appear in the lessons so that teachers can refresh or enhance their own knowledge of the topics being covered, as necessary.

Appendix B

Learning Resources Display Centers

Learning Resource Display Centers (LRDCs) throughout California display both submitted and adopted instructional materials and resources for kindergarten through grade eight.

LRDC #1

Humboldt County Office of Education
Humboldt Educational Resource Center
901 Myrtle Avenue
Eureka, CA 95501
Contact: Peg Gardner
(707) 445-7077

LRDC #2

Butte County Office of Education
Instructional Resource Center
Five County Center Drive
Oroville, CA 95965
Contact: Bob Benoit
(530) 532-5815

LRDC #3

Sonoma County Office of Education
Instructional Resources Center
5340 Skylane Boulevard
Santa Rosa, CA 95403
Contact: Jennifer Duckhorn
(707) 524-2837

LRDC #4

Sacramento County Office of Education
Instructional Technology and Learning Resources
10474 Mather Boulevard
Mather, CA 95655
Contact: Ben Anderson
(916) 228-2351

LRDC #5

Contra Costa County Office of Education
Curriculum and Instruction Department
77 Santa Barbara Road
Pleasant Hill, CA 94523
Contact: Rovina Salinas
(925) 942-5332

LRDC #6

Alameda County Office of Education
Educational Services
313 West Winton Avenue
Hayward, CA 94544
Contact: Hector Garcia
(510) 670-4235

LRDC #7

College of Education
San Francisco State University
Cahill Learning Resources & Media Lab
1600 Holloway Avenue, Burk Hall 319
San Francisco, CA 94132
Contact: Rita Yee
(415) 338-3423

LRDC #8

Stanislaus County Office of Education
Technology Learning Resources
1100 H Street
Modesto, CA 95354
Contact: Joan Binczek
(209) 567-4524

LRDC #9

Santa Clara County Office of Education
Library Service #232

1290 Ridder Park Drive
San Jose, CA 95131-2304

Contact: Diane Perry
(408) 453-6800

LRDC #10

Merced County Office of Education
Instructional Services

632 West 13th Street
Merced, CA 95340

Contact: John Magneson
(209) 381-6632

LRDC #11

Fresno County Office of Education
School Library and Media Services

1111 Van Ness
Fresno, CA 93721

Contact: Janie Rocheford
(559) 265-3094

LRDC #12

Tulare County Office of Education
Educational Resource Services

7000 Doe Avenue, Suite A
Visalia, CA 93291

Contact: Elainea Scott and Steven Woods
(559) 651-3077

LRDC #13

Kern County Superintendent of Schools
The Learning Center

2020 K Street
Bakersfield, CA 93301

Contact: Anne Santer
(661) 636-4640

Note: LRDC #14 is now LRDC #A4 (see page 38).

LRDC #15

University of California
Davidson Library, Curriculum Lab

Santa Barbara, CA 93106-9010

Contact: Lorna Lueck
(805) 893-3060

LRDC #16

Ventura County Superintendent of Schools

Educational Services Center

570 Airport Way
Camarillo, CA 93010

Contact: Patti Johnson
(805) 388-4407

LRDC #17

San Bernardino County Superintendent of Schools

Curriculum and Instruction

4595 Hallmark Parkway
San Bernardino, CA 92407-1834

Contact: Cindy Munz
(909) 386-2666

LRDC #18

Los Angeles County Office of Education
Library Services

12757 Bellflower Boulevard
Downey, CA 90242

Contact: Sharon McNeil
(562) 922-6359

LRDC #19

Los Angeles Unified School District
Textbook Services

1545 Wilshire Boulevard, Suite 200
Los Angeles, CA 90017

Contact: Esther Sinofsky
(213) 207-2280

LRDC #20**Orange County Department of Education**

1715 E. Wilshire, Suite 713
 Santa Ana, CA 92705

Contact: Sandra Lapham
 (714) 541-1052

LRDC #21**University of California, Riverside**

Rivera Library

P.O. Box 5900
 Riverside, CA 92517-5900

Contact: Ann Frenkel
 (951) 827-3715 or (951) 827-4394

LRDC #22**San Diego County Office of Education**

Learning Resources Display Center

6401 Linda Vista Road, Room 201
 San Diego, CA 92111

Contact: Barbara Takashima
 (858) 292-3557

The following LRDCs display adopted instructional materials and resources for K–8 only. They do not review submitted materials and resources prior to adoption.

LRDC #A1**San Mateo County Office of Education**

101 Twin Dolphin Drive
 Redwood City, CA 94065-1064

Contact: Karol Thomas
 (650) 802-5651

LRDC #A2**San Jose State University**

King Library

150 East San Fernando
 San Jose, CA 95192-0028

Contact: Susan Kendall
 (408) 802-2039

LRDC #A3**California State University, Sacramento**
Library—Reference Department

2000 State University Drive, East
 Sacramento, CA 95819-6039

Contact: Rosalind Van Auker
 (916) 278-5673

LRDC #A4**California Polytechnic State University**

Kennedy Library

Information and Instructional Services

One Grand Avenue
 San Luis Obispo, CA 93407

Contact: Jose Montelongo, Ph.D.
 (805) 756-7492

LRDC #A5**California State University, Fullerton**

Pollak Library, Curriculum Materials Center

800 North State College Boulevard
 Fullerton, CA 92834

Contact: Ron Rodriguez
 (714) 278-7544 or
 Reference Desk (714) 278-3743

LRDC #A6**Monterey County Office of Education**

Instructional Resources and Technology
 Department

901 Blanco Circle/P.O. Box 80851
 Salinas, CA 93912-0851

Contact: Harry Powell
 (831) 755-0384

LRDC #A7**Yolo County Office of Education**

Learning Resources Display Center

1280 Santa Anita Court, Suite 100
 Woodland, CA 95776

Contact: John Roina
 (530) 668-3717





California Department of Education
Sacramento, 2007

1430 N Street
Sacramento, CA 95814-5901