

Middle School Health Science Education Standards

Academic

- A1 Utilize effective verbal and non-verbal communication skills
- A2 Participate in conversation, discussion and group presentations
- A3 Locate and interpret written information
- A4 Identify relevant details, facts and specifications
- A5 Record information accurately and completely
- A6 Demonstrate competence in organizing, writing and editing using correct vocabulary, spelling, grammar and punctuation
- A7 Demonstrate the ability to write clearly and concisely
- A8 Implement effective decision-making skills
- A9 Perform basic and higher-level math operations (e.g., addition, subtraction, multiplication, division, decimals, fractions, units of conversion, averaging, percentage, proportion, ratios)
- A10 Use tables, graphs, diagrams and charts to obtain or convey information
- A11 Identify the components of a budget and how one is created
- A12 Set personal financial goals and develop a plan for achieving them
- A13 Identify and apply Internet security practices (e.g., password security, login, logout, log off, lock computer)
- A14 Use technology appropriately to enhance task
- A15 Demonstrate appropriate etiquette when using e-communications (e.g., cell phone, e-mail, conference calls)

Employability

- E1 Demonstrate positive work ethic when completing new tasks
- E2 Abide by workplace policies and procedures
- E3 Demonstrate honesty and reliability
- E4 Demonstrate ethical characteristics and behaviors
- E5 Demonstrate polite and respectful behavior toward others
- E6 Demonstrate personal accountability in the workplace
- E7 Demonstrate pride in work
- E8 Demonstrate ability to stay on task to produce high quality deliverables on time
- E9 Explain the importance of respect for feelings, values and beliefs of others
- E10 Identify strategies to bridge cultural/generational differences and use differing perspectives to increase overall quality of work
- E11 Recognize the challenges and advantages of diversity in the workplace
- E12 Demonstrate effective team skills and evaluate their importance in the workplace (e.g., setting goals, listening, following directions, questioning, dividing work)

- E13 Contribute new ideas while valuing varying ideas and opinions
- E14 Implement conflict resolution strategies and problem-solving skills
- E15 Recognize the importance of maintaining an age appropriate job and pursuing a potential career
- E16 Define jobs associated with a specific career path or profession
- E17 Seek and capitalize on self-improvement opportunities
- E18 Accept and provide constructive criticism

Academic Foundations

- OA1 Describe the organization of the human body and directional terms
- OA2 Identify levels of organization, e.g., chemical, cellular, tissue, organ, system, organism
- OA3 Demonstrate anatomical position
- OA4 Identify body planes, e.g., sagittal, midsagittal, coronal/frontal, transverse/horizontal
- OA5 Demonstrate understanding of directional terms, e.g., anterior, medial, proximal, superior
- OA2 Identify body cavities, e.g., abdominal, cranial, thoracic
- OA7 Identify the components of the abdominal quadrants, e.g. right upper, right lower, left upper, left lower
- OA8 Explore structure and function of the skeletal system
- OA9 Explore structure and function of the muscular system
- OA10 Explore structure and function of the integumentary system
- OA11 Explore structure and function of the cardiovascular system
- OA12 Explore structure and function of the lymphatic and immune system
- OA13 Explore structure and function of the respiratory system
- OA14 Explore structure and function of the nervous system
- OA15 Explore structure and function of the endocrine system
- OA16 Explore structure and function of the digestive system
- OA17 Explore structure and function of the urinary system
- OA18 Explore structure and function of the reproductive system
- OA19 Describe etiology, treatment and/or prevention of common diseases and disorders, e.g., cancer, hypertension, diabetes mellitus, cystic fibrosis
- OA20 Explore biomedical therapies, e.g., gene therapy, stem cell research
- OA21 Demonstrate competency using basic math skills related to health care, e.g., averages, ratios, fractions, percentages, metric system, Roman numerals, 24-hour time clock

Communications

- OB1 Model verbal and nonverbal communication skills, e.g., active listening, silence
- OB2 Explore barriers to communication, e.g., physical, psychological, and ways to overcome them
- OB3 Distinguish between subjective and objective information.
- OB4 Explore the use of common roots, prefixes and suffixes in medical language
- OB5 Interpret common medical abbreviations to communicate information
- OB6 Demonstrate appropriate use of digital communications in a work environment, such as email, text and social media

Systems

- OC1 Compare and contrast types of practice settings, e.g., acute care, long-term care, mental health, home care, specialty medical and dental practices
- OC2 Define the role of government systems, e.g., Veterans Administration (VA), Centers for Disease Control and Prevention (CDC), Food and Drug Administration (FDA)
- OC3 Define the role of related organizations, e.g. American Cancer Society, American Heart Association (AHA), American Red Cross (ARC)
- OC4 Explore types of insurance plans, e.g., private health insurance plans, Medicaid, Medicare, Workers Compensation

Career Development

- OD1 Identify personal traits and attitudes desirable in a career ready member of a health team, e.g., competence, empathy, willingness to learn
- OD2 Summarize professional standards as they apply to hygiene, dress, language, confidentiality and behavior
- OD3 Explore employability skills related to healthcare, e.g., following the chain of command, scope of practice, time management
- OD4 Examine the differences between the levels of education and requirements for health care professions
- OD5 Distinguish differences among careers within a health science pathway.
 - Biotechnology Research and Development
 - Diagnostic Services
 - Health Informatics
 - Support Services
 - Therapeutic Services
- OD6 Explore community service opportunities develop leadership skills through local organizations, e.g., HOSA

Legal and Ethical Responsibilities

- OE1 Explore implications of criminal and civil law in healthcare, e.g. abuse, assault, malpractice, negligence, slander
- OE2 Explore legal issues related to healthcare, e.g., HIPAA, advance directives, patient rights, informed consent, scope of practice
- OE3 Differentiate between ethical and legal issues related to healthcare
- OE4 Explore ethical issues related to healthcare, e.g., ethics committee, euthanasia, in vitro fertilization
- OE5 Discuss religious and cultural values as they impact healthcare, e.g., ethnicity, gender, race, religion

Safety Practices

- OF1 Explain principles of infection transmission, including the chain of infection

- OF2 Identify classifications of pathogens, e.g., bacteria, viruses, fungi
- OF3 Describe characteristics of microorganisms, e.g., pathogen, non-pathogen, aerobic, anaerobic
- OF4 Describe mode of transmission, e.g., direct, indirect, healthcare-associated (nosocomial)
- OF5 Describe methods of controlling the spread and growth of pathogens, e.g., handwashing, disinfection, vaccinations, Personal Protective Equipment (PPE), Bloodborne pathogen precautions
- OF6 Explore personal safety procedures based on Occupational Safety and Health Administration (OSHA) and Centers for Disease Control (CDC) regulations
- OF7 Demonstrate principles of body mechanics during patient care, e.g., ambulating, lifting, positioning
- OF8 Explore safety techniques in the work environment, e.g., ergonomics, safe operation of equipment, patient/client/employee safety measures
- OF9 Discuss safety standards related to the occupational exposure to hazardous chemicals standard (safety data sheets [SDS])
- OF10 Explore principles of basic emergency response in healthcare settings, e.g., fire safety, facility protocols

Teamwork

- OG1 Identify characteristics of effective teams, e.g., defined roles, common purpose, effective leadership
- OG2 Describe the importance of teamwork in healthcare and how it improves patient care

Health Maintenance Practices

- OF1 Promote behaviors of health and wellness, e.g., exercise, nutrition, relationships, stress management
- OF2 Explore aspects of behavioral health, e.g., anxiety, depression, substance abuse
- OF3 Describe strategies for disease prevention, e.g., community education, immunizations, screenings

Technical Skills

- OG1 Demonstrate procedures for measuring and recording vital signs including the normal ranges, e.g.:
 - Blood pressure
 - Temperature
 - Oxygen saturation
 - Pain
 - Pulse
 - Respirations
- OG2 Obtain emergency procedures training or certification, e.g.:
 - Automated external defibrillator (AED)

- Cardiopulmonary resuscitation (CPR)
- First aid
- Foreign body airway obstruction (FBAO)