



Multiple Category Scope and Sequence: Scope and Sequence Report For Course Standards and Objectives, Content, Skills, Vocabulary

Tuesday, August 19, 2014, 11:51PM



District	Unit	Course Standards and Objectives	Content	Skills	Vocabulary
<p>Basic <u>Introduction to Health Science (51.0001)</u> <u>(District)</u> 2014-2015 <u>Collaboration</u></p>	<p><u>Unit 1 - Introduction</u> (Week 1, 4 Weeks)</p>	<p>UT: CTE: Health Education, UT: Grades 9-12, Introduction to Health Science Standard 1 Students will explore the fundamental aspects of Healthcare.</p> <ul style="list-style-type: none"> ▪ Objective 1 Compare and contrast the history of medicine with current trends. <ol style="list-style-type: none"> a. Create a historical timeline. b. Identify current trends in healthcare. ▪ Objective 2 Investigate the various aspects of health insurance. <ol style="list-style-type: none"> a. Describe health insurance (premium, copay, deductible, etc.) b. Compare and contrast government funded healthcare programs and private health insurance (Medicaid, Medicare, etc.). ▪ Objective 3 Summarize basic professional standards and characteristics of healthcare workers. <ol style="list-style-type: none"> a. Demonstrate proper hygiene of a healthcare worker. b. Describe proper dress of a healthcare worker. c. Discuss proper behavior in a healthcare setting (honesty, empathy, dependable, life-long learner, and teamwork). ▪ Objective 4 Discuss desirable attitudes and behaviors when providing healthcare to diverse patients. <ol style="list-style-type: none"> a. Describe how cultural differences impact the delivery of healthcare. b. Describe the importance of treating patients as individuals (i.e., gender, race, age, religion, etc.). ▪ Objective 6 Demonstrate knowledge of medical law and medical ethics. <ol style="list-style-type: none"> a. Differentiate between medical law and medical ethics. 	<p><u>History of Medicine & Current Trends</u></p> <ul style="list-style-type: none"> ▪ Historical timeline of healthcare ▪ Current trends in healthcare <p><u>Health Insurance</u></p> <ul style="list-style-type: none"> ▪ Description ▪ Government funded healthcare programs ▪ Private health insurance <p><u>Professional Standards and Characteristics of Healthcare Workers</u></p> <ul style="list-style-type: none"> ▪ Proper hygiene of healthcare worker ▪ Proper dress of healthcare worker ▪ Proper behavior in a healthcare setting <p><u>Diverse Patients</u></p> <ul style="list-style-type: none"> ▪ Cultural differences ▪ Importance of treating patients as individuals <p><u>Health Science Career Pathways</u></p> <ul style="list-style-type: none"> ▪ Diagnostic 	<p>Students will be able to:</p> <ul style="list-style-type: none"> ▪ Compare and contrast the history of medicine with current trends. ▪ Investigate the various aspects of health insurance. ▪ Describe health insurance. ▪ Compare and contrast government funded healthcare programs and private health insurance. ▪ Demonstrate proper hygiene and dress of a healthcare worker. ▪ Discuss proper behavior in a healthcare setting. ▪ Describe how cultural differences impact the delivery of healthcare. ▪ Describe the importance of treating patients as individuals. ▪ Compare and contrast the health science career pathways. ▪ Demonstrate knowledge of medical law and medical ethics. ▪ Identify how math is used in the medical field. ▪ Apply directional terms for use in anatomy. 	<p>Vocabulary students will learn and understand:</p> <ul style="list-style-type: none"> ▪ Health insurance ▪ premium ▪ copay ▪ deductible ▪ Medicaid ▪ Medicare ▪ honesty ▪ empathy ▪ dependable ▪ life-long learner ▪ teamwork ▪ gender ▪ race ▪ age ▪ religion ▪ Diagnostic Services Pathway ▪ Therapeutic Services Pathway ▪ Health Informatics Pathway ▪ Support Services Pathway ▪ Biotechnology Research and Development Pathway ▪ medical law ▪ medical ethics ▪ scope of practice ▪ expressed consent ▪ implied consent ▪ battery ▪ invasion of privacy ▪ malpractice ▪ negligence ▪ HIPPA ▪ sagittal ▪ mid-sagittal ▪ coronal/frontal ▪ transverse/horizontal

- b. Describe scope of practice for healthcare workers.
- c. Explain the importance of expressed consent and implied consent.
- d. Define legal implications and how they relate to healthcare (battery, invasion of privacy, and malpractice/negligence).
- e. Describe HIPPA and how it relates to a patients right to privacy.
- Objective 7
Identify how math is used in the medical field.
 - a. Demonstrate use of the 24-hour clock/military time.
 - b. Demonstrate competency in basic math skills as they relate to healthcare (averages, ratios, fractions, percentages, addition, subtraction, multiplication, and division).
 - c. Demonstrate the ability to convert units of height, weight, and temperature.
 - d. Demonstrate the ability to use the metric system.
- Objective 8
Describe anatomical position and the role it plays in human anatomy.
 - a. Define anatomical position.
 - b. Identify body planes and directional terms (sagittal, mid-sagittal, coronal/frontal, transverse/horizontal, superior, inferior, anterior, posterior, medial, lateral, proximal, distal, superficial, and deep).

- Services Pathway
- Therapeutic Services Pathway
- Health Informatics Pathway
- Support Services Pathway
- Biotechnology Research and Development

- superior
- inferior
- anterior
- posterior
- medial
- lateral
- proximal
- distal
- superficial
- deep

Medical Law & Ethics

- Medical Law
- Medical Ethics
- Scope of practice for healthcare workers
- Expressed consent and implied consent
- Legal implications of healthcare
- Describe HIPPA

Math in the Medical Field

- 24 hour clock
- Competency in basic math
- Convert units of height, weight, and temperature
- Ability to use the metric system

Anatomical Position

- Anatomical position
- Body planes and directional terms

Unit 2 - Support

Systems 
(Week 5, 4 Weeks)



UT: CTE: Health Education, UT: Grades 9-12, Introduction to Health Science Standard 2
Students will explore aspects of the body systems related to support.

Skeletal System

- Basic functions of skeletal system
- Basic structure of

Students will be able to:

- Describe how the skeletal system provides structure and

- Calcium
- Hematopoiesis
- Cranium
- Frontal
- Parietal

- Objective 1
Identify the basic functions of the skeletal system.
 - a. Describe how the skeletal system provides structure/support.
 - b. Describe how the skeletal system provides means for muscle attachment and movement.
 - c. Describe how the skeletal system stores minerals (i.e., calcium).
 - d. Describe hematopoiesis (blood cell production) and where it occurs.
- Objective 2
Explore the basic structure of the skeleton.
 - a. Identify the following bones.
 - Cranium (frontal, parietal, occipital, temporal, maxillae, mandible)
 - Vertebrae (cervical, thoracic, lumbar, sacrum, coccyx).
 - Ribs
 - Sternum
 - Humerous
 - Radius
 - Ulna
 - Carpels
 - Metacarpels
 - Phalanges (fingers)
 - Pelvis
 - Femur
 - Patella
 - Tibia
 - Fibula
 - Tarsals
 - Metatarsals
 - Phalanges (toes)
 - b. Describe articulation and identify the location of joints (i.e, suture, shoulder, elbow, wrist, hip, knee, etc.).
 - c. Describe the function of ligaments.
- Objective 3
Describe the diseases and disorders associated with the skeletal system.
 - a. Compare and contrast open and closed fractures.
 - b. Describe the causes, signs and symptoms, and treatment of scoliosis.
 - c. Describe the causes, signs and symptoms, and treatment of osteoarthritis.
 - d. Describe the causes, signs and symptoms, and treatment of

skeletal system

- Diseases and disorders associated with skeletal system

Muscular System

- Basic functions of muscular system
- Basic structure of muscular system
- Diseases and disorders associated with muscular system

Integumentary System

- Basic functions of the integumentary system
- Layers of the skin and appendages
- Diseases and disorders associated with the integumentary system

- support.
- Describe how the skeletal system provides means for muscle attachment and movement.
- Describe how the skeletal system stores minerals.
- Describe hematopoiesis and where it occurs.
- Identify bones in the skeletal system.
- Describe articulation and identify the location of joints.
- Describe the function of ligaments.
- Compare and contrast open and closed fractures.
- Describe the causes, signs and symptoms, and treatment of diseases and disorders of the skeletal system.
- Define thermogenesis.
- Identify how muscles produce movement.
- Explain how muscles maintain posture, protect internal organs, and how smooth muscle controls the volume of our hollow body organs.
- Identify the location of muscles in the body.
- Differentiate between cardiac, smooth, and skeletal muscles.
- Describe the function of tendons.
- Describe the causes, signs and symptoms, and treatment of diseases and disorders of the muscular system.
- Identify how the skin protects against infection.

- Occipital
- Temporal
- Maxillae
- Mandible
- Vertebrae
- Cervical
- Thoracic
- Lumbar
- Sacrum
- Coccyx
- Ribs
- Sternum
- Humerous
- Radius
- Ulna
- Carpels
- Metacarpels
- Phalanges
- Pelvis
- Femur
- Patella
- Tibia
- Fibula
- Tarsals
- Metatarsals
- Phalanges
- Suture joint
- Shoulder joint
- Elbow joint
- Wrist joint
- Hip joint
- Knee joint
- Ligaments
- Open fractures
- Closed fractures
- Scoliosis
- Osteoarthritis
- Osteoporosis
- Sprain
- Thermogenesis
- Biceps brachii
- Triceps brachii
- Trapezius
- Deltoid
- Diaphragm
- Pectoralis major
- Latissimus dorsi
- Rectus abdominus
- Gastrocnemius

- osteoporosis.
- e. Describe the causes, signs and symptoms, and treatment of sprain.
- Objective 4
Describe the basic functions of the muscular system.
 - a. Define thermogenesis.
 - b. Identify how muscles produce movement (i.e., muscle contractions).
 - c. Explain how muscles maintain posture.
 - d. Explain how muscles protect internal organs.
 - e. Explain how smooth muscle controls the volume of our hollow body organs.
- Objective 5
Explore the basic structure of the skeletal system.
 - a. Identify the location of the following muscles.
 - Biceps brachii
 - triceps brachii
 - trapezius
 - deltoid
 - diaphragm
 - pectoralis major
 - latissimus dorsi
 - rectus abdominus
 - gastrocnemius
 - hamstrings
 - quadriceps
 - gluteus maximus.
 - b. Differentiate between cardiac, smooth, and skeletal muscles (appearance, location, and control).
 - c. Describe the function of tendons.
- Objective 6
Describe the diseases and disorders associated with the muscular system.
 - a. Describe the causes, signs and symptoms, and treatment of tendonitis.
 - b. Describe the causes, signs and symptoms, and treatment of muscular dystrophy.
 - c. Describe the causes, signs and symptoms, and treatment of strain.
 - d. Describe the causes, signs and symptoms, and treatment of spasm (i.e., Charlie horse).
- Objective 7
Describe the basic functions of the integumentary system.
 - a. Identify how skin protects against infection.

- Explain that the skin produces vitamin D, functions as a sensory organ, and regulates body temperature.
- Identify how the skin protects against UV light.
- Describe the layers and appendages of the skin.
- Describe the causes, signs and symptoms, and treatment of diseases and disorders of the integumentary system.

- Hamstrings
- Quadriceps
- Gluteus maximus
- Cardiac muscle
- Smooth muscle
- Skeletal muscle
- Tendons
- Tendonitis
- Muscular dystrophy
- Strain
- Spasm
- Vitamin D
- Epidermis
- Dermis
- Subcutaneous layer
- Sudoriferous glands
- Sebaceous glands
- Acne
- Fungal infections
- Skin cancer

- b. Explain that the skin produces vitamin D.
 - c. Explain how the skin functions as a sensory organ.
 - d. Explain how skin regulates body temperature.
 - e. Identify how the skin protects against UV light.
 - Objective 8
Identify the layers of the skin and appendages.
 - a. Describe the layers of the skin (epidermis, dermis, and subcutaneous layer).
 - b. Describe the appendages of the skin (nails, sweat (sudoriferous) glands, oil (sebaceous) glands, and hair).
 - Objective 9
Describe the diseases and disorders associated with the integumentary system.
 - a. Describe the causes, signs and symptoms, and treatment of acne.
 - b. Describe the causes, signs and symptoms, and treatment of fungal infections (i.e., athlete's foot, ringworm, and jock itch).
 - c. Describe the causes, signs and symptoms, treatment, prevention, and detection (ABCDE method) of skin cancer (i.e., basal cell carcinoma, squamous cell carcinoma, and melanoma).
- Transportation Systems

**Unit 3 -
Transportation**

Systems 
(Week 8, 4 Weeks)


UT: CTE: Health Education, UT: Grades 9-12,
Introduction to Health Science
Standard 3
Students will explore aspects of the body systems
related to transportation.

- Objective 1
Describe the basic functions of the circulatory system.
 - a. Identify how the circulatory system transports the following nutrients and wastes.
 - b. Identify how the circulatory system transports heat.
 - c. Identify how the circulatory system transports oxygen to body cells and carbon dioxide away from body cells.

Circulatory System

- Describe functions of the circulatory system
- Identify basic structures and functions of the circulatory system
- Describe diseases and disorders associated with the circulatory system

Students will be able to:

- Identify how the circulatory system transports nutrients and wastes, heat, oxygen to body cells and carbon dioxide away from body cells, hormones, and antibodies.
- Organize the flow of blood through the heart.
- Compare and contrast the differences between arteries, capillaries, and veins.
- Identify the components

- Right atrium
- Right ventricle
- Left atrium
- Left ventricle
- Valves
- Arteries
- Capillaries
- Veins
- Red blood cells
- White blood cells
- Platelets
- Plasma
- Anemia
- Heart attack
- High blood pressure
- Atherosclerosis

- d. Identify how the circulatory system transports hormones.
- e. Identify how the circulatory system transports antibodies.
- Objective 2
Identify the basic structures and functions of the heart, blood vessels, and blood.
 - a. Describe the basic structures and functions of the heart (right atrium, right ventricle, left atrium, left ventricle, and valves)
 - b. Explain the flow of blood through the heart.
 - c. Compare and contrast the differences between arteries, capillaries, and veins.
 - d. Identify the components of blood and the function of each component (red blood cells, white blood cells, platelets, and plasma).
- Objective 3
Describe the diseases and disorders associated with the circulatory system.
 - a. Describe the causes, signs and symptoms, and treatment of anemia.
 - b. Describe the causes, signs and symptoms, and treatment of heart attack.
 - c. Describe the causes, signs and symptoms, and treatment of high blood pressure.
 - d. Describe the causes, signs and symptoms, and treatment of atherosclerosis.
- Objective 4
Identify the basic functions of the respiratory system.
 - a. Describe how the nose warms, moistens, and filters air.
 - b. Describe how sound production is related to the respiratory system.
 - c. Describe the process of carbon dioxide-oxygen gas exchange.
- Objective 5
Identify basic structures of the respiratory system.
 - a. Describe the structures and functions of the nose and nasal cavity (structure: bony framework, cartilage, skin, mucous membrane, cilia, nostrils, and septum, function: warms, moistens, and filters air).
 - b. Identify the location and function of the following structures.
 - pharynx

Respiratory System

- Identify functions of the respiratory system
- Identify basic structures of the respiratory system
- Describe diseases and disorders associated with the respiratory system

Immune System

- Describe basic functions and structures of the immune system
- Describe diseases and disorders associated with the immune system

- of blood and the function of each component.
- Describe the causes, signs and symptoms, and treatment of anemia, heart attack, high blood pressure, and atherosclerosis.
- Describe how the nose warms, moistens, and filters air.
- Describe how sound production is related to the respiratory system.
- Describe the process of carbon-dioxide gas exchange.
- Describe the structures and functions of the nose and nasal cavity.
- Label the structures of the respiratory system.
- Describe the causes, signs and symptoms, and treatment of the common cold, pneumonia, lung cancer, asthma, bronchitis, tuberculosis, influenza, emphysema.
- Identify the basic function of the immune system.
- Identify the basic structures of the immune system.
- Describe the causes, signs and symptoms, and treatment of HIV, AIDS, lupus, and mononucleosis.

- Nose
- Nasal cavity
- Pharynx
- Epiglottis
- Larynx
- Trachea
- Bronchi
- Bronchioles
- Lungs
- Alveoli
- Common cold
- Pneumonia
- Lung cancer
- Asthma
- Bronchitis
- Tuberculosis
- Influenza
- Emphysema
- Tonsils
- Lymph nodes
- White blood cells
- HIV
- AIDS
- Lupus
- Mononucleosis

- epiglottis
- larynx
- trachea
- bronchi
- bronchioles
- lungs
- alveoli
- Objective 6
Describe the diseases and disorders associated with the respiratory system.
 - a. Describe the causes, signs and symptoms, and treatment of the common cold.
 - b. Describe the causes, signs and symptoms, and treatment of pneumonia.
 - c. Describe the causes, signs and symptoms, and treatment of lung cancer.
 - d. Describe the causes, signs and symptoms, and treatment of asthma.
 - e. Describe the causes, signs and symptoms, and treatment of bronchitis.
 - f. Describe the causes, signs and symptoms, and treatment of tuberculosis.
 - g. Describe the causes, signs and symptoms, and treatment of influenza.
 - h. Describe the causes, signs and symptoms, and treatment of emphysema.
- Objective 7
Describe the basic function and structures of the immune system.
 - a. Identify the basic function of the immune system (provides protection against diseases).
 - b. Identify the basic structures of the immune system (tonsils, lymph nodes, and white blood cells).
- Objective 8
Describe the diseases and disorders associated with the immune system.
 - a. Describe the causes, signs and symptoms, and treatment of the human immunodeficiency virus (HIV).
 - b. Describe the causes, signs and symptoms, and treatment of acquired immune deficiency syndrome (AIDS).
 - c. Describe the causes, signs and symptoms, and treatment of lupus.
 - d. Describe the causes, signs and symptoms, and treatment of mononucleosis.

Regulatory Systems

Unit 4 - Regulation

Systems (Week 12, 2 Weeks)

UT: CTE: Health Education, UT: Grades 9-12, Introduction to Health Science Standard 4
Students will explore aspects of the body systems related to regulation.

- Objective 1
Identify the basic functions of the nervous system.
 - a. Describe how the sensory nerves detect stimuli (pressure, temperature, taste, smell, light, etc.) and send the message in the form of an impulse to the control centers (spinal cord/brain).
 - b. Describe how the nervous system receives and interprets incoming nerve impulses and determines appropriate responses.
 - c. Explain how the motor nerves carry out the response of the control center (spinal cord/brain).
- Objective 2
Identify the basic structures and their functions.
 - a. Describe the structures of the brain and their functions (cerebrum, cerebellum, and brain stem).
 - b. Describe the structure and function of the spinal cord.
 - c. Describe the location and function of cerebrospinal fluid.
 - d. Describe the location and function meninges.
 - e. Describe the structure (cell body, dendrites, and axon) and function of sensory and motor nerves.
- Objective 3
Describe the diseases and disorders associated with the nervous system.
 - a. Describe the causes, signs and symptoms, and treatment of the meningitis.
 - b. Describe the causes, signs and symptoms, and treatment of epilepsy.
 - c. Describe the causes, signs and symptoms, and treatment of concussion.
 - d. Describe the causes, signs and symptoms, and treatment of stroke.
- Objective 4
Describe the special senses.
 - a. Identify the sense of smell (chemoreceptors).
 - b. Identify the sense of taste

Nervous System

- Identify the basic functions of the nervous system
- Identify the basic structures and their functions
- Describe the diseases and disorders associated with the nervous system

Special Senses

- Describe the special senses
- Identify the basic structures of the special sense organs and their functions
- Describe the diseases and disorders of the special senses

Endocrine System

- Identify the basic functions of the endocrine system
- Identify the location of glands and the function of the hormones they release
- Describe the diseases and disorders of the endocrine system

Students will be able to:

- Describe how the sensory nerves detect stimuli and send the message in the form of an impulse to the control centers.
 - Describe how the nervous system receives and interprets incoming nerve impulses and determines appropriate responses.
 - Explain how the motor nerves carry out the response of the control center.
 - Describe the structures of the brain and their functions.
 - Describe the structure and function of the spinal cord, cerebrospinal fluid, and meninges.
 - Describe the structure and function of sensory and motor nerves.
 - Describe the causes, signs and symptoms, and treatment of meningitis, epilepsy, concussion, and stroke.
 - Identify the sense of smell, taste, hearing, vision, and touch.
 - Describe the structure and function of the ear, middle ear, Eustachian tube, and inner ear.
 - Describe the structure and function of the eye, nose, mouth/tongue, and skin.
 - Describe the causes, signs and symptoms, and treatment of pinkeye, middle ear infection, deafness, near-sightedness, far-
- Cerebrum
 - Cerebellum
 - Brain stem
 - Spinal cord
 - Cerebrospinal fluid
 - Meninges
 - Dendrites
 - Axon
 - Meningitis
 - Epilepsy
 - Concussion
 - Stroke
 - Chemoreceptors
 - Mechanoreceptors
 - Photoreceptors
 - Auricle
 - External auditory canal
 - Tympanic membrane
 - Eustachian tube
 - Cochlea
 - Conjunctiva
 - Sclera
 - Cornea
 - Iris
 - Pupil
 - Lens
 - Retina
 - Olfactory receptor
 - Taste bud
 - Nerve endings
 - Conjunctivitis
 - Otitis media
 - Myopia
 - Hyperopia
 - Presbyopia
 - Pituitary gland
 - Thyroid gland
 - Pancreas
 - Adrenal glands
 - Type 1 diabetes
 - Type 2 diabetes
 - Gigantism
 - Dwarfism
 - Hypothyroidism
 - Hyperthyroidism

- (chemoreceptors).
- c. Identify the sense of hearing (mechanoreceptors).
- d. Identify the sense of vision (photoreceptors).
- e. Identify the sense of touch (mechanoreceptors).
- Objective 5
Identify the basic structures of the special sense organs and their functions.
 - a. Describe the structure and function of the ear (outer ear (auricle and external auditory canal), middle ear (tympanic membrane, Eustachian tube (auditory tube) and auditory ossicles), and inner ear (cochlea)).
 - b. Describe the structure and function of the eye (eyelid, conjunctiva, sclera, cornea, iris, pupil, lens, and retina).
 - c. Describe the structure and function of the nose (olfactory receptor).
 - d. Describe the structure and function of the mouth/tongue (taste buds).
 - e. Describe the structure and function of the skin (nerve endings).
- Objective 6
Describe the diseases and disorders of the special senses.
 - a. Describe the causes, signs and symptoms, and treatment of pinkeye (conjunctivitis).
 - b. Describe the causes, signs and symptoms, and treatment of middle ear infection (otitis media).
 - c. Describe the causes, signs and symptoms, and treatment of deafness.
 - d. Describe the causes, signs and symptoms, and treatment of near-sightedness (myopia).
 - e. Describe the causes, signs and symptoms, and treatment of far-sightedness (hyperopia).
 - f. Describe the causes, signs and symptoms, and treatment of presbyopia.
- Objective 7
Identify the basic functions of the endocrine system.
 - a. Describe how the endocrine system regulates body processes.
 - b. Describe how the endocrine system regulates growth, development, and maturation.
- Objective 8
Identify the location of the following
 - sightedness, and presbyopia.
 - Describe how the endocrine system regulates body processes, growth, development, and maturation.
 - Identify the location of the following glands and the function of the hormones they release: pituitary gland, thyroid gland, pancreas, and adrenal glands.
 - Describe the causes, signs and symptoms, and treatment of type 1 diabetes, type 2 diabetes, gigantism, dwarfism, hypothyroidism, and hyperthyroidism.

glands and the function of the hormones they release.

- a. Pituitary gland—located in the brain, releases growth hormone (GH) and oxytocin.
- b. Thyroid gland—located in the neck, releases thyroxine.
- c. Pancreas—located behind the stomach, releases insulin and glucagon.
- d. Adrenal glands—located on top of the kidneys, releases cortisol, adrenaline, and noradrenaline.

- Objective 9
Describe the diseases and disorders of the endocrine system.
 - a. Describe the causes, signs and symptoms, and treatment of type 1 diabetes (juvenile diabetes).
 - b. Describe the causes, signs and symptoms, and treatment of type 2 diabetes (diabetes mellitus).
 - c. Describe the causes, signs and symptoms, and treatment of gigantism.
 - d. Describe the causes, signs and symptoms, and treatment of dwarfism.
 - e. Describe the causes, signs and symptoms, and treatment of hypothyroidism.
 - f. Describe the causes, signs and symptoms, and treatment of hyperthyroidism.

Maintenance Systems

**Unit 5 -
Maintenance
Systems**

(Week 13, 2 Weeks)



UT: CTE: Health Education, UT: Grades 9-12,
Introduction to Health Science
Standard 5

Students will explore aspects of the body systems related to maintenance.

- Objective 1
Describe the basic functions of the digestive system.
 - a. Define ingestion.
 - b. Define digestion (chemical and mechanical).
 - c. Define absorption.
 - d. Define excretion.
- Objective 2
Describe the location and basic functions of the digestive organs.
 - a. Mouth—chemical and mechanical digestion.

Digestive System

- Describe the basic functions of the digestive system
- Describe the location and basic functions of the digestive organs
- Describe the diseases and disorders of the digestive system

Urinary System

- Describe the basic functions of the

Students will be able to:

- Define ingestion, digestion, absorption, and excretion.
- Understand the functions of chemical and mechanical digestion.
- Categorize the locations and functions of the digestive organs.
- Describe the causes, signs and symptoms, and treatment of Chron's disease, celiac disease, appendicitis, and inguinal hernia.
- Explain how the urinary

- Ingestion
- Digestion
- Absorption
- Excretion
- Chemical digestion
- Mechanical digestion
- Mouth
- Pharynx
- Esophagus
- Stomach
- Small intestines
- Large intestines
- Rectum
- Anus
- Crohn's disease
- Celiac disease
- Appendicitis
- Inguinal hernia

- b. Pharynx (throat)—passageway.
- c. Esophagus (between pharynx and stomach)—passageway.
- d. Stomach (between pharynx and small intestine)—storage, absorption, chemical and mechanical digestion.
- e. Small intestines (between stomach and large intestines)—chemical digestion and absorption.
- f. Large intestines (between small intestine and rectum)—absorption of water and formation of feces.
- g. Rectum (between large intestine and anus)—temporary storage for solid waste (feces).
- h. Anus (final portion of the digestive track)—excretion of feces.
- Objective 3
Describe the diseases and disorders of the digestive system
 - a. Describe the causes, signs and symptoms, and treatment of Crohn' s disease.
 - b. Describe the causes, signs and symptoms, and treatment of celiac disease.
 - c. Describe the causes, signs and symptoms, and treatment of appendicitis.
 - d. Describe the causes, signs and symptoms, and treatment of inguinal hernia.
- Objective 4
Describe the basic functions of the urinary system.
 - a. Explain how the urinary system regulates the volume and composition of blood.
 - b. Explain how the urinary system excretes body wastes.
- Objective 5
Identify the basic organs, location, and functions of the urinary system.
 - a. Kidneys—located in the upper left and right quadrant. The functions are to filter blood and produce urine.
 - b. Ureters—tubes located between the kidney and the bladder. The function is to transport urine from the kidney to the bladder.
 - c. Bladder—located in the pelvic cavity. The function is to store urine.
- Objective 6
Describe the diseases and disorders of the urinary system.

- urinary system
- Identify the basic organs, location, and functions of the urinary system
- Describe the diseases and disorders of the urinary system

- system regulates the volume and cooperation of blood.
- Explain how the urinary system excretes body wastes.
- Organize the basic organs, location, and functions of the urinary system.
- Describe the causes, signs and symptoms, and treatment of kidney stones, kidney failure, and bladder infections.

- Kidneys
- Ureters
- Bladder
- Kidney stones
- Kidney failure
- Bladder infection

- a. Describe the causes, signs and symptoms, and treatment of kidney stones.
 - b. Describe the causes, signs and symptoms, and treatment of kidney failure.
 - c. Describe the causes, signs and symptoms, and treatment of bladder infection (UTI).
- Reproductive System

**Unit 6 -
Reproductive**

System  (Week
14, 3 Weeks) 

UT: CTE: Health Education, UT: Grades 9-12,
Introduction to Health Science
Standard 6
Students will explore aspects of the human
reproductive systems.

- Objective 1
Describe the functions of the reproductive system.
 - a. Explain the production of gametes (egg and sperm) by the gonads.
 - b. Explain the production of hormones to help in the maturation process.
- Objective 2
Describe the structures, location, and function of the female reproductive system.
 - a. Ovaries—located in the pelvic cavity. Produces and releases the egg (ovulation) and releases estrogen.
 - b. Uterine tubes—located in the pelvic cavity. Tube for the eggs to travel to the uterus. Most common site for fertilization of the egg.
 - c. Uterus—located in the pelvic cavity. Consists of the fundus, body, and cervix. Site for menstruation (endometrium), development of the embryo, and expulsion of the fetus.
 - d. Vagina—located in the pelvic cavity. Passage way for menstruation, female copulatory organ, birth canal.
- Objective 3
Describe the structures, location, and the function of the male reproductive system.
 - a. Testes—located in the scrotum. Produces sperm and testosterone.
 - b. Scrotum—located inferior to the penis. Encloses and protects the testes and maintains an optimal temperature for sperm production.

Reproductive System

- Describe the functions of the reproductive system
- Describe the structures, location, and function of the female reproductive system
- Describe the structures, location, and the function of the male reproductive system
- Describe the diseases and disorders of the reproductive system

Students will be able to:

- Explain the production of gametes by the gonads.
- Explain the production of hormones to help the maturation process.
- Describe the ovaries, ovulation, and how the ovaries release estrogen.
- Describe the uterine tubes, uterus, and vagina.
- Describe the testes, scrotum, epididymis, vas deferens, prostate gland, and urethra.
- Describe the causes, signs and symptoms, and treatment of premenstrual syndrome, endometriosis, breast cancer, cervical cancer, benign prostatic hypertrophy, testicular cancer, and sexually transmitted infections.

- Gamete
- Gonad
- Egg
- Sperm
- Ovaries
- Uterine tubes
- Uterus
- Vagina
- Testes
- Scrotum
- Epididymis
- Vas deferens
- Prostate gland
- Urethra
- Premenstrual syndrome
- Endometriosis
- Breast cancer
- Cervical cancer
- Benign prostatic hypertrophy
- Testicular cancer
- Sexually transmitted infections

- c. Epididymis—located superior/posterior to the testes. Storage and maturation of sperm.
- d. Vas deferens—located between the epididymis and the urethra. Transportation of sperm.
- e. Prostate gland—located inferior to the bladder and around the urethra. Secretes alkaline fluid.
- f. Urethra—located inferior to the bladder surrounded by the penis. Passageway for sperm and urine.

- Objective 4
Describe the diseases and disorders of the reproductive system.
 - a. Describe the causes, signs and symptoms, and treatment of premenstrual syndrome (PMS).
 - b. Describe the causes, signs and symptoms, and treatment of endometriosis.
 - c. Describe the causes, signs and symptoms, and treatment of breast cancer.
 - d. Describe the causes, signs and symptoms, and treatment of cervical cancer.
 - e. Describe the causes, signs and symptoms, and treatment of benign prostatic hypertrophy.
 - f. Describe the causes, signs and symptoms, and treatment of testicular cancer.
 - g. Describe the causes, signs and symptoms, and treatment of sexually transmitted infections (STI/STD).

Performance

Skills  (Week 17, 3 Weeks) 

UT: CTE: Health Education, UT: Grades 9-12, Introduction to Health Science Standard 1
Students will explore the fundamental aspects of Healthcare.

- Objective 5
Compare and contrast the health science career pathways.
 - a. Explore careers associated with the Diagnostic Services Pathway.
 - Audiologist
 - Clinical Lab Technician/Technologist
 - Diagnostic Medical Sonographer
 - Electrocardiographic (ECG) Technician

Career Presentation

- Students will learn more about a career of their choice.

Disease Presentation

- Students will learn more about a disease of their

Students will be able to:

- Provide information on the career of their choice including: education/years, skills required, salary, responsibilities, ethics, outlook for the future, general job description, and colleges that offer that degree.
- Provide information on the disease of their choice including: name,

No specific vocabulary for this unit. Only the vocabulary they find that goes along with their career and disease.

- Optician/Ophthalmologist/Ophthalmic Assistant/Ophthalmic Technologist/Optomestrist
 - Pathologist
 - Radiologic Technologist/Radiologist
 - Speech-Language Pathologist
- b. Explore careers associated with the Therapeutic Services Pathway.
- Acupuncturist
 - Anesthesiologist/Assistant/Anesthesia Technologist/Technician
 - Art/Music/Dance Therapist(s)
 - Athletic Trainer
 - Certified Nursing Assistant/Licensed Practical Nurse/Registered Nurse
 - Chiropractor/Chiropractic Assistant
 - Dental Assistant/Hygienist
 - EMT/Paramedic
 - Home Health Aide
 - Medical Assistant
 - Nurse Practitioner
 - Occupational Therapist/Assistant
 - Pharmacist/Pharmacy Technician
 - Recreation Therapist
 - Respiratory Therapist
 - Veterinarian/Veterinarian Assistant/Veterinarian Technician
- c. Explore careers associated with the Health Informatics Pathway.
- Admitting Clerk
 - Clinical Account Manager
 - Clinical Account Technician
 - Ethicist
 - Health Educator
 - Healthcare Administrator
 - Medical Coder
 - Medical Information Technologist
 - Medical Transcriptionist
 - Risk Manager
- d. Explore careers associated with the Support Services Pathway.
- Biomedical/Clinical Engineer/Technician
 - Central Service Manager/Technician
 - Dietetic Technician
 - Environmental Health Advocate
 - Food Safety Specialist
 - Industrial Hygienist
 - Interpreter
 - Mortician/ Funeral Director
 - Social Worker
 - Transport Technician
- e. Explore careers associated with the

choice.

signs, symptoms, effects on the body, causes, treatments, and cures.

Biotechnology Research and
Development Pathway.

- Biomedical Chemist
- Biomedical Manufacturing Technician
- Cell Biologist
- Crime Scene Investigator
- Forensic Pathologist
- Microbiologist
- Pharmaceutical/Clinical Project
Manager
- Pharmacologist
- Quality Control Technician
- Toxicologist

