Bemidji Area Schools - June 2017

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 is a study of the language used in the health care delivery system. The course presents component medical word parts and their use in building and interpreting medical terminology related to each body system. Spelling, pronunciation and usage of medical terminology is emphasized.

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

Foundation Standard 1: Academic Foundation Understand human anatomy, physiology, common diseases and disorders, and medical math principles.			Activities Students will:	
1.1 Human Anatomy and Physiology	1.12	Identify basic levels of organization of the human body a. Chemical b. Cellular c. Tissue d. Organs e. Systems f. Organism Identify body planes, directional terms, cavities, and quadrants. a. Body planes (sagittal, mid-sagittal, coronal/frontal, transverse/horizontal) b. Directional terms (superior, inferior, anterior/ventral, posterior/dorsal, medial, lateral, proximal, distal, superficial, and deep) c. Cavities (dorsal, cranial, spinal, thoracic, abdominal, and pelvic) d. Quadrants (upper right, lower right, upper left, and lower left)	 View the series Body Atlas for each system of the human body Do the practice activities in the Medical Terminology text Participate in review games such as Bingo, Jeopardy, or Hangman Create and label a pasta skeleton Trace a body and draw/label the digestive system Label human anatomy worksheets 	

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1.13 Analyze basic structures and functions of human body systems (skeletal,
muscular, integumentary, cardiovascular, lymphatic, respiratory, nervous,
special senses, endocrine, digestive, urinary, and reproductive).
a. Skeletal (bone anatomy, axial and appendicular skeletal bones,
functions of bones, ligaments, types of joints)
b. Muscular (microscopic anatomy of muscle tissue, types of muscle,
locations of skeletal muscles, functions of muscles, tendons,
directional movements)
c. Integumentary (layers, structures and functions of skin)
d. Cardiovascular (components of blood, structures and functions of
blood components, structures and functions of the cardiovascular
system, conduction system of the heart, cardiac cycle)
e. Lymphatic (structures and functions of lymphatic system, movement of lymphfluid)
f. Respiratory (structures and functions of respiratory system, physiology of respiration)
g. Nervous (structures and functions of nervous tissue and system, organization of nervous system)
h. Special senses (structures and functions of eye, ear, nose and
tongue; identify senses for sight, hearing, smell, taste, touch)
i. Endocrine (endocrine versus exocrine, structures and functions of
endocrine system, hormones, regulation of hormones)
j. Digestive (structures and functions of gastrointestinal tract,
chemical and mechanical digestion, structures and functions of
accessory organs)
k. Urinary (structures and functions of urinary system, gross and
microscopic anatomy, process of urine formation, urine
composition, homeostatic balance) Reproductive (structures and
functions of male and female reproductive systems, formation of
gametes, hormone production and effects, menstrual cycle, and
conception)

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1.2 Diseases and Disorders	1.21	Describe common diseases and disorders of each body system (such as: cancer, diabetes, dementia, stroke, heart disease, tuberculosis, hepatitis, COPD, kidney disease, arthritis, ulcers). a. Etiology b. Pathology c. Diagnosis d. Treatment e. Prevention	-	Create PowerPoint presentations on various medical conditions Discuss medical conditions, therapeutic and diagnostic terms Create and use flash cards Pass written exams with 70% efficiency
	1.22	Discuss research related to emerging diseases and disorders (such as: autism, VRSA, PTSD, Listeria, seasonal flu).		
	1.23	Describe biomedical therapies as they relate to the prevention, pathology, and treatment of disease. a. Gene testing b. Gene therapy c. Human proteomics d. Cloning e. Stem cell research		

	oundation Standard 2: Communications emonstrate methods of delivering and obtaining information, while communicating effectively.		Activities Students will:
2.2 Medical	2.2	Identify origins of terms.	
Terminology			
		Divide medical terms into their component parts.	
		a. Common Prefixes	
		b. Common Suffixes	
		c. Root Words	
		d. Combining Forms	
		Learn the meanings of basic combining forms, prefixes, and suffixes.	
		a. Define basic prefixes used in the medical language	
		b. Analyze medical terms that contain prefixes	

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	Define and decipher various medical abbreviations and acronyms.
2.21	Use common roots, prefixes, and suffixes to communicate information.
	Use combining forms, prefixes, and suffixes to build medical terms and communicate information. a. Analyze, define, and guild terms related to position and time b. Pronounce and spell terms related to position and time
	c. Analyze, define, and build terms related to conditions or change d. Pronounce and spell terms related to conditions or change
2.22	Interpret medical abbreviations to communicate information. a. Common abbreviations b. Joint Commission official "Do Not Use List"
	Differentiate an acronym and an abbreviation.