



Principles of Health Science

PRE-TEST/POST-TEST TEKS BLUEPRINT

Pre-Test/Post-Test Development Overview

TEKS Addressed Selection Process

The Texas Essential Knowledge & Skills (TEKS) included in the course pre-test and post-test were selected for their direct relevance to the course content. This selection process was guided by the goal of assessing learners' understanding of specific topics and skills that are integral to the course. As a result, TEKS related to general employability skills or broader topics were often excluded. This focus ensures that the assessments accurately measure students' mastery of the subject matter, allowing educators to gain a clear insight into areas where students excel or may need additional support. By concentrating on content-specific TEKS, the tests provide a more precise evaluation of the students' knowledge and understanding of the core material.

Test Question Development Process

The questions created for the pre-test and post-test were designed using psychometric principles to ensure they are of high quality and fairness. This approach helps to accurately assess student understanding. These principles guide the development of questions to be reliable, valid, and free from bias, ensuring that they effectively measure the knowledge and skills the students are expected to acquire in the course.

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Knowledge & Skills Statement	Student Expectation	iCEV Lesson Title
(2) 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	Mathematical Applications in Health Science
(2) The student applies mathematics, science, English language arts, and social studies in health science. The student is expected to:	(B) apply data from tables, charts, and graphs to provide solutions to health-related problems	Mathematical Applications in Health Science
(2) The student applies mathematics, science, English language arts, and social studies in health science. The student is expected to:	(C) interpret technical material related to the health science industry	Medical Terminology in Health Science
(2) The student applies mathematics, science, English language arts, and social studies in health science. The student is expected to:	(D) organize, compile, and write ideas into reports and summaries	Medical Records & Reports
(2) The student applies mathematics, science, English language arts, and social studies in health science. The student is expected to:	(E) plan and prepare effective oral presentations	Health Science Professionalism: Communication
(2) The student applies mathematics, science, English language arts, and social studies in health science. The student is expected to:	(F) formulate responses using precise language to communicate ideas	Health Science Professionalism: Communication
(2) The student applies mathematics, science, English language arts, and social studies in health science. The student is expected to:	(G) describe biological and chemical process that maintain homeostasis	Human Body: Homeostasis
(2) The student applies mathematics, science, English language arts, and social studies in health science. The student is expected to:	(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	Body Mechanics & Movement
(2) The student applies mathematics, science, English language arts, and social studies in health science. The student is expected to:	(I) identify human needs according to Maslow's Hierarchy of Human Needs	Human Development Applications
(2) The student applies mathematics, science, English language arts, and social studies in health science. The student is expected to:	(J) describe the stages of development related to the life span	Human Development Applications
(2) The student applies mathematics, science, English language arts, and social studies in health science. The student is expected to:	(K) identify the concepts of health and wellness throughout the life span	Human Development Applications
(2) The student applies mathematics, science, English language arts, and social studies in health science. The student is expected to:	(L) analyze and evaluate communication skills for maintaining healthy relationships throughout the life span	Maintaining Relationships in Health Science
(2) The student applies mathematics, science, English language arts, and social studies in health science. The student is expected to:	(M) research the historical significance of health care	Healthcare in the United States
(2) The student applies mathematics, science, English language arts, and social studies in health science. The student is expected to:	(N) describe the impact of health services on the economy	Healthcare in the United States
(2) The student applies mathematics, science, English language arts, and social studies in health science. The student is expected to:	(O) analyze the impact of local, state, and national government on the health science industry	Healthcare in the United States
(2) The student applies mathematics, science, English language arts, and social studies in health science. The student is expected to:	(P) identify diverse and cultural influences that have impacted contemporary aspects of health care delivery	Contemporary Healthcare
(2) The student applies mathematics, science, English language arts, and social studies in health science. The student is expected to:	(Q) research and compare practices used by various cultures and societies to solve problems related to health	Contemporary Healthcare

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(3) The student uses verbal and non-verbal communication skills. The student is expected to:	(A) identify components of effective and non-effective communication	Health Science Professionalism: Communication
(3) The student uses verbal and non-verbal communication skills. The student is expected to:	(B) demonstrate effective communication skills for responding to the needs of individuals in a diverse society	Maintaining Relationships in Health Science
(3) The student uses verbal and non-verbal communication skills. The student is expected to:	(C) evaluate the effectiveness of conflict-resolution techniques in various situations	Health Science Professionalism: Communication
(3) The student uses verbal and non-verbal communication skills. The student is expected to:	(D) accurately interpret, transcribe, and communicate medical vocabulary using appropriate technology	Medical Terminology in Health Science
(4) The student implements the leadership skills necessary to function in a democratic society. The student is expected to:	(A) identify traits of a leader	Health Science Professionalism: Leadership
(4) The student implements the leadership skills necessary to function in a democratic society. The student is expected to:	(B) demonstrate leadership skills, characteristics, and responsibilities of leaders such as goal-setting and team building	Health Science Professionalism: Leadership
(4) The student implements the leadership skills necessary to function in a democratic society. The student is expected to:	(C) demonstrate the ability to effectively conduct and participate in meetings	Health Science Professionalism: Leadership
(7) The students identifies the career pathways related to health science. The student is expected to:	(B) identify the collaborative role of team members between systems to deliver quality health care	Healthcare Teams
(8) 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	Healthcare Teams Ethical Principles in Health Science
(9) The students interprets ethical behavior standards and legal responsibilities. The students is expected to:	(B) explain principles of ethical behavior and confidentiality, including the consequences of breach of confidentiality	Ethical Principles in Health Science
(9) The students interprets ethical behavior standards and legal responsibilities. The students is expected to:	(C) discuss ethical issues related to health care, including implications of technological advances	Ethical Principles in Health Science
(9) The students interprets ethical behavior standards and legal responsibilities. The students is expected to:	(D) examine issues related to malpractice, negligence, and liability	Ethical Principles in Health Science
(9) The students interprets ethical behavior standards and legal responsibilities. The students is expected to:	(E) research laws governing the health science industry	Ethical Principles in Health Science
(10) The students recognizes the rights of choices of the individual. The student is expected to:	(A) identify situations related to autonomy	Ethical Principles in Health Science
(10) The students recognizes the rights of choices of the individual. The student is expected to:	(B) identify wellness strategies for the prevention of disease	Disease Prevention
(10) The students recognizes the rights of choices of the individual. The student is expected to:	(C) evaluate positive and negative effects of relationships on physical and emotional health such as peers, family, and friends in promoting a healthy community	Maintaining Relationships in Health Science
(10) The students recognizes the rights of choices of the individual. The student is expected to:	(D) review documentation related to rights and choices	Ethical Principles in Health Science
(10) The students recognizes the rights of choices of the individual. The student is expected to:	(E) demonstrate an understanding of diversity and cultural practices influencing contemporary aspects of health care	Contemporary Healthcare
(11) 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 and Prevention, Occupational Safety and Health Administration, Joint Commission and National Institute of Health	Safety & Regulations in Health Science
(11) The student recognizes the importance of maintaining a safe environment and eliminating hazardous situations. The student is expected to:	(B) identify industry safety standards such as standard precautions, fire prevention and safety practices, and appropriate actions to emergency situations	Safety & Regulations in Health Science
(11) The student recognizes the importance of maintaining a safe environment and eliminating hazardous situations. The student is expected to:	(C) relate safety practices in all aspects of the health science industry	Safety & Regulations in Health Science
(12) The students identifies the technology used in the diagnostic, therapeutic, health informatics, support services, and biotechnology research and development systems. The student is expected to:	(A) research and identify technological equipment used in the diagnostic, therapeutic, health informatics, support services, and biotechnology research and development systems	Health Science Equipment

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(12) The students identifies the technology used in the diagnostic, therapeutic, health informatics, support services, and biotechnology research and development systems. The student is expected to:	(B) identify potential malfunctions of technological equipment	Health Science Equipment
(12) The students identifies the technology used in the diagnostic, therapeutic, health informatics, support services, and biotechnology research and development systems. The student is expected to:	(C) recognize and explain the process for reporting equipment or technology malfunctions	Health Science Equipment