Texas CTE

# Health Science (2010): Grade 9

Adopted 2010

**Principles of Health Science**

**(1) The student applies mathematics, science, English language arts, and social studies in health science. The student is expected to:**

- (A) convert units between systems of measurement;
- (B) apply data from tables, charts, and graphs to provide solutions to health-related problems;
- (C) interpret technical material related to the health science industry;
- (D) organize, compile, and write ideas into reports and summaries;
- (E) plan and prepare effective oral presentations;
- (F) formulate responses using precise language to communicate ideas;
- (G) describe biological and chemical processes that maintain homeostasis;
- (H) identify and analyze principles of body mechanics and movement such as forces and the effects of movement, torque, tension, and elasticity on the human body;
- (I) identify human needs according to Maslow's Hierarchy of Human Needs;
- (J) describe the stages of development related to the life span;
- (K) identify the concepts of health and wellness throughout the life span;
- (L) analyze and evaluate communication skills for maintaining healthy relationships throughout the life span;
- (M) research the historical significance of health care;
- (N) describe the impact of health services on the economy;
- (O) analyze the impact of local, state, and national government on the health science industry;
- (P) identify diverse and cultural influences that have impacted contemporary aspects of health care delivery; and
- (Q) compare and contrast practices used by various cultures and societies to solve problems related to health.

**(2) The student uses verbal and nonverbal communication skills. The student is expected to:**

- (A) identify components of effective and non-effective communication;
- (B) demonstrate effective communication skills for responding to the needs of individuals in a diverse society;
- (C) evaluate the effectiveness of conflict resolution techniques in various situations; and
- (D) accurately interpret, transcribe, and communicate medical vocabulary using appropriate technology.

**(3) The student implements the leadership skills necessary to function in a democratic society. The student is expected to:**

- (A) identify traits of a leader;
- (B) demonstrate leadership skills, characteristics, and responsibilities of leaders such as goal setting and team building; and
- (C) demonstrate the ability to effectively conduct and participate in meetings.

**(4) The student assesses career options and the preparation necessary for employment in the health science industry. The student is expected to:**

- (A) locate, evaluate, and interpret career options and employment information; and
- (B) recognize the impact of career decisions, including cause and effect of changing employment situations.

**(5) The student identifies professional characteristics, academic preparation, and skills necessary for employment as defined by the health science industry. The student is expected to:**

- (A) identify employer expectations such as punctuality, attendance, time management, communication, organizational skills, and productive work habits; and
- (B) identify academic requirements for professional advancement such as certification, licensure, registration, continuing education, and advanced degrees.

**(6) The student identifies the systems related to health science. The student is expected to:**

- (A) compare health science careers within the diagnostic, therapeutic, health informatics, support services, and biotechnology research and development systems; and
- (B) identify the collaborative role of team members between systems to deliver quality health care.

**(7) The student examines the role of the multidisciplinary team in providing health care. The student is expected to:**

(A) explain the concept of teaming to provide quality health care; and

(B) examine the role of professional organizations in the preparation and governance of credentialing and certification.

**(8) The student interprets ethical behavior standards and legal responsibilities. The student is expected to:**

(A) compare published professional codes of ethics and scope of practice;

(B) explain principles of confidentiality and ethical behavior, including the consequences of breech of confidentiality;

(C) discuss ethical issues related to health care, including implications of technological advances;

(D) examine issues related to malpractice, negligence, and liability; and

(E) research laws governing the health science industry.

**(9) The student recognizes the rights and choices of the individual. The student is expected to:**

(A) recognize situations related to autonomy;

(B) identify wellness strategies for the prevention of disease;

(C) evaluate positive and negative effects of relationships on physical and emotional health such as peers, family, and friends and in promoting a healthy community;

(D) review documentation related to rights and choices; and

(E) recognize diversity and cultural practices influencing contemporary aspects of health care.

**(10) The student recognizes the importance of maintaining a safe environment and eliminating hazardous situations. The student is expected to:**

(A) identify governing regulatory agencies such as the World Health Organization, Centers for Disease Control, Occupational Safety and Health Administration, Food and Drug Administration, and National Institute for Occupational Safety and Health;

(B) relate industry safety standards such as standard precautions, fire prevention, safety practices, and appropriate actions to emergency situations; and

(C) identify safety practices in all aspects of the health science industry.

**(11) The student identifies the technology used in the diagnostic, therapeutic, health informatics, support services, and biotechnology research and development systems. The student is expected to:**

(A) identify technological equipment used in each of the five systems and relate findings to identified societal risk factors; and

(B) recognize and relate the process for reporting equipment or technology malfunctions.

**Medical Terminology**

**(1) The student recognizes the terminology related to the health science industry. The student is expected to:**

(A) identify abbreviations, acronyms, and symbols;

(B) identify the basic structure of medical words;

(C) practice word-building skills;

(D) research the origins of eponyms;

(E) recall directional terms and anatomical planes related to body structure; and

(F) define and accurately spell occupationally specific terms such as those relating to the body systems, surgical and diagnostic procedures, diseases, and treatments.

**(2) The student demonstrates communication skills using the terminology applicable to the health science industry. The student is expected to:**

(A) demonstrate appropriate verbal and written strategies such as correct pronunciation of medical terms and spelling in a variety of health science scenarios;

(B) employ increasingly precise language to communicate; and

(C) translate technical material related to the health science industry.

**(3) The student examines available resources. The student is expected to:**

(A) examine medical and dental dictionaries and multimedia resources;

(B) integrate resources to interpret technical materials; and

(C) investigate electronic media such as the Internet with appropriate supervision.

**(4) The student interprets medical abbreviations. The student is expected to:**

(A) distinguish medical abbreviations used throughout the health science industry; and

(B) translate medical abbreviations in simulated technical material such as physician progress notes, radiological reports, and laboratory reports.

**(5) The student appropriately translates health science industry terms. The student is expected to:**

(A) interpret, transcribe, and communicate vocabulary related to the health science industry;

(B) translate medical terms to conversational language to facilitate communication;

(C) distinguish medical terminology associated with medical specialists such as geneticists, pathologists, and oncologists;

(D) summarize observations using medical terminology; and

(E) correctly interpret contents of medical scenarios.