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Unit 1: Orientation and Introduction to Student	
Organizations	
Competencies and Suggested Objectives	
1. Describe the purpose of the course and related student organizations. DOK1	
a. Identify student and course expectations.	n/a
b. Explore the health science student organization, HOSA.	p. 92
• Describe parliamentary procedures.	p. 92
• Discuss officer roles and responsibilities.	p. 92
c. Discuss leadership and personal development in accordance with HOSA guidelines.	p. 92
Unit 2: Safety in Health Care	
Competencies and Suggested Objectives	
1. Demonstrate personal and environmental safety practices.	pp. 506-515
a. Apply principles of body mechanics.	p. 529
b. Based on regulations set by the Occupational Safety and Health Association (OSHA and the Center for Disease Control and Prevention (CDC), apply safety techniques (personal and patient) in the health care setting to prevent accidents and injuries.	p. 515
2. Identify common safety hazards. DOK2	p. 20; 115; 122
a. Comply with safety signs, symbols, and labels in accordance with OSHA and the CDC.	p. 515
b. Recognize Safety Data Sheets (SDS) and discuss safety implications of handling hazardous materials (checking labels and	p. 748
3. Utilize emergency procedures and protocols. DOK3	p. 543
a. Practice fire safety and discuss fire evacuation plans in a health care setting. Include the following:	p. 522; 767
• PASS – Pull, Aim, Squeeze, Sweep	p. 524
• RACE – Rescue, Activate, Contain, Extinguish/Evacuate	p. 524
b. Apply principles of basic emergency response in natural	
• Safe location	p. 524
• Contact emergency personnel	p. 524
• Follow facility protocols	p. 524
Unit 3: Career Preparation	
Competencies and Suggested Objectives	
1. Explore various careers in the health care field. DOK2	pp. 46-52
a. Choose at least three specific careers from the list created in	pp. 67-68
b. Research the educational requirements, appropriate schools, licensure/certification/registration, work environment, job responsibilities, and salary information of each one.	p. 68

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c. Based on research, develop a presentation explaining the three careers and why they were chosen	p. 68
2. Utilize the approved method of clinical hour documentation (e.g., AET or other state approved method of documentation).	pp. 832-833
3. Explore the various career options in the health care field.	p. 51
a. Research and list various career options.	p. 44
• Emergency services	p. 55; 67
• Respiratory care	p. 67
• Human growth and development	pp. 394-401
• Sports medicine	p. 324; pp. 771-774
• Rehabilitative services	p. 413; pp. 799-801
• Medical services	p. 53; 63
• Nursing services	p. 67
• Nutrition and dietetics	pp. 347-353
• Mental health	p. 438
• Pharmacology	p.742
• Laboratory services	p. 58; 701; 743
• Medical imaging	p. 59
• Health information management	pp. 61-62
4. Relate the importance of lifelong learning to career success.	
a. Consider emergent technology (e.g., artificial intelligence, automation, telehealth, robotics, etc.).	p. 67
b. Develop an oral and/or written report explaining the importance of lifelong learning in maintaining career relevance	p. 67
Enrichment	
1. Conduct practice interviews or answer a list of possible interview questions.	p. 82
2. Conduct a personality test or review previous results to facilitate discussion ofindividualized careers.individualized careers.	p. 44
Unit 4: Health Care Delivery Systems	
Competencies and Suggested Objectives	
1. Research and discuss health care delivery systems and health organizations. DOK1	p. 28
a. Differentiate between health care delivery systems, including nonprofit and for-profit facilities	pp. 28-37
• Hospitals	p. 36
• Ambulatory/outpatient clinics	p. 36
• Long-term care	p. 36
• Home health	p. 36
• Medical and dental offices	p. 36
• Behavioral and mental health services	p. 36

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• Public health	p. 36
b. Identify health organizations and their respective roles.	pp. 40-41; 92
• Government:	
o Centers for Disease Control and Prevention (CDC), Occupational Safety and Health Administration (OSHA), U.S. Food and Drug Administration (FDA), National Institute of Health (NIH),	p. 32; 829
• Nonprofit organizations:	p. 32; 829
o March of Dimes, American Heart Association, American Diabetes Association, American Red Cross, Alzheimer's Association, American Lung Assoc	p. 14; 33; 530
• Global:	
o World Health Organization (WHO)	p. 31
2. Relate the importance of lifelong learning to career success.	p. 31
a. Considering 21st-century emergent technology (e.g., artificial intelligence, automation,telehealth, robotics, etc.).	p. 12; 26; 91
b. Develop an oral and/or written report explaining the importance of lifelong learning inmaintaining career relevance and	p. 12; 26; 92
Unit 5: Infection Awareness and Prevention	
Competencies and Suggested Objectives	
1. Explain the principles of infection control. DOK1	pp. 467-470; 479
a. Research and explain:	
• Chain of infection	p. 473
• Mode of transmission: direct, indirect, vectors, common vehicle (air, food, water), health care associated infections (nosocomial), opportunistic.	pp. 497-500
• Types of infections: endogenous, exogenous	p. 472
• Microorganisms: nonpathogenic, pathogenic, aerobic, anaerobic	pp. 469-470
b. Classify the following microorganisms and diseases:	pp. 476-488
• Bacterial:	pp. 476-488
o Meningitis	pp. 476-488
o Methicillin-resistant staphylococcus	pp. 476-488
o Pertussis	pp. 476-488
o Pneumonia	pp. 476-488
o Strep throat	pp. 476-488
o Tetanus	pp. 476-488
o Tuberculosis	pp. 476-488
• Fungal:	pp. 476-488
o Athlete's foot	pp. 476-488
o Histoplasmosis	pp. 476-488
o Ring Worm	pp. 476-488

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o Thrush	pp. 476-488
o Yeast vaginitis	pp. 476-488
• Parasites (Helminths):	pp. 476-488
o Hook worms or flukes	pp. 476-488
o Pin worms	pp. 476-488
o Tape worms	pp. 476-488
• Parasites (Rickettsia):	pp. 476-488
o Rocky Mountain spotted fever	pp. 476-488
o Typhus fever	pp. 476-488
• Protozoa:	pp. 476-488
o Amebic dysentery	pp. 476-488
o Malaria	pp. 476-488
• Viruses:	pp. 476-488
o Chicken pox	pp. 476-488
o Covid 19	pp. 476-488
o Common cold	pp. 476-488
o Hepatitis (A, B, C)	pp. 476-488
o Herpes	pp. 476-488
o HIV	pp. 476-488
o Influenza (seasonal, H1N1, H5N1)	pp. 476-488
o Measles	pp. 476-488
o Mumps	pp. 476-488
o Polio	pp. 476-488
o RSV	pp. 476-488
o Warts	pp. 476-488
o West Nile virus (WNV)	pp. 476-488
c. Identify the levels of aseptic control.	pp. 476-488
• Antisepsis	pp. 476-488
• Disinfection	pp. 476-488
• Sterilization	pp. 476-488
d. Demonstrate the proper procedure for aseptic hand washing according to the CDC.	p. 476
2. Explain standard precaution based on OSHA and CDC	p. 477
a. Describe OSHA's blood-borne pathogen standards.	p. 502
b. Explore employer requirements according to the Needle Stick Safety and Prevention Act	p. 477
c. Demonstrate the basic rules of standard precaution.	p. 759
3. Utilize the principles of sterile technique. DOK3	p. 759
a. Demonstrate skills related to sterile technique.	p. 759
• Donning sterile gloves	p. 494
• Sterile dressing	p. 496

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• Maintaining a sterile field	p. 496
• Wrapping instruments for sterilization	p. 485
4. Explain the importance of maintaining transmission-based isolation precautions. DOK3	p. 487
a. Identify and explain the types of isolation precautions needed to prevent the spread of communicable diseases	p. 487-497
• Airborne	p. 497
• Droplet	p. 497
• Contact	p. 497
• Reverse/protective	p. 497
b. Demonstrate the proper procedure, according to the CDC, for donning and doffing personal protective equipment (PPE).	pp. 483-486
• Gowns	pp. 483-486
• Masks	pp. 483-486
• Goggles	pp. 483-486
• Gloves	pp. 483-486
5. Research the impact of emerging technology on infection	
Enrichment	
1. Discuss other prevalent or interesting diseases/infections,	pp. 476-477
• Ebola/Marburg	p. 476
• Zika virus	p. 476
• Lyme disease	p. 476
2. Research and describe the following vaccinations and diseases they prevent:	p. 502
• Covid 19	p. 502
• DTaP	p. 502
• Hep B	p. 502
• HPV	p. 502
• Influenza	p. 502
• Meningitis	p. 502
• MMR	p. 502
• Monkey Pox	p. 502
• Polio	p. 502
• Shingles	p. 502
• Smallpox	p. 502
• Varicella	p. 502
3. Based on the research on vaccinations, facilitate a student led debate on the importance of vaccinations.	p. 502
4. Investigate and apply the principles in the junior disease detective guide. (See link to guide in teacher resource guide.)	n/a
Unit 6: Legal and Ethical Practices in Health Care	

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Competencies and Suggested Objectives	
1. Analyze legal responsibilities and implications of criminal and civil law. DOK1	pp. 99-105
a. Define and discuss torts in relation to health care.	
• Malpractice	pp. 111-112
• Negligence	p. 114
• Assault and battery	p. 113
• Invasion of privacy	p. 114
• Abuse	p. 107
• Defamation of character (libel, slander)	p. 113
• False imprisonment	p. 114
2. Describe and demonstrate legal practices associated with health care. DOK2	
a. Apply the standards for safety, privacy, and confidentiality of health information, including topics such as the Health Insurance Portability and Accountability Act andprivileged communications	p. 111
b. Describe advance directives, including topics such as living wills and durable power of attorney.	p. 111
c. Define types of consent/contracts, including informed consent, implied contracts, andexpressed contracts.	p. 111
d. Research and discuss the meaning of scope of practice.	p. 115
3. Utilize procedures for reporting activities and behaviors that affect the health, safety, and the welfare of others. DOK2	
a. Discuss the chain of command for reporting issues.	pp. 28-35
b. Complete an incident report.	p. 767
4. Recognize and discuss ethical boundaries within the health care environment. DOK3	p. 126; 502
a. Differentiate between ethical and legal issues impacting	p. 126; 502
b. Identify and explain ethical dilemmas associated with organ donation, invitrofertilization, euthanasia, stem cell research, and	p. 126; 420
5. Identify cultural, social, and ethnic diversity within the health care environment. DOK3	pp. 170-177
a. Compare religious, spiritual, and cultural—including ethnicity, race, religion, andgender—values as they impact health care.	p. 100, 122
b. Within a role-play situation, demonstrate respectful and empathetic treatment of all patients and clients.	p. 24; 181
Enrichment	
1. Use with Competency 2:	

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a. Summarize the American Hospital Association's Patient Care Partnership (for acutecare, formerly known as Patient's Bill of Rights) and the Resident's Bill of Rights (forlong-term care).	pp. 100-103
b. Discuss scenarios and laws concerning various types of harassment/violence in the workplace	pp. 113-114
2. Use with Competency 4:	
a. After completing each objective, facilitate a student led debate on one or multiple ofthe topics listed in the competency.	p. 17; 109
Unit 7: Communication and Teamwork	
Competencies and Suggested Objectives	
1. Describe the concepts of effective communication. DOK2	p. 167
a. Interpret verbal and nonverbal communication.	p. 194
b. Recognize barriers to communication, including physical disabilities (aphasia, hearing loss, impaired vision), psychological barriers (attitudes, bias, prejudice, stereotypes), language barriers.	p. 194
c. Differentiate subjective and objective information.	p. 214
d. Recognize the elements of communication using a sender-receiver model.	p. 198
e. Demonstrate speaking and active listening skills.	p. 194
f. Demonstrate elements of proper written and electronic communication (e.g., spelling, grammar, and formatting).	pp. 53-55
2. Compare the roles and responsibilities of individual members as part of the health care team. DOK2	
a. Describe roles and responsibilities of team members.	p. 180
• Examples of health care teams in a hospital and clinic setting.	p. 82; 89-90
• Responsibilities of team members	pp. 86-91
• Benefits of teamwork	p. 84
b. Recognize and demonstrate characteristics of effective	p. 173; 193
• Active participation	p. 173
• Cultural humility	p. 173
• Reliability	p. 173; 193
• Civility	p. 173; 193
• Flexibility	p. 173; 193
• Trust	p. 173; 193
• Commitment	p. 173; 193
• Open to feedback	p. 173; 193
• Collaboration	p. 173; 193
• Positive attitude	p. 173; 193

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3. Explain the principles of interacting effectively and sensitively with all members of the health care team. DOK3	pp. 193-194
a. Recognize methods for building positive team relationships, including mentorships and teambuilding	p. 75; 94
b. Analyze attributes and attitudes of an effective leader.	pp. 89-90
• Characteristics: interpersonal skills, focused on results, positive	p. 90
• Types: autocratic, democratic, laissez-faire	p. 91; 177
• Roles: sets vision, leads change, manages accountability	pp. 91-92
c. Apply effective techniques for managing team conflict.	p. 180
• Negotiation	p. 180
• Clear expectations	p. 194
• Assertive communication	p. 194
• Mediation	p. 180
• Gather the facts	p. 179
Unit 8: Medical Terminology and Abbreviations	
Competencies and Suggested Objectives	
1. Introduce appropriate medical terminology and abbreviations as found in Appendix C. DOK1	pp. 235-239
a. Use roots, prefixes, and suffixes to communicate	p. 245
b. Use medical abbreviations to communicate information.	p. 246
Unit 9: Body Organization	
Competencies and Suggested Objectives	
1. Describe the basic organization of the body. DOK1	
a. Identify the basic levels of organization of the human body.	
• Chemical	p. 302
• Cellular	p. 336
• Tissue	p. 888
• Organs	p. 339
• Systems	pp. 308; 339-354
• Organism	p. 308
2. Discuss the tissue organization of the body. DOK1	
a. Identify the four major categories of tissues and their respective locations, structures,and basic functions.	pp. 308-309
• Nerve	pp. 308-309
• Epithelium	pp. 308-309
• Muscle (cardiac, smooth, skeletal)	pp. 308-309
• Connective (ligaments, tendons, facia)	pp. 308-309
3. Identify the body planes, directional terms, cavities, quadrants, and regions. DOK1	
a. Body planes: sagittal, midsagittal, coronal/frontal,	p. 308

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b. Directional terms: superior, inferior, anterior/ventral, posterior/dorsal, medial, lateral, proximal, distal, superficial, deep,	p. 308
c. Cavities: dorsal, cranial, nasal, oral, orbital, spinal, thoracic, abdominal, pelvic	pp. 308-309
d. Quadrants: upper right, lower right, upper left, lower left	pp. 308-309
e. Regions: Right/left hypochondriac, right/left lumbar, right/left iliac, epigastric,umbilical, hypogastric	pp. 308-309
Unit 10: Integumentary System	
Competencies and Suggested Objectives	
1. Discuss the structures and functions of the integumentary	pp. 380-384
a. Identify the parts comprising the integumentary system and their respective functions.	pp. 380-384
• Layers: epidermis, dermis, subcutaneous	p. 384
• Structures: sudoriferous glands, sebaceous glands, hair follicles, hair shaft	p. 384
• Functions: protection, sensory perception, temperature regulation (vasodilation, vasoconstriction), storage, absorption, excretion, production	p. 384
b. Define and discuss pigmentation and related topics.	p. 363
• Melanin	
• Carotene	
• Albino	
c. Define and discuss skin discoloration and related topics:	
• Erythema	p. 384
• Jaundice	p. 384
• Cyanosis	p. 384
2. Explain diseases and disorders of the integumentary system and related signs, symptoms,treatment, and prevention methods.	
a. Identify the general signs, symptoms, treatment, and prevention methods associatedwith diseases and disorders of the	p. 384
• Acne vulgaris	p. 384
• Athlete’s foot	p. 384
• Basal cell carcinoma	p. 384
• Dermatitis	p. 384
• Eczema	p. 384
• Impetigo	p. 384
• Melanoma	p. 384
• Psoriasis	p. 384
• Ringworm	p. 384
• Squamous cell carcinoma	p. 384
• Verrucae	p. 384

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b. Describe various skin eruptions.	
• Crusts	n/a
• Cysts	n/a
• Macules	n/a
• Papules	n/a
• Pustules	n/a
• Ulcers	n/a
• Vesicles	n/a
• Wheals	n/a
3. Research the impact of emerging technology on the integumentary system. DOK3	p. 384
Unit 11: Skeletal System	
Competencies and Suggested Objectives	
1. Compare the structures and functions of the skeletal system with its relationship to movement. DOK1	
a. Identify the axial and appendicular bones.	p. 318
b. Identify the parts of a bone.	p. 309
• Diaphysis	p. 309
• Endosteum	p. 309
• Epiphysis	p. 309
• Medullary canal	p. 309
• Periosteum	p. 309
• Red marrow	p. 309
• Yellow marrow	
c. Explain the functions of the skeletal system.	p. 311
• Framework	p. 311
• Protection	p. 311
• Levers	p. 311
• Production of blood cells	p. 311
• Storage	p. 311
d. Identify the types of joints and their related movements.	
• Diarthrosis or synovial	p. 318
• Amphiarthrosis	p. 318
• Synarthrosis	p. 318
2. Discuss diseases and disorders of the skeletal system and related signs, symptoms, treatment, and prevention methods.	p. 318
a. Identify the general signs, symptoms, treatment, and prevention methods associated with skeletal diseases, disorders,	p. 318
• Bursitis	p. 318
• Osteomyelitis	p. 318
• Osteoporosis	p. 318

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• Osteoarthritis	p. 318
• Rheumatoid arthritis	p. 318
• Sprain	p. 318
• Ruptured disk	p. 318
• Dislocation	p. 318
• Spinal curvatures: scoliosis, lordosis, and kyphosis	p. 318
• Fractures: stress, comminuted, compound or open, simple or closed, depressed, green stick, impacted, spiral	p. 318
3. Research the impact of emerging technology on the skeletal system. DOK3	p. 318
Unit 12: Muscular System	
Competencies and Suggested Objectives	
1. Compare the structures and functions of the muscular system with its relationship to movement. DOK1	
a. Identify the three types of muscle.	p. 319
• Cardiac	p. 324-325
• Visceral/smooth	p. 324-325
• Skeletal	p. 324-325
b. Define the characteristics of skeletal muscle.	
• Excitability	
• Contractibility	p. 318-325
• Extensibility	p. 318-325
• Elasticity	p. 318-325
c. Identify major skeletal muscles.	
• Biceps brachii	p. 888
• Deltoid	p. 888
• Gastrocnemius	p. 888
• Gluteus maximus	p. 888
• Intercostals	p. 888
• Latissimus dorsi	p. 888
• Pectoralis major	p. 888
• Quadriceps femoris	p. 888
• Rectus abdominis	p. 888
• Sartorius	p. 888
• Sternocleidomastoid	p. 888
• Tibialis anterior	p. 888
• Trapezius	p. 888
• Triceps brachii	p. 888
d. Explain the function of the muscles.	p. 888
• Movement	p. 888
• Produce heat and energy	p. 888

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• Maintain Posture	p. 888
• Protect internal organs	p. 888
e. Demonstrate active/passive range of motion, including adduction, abduction, flexion,extension, rotation, and	p. 325
2. Discuss diseases, disorders, and injury of the muscular system and related signs, symptoms, and treatment methods.	p. 325
a. Identify the general signs, symptoms, treatment, and prevention methods associated with muscular diseases and	p. 325
• Fibromyalgia	p. 325
• Muscle spasms	p. 325
• Muscular dystrophy	p. 325
• Myasthenia gravis	p. 325
• Strain	p. 325
3. Research the impact of emerging technology on the muscular system. DOK3	p. 325
Unit 13: Cardiovascular System	
Competencies and Suggested Objectives	
1. Identify and discuss the structures and functions of the cardiovascular system and their role in maintaining homeostasis.	
a. Identify the components of blood and their respective	p. 333
• Plasma	p. 333
• Erythrocytes	p. 333
• Hemoglobin	p. 333
• Leukocytes	p. 333
• Thrombocytes	p. 333
b. Identify the type of blood vessels and the action of each.	
• Aorta	p. 326-333
• Arteries	p. 326-333
• Arterioles	p. 326-333
• Capillaries	p. 326-333
• Inferior vena cava	p. 326-333
• Pulmonary artery	p. 326-333
• Pulmonary veins	p. 326-333
• Superior vena cava	p. 326-333
• Veins	p. 326-333
• Venules	p. 326-333
c. Identify the anatomy of the heart.	
• Layers: endocardium, myocardium, pericardium/epicardium	pp. 327-328

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• Structures: septum, right/left atriums, right/left ventricles, tricuspid valve,pulmonary valve, bicuspid/mitral valve, aortic valve	pp. 327-328
d. Describe the electrical conduction pathway.	pp. 327-328
• SA node	pp. 328-329
• AV node	pp. 328-329
• Bundle of HIS	pp. 328-329
• Right and left bundle branches	pp. 328-329
• Purkinje Fibers	pp. 328-329
e. Describe the pathway of pulmonary and systemic circulation.	pp. 328-329
f. Define systole and diastole.	pp. 328-329
2. Discuss diseases and disorders of the cardiovascular system and related signs, symptoms, treatment, and prevention methods.	pp. 328-329
a. Identify the general signs, symptoms, treatment, and prevention methods associatedwith cardiovascular diseases and	p. 329
• Arteriosclerosis	p. 329
• Atherosclerosis	p. 329
• Congestive heart failure	p. 329
• Hypertension	p. 329
• Iron deficiency anemia	p. 329
• Leukemia	p. 329
• Myocardial infarction	p. 329
• Sickle cell anemia	p. 329
3. Research the impact of emerging technology on the cardiovascular system. DOK3	p. 329
Unit 14: Respiratory System	
Competencies and Suggested Objectives	
1. Describe the structures and functions of the respiratory	pp. 339-341
a. Define inspiration and expiration.	pp. 339-341
b. Identify the structures of the respiratory system and their respective functions.	pp. 339-341
• Alveoli	pp. 339-341
• Bronchi	pp. 339-341
• Bronchioles	pp. 339-341
• Epiglottis	pp. 339-341
• Larynx	pp. 339-341
• Lungs	pp. 339-341
• Nasal cavity	pp. 339-341
• Nasal septum	pp. 339-341
• Nose	pp. 339-341
• Pharynx	pp. 339-341

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• Pleura	pp. 339-341
• Sinuses	pp. 339-341
• Trachea	pp. 339-341
c. Differentiate among internal, external, and cellular	pp. 339-341
2. Discuss diseases and disorders of the respiratory system and related signs, symptoms, and treatment methods. DOK2	
a. Identify the general signs, symptoms, treatment, and prevention methods associatedwith respiratory diseases and	p. 341
• Asthma	p. 341
• Bronchitis	p. 341
• COPD	p. 341
• Covid 19	p. 341
• Emphysema	p. 341
• Influenza	p. 341
• Lung cancer	p. 341
• Pneumonia	p. 341
• Sleep apnea	p. 341
• Tuberculosis	p. 341
3. Research the impact of emerging technology on the respiratory system. DOK3	p. 341
Unit 15: Digestive System	
Competencies and Suggested Objectives	
1. Describe the structures and functions of the digestive	
a. Describe the structures comprising the alimentary canal and their respective functions regarding the digestive process (pathway of food, digestion, nutrient absorption).	pp. 347-348
• Mouth: teeth, tongue, hard palate, soft palate	pp. 347-348
• Pharynx	pp. 347-348
• Esophagus	pp. 347-348
• Cardiac/esophageal sphincter	pp. 347-348
• Stomach (include rugae)	pp. 347-348
• Pyloric sphincter	pp. 347-348
• Small intestine (include villi)	pp. 347-348
o Duodenum	pp. 347-348
o Ileum	pp. 347-348
o Jejunum	pp. 347-348
• Large intestine	pp. 347-348
o Cecum	pp. 347-348
o Ascending colon	pp. 347-348
o Transverse colon	pp. 347-348
o Descending colon	pp. 347-348

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o Sigmoid colon	pp. 347-348
• Rectum	pp. 347-348
• Anus	pp. 347-348
b. Describe the accessory structures of the digestive system and their respective functions regarding the digestive process (pathway of food, digestion, nutrient absorption).	p. 349
• Salivary glands	pp. 347-348
• Pancreas	pp. 347-348
• Liver	pp. 347-348
• Appendix	pp. 347-348
• Gallbladder	pp. 347-348
2. Discuss diseases and disorders of the digestive system and related signs, symptoms, treatment, and prevention methods.	p. 350
a. Identify the general signs, symptoms, treatment, and prevention methods associatedwith diseases and disorders of the	p. 350
• Appendicitis	p. 350
• Cholecystitis	p. 350
• Cirrhosis	p. 350
• Diverticulitis	p. 350
• Gastric ulcer	p. 350
• GERD	p. 350
• Hepatitis type B (HBV)	p. 350
• Pancreatitis	p. 350
• Ulcerative colitis	p. 350
3. Research the impact of emerging technology on the digestive system. DOK3	p. 350
Unit 16: Urinary System	
Competencies and Suggested Objectives	
1. Explain the structures and functions of the urinary system as they relate to the formation, composition, and elimination of	
a. Identify urinary system structures and their respective	pp. 354-355
• Bladder (include rugae)	pp. 354-355
• Bowman’s capsule	pp. 354-355
• Cortex	pp. 354-355
• Glomerulus	pp. 354-355
• Hilum	pp. 354-355
• Kidneys	pp. 354-355
• Medulla	pp. 354-355
• Nephrons	pp. 354-355
• Renal pelvis	pp. 354-355
• Ureters	pp. 354-355

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• Urethra	pp. 354-355
• Urinary meatus	pp. 354-355
2. Discuss diseases and disorders of the urinary system and related causes, signs, symptoms, treatment, and prevention	p. 355
a. Identify the general causes, signs, symptoms, treatment, and prevention methods associated with diseases of the urinary	p. 355
• Cystitis	p. 355
• Glomerulonephritis	p. 355
• Pyelonephritis	p. 355
• Renal calculus	p. 355
• Renal failure	p. 355
• Uremia	p. 355
• Urethritis	p. 355
b. Define disorders of the urinary system.	p. 355
• Albuminuria	p. 355
• Anuria	p. 355
• Dysuria	p. 355
• Hematuria	p. 355
• Incontinence	p. 355
• Nocturia	p. 355
• Oliguria	p. 355
• Polyuria	p. 355
• Proteinuria	p. 355
• Pyuria	p. 355
• Retention	p. 355
3. Research the impact of emerging technology on the urinary system. DOK3	p. 356-357
Unit 17: Lymphatic System	
Competencies and Suggested Objectives	
1. Explain the structures and functions of the lymphatic system.	
a. Identify structures of the lymphatic system and their respective functions.	pp. 334-336
• Tonsils	pp. 334-336
• Spleen	pp. 334-336
• Lymph nodes	pp. 334-336
• Thymus	pp. 334-336
2. Discuss diseases and disorders of the lymphatic system and related causes, signs,symptoms, treatment, and prevention	pp. 336-338
a. Identify the general causes, signs, symptoms, treatment, and prevention methods associated with diseases and disorders of the	pp. 336-338
• Adenitis	pp. 336-338

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• Hodgkin's disease	pp. 336-338
• Splenomegaly	pp. 336-338
• Tonsillitis	pp. 336-338
3. Research the impact of emerging technology on the lymphatic system. DOK3	p. 338
Unit 18: Nervous System	
Competencies and Suggested Objectives	
1. Describe the structures and functions of the nervous system.	
a. Identify the major structures of the nervous system and their respective functions.	pp. 367-368
• Cerebellum	pp. 367-368
• Cerebrum	pp. 367-368
• Midbrain: pons, medulla oblongata	pp. 367-368
• Diencephalon: thalamus, hypothalamus	pp. 367-368
• Spinal cord	pp. 367-368
• Meninges: dura mater, arachnoid membrane, pia mater	pp. 367-368
• Ventricles	pp. 367-368
• Cerebral spinal fluid	pp. 367-368
b. Describe the divisions of the nervous system.	
• Central nervous system	pp. 368-369
• Peripheral nervous system	pp. 368-369
• Sympathetic	pp. 368-369
• Parasympathetic	pp. 368-369
c. Identify the structures of a neuron and the conduction process of a nerve impulse.	pp. 368-369
• Dendrites	pp. 368-369
• Axon	pp. 368-369
• Myelin sheath	pp. 368-369
• Synapse	pp. 368-369
• Neurotransmitters	pp. 368-369
2. Discuss diseases and disorders of the nervous system and related causes, signs, symptoms, treatment, and prevention	pp. 368-369
a. Identify the general causes, signs, symptoms, treatment, and prevention methods associated with diseases and disorders of the	p. 369
• Alzheimer's disease	p. 369
• Amyotrophic lateral sclerosis	p. 369
• Cerebral palsy	p. 369
• Cerebrovascular accident	p. 369
• Dementia	p. 369
• Epilepsy	p. 369
• Meningitis	p. 369

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• Multiple sclerosis	p. 369
• Parkinson's disease	p. 369
• Shingles	p. 369
• Traumatic Brain Injury/Concussion	p. 369
3. Research the impact of emerging technology on the nervous system. DOK3	p. 369
Unit 19: Endocrine System	
Competencies and Suggested Objectives	
1. Identify the structures and functions of the endocrine	pp. 359-361
a. Differentiate between endocrine and exocrine.	pp. 359-361
b. Identify the structures comprising the endocrine system and their respective functions.	pp. 359-361
2. Discuss diseases and disorders of the endocrine system and related causes, signs, symptoms, treatment, and prevention	pp. 359-361
a. Identify the general causes, signs, symptoms, treatment, and prevention methodsassociated with diseases and disorders of the	pp. 359-361
• Acromegaly	pp. 359-361
• Cushing's syndrome	pp. 359-361
• Diabetes mellitus (Type 1 and 2)	pp. 359-361
• Dwarfism	pp. 359-361
• Giantism	pp. 359-361
• Graves' disease	pp. 359-361
• Hyperthyroidism	pp. 359-361
• Hypothyroidism	pp. 359-361
3. Research the impact of emerging technology on the endocrine system. DOK3	pp. 359-361
Endocrine Table	pp. 363-364
Gland	pp. 363-364
Hormone	pp. 363-364
Action	pp. 363-364
Pituitary (Anterior Lobe)	pp. 363-364
ACTH-adrenocorticotropic	pp. 363-364
-Stimulates growth and secretion of the cortex of the adrenal	pp. 363-364
TSH-thyrotropin	pp. 363-364
-Stimulates growth and secretion of the thyroid gland	pp. 363-364
GH-somatotropin	pp. 363-364
Growth hormone; stimulates normal body growth	pp. 363-364
Pituitary (Posterior Lobe)	pp. 363-364
ADH-vasopressin	pp. 363-364
-Antidiuretic hormone; promotes reabsorption of water in kidneys, constrictsblood vessels	pp. 363-364

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Thyroid	pp. 363-364
Thyroxine & tri-iodothyronine	pp. 363-364
-Increase metabolic rate; stimulate physical and mental growth; regulate metabolism of carbohydrates, fats, and proteins	pp. 363-364
Adrenal (Cortex)	pp. 363-364
Glucocorticoids:	pp. 363-364
Cortisol-hydrocortisone	pp. 363-364
Cortisone	pp. 363-364
-Aide in metabolism of proteins, fats, and carbohydrates; increase amount of glucose in blood; provide resistance to stress; depress immune response (anti- inflammatory)	pp. 363-364
Gonadocorticoids:	pp. 363-364
Estrogens	pp. 363-364
Androgens	pp. 363-364
-Act as sex hormones	pp. 363-364
•Stimulate female sexual characteristics	pp. 363-364
• Stimulate male sexual characteristics	pp. 363-364
Adrenal (Medulla)	pp. 363-364
Epinephrine (adrenaline)	pp. 363-364
-Activates sympathetic nervous system; acts in times of stress to increase cardiac output and increase blood pressure	pp. 363-364
Norepinephrine	pp. 363-364
Activates body in stress situations	pp. 363-364
Pancreas	pp. 363-364
Insulin	pp. 363-364
Used in metabolism of glucose (sugar) by promoting entry of glucose intocells to decrease blood glucose levels; promotes transport of fatty acids and amino acids (proteins) into the cells	pp. 363-364
Unit 20: Sensory Organs	
Competencies and Suggested Objectives	
1. Identify the basic structures and functions associated with the sensory organs. DOK1	
a. Identify sensory organs' structures and describe their respective functions.	pp. 363-371
• Eye:	pp. 367-371
o Aqueous humor	pp. 367-371
o Choroid coat	pp. 367-371
o Conjunctiva	pp. 367-371
o Cornea	pp. 367-371
o Iris	pp. 367-371
o Lacrimal glands	pp. 367-371

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o Lens	pp. 367-371
o Pupil	pp. 367-371
o Retina	pp. 367-371
o Sclera	pp. 367-371
o Vitreous Humor	pp. 367-371
• Ear:	pp. 367-371
o Auditory canal	pp. 367-371
o Cochlea	pp. 367-371
o Eustachian Tube	pp. 367-371
o Organ of Corti	pp. 367-371
o Ossicles	pp. 367-371
o Pinna/Auricle	pp. 367-371
o Semicircular canal	pp. 367-371
o Tympanic membrane	pp. 367-371
• Tongue:	pp. 367-371
o Papillae	pp. 367-371
• Nose:	pp. 367-371
o Olfactory receptors	pp. 367-371
2. Discuss diseases and disorders of the sensory organs. DOK2	pp. 367-371
a. Identify the general causes, signs, symptoms, treatment, and prevention methods associated with diseases and disorders of the	p. 371
• Amblyopia	p. 371
• Astigmatism	p. 371
• Cataract	p. 371
• Conjunctivitis	p. 371
• Glaucoma	p. 371
• Hearing loss (conductive, sensory)	p. 371
• Meniere's disease	p. 371
• Otitis externa	p. 371
• Otitis media	p. 371
• Otosclerosis	p. 371
• Strabismus	p. 371
3. Research the impact of emerging technology on the sensory organs. DOK3	p. 371
Unit 21: Reproductive System	
Competencies and Suggested Objectives	
1. Discuss the structures and functions of the male and female reproductive systems. DOK1	
a. Identify the major structures of the male and female reproductive system and their respective functions.	pp. 372-379
• Male:	pp. 372-379

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o Cowper's gland	pp. 372-379
o Ejaculatory ducts	pp. 372-379
o Epididymis	pp. 372-379
o Penis	pp. 372-379
o Prostate gland	pp. 372-379
o Scrotum	pp. 372-379
o Seminal vesicles	pp. 372-379
o Testes	pp. 372-379
o Urethra	pp. 372-379
o Vas deferens	pp. 372-379
• Female:	pp. 372-379
o Bartholin's glands	pp. 372-379
o Breasts	pp. 372-379
o Fallopian tubes	pp. 372-379
o Ovaries	pp. 372-379
o Perineum	pp. 372-379
o Uterus: endometrium	pp. 372-379
o Vagina	pp. 372-379
o Vulva: mons pubis, labia majora, labia minora	pp. 372-379
2. Discuss diseases and disorders of the reproductive system and related signs, symptoms, treatment, and prevention methods.	pp. 372-379
a. Identify the general signs, symptoms, treatment, and	pp. 372-379
• Breast cancer	pp. 372-379
• Cervical cancer	pp. 372-379
• Endometriosis	pp. 372-379
• Epididymitis	pp. 372-379
• Orchitis	pp. 372-379
• Ovarian cancer	pp. 372-379
• Pelvic inflammatory disease	pp. 372-379
• Premenstrual syndrome	pp. 372-379
• Prostate cancer	pp. 372-379
• Prostatic hypertrophy	pp. 372-379
• Testicular cancer	pp. 372-379
• Uterine cancer	pp. 372-379
b. Identify the general signs, symptoms, treatment, and prevention methods associatedwith sexually transmitted infections	pp. 372-379
• Human Immunodeficiency Virus	pp. 372-379
• Chlamydia	pp. 372-379
• Gonorrhea	pp. 372-379
• Herpes	pp. 372-379
• Human Papillomavirus	pp. 372-379

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• Pubic lice	pp. 372-379
• Syphilis	pp. 372-379
• Trichomoniasis	pp. 372-379
3. Research the impact of emerging technology on the reproductive system. DOK3	pp. 372-379