

Health Science Subject Matter Requirements

Part I: Content Domains for Subject Matter Understanding and Skill in Health Science

Domain 1. Foundations of Health Education

Candidates demonstrate an understanding of the professional, scientific, and behavioral foundations in alignment with the Health Framework for California Public Schools (2003). Candidates must demonstrate a fundamental understanding of the professional and legal responsibilities of health educators, of the scientific and behavioral principles that are the basis of health science, and of the philosophies of health education.

1.1 Professional Foundations

- a. Demonstrate knowledge of the components and purpose of a Coordinated School Health Program (CSHP)/System.
- b. Describe the importance and relevance of Healthy People 2010 for the health educator.
- c. Interpret health-related data from various sources (e.g., the California Healthy Kids Survey [CHKS], the Youth Risk Behavior Surveillance System [YRBSS], Centers for Disease Control and Prevention [CDC]).
- d. Identify resources for keeping informed about current knowledge in health science (e.g., Internet, professional journals, local health agencies, professional organizations).
- e. Understand the role of the health education professional in communicating, promoting, and advocating for a healthy school environment.

1.2 Scientific and Behavioral Foundations

- a. Demonstrate a basic knowledge of human anatomy and physiology, emphasizing body systems.
- b. Identify behavior change theories (e.g., social learning theory, stages of change) relevant to health instruction.
- c. Demonstrate knowledge of current trends in health education (e.g., resiliency, asset development, skills-based instruction, research-based programs).

1.3 Legal Responsibilities

- a. Demonstrate knowledge of laws relating to student health and safety, including confidentiality and reporting suspected abuse or neglect.
- b. Demonstrate awareness of how laws, regulations, and local board policies affect the content of school health education.

(Challenge Standards for Student Success: Health Education [1998]: Standards 2, 6, 9. Health Science Teacher Preparation in California: Standards of Quality and Effectiveness for Subject Matter Programs [1999]: Standards 2–6, 8–12.)

Domain 2. Human Growth and Development

Candidates demonstrate an understanding of physical and psychosocial growth and development in alignment with the Health Framework for California Public Schools (2003). Candidates must demonstrate a fundamental understanding of human growth patterns, characteristics of developmental stages over the life cycle, and factors that affect psychosocial growth and development.

2.1 Physical Growth and Development

- a. Demonstrate knowledge of the physical patterns of change and development that occur over the life cycle (e.g., infancy, childhood, adolescence, adulthood).
- b. Demonstrate basic knowledge of individual hygiene practices.

2.2 Psychosocial Growth and Development

- a. Demonstrate knowledge of factors influencing psychosocial growth and development (e.g., race, gender, age, ethnicity, culture, special needs) in relation to health, disease, and health behaviors.
- b. Identify cognitive, emotional, and social changes that occur over the life cycle (e.g., in body image, self-esteem, interpersonal relationships).

(Challenge Standards for Student Success: Health Education [1998]: Standards 5–8. Health Science Teacher Preparation in California: Standards of Quality and Effectiveness for Subject Matter Programs [1999]: Standards 2, 3, 6, 12.)

Domain 3. Chronic and Communicable Diseases

Candidates demonstrate an understanding of chronic and communicable diseases in alignment with the Health Framework for California Public Schools (2003). Candidates must demonstrate a fundamental understanding of the risk factors for, characteristics of, and prevention of chronic and communicable diseases.

3.1 Chronic Diseases

- a. Demonstrate knowledge of risk factors for and characteristics of common chronic diseases (e.g., heart disease, asthma, diabetes, cancer), including their demographic distributions.
- b. Identify primary, secondary, and tertiary approaches for preventing common chronic diseases.
- c. Identify the historical and modern-day impact of common chronic diseases on human populations.

3.2 Communicable Diseases

- a. Demonstrate knowledge of risk factors for and characteristics of common communicable diseases (e.g., HIV/AIDS, sexually transmitted diseases [STDs], hepatitis, tuberculosis), including their means of transmission and demographic distributions.
- b. Identify primary, secondary, and tertiary approaches for preventing common communicable diseases (e.g., immunizations, risk-reduction strategies, antibiotics).
- c. Identify the historical and modern-day impact of communicable diseases (e.g., plague, polio, tuberculosis, smallpox, HIV/AIDS) on human populations.

(Challenge Standards for Student Success: Health Education [1998]: Standard 2. Health Science Teacher Preparation in California: Standards of Quality and Effectiveness for Subject Matter Programs [1999]: Standard 11.)

Domain 4. Nutrition and Fitness

Candidates demonstrate an understanding of nutrition and physical fitness in alignment with the Health Framework for California Public Schools (2003). Candidates must demonstrate a fundamental understanding of relationships among nutrition, physical activity, and lifelong well-being.

4.1 Nutritional Bases of Human Health

- a. Demonstrate knowledge of the categories of essential nutrients (i.e., carbohydrates, fats, proteins, vitamins, minerals, and water), their sources in the diet, and consequences of their deficiency or excess.
- b. Interpret information on food labels.
- c. Demonstrate knowledge of dietary guidelines for different populations (e.g., based on age, culture, medical conditions).
- d. Demonstrate knowledge of how to develop an appropriate personal nutrition plan.
- e. Understand the principles of weight management and the importance of weight management to overall health and wellness.
- f. Understand the risk factors for and health risks associated with obesity.
- g. Demonstrate knowledge of eating disorders and their relationship to individual health and body image.

4.2 Physical Fitness and Health

- a. Demonstrate knowledge of the components of health-related fitness (e.g., endurance, strength, flexibility) and methods of self-assessment.
- b. Demonstrate knowledge of the effects of exercise and personal health behaviors (e.g., sleep, rest, relaxation) that have a positive impact on body systems and on lifelong health.
- c. Demonstrate knowledge of how to develop an appropriate personal fitness plan, including strategies for self-assessment, goal-setting, and maintenance.

(Challenge Standards for Student Success: Health Education [1998]: Standards 1, 7. Health Science Teacher Preparation in California: Standards of Quality and Effectiveness for Subject Matter Programs [1999]: Standards 3, 4, 11.)

Domain 5. Mental and Emotional Health

Candidates demonstrate an understanding of the foundations of mental and emotional well-being in alignment with the Health Framework for California Public Schools (2003). Candidates must demonstrate a fundamental understanding of the role of mental and emotional health in maintaining lifelong well-being and of how to adapt positively to change.

5.1 Foundations of Mental and Emotional Health

- a. Identify the basic components of mental and emotional health (e.g., self-confidence, goal setting, coping skills, effective communication skills).
- b. Identify the relationships among mental, emotional, and physical health.
- c. Recognize the potential contributions of spirituality (e.g., purpose and meaning, connectedness, service to others, positive self-concept) to mental, emotional, and/or physical health.
- d. Demonstrate knowledge of positive youth development, asset development, and resiliency.

- e. Identify strategies for dealing with grief, loss, and bereavement in a variety of situations (e.g., individual, family, group).
- f. Identify strategies for dealing with anger in a variety of situations.

5.2 Stress, Depression, and Suicide

- a. Demonstrate knowledge of the causes, symptoms, and consequences of stress from various sources (e.g., peers, family, school, work) and of stress management techniques.
- b. Understand the nature of depression and its causes, symptoms, and treatment options.
- c. Identify risk factors for suicide and strategies for intervention.

(Challenge Standards for Student Success: Health Education [1998]: Standards 1, 6. Health Science Teacher Preparation in California: Standards of Quality and Effectiveness for Subject Matter Programs [1999]: Standards 3, 7.)

Domain 6. Alcohol, Tobacco, and Other Drugs

Candidates demonstrate an understanding of drugs and of factors affecting their use, misuse, and abuse in alignment with the Health Framework for California Public Schools (2003). Candidates must demonstrate a fundamental understanding of drug classifications; the physical effects of drug use, misuse, and abuse; and the prevention, intervention, and treatment of drug abuse and addiction.

6.1 Drug Classifications and Effects on the Body

- a. Demonstrate knowledge of the categories of drugs (i.e., legal, illegal, over-the-counter, and prescription).
- b. Demonstrate knowledge of drug classifications (e.g., antibiotics, stimulants, depressants, hallucinogens) and the effects of each class of drug on the body.

6.2 Drug Use, Misuse, Abuse, and Addiction

- a. Distinguish between responsible and irresponsible use of over-the-counter and prescription drugs.
- b. Distinguish between responsible and irresponsible use of tobacco and alcohol.
- c. Identify signs of drug misuse, abuse, and addiction.
- d. Demonstrate knowledge of the physiological process and stages of drug addiction.
- e. Recognize the impact of drug abuse on relationships and family dynamics.
- f. Analyze factors contributing to the misuse and abuse of drugs (e.g., impact of the media, peer pressure).

6.3 Prevention, Intervention, and Treatment of Substance Abuse

- a. Identify and understand substance-abuse prevention strategies (e.g., decision making, finding healthy alternatives, avoiding risk situations).
- b. Demonstrate knowledge of intervention options (e.g., student assistance programs) and treatment options (e.g., inpatient, outpatient) for dealing with substance abuse.

(Challenge Standards for Student Success: Health Education [1998]: Standards 3, 4, 6, 7. Health Science Teacher Preparation in California: Standards of Quality and Effectiveness for Subject Matter Programs [1999]: Standards 3, 5, 6.)

Domain 7. Family Life and Interpersonal Relationships

Candidates demonstrate an understanding of family and interpersonal relationships and of reproductive health in alignment with the Health Framework for California Public Schools (2003). Candidates must demonstrate a fundamental understanding of family structures, family life education, interpersonal relationships, and human sexuality and reproductive health.

7.1 Family Structures and Family Life

- a. Demonstrate knowledge and understanding of diverse family structures.
- b. Recognize how interpersonal, cultural, and social dynamics (e.g., intimacy, intergenerational relationships, parenting) may affect a family.
- c. Identify and analyze potential sources of stress (e.g., divorce, blended families, homelessness, finances) within families.
- d. Recognize behaviors and strategies that reduce conflict and promote healthy family relationships.

7.2 Interpersonal Relationships

- a. Recognize varying levels of intimacy and commitment across relationships (e.g., friendship, dating, marriage).
- b. Identify characteristics of healthy and unhealthy relationships.
- c. Recognize effective techniques for communicating and building healthy relationships (e.g., assertiveness, active listening, "I" messages).
- d. Demonstrate knowledge of the causes of conflict and techniques for conflict resolution.
- e. Understand forms of internal and external peer pressure and identify possible responses.

7.3 Human Sexuality and Reproductive Health

- a. Demonstrate knowledge of developmental changes and the characteristics of puberty and menarche.
- b. Analyze factors that influence decisions about sexual activity (e.g., individual, family, and cultural values, peer and media influences).
- c. Demonstrate knowledge of family planning and methods of delaying or avoiding pregnancy (e.g., abstinence, contraception).
- d. Demonstrate knowledge of sexually transmitted diseases (STDs) and methods for their prevention or risk reduction.
- e. Identify factors (e.g., nutrition, drug use, heredity) that affect pregnancy, fetal development, and birth.

(Challenge Standards for Student Success: Health Education [1998]: Standards 2–6, 8. Health Science Teacher Preparation in California: Standards of Quality and Effectiveness for Subject Matter Programs [1999]: Standards 4, 6, 7.)

Domain 8. Consumer and Community Health

Candidates demonstrate an understanding of consumer and community health, intentional and unintentional injury, and emergency preparedness in alignment with the Health Framework for California Public Schools (2003). Candidates must demonstrate a fundamental understanding of the impact of culture, media, technology, and other factors on consumer health. They understand ways to promote and maintain positive and safe health practices and reduce the risk of injury and violence within the home, school, and community.

8.1 Consumer Health

- a. Identify appropriate health professionals and sources of health services for a variety of health-related needs.
- b. Identify health insurance options (e.g., health maintenance organizations, preferred provider organizations, Medi-Cal).
- c. Distinguish between reliable and unreliable sources of health-related information.
- d. Interpret and analyze advertising techniques and their influence on consumer behavior.
- e. Evaluate claims made for health products and services, and recognize quackery.
- f. Identify organizations and agencies concerned with consumer health protection.

8.2 Community Health

- a. Demonstrate knowledge of a variety of public and private community organizations and agencies that promote community health.
- b. Demonstrate knowledge of how cultural beliefs and practices may affect individual and community health behaviors (e.g., immunization, accessing health services).
- c. Demonstrate knowledge of health issues affecting special populations (e.g., migrant, homeless, uninsured).

8.3 Intentional and Unintentional Injury

- a. Demonstrate knowledge of sources of intentional injuries (e.g., bullying, assault, child abuse, hate crimes) and risk reduction strategies.
- b. Demonstrate knowledge of sources of unintentional injuries (e.g., fire, poison, traffic) and risk reduction strategies.
- c. Demonstrate knowledge of first aid and universal precautions.
- d. Demonstrate knowledge of the purpose and function of family, community, and school emergency preparedness plans.

(Challenge Standards for Student Success: Health Education [1998]: Standards 5, 7–9. Health Science Teacher Preparation in California: Standards of Quality and Effectiveness for Subject Matter Programs [1999]: Standards 7, 8, 10.)

Domain 9. Environmental Health

Candidates demonstrate an understanding of the relationships between humans and their environment in alignment with the Health Framework for California Public Schools (2003). Candidates must demonstrate a fundamental understanding of factors in natural and human environments that impact health and of ways to conserve natural resources and protect the environment.

9.1 People, Health, and the Environment

- a. Identify types of pollution, hazardous wastes, biohazards, and naturally occurring environmental hazards and their effects on health.
- b. Demonstrate knowledge of ways to prevent or minimize the effects of pollution and other environmental factors.
- c. Demonstrate knowledge of steps that can be taken to conserve natural resources and protect the environment.

- d. Demonstrate knowledge of organizations and agencies concerned with environmental health.

(Challenge Standards for Student Success: Health Education [1998]: Standards 5, 6. Health Science Teacher Preparation in California: Standards of Quality and Effectiveness for Subject Matter Programs [1999]: Standards 7, 11.)

Part II: Subject Matter Skills and Abilities Applicable to the Content Domains in Health Science

Candidates apply knowledge of behavioral and scientific principles to the content area of health science/health education and apply health-related skills across multiple health topics. They demonstrate problem-solving and critical-thinking skills that develop confidence in the decision-making process and promote healthy behaviors.

Candidates recognize differences in individual growth and development and variation in culture and family life. They assess individual and community needs for health education by interpreting health-related data about social and cultural environments. They differentiate between health education practices that are grounded on sound scientific research and those that are not research based. They identify opportunities for collaboration among health educators in all settings, including school and community health professions. They apply laws, regulations, and policies affecting school health education.

Candidates use their analytical skills to identify behaviors that enhance and/or compromise personal health and well-being and recognize the short-term and long-term effects of the lifestyle choices and habits of individuals. They apply a variety of risk assessment skills and prevention strategies to health-related issues. They evaluate sources of health-related information and differentiate between reliable and unreliable sources.

Candidates demonstrate effective communication and advocacy skills as they relate to personal, family, and community health and health education needs. They understand the role of communication in interpersonal relationships and identify strategies that encourage appropriate expression. They emphasize the importance of the communication process, including listening, assertiveness, and refusal skills.