#### NATIONAL HEALTH SCIENCE STANDARDS May 2015

The National Health Science Standards provide a clear and consistent understanding of industry and post- secondary expectations for health science teachers and students. These standards are designed to provide the essential knowledge common across health professions to prepare and increase the number of students that are college and career ready.

**Description:** This course provides a basic understanding of first aid and CPR principles. Students learn how to respond to common first aid emergencies, including burns, cuts, head, neck and back injuries. Students learn how to respond to cardiac and breathing emergencies in adults including the use of AEDs.

Recommended for grades: 10-12 Hours Required: One Semester Recommended Prerequisites: None

Foundation Standard 10: Technical Skills Apply technical skills required for all career specialties and demonstrate skills and knowledge as appropriate			Activities Students will:	
10.1 Technical Skills	10.1	Recognize several life threatening emergencies	<ul> <li>Participate in class discussion</li> <li>Watch AHA instructional DVD</li> <li>Read American Red Cross first aid text</li> <li>Take reading and written exam</li> </ul>	
	10.2	Provide CPR	<ul> <li>Demonstrate CPR skills for adult, child and infant on manikins</li> <li>Demonstrate how to remove soiled gloves</li> <li>Demonstrate how to properly wash hands</li> </ul>	
	10.3	<ul> <li>Use an AED</li> <li>Locate AED in building and other public facilities</li> <li>Identify adult/child pads</li> </ul>	<ul> <li>Locate AEDs within the school and list other public facilities that have AEDs</li> <li>Demonstrate the use of AED</li> </ul>	

1	10.4	Relieve choking in a safe, timely and effective manner	<ul> <li>List and define symptoms of choking</li> <li>Demonstrate infant choking relief skills</li> </ul>
1	10.5	Perform primary and secondary patient assessments	<ul> <li>Assess a scene looking for obvious signs of injury</li> <li>Look for medical alert jewelry</li> </ul>
10	10.6	Demonstrate bandaging, splinting, rescue and transfer skills	<ul> <li>Demonstrate various splinting and dressing techniques</li> </ul>
1	10.12	Obtain training or certification in cardiopulmonary resuscitation (CPR), automated external defibrillator (AED), foreign body airway obstruction (FBAO) and first aid. *Additional technical skills may be included in a program of study based on career specialties.	<ul> <li>Create a PowerPoint and present it to the class on an environmental emergency</li> <li>Research heat related illness on the Korey Stringer Institute web site</li> <li>Design and create a poster for a poison prevention campaign including the Poison Center phone number: 1-800-222-1222</li> </ul>

Foundation Standard 2: Communications Demonstrate methods of delivering and obtaining information, while communicating effectively.			Activities Students will:	
2.1 Concepts of Effective Communication2.11		Model verbal and nonverbal communication.	<ul> <li>Demonstrate verbal and non-verbal communication when instructing bystander to get AED and call 9-1-1</li> </ul>	
	2.12	<ul> <li>Identify common barriers to communication.</li> <li>a. Physical disabilities (aphasia, hearing loss, impaired vision)</li> <li>b. Psychological barriers (attitudes, bias, prejudice, stereotyping)</li> </ul>	<ul> <li>Participate in discussion</li> <li>Complete worksheet about special considerations such as physical disabilities, hearing loss, limited or loss of vision</li> </ul>	

Foundation Standard 7: Safety Practices Identify existing and potential hazards to clients, co-workers, and self. Employ safe work practices and follow health and safety policies and procedures to prevent injury and illness.			Activities Students will:	
7.1 Infection Control	7.11	<ul> <li>Explain principles of infection control.</li> <li>a. Chain of infection</li> <li>b. Classifications (bacteria, protozoa, fungi, viruses, parasites)</li> </ul>	<ul> <li>Participate in discussion about transmitted infections such as hepatitis or AIDS</li> <li>Explain the difference between viral and bacterial infections</li> </ul>	
	7.12	<ul> <li>Differentiate methods of controlling the spread and growth of microorganisms.</li> <li>a. Standard precautions</li> <li>b. Blood borne pathogen precautions</li> <li>c. Vaccinations</li> </ul>	<ul> <li>Demonstrate how to properly remove soiled gloves</li> <li>Demonstrate proper handwashing techniques</li> </ul>	
7.2 Personal Safety	7.22	Demonstrate principles of body mechanics.	<ul> <li>Watch a back safety video and complete worksheet</li> </ul>	
7.3 Environmental Safety	7.31	Apply safety techniques in the work environment. a. Ergonomics	<ul> <li>Demonstrate proper lifting technique</li> <li>Watch a back safety video and complete worksheet</li> </ul>	
7.4 Common Safety Hazards	7.41	Observe all safety standards related to the Occupational Exposure to Hazardous Chemicals Standard (Safety Data Sheets (SDSs)). ( <u>www.osha.gov</u> )	- Do an online activity on OSHA.gov and research a product used at home, finding the MSDS for that product	
7.5 Emergency Procedures and Protocols	7.52	Apply principles of basic emergency response in natural disasters and other emergencies (safe location, contact emergency personnel, follow facility protocols).	<ul> <li>Participate in discussion about evacuation plans in the school setting</li> <li>Participate in discussion of community disaster plans</li> </ul>	

Foundation Standard 6: Ethics Understand accepted ethical practices with respect to cultural, social, and ethnic differences within the healthcare environment.			Activities Students will:	
6.1 Ethical Practice	6.11	Differentiate between ethical and legal issues impacting healthcare.	<ul> <li>Discuss the Good Samaritan Law and Duty to Act</li> </ul>	
6.2 Cultural, Social, and Ethnic Diversity	6.21	Discuss religious and cultural values as they impact healthcare (such as: ethnicity, race, religion, gender).	- Discuss the 7 foundations of the American Red Cross	
	6.22	Demonstrate respectful and empathetic treatment of ALL patients/clients (such as: customer service, patient satisfaction, civility).	-	

Foundation Standard 9: Health Maintenance Practices Differentiate between wellness and disease. Promote disease prevention and model healthy behaviors.			Activities Students will:	
9.1 Healthy Behaviors 9.11		Promote behaviors of health and wellness (such as: nutrition, weight control, exercise, sleep habits).	<ul> <li>Identify lifestyle factors that lead to heart disease, and use goal setting to reduce their personal risks</li> </ul>	
	9.12	Describe strategies for prevention of disease. a. Immunizations b. Stress management c. Avoid risky behaviors	<ul> <li>Investigate and have a debate on the right to refuse vaccinations</li> <li>Present the DVD series "Rx for Survival" from Bill Gates Foundation on Global Health</li> <li>Identify lifestyle factors that lead to heart disease, and use goal setting to reduce their personal risks</li> </ul>	
Final Project			- Design and create a diorama of a room or	

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			house that has at least 10 features that
			promote health, prevent injury and promote
			emergency preparedness