



California Subject Examinations for Teachers®

TEST GUIDE

MULTIPLE SUBJECTS General Examination Information

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CS-TG-MSXXGI-05

Test Structure for CSET: Multiple Subjects

CSET: Multiple Subjects consists of three separate subtests, each composed of both multiple-choice and constructed-response questions. Each subtest is scored separately.

The structure of the examination is shown in the table below.

CSET: Multiple Subjects			
Subtest	Domains	Number of Multiple-Choice Questions	Number of Constructed-Response Questions (short [focused] responses)
I	Reading, Language, and Literature	26	2
	History and Social Science	26	2
	Subtest Total	52	4
II	Science	26	2
	Mathematics	26	2
	Subtest Total	52	4
III	Physical Education	13	1
	Human Development	13	1
	Visual and Performing Arts	13	1
	Subtest Total	39	3

Calculators for CSET: Multiple Subjects

A basic four-function on-screen calculator will be provided for examinees taking Multiple Subjects Subtest II: Science; Mathematics. An on-screen tutorial at the test center will not be provided for this feature. An on-screen calculator preview is provided on the "Computer-Based Testing Tutorials" page of the California Educator Credentialing Examinations website. You may not bring your own calculator for CSET: Multiple Subjects Subtest II.

Annotated List of Resources for CSET: Multiple Subjects

This list identifies some resources that may help candidates prepare to take CSET: Multiple Subjects. While not a substitute for coursework or other types of teacher preparation, these resources may enhance a candidate's knowledge of the content covered on the examination. The references listed are not intended to represent a comprehensive listing of all potential resources. Candidates are not expected to read all of the materials listed below, and passage of the examination will not require familiarity with these specific resources. A brief summary is provided for each reference cited. Resources are organized alphabetically and by content domain in subtest order.

Reading, Language, and Literature

Akmajian, Adrian; Farmer, Ann K.; Harnish, Robert, M.; and Demers, Richard A. (2010). *Linguistics: An Introduction to Language and Communication* (6th edition). Cambridge, MA: MIT Press.

This book provides a substantive introduction to the study of linguistics. Topics include the structural and interpretive parts of language (morphology, phonetics, phonology, syntax, semantics, variation, and change); pragmatics; psychology of language; language acquisition; and language and the brain.

Andrews, Larry. (2006). *Language Exploration and Awareness: A Resource Book for Teachers* (3rd edition). Mahwah, NJ: Lawrence Erlbaum Associates.

Written from a sociocultural perspective and intended as a textbook for undergraduate and master's level teaching methodology courses, this text is also a resource for current classroom teachers. It includes suggestions for student-centered, inquiry-oriented activities focusing on the study of many aspects of language.

Birsh, Judith R. (Ed.). (2011). *Multisensory Teaching of Basic Language Skills* (3rd edition). Baltimore, MD: Paul H. Brookes Publishing Co.

This practical resource offers strategies for multisensory instruction in language skills, including phonological awareness, alphabetic skills, spelling and grammar, reading accuracy and fluency, reading comprehension, handwriting and composition, and study skills. Specific multisensory methods are explained and ways to apply this knowledge during instruction are provided.

Bonvillain, Nancy. (2010). *Language, Culture, and Communication: The Meaning of Messages* (6th edition). Upper Saddle River, NJ: Prentice Hall.

This text provides a substantive introduction to the study of language from a linguist's perspective.

Brinton, Laurel J. (2000). *The Structure of Modern English: A Linguistic Introduction*. Philadelphia, PA: John Benjamins Publishing Co.

Provides a clear and extensive description of phonology and pragmatics. An accompanying CD-ROM includes sample exercises and a discussion of pedagogical applications.

Burke, Jim. (2012). *The English Teacher's Companion, Fourth Edition: A Completely New Guide to Classroom, Curriculum, and the Profession*. Portsmouth, NH: Heinemann.

Guide to teaching the English curriculum, covering basic reading and writing, digital literacy, media literacy, and integrated instruction.

Buss, Kathleen and Karnowski, Lee. (2002). *Reading and Writing Nonfiction Genres*. Newark, DE: International Reading Association.

This text presents strategies for teaching students about the structures and elements of nonfiction texts, with an emphasis on teacher modeling and student discussions. Student writing samples are included in all chapters.

Buss, Kathleen, and Karnowski, Lee. (2008). *Reading and Writing Literary Genres*. Newark, DE: International Reading Association.

This text presents an interactive model that uses quality children's literature as the foundation for teaching reading and writing to students in grades 3 through 6.

California Common Core State Standards: English Language Arts, Literacy in History/Social Studies, Science, and Technical Subjects. (2013). Sacramento, CA: California Department of Education.

The standards are divided into the following strands: Reading, Writing, Speaking and Listening, and Language.

California Department of Education. (2012). *Recommended Literature: Prekindergarten Through Grade Twelve*. Available online at: <http://www.cde.ca.gov/ci/cr/rl>.

This resource is a searchable database of literature for children and teens. Each database entry is annotated.

Calkins, Lucy McCormick. (1994). *The Art of Teaching Writing*. Portsmouth, NH: Heinemann.

This book provides insightful anecdotes and glimpses into elementary classrooms to show how the writing process (prewriting, drafting, sharing, revising, and editing) can be managed. Discussions on standardized testing, curriculum planning, and assessment are also included.

Crystal, David. (2001). *A Dictionary of Language* (2nd edition). Chicago, IL: University of Chicago Press.

An accessible, accurate, and fairly comprehensive dictionary with a wide range of terminology related to language and linguistics.

Crystal, David. (2010). *The Cambridge Encyclopedia of Language* (3rd edition). Cambridge, United Kingdom: Cambridge University Press.

This text addresses all major areas of language study, including the structure of language; speaking and listening; reading, writing, and signing; language acquisition; and the neurological basis of language. There are bountiful illustrations and useful discussions throughout the book.

Harris, Violet J. (Ed.). (1997). *Using Multiethnic Literature in the K–8 Classroom*. Norwood, MA: Christopher Gordon.

This text presents suggestions on how to encourage reading in children from diverse backgrounds.

Hoff, Erika. (2013). *Language Development* (5th edition). Belmont, CA: Cengage Learning.

This text provides a comprehensive introduction to the study of language development. It also includes chapters on language development after early childhood, second-language learning and bilingual development, the biological bases of language, and language development in special populations.

Hudson, Grover. (1999). *Essential Introductory Linguistics*. Malden, MA: Blackwell Publishers.

Provides a thorough introduction to the study of language.

Hurford, James. (1994). *Grammar: A Student's Guide*. Cambridge, United Kingdom: Cambridge University Press.

This introductory guide provides alphabetically ordered terms with clear definitions, examples, explanations, and exercises.

Moats, Louisa Cook. (2010). *Speech to Print: Language Essentials for Teachers* (2nd edition). Baltimore, MD: Brookes Publishing.

This book provides essential information about the structure of English and how students learn to read. It provides useful information concerning how sounds, syllables, letters, and morphemes are used to construct phrases, sentences, and paragraphs.

Reading/Language Arts Framework for California Public Schools: Kindergarten Through Grade Twelve. (2007). Sacramento, CA: California Department of Education.

Provides content standards and instructional practices in the languages arts with grade-level specificity. Includes curricular and instructional profiles and information on objective design, delivery, assessment, and universal access and materials.

Roser, Nancy L., and Martinez, Miriam G. (Eds.). (1995). *Book Talk and Beyond: Children and Teachers Respond to Literature*. Newark, DE: International Reading Association.

Teachers presented in this book speak about discussing literature in the classroom and how to guide students to a more literary response to reading material.

Snow, Catherine E.; Burns, M. Susan; and Griffin, Peg (Eds.). (1998). *Preventing Reading Difficulties in Young Children*. Committee on the Prevention of Reading Difficulties in Young Children. Washington, DC: National Academy Press.

Discusses processes involved in learning to read and examines predictors of success and failure in reading. Provides instructional and organizational strategies for fostering literacy from birth through the primary grades. Makes recommendations for practice and research.

Stanovich, Keith E. (2000). *Progress in Understanding Reading: Scientific Foundations and New Frontiers*. New York, NY: Guilford Press.

This book summarizes developments in key areas of reading research and provides insights on current controversies and debates. Significant issues covered include phonological processes and context effects in reading, the "reading wars" and how they should be resolved, the meaning of the term "dyslexia," and the cognitive effects and benefits of reading.

Weaver, Constance. (2009). *Reading Process: Brief Edition of Reading Process and Practice* (3rd edition). Portsmouth, NH: Heinemann.

Provides comprehensive coverage of reading practices, theories, and issues.

Wolfram, Walt; Temple Adger, Carolyn; and Christian, Donna. (2007). *Dialects in Schools and Communities* (2nd edition). Mahwah, NJ: Lawrence Erlbaum Associates.

This text describes aspects of language and communicative variation and diversity that are critical for teachers as they work with students from multiple linguistic and cultural backgrounds. It provides information on the effects of linguistic and cultural variation on students' literacy development.

Journal:

Language Arts. National Council of Teachers of English.

History and Social Science

Brinkley, Alan; Current, Richard N.; Freidel, Frank; and Williams, T. Harr. (1991). *American History: A Survey* (8th edition). Boston, MA: McGraw Hill College Division.

An introductory college survey textbook that covers American history from the "Age of Exploration" to the Clinton presidency. The text provides an overview of U.S. political, social, economic, religious, military, and intellectual history.

History-Social Science Content Standards for California Public Schools (1998). Sacramento, CA: California Department of Education.

Frameworks are developed by the Curriculum Development and Supplemental Materials Commission, which also reviews and recommends textbooks and other instructional materials to be adopted by the State Board. Available online at: <http://www.cde.ca.gov/ci/hs>.

McKay, John P.; Hill, Bennett D.; and Buckley, John. (1999). *A History of Western Society* (6th edition). Boston, MA: Houghton-Mifflin.

A college survey text covering world and European history from the Paleolithic Era through the present. More emphasis is placed on European history.

Ravitch, Diane, and Thernstrom, Abigail (Eds.). (1993). *The Democracy Reader: Classic and Modern Speeches, Essays, Poems, Declarations, and Documents on Freedom and Human Rights Worldwide*. New York, NY: HarperCollins.

As cited in *English-Language Arts Content Standards for California Public Schools, Kindergarten Through Grade Twelve* (1998). Sacramento, CA: California Department of Education.

Takaki, Ronald. (2008). *A Different Mirror: A History of Multicultural America*. New York, NY: Little, Brown and Company.

A history of the United States presented from a multicultural point of view. This book describes the experiences of the groups and individuals of diverse national, ethnic, cultural, and religious backgrounds who have shaped U. S. history from colonial times to the twenty-first century.

Science

American Association for the Advancement of Science (AAAS). (2009). *Benchmarks for Science Literacy: Project 2061*. New York: Oxford University Press. Available online at: <http://www.project2061.org/publications/bsl/online/index.php>.

Outlines what all students should know and be able to do in science, mathematics, and technology by the end of grades 2, 5, 8, and 12.

Biological Sciences Curriculum Study. (2016). *BSCS Biology: A Human Approach* (5th edition). Colorado Springs, CO: Kendall Hunt.

A general introductory high school biology text, integrating science and engineering practices of the Next Generation Science Standards (NGSS).

California Department of Education. (2016). *Science Framework*. Sacramento, CA: California Department of Education. Available online at: <http://www.cde.ca.gov/ci/sc/cf/>.

The science framework may be viewed at grade-specific levels. Each level covers the science topics that are expected to be taught at that grade level.

California Department of Education. (2013, revised 2015). *NGSS for California Public Schools, K-12*. Sacramento, CA: California Department of Education. Available online at: <http://www.cde.ca.gov/pd/ca/sc/ngssstandards.asp>.

The K-12 science standards, integrated with the Next Generation Science Standards, can be viewed either by grade-level Disciplinary Core Idea or by grade-level topic.

Duncan, Ravit Golan; Krajcik, Joseph; and Rivet, Ann E. (2017). *Disciplinary Core Ideas: Reshaping Teaching and Learning*. Arlington, VA: National Science Teachers Association.

This book explores by subject and K–12 grade bands the disciplinary core ideas in the physical sciences, life sciences, earth and space sciences, and engineering, technology and applications of science.

Feather, Ralph M. (2008). *Earth Science* (8th edition). New York, NY: Glencoe Publishing Co.

This is an introductory textbook that has a broad array of information and teaching tools. It covers all the major content areas, including matter, minerals, rocks, erosion, weather, climate, plate tectonics, astronomy, oceanography, and human impact.

The National Academies of Sciences, Engineering and Medicine. (2012). *A Framework for K-12 Science Education: Practices, Crosscutting Concepts, and Core Ideas*. Washington, D.C.: The National Academies Press.

The *Framework* outlines expectations for K–12 students in science and engineering and identifies three dimensions around which to develop science education: crosscutting concepts; scientific and engineering practices; and disciplinary core ideas in the physical sciences, life sciences, earth and space sciences, and engineering, technology, and applications of science core ideas. Available online at:
<https://www.nap.edu/read/13165/chapter/1>.

Schwarz, Christina V.; Passmore, Cynthia; and Reiser, Brian J. (2017). *Helping Students Make Sense of the World Using Next Generation Science and Engineering Practices*. Arlington, VA: National Science Teachers Association.

This book explores each of the NGSS scientific and engineering practices in detail. For each of the NGSS practices, an introduction is given, followed by classroom examples and interactive activities at multiple grade levels that incorporate that practice. Key features of the practice, clarification of the parameters of a good version of the practice, and how to support the practice in the classroom are also reviewed.

Starr, Cecie. (2010). *Biology Concepts and Applications* (8th edition). Pacific Grove, CA: Brooks Cole.

An introductory textbook that covers the cellular basis of life, inheritance, evolution, diversity, plant and animal structure and function, ecology, and behavior in a clear manner with good visual representations.

Tarbuck, Edward J., and Lutgens, Frederick K. (2015). *Earth Science* (14th edition). New York, NY: Pearson.

This text provides an excellent survey of the major content areas in earth science, including geology, oceanography, meteorology, and astronomy.

Tillery, Bill W., *et al.* (2016). *Physical Science* (11th edition). New York, NY: McGraw-Hill Education.

An introductory text for non-science majors, covering physics, chemistry, astronomy, and earth sciences, written with a conceptual and problem-solving approach. Exercises with explained answers are provided.

Trefil, James, and Hazen, Robert M. (2016). *The Sciences, Binder Ready Version: An Integrated Approach* (8th edition). Hoboken, NJ: Wiley.

This book integrates physics, chemistry, astronomy, earth sciences, and biology for students with little or no science background. Basic scientific principles are addressed in an accessible way, including Newton's laws, the laws of thermodynamics, the equivalence of electricity and magnetism, the atomic structure of matter, and the theory of relativity. Emphasis is on general principles and their application to real-world situations.

Mathematics

California Common Core State Standards: Mathematics. (2010, modified 2013). Sacramento, CA: California Department of Education.

Information on California's Common Core State Standards, including study materials and instructional resources, available online at: <http://www.cde.ca.gov/re/cc>.

Great Education Group (1997). *Math On Call*. Boston, MA: Great Source Education Group.

An easy-to-understand resource book covering a wide variety of concepts.

Kaplan, Andres (Ed.). (2000). *Algebra to Go: A Mathematics Handbook*. Boston, MA: Great Source Education Group.

A reference book written to explain key topics in a clear and straightforward manner.

Physical Education

Colvin, A. Vonnie; Markos, Nancy J.; and Walker, Pamela. (2000). *Teaching the Nuts and Bolts of Physical Education: Building Basic Movement Skills*. Champaign, IL: Human Kinetics.

Provides foundational content knowledge in locomotor and manipulative skills. Topics include rolling, throwing, catching, passing, dribbling, striking, and kicking and punting.

Graham, George; Holt-Hale, Shirley Ann; and Parker, Melissa. (2001). *Children Moving: A Reflective Approach to Teaching Physical Education*. Boston, MA: WCB/McGraw-Hill.

A comprehensive introduction to teaching physical education that uses a skills theme approach.

Hopper, Chris; Fisher, Bruce; and Muniz, Kathy. (1997). *Health Related Fitness, Grades 1–2, 3–4, 5–6*. Champaign, IL: Human Kinetics.

These three books provide a wealth of health and fitness information and can be a resource for classroom teachers with limited backgrounds in physical education.

Pangrazi, Robert P. (2000). *Dynamic Physical Education for Elementary School Children* (13th edition). San Francisco, CA: Benjamin Cummings.

Provides an overview of physical education activities and basic pedagogy.

Physical Education Framework. (1994). Sacramento, CA: California Department of Education.

Frameworks are developed by the Curriculum Development and Supplemental Materials Commission, which also reviews and recommends textbooks and other instructional materials to be adopted by the State Board. Available online at: <http://www.cde.ca.gov/ci/pe>.

Wikgren, Scott (Ed.). (1999). *Physical Education for Lifelong Fitness: The Physical Best Teacher's Guide*. Champaign, IL: Human Kinetics.

This book presents a framework for implementing health-related fitness education. It is useful for students preparing for careers in physical education as well as veteran teachers.

Human Development

Berger, Kathleen Stassen. (1999). *The Developing Person Through Childhood and Adolescence* (5th edition). New York, NY: Worth Publishing.

A chronologically organized textbook covering development from conception through adolescence. Developmental theory and practical applications are provided.

Berk, Laura E. (2001). *Infants, Children, and Adolescents* (4th edition). Boston, MA: Allyn & Bacon.

A chronologically organized text that includes theory and research in child development, the biological and environmental foundations of development, and physical, cognitive, and socioemotional development through adolescence.

Fabes, Richard A., and Martin, Carol Lynn. (2002). *Exploring Child Development* (2nd edition). Boston, MA: Allyn & Bacon.

This chronologically organized text covers development from conception through adolescence. Issues of diversity are included throughout in the areas of physical, psychological, and cultural differences, gender, race, ethnicity, and social and economic status. Real-world applications are provided throughout.

Feldman, Robert S. (1998). *Child Development: A Topical Approach*. Upper Saddle River, NJ: Prentice Hall.

A topically organized text that provides a broad, comprehensive introduction to the study of development from conception through adolescence.

Haith, Marshall M.; Miller, Scott A.; and Vasta, Ross. (1999). *Child Psychology: The Modern Science* (3rd edition). New York, NY: John Wiley & Sons.

A topically organized text covering development from conception through adolescence, with major emphasis on child development. Emphasizes current research and the integration of contextual influences (family, school, and culture) in the study of child development.

Health Framework for California Public Schools, Kindergarten Through Grade Twelve. (1994). Sacramento, CA: California Department of Education.

Frameworks are developed by the Curriculum Development and Supplemental Materials Commission, which also reviews and recommends textbooks and other instructional materials to be adopted by the State Board. Available online at: <http://www.cde.ca.gov/ci/he>.

Kaplan, Paul S. (2000). *A Child's Odyssey: Child and Adolescent Development* (3rd edition). Belmont, CA: Wadsworth Publishing Co.

A chronologically organized textbook covering development from conception through adolescence. Provides a solid foundation in child development, exploring the science of development as well as the child's unique experiences. Many examples and applications are provided.

McDevitt, Teresa M., and Ormrod, Jeanne Ellis. (2001). *Child Development and Education*. Upper Saddle River, NJ: Prentice Hall.

This text was written for educators. It applies developmental theory to classroom practice and offers concrete educational strategies to facilitate development. Real-world examples and applications are presented throughout.

Meece, Judith L. (2001). *Child & Adolescent Development for Educators* (2nd edition). Boston, MA: McGraw Hill Higher Education.

Designed specifically for teacher education majors, this text addresses the development of school-age children and adolescents. Topics covered include cognitive development, social and emotional development, language development, and individual differences.

Visual and Performing Arts

Arnold, Stephanie. (2000). *The Creative Spirit: An Introduction to Theatre*. Boston, MA: McGraw-Hill.

A general introduction to theatre texts.

Bartenieff, Irmgard. (1980). *Body Movement: Coping with the Environment*. Routledge, NY: Routledge.

This is an overview of Laban Movement Analysis, an approach to movement that has been integrated into dance education. Material covers space, shape, and movement qualities.

Campbell, Patricia Sheehan; Scott-Kasner, Carol; and Kassner, Kirk. (2001). *Music in Childhood: From Preschool Through the Elementary Grades* (2nd edition). Chicago, IL: Schirmer Books.

This text covers the elements and concepts of music and provides guidance for enhancing children's musical development. Ways to connect music education to other subjects in the elementary school curriculum are discussed.

Hackett, Patricia, and Lindman,Carolynn A. (2000). *The Musical Classroom: Backgrounds, Models, and Skills for Elementary Teaching* (5th edition). Upper Saddle River, NJ: Prentice Hall College Division.

This text provides an introduction to music and how to teach it. Model lessons are provided.

Jonas, Gerald. (1998). *Dancing: The Pleasure, Power, and Art of Movement*. New York, NY: Harry N. Abrams.

Discusses a wide variety of dances and cultures in a way that is intelligent, respectful, and coherent. It ranges across most major cultural settings and includes ballet, classical Indian dance, other Asian dances, some African dance, social dance, and modern dance.

Koster, Joan Bouza. (2000). *Bringing Art into the Elementary Classroom*. Belmont, CA: Wadsworth Publishing Co.

This book addresses the language of art, teaching art, and producing art. Topics covered include philosophy and goals, connections and themes, and the assessment of art. It emphasizes the integration of the arts into elementary classrooms.

Murray, Ruth Lovell. (1975). *Dance in Elementary Education, a Program for Boys and Girls*. New York, NY: HarperCollins College Division.

Covers a wide range of practical examples of dance.

Rozmajzl, Michon, and Boyer-Alexander, Rene. (1999). *Music Fundamentals, Methods, and Materials for the Elementary Classroom Teacher* (3rd edition). New York, NY: Longman.

This comprehensive text addresses teaching the elements of music to children, developing musical skills, how to plan and teach music, and how to integrate music across the curriculum.

Simpson, Judith W.; Delaney, Jean M.; and Carroll, Karen Lee. (1997). *Creating Meaning Through Art: Teacher as Choice Maker*. Upper Saddle River, NJ: Prentice Hall.

Introduces teachers to the power of art as a vehicle for creating meaning. Each chapter focuses on a different aspect of art education, including the cultivation of artistic behaviors and the encouragement of visual storytelling.

Stinson, Sue. (1988). *Dance for Young Children: Finding the Magic in Movement*. Reston, VA: American Alliance for Health, Physical Education, Recreation and Dance.

Though it focuses on preschool, this is a classic in the field and is also a succinct overview of everything from class planning to elements of movement to classroom management, etc.

Visual and Performing Arts Content Standards for California Public Schools, Prekindergarten Through Grade Twelve. (2001). Sacramento, CA: California Department of Education.

Updated and approved in 2001, the standards cover the disciplines of dance, music, theatre, and the visual arts. Standards are provided for each grade level, prekindergarten through grade twelve.

Other Resources

California Department of Education. (2014). Curriculum Frameworks and Instructional Materials. Sacramento, CA: California Department of Education. Available online at: <http://www.cde.ca.gov/ci/cr/cf/allfwks.asp>

Frameworks are developed by the California Department of Education's Curriculum Frameworks and Instructional Resources Division (CFIRD), which also reviews and recommends textbooks and other instructional materials to be adopted by the State Board of Education.

Harris, Theodore L., and Hodges, Richard E. (Eds.). (1995). *The Literacy Dictionary: The Vocabulary of Reading and Writing*. Newark, DE: International Reading Association.

As cited in *English-Language Arts Content Standards for California Public Schools, Kindergarten Through Grade Twelve* (1998). Sacramento, CA: California Department of Education.

Hunt, Nancy, and Marshall, Kathleen. (2012). *Exceptional Children and Youth* (5th edition). Boston, MA: Cengage Learning.

An introductory text in special education with descriptions of various disabilities, education-related services, and issues related to class inclusion.

Merriam-Webster's Collegiate Dictionary (11th edition). (2007). Springfield, MA: Merriam-Webster.

Smith, Deborah D. (2000). *Introduction to Special Education: Teaching in an Age of Opportunity* (4th edition). Boston, MA: Allyn & Bacon.

An introductory text in special education with descriptions of various disabilities, education-related services, and issues related to class inclusion.