

# MIDLAND PARK PUBLIC SCHOOLS Midland Park, New Jersey CURRICULUM

# **Medical**

# **Terminology**

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Superintendent of Schools:

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Director of Curriculum, Instruction & Assessment:

Melissa Quackenbush

Approved by the Midland Park Board of Education on August 16, 2016

#### Medical Terminology

#### Course Description:

Medical Terminology is the study of words that pertain to body systems, anatomy, physiology, medical processes and procedures and a variety of diseases. It provides specialized language for the health care team, enabling health care workers to communicate in an accurate, articulate and concise manner. This course is designed to give the students a comprehensive knowledge of word construction, definition and use of terms related to all areas of medical science. The course includes but is not limited to terms related to anatomy of the human body, functions of health and disease, and the use of language in diagnosing and treating conditions related to all of the human body systems. This course is useful in preparing students for every career in allied health.

#### Suggested Course Sequence:

Unit 1: Introduction to Medical Terminology

Unit 2: The Human Body in Health and Disease

Unit 3: The Skeletal System

Unit 4: The Muscular System

Unit 5: The Cardiovascular System

Unit 6: The Lymphatic and Immune Systems

Unit 7: The Respiratory System

Unit 8: The Digestive System

Unit 9: The Urinary System

Unit 10: The Nervous System

Unit 11: Special Senses: The Eyes and Ears

Unit 12: Skin: The Integumentary System

Unit 13: The Endocrine System

Unit 14: The Reproductive System

#### Pre-Requisite:

Successful high school completion of Dynamics of Health Care in Society and a B or better in Algebra, Biology, and Chemistry, not including CPC classes.

Content Area: Health - Medical Terminology

Unit Title: Introduction to Medical Terminology - Unit 1

Grade Level: 10-12

**Unit Summary:** This unit identifies the four types of word parts used in forming medical terms. It also emphasizes the use of knowledge of word parts to analyze unfamiliar medical terms. This unit also describes the steps in locating a term in a medical dictionary. Commonly used word roots, combining forms, suffixes, and prefixes are introduced, as well as the "sounds-like" pronunciation system to correctly pronounce primary terms. At the end of the unit, students should be able to recognize, define, spell, and correctly pronounce primary terms.

#### Interdisciplinary

#### **Connections:**

#### SCIENCE:

- 2.1A Personal Growth & Development
- 2.1C Disease
- 2.2E Health Services
- 2.3A Medicine

#### SOCIAL STUDIES:

Similar connections may be made between social studies content areas (6.3) and the following areas of content such as (2.2A) interpersonal communication skills, (2.1E) social, and (2.2E) health services.

#### LANGUAGE ARTS LITERACY:

#### CCCS.ELA-LITERACY.CCRA.W.4

Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

#### CCCS.ELA-LITERACY.CCRA.W.8

Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.

#### CCSS.ELA-LITERACY.CCRA.W.9

Draw evidence from literary or informational texts to support analysis, reflection, and research.

#### CCSS-ELA.LITERACY.CCRA.W10

Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.

#### CCCS.ELA-LITERACY.RST.11-12.9

Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.

#### WIDA English Language Development Standard 1

English language learners communicate for social and instructional purposes within the school setting.

#### MATH:

#### CCSS.MATH PRACTICES 1 and 2

Make sense of problems and reason abstractly during health data analysis.

#### 21st Century

#### Themes and Skills:

Creativity and Innovation, Critical Thinking and Problem Solving, Communication and Collaboration, Information Literacy, Media Literacy, Communication Literacy, and Life and Career Skills

#### **Career Ready Practices:**

CRP2. Apply appropriate academic and technical skills.

CRP4. Communicate clearly and effectively and with reason.

CRP7. Employ valid and reliable research strategies.

CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.

CRP11. Use technology to enhance productivity.

#### **CTE Standards:**

9.3HL-HI.1 - Communicate health information accurately.

9.3HL-HI.2 - Describe the content and diverse uses of health information.

#### Standards (Content and Technology):

#### 2.1 Wellness: All students will acquire health promotion concepts and skills to support a healthy, active lifestyle.

C. Diseases and Health Conditions

Personal health is impacted by family, community, national, and international efforts to prevent and control diseases and health conditions

- 2.2 Integrated Skills: All students will develop and use personal and interpersonal skills to support a healthy, active lifestyle.
  - A. Interpersonal Communication

Technology increases the capacity of individuals to communicate in multiple and diverse ways.

E. Health Services and Information

Potential solutions to health issues are dependent on health literacy and available resources. Affordability and accessibility of healthcare impacts the prevention, early detection, and treatment of health problems.

CPI#:	Statement:	
2.1.12.C.1	Predict diseases and health conditions that may occur during one's lifespan and speculate on potential prevention and treatment strategies.	
2.2.12.A.1	Employ skills for communicating with family, peers, and people from other backgrounds and cultures that may impact the health of oneself and others.	
2.2.12.A.3	Analyze the impact of technology on interpersonal communication in supporting wellness and a healthy lifestyle.	
8.1.12.F.1	Evaluate the strengths and limitations of emerging technologies and their impact on educational, career, personal and or social needs.	

#### Unit Essential Question(s):

- What are the four types of word parts used in forming medical terms?
- How can you use your word parts to analyze unfamiliar medical terms?
- Why is it important to locate a term in a medical dictionary?
- What are the commonly used word roots, combining forms, suffixes, and prefixes?
- What is the "sounds-like" pronunciation system?
- What is the importance of using abbreviations?
- How can you recognize, define, spell, and correctly pronounce primary terms?

#### **Unit Enduring Understandings:**

- The four types of word parts are a word root, a combining form, a suffix, and a prefix.
- A word part helps you determine a word's meaning by looking at the component pieces.
- Learning to use a medical dictionary is an important part of mastering the correct use of medical terms.
- Commonly used word roots are defined by usually, but not alway, indicating the involved body part.

- The "sounds-like" pronunciation system is a way of respelling using normal English letters to create sounds that are familiar.
- Abbreviations are used as a shorthand way to record long and complex medical terms.
- You can recognize, define, spell, and correctly pronounce primary terms by practicing them.

#### **Unit Learning Targets/Objectives:**

Students will

- Describe the steps in locating a term in a medical dictionary.
- Describe the commonly used prefixes, word roots, combining forms, and suffixes in medical terminology.
- Identify the four types of word parts in forming medical terms.
- Recognize the importance of spelling medical terms correctly.
- Recognize, define, spell, and pronounce medical terms correctly.
- Pronounce medical terms correctly using the "sounds-like" system.
- State why caution is important when using abbreviations.
- Analyze unfamiliar medical terms using knowledge of word parts.

#### **Formative Assessments:**

**Unit Assignments:** 

- 1.Complete handwritten flashcards of chapter terms
- 2. Complete Learning Exercises at chapter end.

#### Unit Classroom Activities:

- 1. Daily Quiz
- 2. Video Overviews
- 3. Discuss terminology words and pronunciation.
- 4. Give practice in both pronunciation and understanding the words.
- 5. Provide students with handouts for in-class collaborative work: Crossword Puzzles, Word Searches and case studies pertinent to the unit and have students analyze and define medical terms.
- 6. StudyWare Games and Quizzes as time permits
- 7. Current events in Healthcare: Discussion Circle

#### Summative/Benchmark Assessment (s):

Unit Assessments:

- 1. Terminology quizzes
- 2. Class Participation: Completion of handouts, labeling diagrams, discussion contribution
- 3. Completion of Homework
- 4. Quarterly projects
- 5. Multiple choice and matching tests.

Resources/Materials (copy hyperlinks for digital resources):

Introduction to Medical Terminology, 3rd Edition, 2017, Cengage Publishing

Ann Ehrlich; Carol L. Schroeder

ISBN-13:978-1-133-95174-0

ISBN-10:1-133-95174-0

http://cengage.com/us

Chapter 1 Resources: Crossword Puzzles, Word Searches, and Case Studies, Chapter Quizzes, Tests and Cengage

StudyWare CD-ROM.

Chapter 1 Games and Quizzes

**Newspaper and Journal Subscriptions** 

Workbook to Introduction to Medical Terminology, 3rd Edition, Cengage Publishing

Ann Ehrlich; Carol L. Schroeder

ISBN-13:978-1-133-95173-5

ISBN-10:1-133-95173-2

http://cengage.com/us

Downloadable Complete Ancillary for instructors, and a StudyWare site and CD-ROM for students

#### **Modifications:**

#### **Special Education Students:**

- Allow errors
- Rephrase questions, directions, and explanations
- Allow extended time to answer questions, and permit drawing, as an explanation.
- Accept participation at any level, even one word.
- Consult with Case Managers and follow IEP accommodations/modifications.

#### **English Language Learners:**

- Assign a buddy, same language or English speaking.
- Allow errors in speaking
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#### **At-Risk Students:**

- Provided extended time to complete tasks.
- Consult with Guidance Counselors and follow I&RS procedures / action plans.
- Consult with classroom teacher(s) for specific behavior interventions.
- Provide rewards as necessary.

#### **GIfted and Talented Students:**

- Provide extension activities
- Build on students' intrinsic motivations.
- Consult with parents to accommodate students' interests in completing tasks at their level of engagement.

#### Midland Park Public Schools

Lesson #	Lesson Name	Time frame (day(s) to complete)
1	Primary Medical Terms and Word Parts	1 day
2	Word Roots, Suffixes and Prefixes	1 day
3	Determining Meanings on the Basis of Word Parts	1 day
4	Medical Dictionary Use	1 day
5	Pronunciations	1 day

**Teacher Notes:** 

#### **Additional Resources**

Click links below to access additional resources used to design this unit:

http://www.globalrph.com/medterm.htm

http://www.medilexicon.com/medicaldictionary.php

https://quizlet.com/759301/medical-terminology-350-flash-cards/

Content Area: Health - Medical Terminology

Unit Title: The Human Body in Health and Disease - Unit 2

Grade Level: 10-12

**Unit Summary:** This unit will help students define anatomy and physiology and the uses of anatomic reference systems to identify anatomic positions, body planes, directions, and cavities. Students will learn to recognize, define, spell, and pronounce the primary terms related to cells and genetics and the structure, function, pathology, and procedures of tissues and glands. This unit will help students to learn to identify the major organs and functions of the body systems. Students will also be able to recognize, define, spell, and pronounce the primary terms used to describe pathology, the modes of transmission, and the types of diseases.

#### Interdisciplinary

#### Connections:

SCIENCE:

2.1A - Personal Growth & Development

2.1C - Disease

2.2E - Health Services

2.3A - Medicine

#### SOCIAL STUDIES:

Similar connections may be made between social studies content areas (6.3) and the following areas of content such as (2.2A) interpersonal communication skills, (2.1E) social, and (2.2E) health services.

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WIDA English Language Development Standard 1

English language learners communicate for social and instructional purposes within the school setting.

MATH:

CCSS.MATH PRACTICES 1 and 2

Make sense of problems and reason abstractly during health data analysis.

#### 21st Century

#### Themes and Skills:

Creativity and Innovation, Critical Thinking and Problem Solving, Communication and Collaboration, Information Literacy, Media Literacy, Communication Literacy, and Life and Career Skills

#### **Career Ready Practices:**

- CRP2. Apply appropriate academic and technical skills.
- CRP4. Communicate clearly and effectively and with reason.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
- CRP10. Plan education and career paths aligned to personal goals.
- CRP11. Use technology to enhance productivity.

#### **CTE Standards:**

- 9.3 HL.1 Communicate health information accurately.
- 9.3 HL.2 Describe the content and diverse uses of health information.
- 9.3.HL.4 Evaluate the roles and responsibilities of individual members as part of the healthcare team and explain their role in promoting the delivery of quality health care.
- 9.3.HL.5 Analyze the legal and ethical responsibilities, limitations and implications of actions within the healthcare workplace.
- 9.3.HL.6 Evaluate accepted ethical practices with respect to cultural, social, and ethnic differences within the healthcare workplace.
- 9.3.HL-BRD.3 Demonstrate basic knowledge of recombinant DNA, genetic engineering.

#### Standards (Content and Technology):

- 2.1 Wellness: All students will acquire health promotion concepts and skills to support a healthy, active lifestyle.
  - C. Diseases and Health Conditions

Personal health is impacted by family, community, national, and international efforts to prevent and control diseases and health conditions

- 2.2 Integrated Skills: All students will develop and use personal and interpersonal skills to support a healthy, active lifestyle.
  - A. Interpersonal Communication

Technology increases the capacity of individuals to communicate in multiple and diverse ways.

E. Health Services and Information

Potential solutions to health issues are dependent on health literacy and available resources. Affordability and accessibility of healthcare impacts the prevention, early detection, and treatment of health problems.

CPI#:

Statement:

2.1.12.C.1	Predict diseases and health conditions that may occur during one's lifespan and speculate on potential prevention and treatment strategies.
2.2.12.A.1	Employ skills for communicating with family, peers, and people from other backgrounds and cultures that may impact the health of oneself and others.
2.2.12.A.3	Analyze the impact of technology on interpersonal communication in supporting wellness and a healthy lifestyle.
8.1.12.F.1	Evaluate the strengths and limitations of emerging technologies and their impact on educational, career, personal and or social needs.

#### Unit Essential Question(s):

- What do the anatomic reference systems refer to?
- What are the terms associated with cytology and genetics?
- What are some of the terms that relate to the abdominal cavity and peritoneum?
- What are some of the terms that relate to the structure, function, pathology, and procedures of cells, tissues, and glands?
- What are the major body systems?

#### **Unit Enduring Understandings:**

- The anatomic reference systems refer to position, body planes, directions, and cavities.
- The terms associated with cytology and genetics are chromosomes, genes, DNA, and mutation.
- Terms that relate to the abdominal cavity are the epigastric region, the umbilical region, and the hypogastric region. The terms that relate to the peritoneum are the parietal, mesentery, and visceral peritoneum.
- The terms that relate to structure, function, pathology, and procedures of cells, tissues, and glands are stem cells, genes chromosomes, and DNA.
- The major body systems are the skeletal system, muscular system, cardiovascular system, lymphatic system, immune system, respiratory system, digestive system, and urinary system. Other systems include the nervous system, special senses, integumentary system, endocrine system, and reproductive systems.

#### **Unit Learning Targets/Objectives:**

Students will

- Define anatomy and physiology and use anatomic reference systems to identify the position, body planes, directions, and cavities.
- Define the terms associated with cytology and genetics including chromosomes, genes, DNA, and mutation.
- Recognize, define, spell, and pronounce the terms related to the abdominal cavity and peritoneum.
- Recognize, define, spell, and pronounce the terms related to the structure, function, pathology, and procedures of cells, tissues, and glands.

Identify the body systems in terms of their major structures and functions.

#### **Formative Assessments:**

Unit Assignments:

- 1.Complete <u>handwritten</u> flashcards of chapter terms
- 2.Complete Learning Exercises at chapter end.

#### Unit Classroom Activities:

- 1. Daily Quiz
- 2. Video Overviews
- 3. Discuss terminology words and pronunciation.
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- 6. StudyWare Games and Quizzes as time permits
- 7. Current events in Healthcare: Discussion Circle

#### Summative/Benchmark Assessment(s):

Unit Assessments:

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- 2. Class Participation: Completion of handouts, labeling diagrams, discussion contribution
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- 4. Quarterly projects
- 5. Multiple choice and matching tests.

#### SGO Data Suggestion:

Use the Chapter 1 & 2 Test Bank to create a Pre-test/Post-test. Administer the Pre-test before the textbooks are distributed; Post-test after Unit 5.

#### **Lesson Extensions:**

DVD - Infuenza 1918

DVD - The Polio Crusade

#### Resources/Materials (copy hyperlinks for digital resources):

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Ann Ehrlich; Carol L. Schroeder

ISBN-13:978-1-133-95174-0

ISBN-10:1-133-95174-0

http://cengage.com/us

Chapter 2 Resources: Crossword Puzzles, Word Searches, and Case Studies, Chapter Quizzes, Tests and Cengage StudyWare CD-ROM.

Chapter 2 Games and Quizzes

Newspaper and Journal Subscriptions

DVDs - Influenza 1918 and The Polio Crusade

Workbook to Introduction to Medical Terminology, 3rd Edition, Cengage Publishing

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#### **Modifications:**

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- Consult with classroom teacher(s) for specific behavior interventions.
- Provide rewards as necessary.

#### GIfted and Talented Students:

Provide extension activities

- Build on students' intrinsic motivations.
- Consult with parents to accommodate students' interests in completing tasks at their level of engagement.

Lesson #	Lesson Name	Time frame (day(s) to complete)
1	Anatomic Reference Systems	1 day
2	Cells and Genetics	1 day
3	Tissues and Glands	1 day
4	Body Systems and Related Organs	1 day
5	Pathology and Review	1 day

#### **Teacher Notes:**

#### **Additional Resources**

Click links below to access additional resources used to design this unit:

Body planes - <a href="https://www.youtube.com/watch?v=jwB5SL90Le8">https://www.youtube.com/watch?v=jwB5SL90Le8</a>

Chromosomes and Genes - <a href="https://www.voutube.com/watch?v=z8ojaHrxQR0">https://www.voutube.com/watch?v=z8ojaHrxQR0</a>

Body Systems - <a href="https://www.youtube.com/watch?v=gEUu-A2wfSE">https://www.youtube.com/watch?v=gEUu-A2wfSE</a>

Content Area: Health - Medical Terminology

Unit Title: The Skeletal System - Unit 3

Grade Level: 10-12

**Unit Summary:** This unit will help students identify and describe the major functions and structures of the skeletal system. The three types of joints are introduced. The differences between the axial and appendicular skeletons are discussed in detail. The students will also be introduced to the medical specialists who treat disorders of the skeletal system. At the end of this unit, students will be able to recognize, define, spell, and pronounce the primary terms related to the pathology and the diagnostic and treatment procedures of the skeletal system.

#### Interdisciplinary

#### **Connections:**

SCIENCE:

2.1A - Personal Growth & Development

2.1C - Disease

2.2E - Health Services

2.3A - Medicine

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CCSS.MATH PRACTICES 1 and 2

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- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
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- CRP11. Use technology to enhance productivity.

#### **CTE Standards:**

- 9.3HL.1 Communicate health information accurately.
- 9.3HL.2 Describe the content and diverse uses of health information.
- 9.3.HL.4 Evaluate the roles and responsibilities of individual members as part of the healthcare team and explain their role in promoting the delivery of quality health care.

#### Standards (Content and Technology):

### 2.1 Wellness: All students will acquire health promotion concepts and skills to support a healthy, active lifestyle.

#### C. Diseases and Health Conditions

Personal health is impacted by family, community, national, and international efforts to prevent and control diseases and health conditions

# 2.2 Integrated Skills: All students will develop and use personal and interpersonal skills to support a healthy, active lifestyle.

#### A. Interpersonal Communication

Technology increases the capacity of individuals to communicate in multiple and diverse ways.

#### E. Health Services and Information

Potential solutions to health issues are dependent on health literacy and available resources. Affordability and accessibility of healthcare impacts the prevention, early detection, and treatment of health problems.

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	speculate on potential prevention and treatment strategies.	
2.2.12.A.1 Employ skills for communicating with family, peers, and people from of		
	backgrounds and cultures that may impact the health of oneself and others.	

2.2.12.A.3	Analyze the impact of technology on interpersonal communication in supporting wellness and a healthy lifestyle.
8.1.12.F.1	Evaluate the strengths and limitations of emerging technologies and their impact on
	educational, career, personal and or social needs.

#### Unit Essential Question(s):

- What is the function of the skeletal system?
- What does the skeletal system consist of?
- What are the three types of joints?
- What does the axial skeleton protect?
- What does the appendicular skeleton do?
- What are the medical specialties related to the skeletal system?
- What are the diagnostic procedures of the skeletal system?

#### Unit Enduring Understandings:

- The skeletal system acts as the framework for the body.
- The skeletal system consists of the bones, bone marrow, cartilage, joints, ligaments, synovial membrane, synovial fluid and bursa.
- The three types of joints are fibrous, cartilaginous, and synovial.
- The axial skeleton protects the major organs of the nervous, respiratory, and circulatory systems.
- The appendicular skeleton makes body movements possible and also protects the organs of digestion, excretion, and reproduction.
- The medical specialties related to the skeletal system are the chiropractor, an orthopedic surgeon, an osteopath, a podiatrist, and a rheumatologist.
- Some diagnostic procedures of the skeletal system are a radiograph, an arthroscopy, a bone marrow biopsy, an MRI, and bone scans.

#### **Unit Learning Targets/Objectives:**

#### Students will

- Identify and describe the major functions and structures of the skeletal system.
- Identify the medical specialists who treat disorders of the skeletal system.
- Recognize, define, spell, and pronounce terms related to the pathology and the diagnostic and treatment procedures of the skeletal system.
- Describe three types of joints.
- Differentiate between the axial and appendicular skeletons.

#### **Formative Assessments:**

Unit Assignments:

- 1.Complete <u>handwritten</u> flashcards of chapter terms
- 2. Complete Learning Exercises at chapter end.

#### Unit Classroom Activities:

- 1. Daily Quiz
- 2. Video Overviews
- 3. Discuss terminology words and pronunciation.
- 4. Give practice in both pronunciation and understanding the words.
- 5. Provide students with handouts for in-class collaborative work: Crossword Puzzles, Word Searches and case studies pertinent to the unit and have students analyze and define medical terms.
- 6. StudyWare Games and Quizzes as time permits
- 7. Current events in Healthcare: Discussion Circle
- 8. Reassemble the disarticulated skeleton in teams.

#### Summative/Benchmark Assessment(s):

Unit Assessments:

- 1. Terminology quizzes
- 2. Class Participation: Completion of handouts, labeling diagrams, discussion contribution
- 3. Completion of Homework
- 4. Quarterly projects
- 5. Multiple choice and matching tests.
- 6. Presentation on Pathology and Diseases of the Skeletal System.

#### **Lesson Extensions:**

DVD - The Elephant Man

New Bionics Let Us Run, Climb, and Dance - Hugh Herr - TED talks (19 min)

#### Classroom Manipulatives:

Disarticulated Skeleton

Full Size Skeleton Model

Models of the Joints

#### Resources/Materials (copy hyperlinks for digital resources):

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#### **GIfted and Talented Students:**

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- Build on students' intrinsic motivations.
- Consult with parents to accommodate students' interests in completing tasks at their level of engagement.

Lesson#	Lesson Name	Time frame (day(s) to complete)
1	The Structures of Bones	1 day
2	Joints	1 day
3	The Skeleton	1 day
4	Medical Specialties and Pathology of the Skeletal System	1 day
5	Diagnostic Procedures and Treatments of the Skeletal System	1 day

**Teacher Notes:** 

#### **Additional Resources**

Click links below to access additional resources used to design this unit:

The Skeletal System - https://youtu.be/RW46rQKWa-g

https://youtu.be/rDGqkMHPDqE

Content Area: Health - Medical Terminology

Unit Title: The Muscular System - Unit 4

Grade Level: 10-12

**Unit Summary:** This unit describes the functions and structures of the muscular system, including muscle fibers, fascia, tendons, and the three types of muscles. This unit will help students to recognize, define, pronounce, and spell the primary terms related to muscle movements, and explain how the muscles are named. By the end of this unit, students will also be able to recognize define, pronounce, and spell the primary terms related to the pathology and the diagnostic and treatment procedures of the muscular system.

#### Interdisciplinary

#### **Connections:**

SCIENCE:

2.1A - Personal Growth & Development

2.1C - Disease

2.2E - Health Services

2.3A - Medicine

#### SOCIAL STUDIES:

Similar connections may be made between social studies content areas (6.3) and the following areas of content such as (2.2A) interpersonal communication skills, (2.1E) social, and (2.2E) health services.

#### LANGUAGE ARTS LITERACY:

#### CCCS.ELA-LITERACY.CCRA.W.4

Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

#### CCCS.ELA-LITERACY.CCRA.W.8

Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.

#### CCSS.ELA-LITERACY.CCRA.W.9

Draw evidence from literary or informational texts to support analysis, reflection, and research.

#### CCSS-ELA.LITERACY.CCRA.W10

Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.

#### CCCS.ELA-LITERACY.RST.11-12.9

Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.

WIDA English Language Development Standard 1

English language learners communicate for social and instructional purposes within the school setting.

#### MATH:

CCSS.MATH PRACTICES 1 and 2

Make sense of problems and reason abstractly during health data analysis.

#### 21st Century

#### Themes and Skills:

Creativity and Innovation, Critical Thinking and Problem Solving, Communication and Collaboration, Information Literacy, Media Literacy, Communication Literacy, and Life and Career Skills

#### **Career Ready Practices:**

- CRP2. Apply appropriate academic and technical skills.
- CRP4. Communicate clearly and effectively and with reason.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
- CRP10. Plan education and career paths aligned to personal goals.
- CRP11. Use technology to enhance productivity.

#### **CTE Standards:**

- 9.3HL.1 Communicate health information accurately.
- 9.3HL.2 Describe the content and diverse uses of health information.

#### Standards (Content and Technology):

2.1 Wellness: All students will acquire health promotion concepts and skills to support a healthy, active lifestyle.

#### C. Diseases and Health Conditions

Personal health is impacted by family, community, national, and international efforts to prevent and control diseases and health conditions

# 2.2 Integrated Skills: All students will develop and use personal and interpersonal skills to support a healthy, active lifestyle.

#### A. Interpersonal Communication

Technology increases the capacity of individuals to communicate in multiple and diverse ways.

#### E. Health Services and Information

Potential solutions to health issues are dependent on health literacy and available resources. Affordability and accessibility of healthcare impacts the prevention, early detection, and treatment of health problems.

CPI#:	Statement:	
2.1.12.C.1	.1 Predict diseases and health conditions that may occur during one's lifespan speculate on potential prevention and treatment strategies.	
2.2.12.A.1 Employ skills for communicating with family, peers, and people from oth backgrounds and cultures that may impact the health of oneself and oth		
2.2.12.A.3		

#### 8.1.12.F.1

Evaluate the strengths and limitations of emerging technologies and their impact on educational, career, personal and or social needs.

#### Unit Essential Question(s):

- What are the functions of the muscular system?
- What are the structures of the muscular system?
- What are the three types of muscle tissue?
- What are contrasting muscle motions?
- How are muscles named?
- What are some medical specialties related to the muscular system?

#### **Unit Enduring Understandings:**

- Muscles hold the body erect and makes movement possible.
- The muscular system consists of muscle fibers, fascia and tendons.
- The three types of muscle tissue are skeletal muscles, smooth muscles, and myocardial muscle.
- Contrasting muscle motion is abduction and adduction, flexion and extension, elevation and depression, rotation and circumduction, supination and pronation, and dorsiflexion and plantar flexion.
- Muscles are named for their origin and insertion, their action, their location, their fiber direction, the number of divisions, their size or shape, and for strange reasons.
- Medical specialties related to the muscular system are exercise physiologists, a neurologist, a physiatrist, and a sports medicine physician.

#### **Unit Learning Targets/Objectives:**

#### Students will

- Describe the functions and structures of the muscular system including muscle fibers, fascia, tendons, and the three types of muscle.
- Recognize, define, spell, and pronounce the terms related to muscle movements and explain how the muscles are named.
- Recognize, define, pronounce, and spell the terms related to the pathology and the diagnostic and treatment procedures of the muscular system.

#### Formative Assessments:

Unit Assignments:

- 1.Complete <u>handwritten</u> flashcards of chapter terms
- 2.Complete Learning Exercises at chapter end.

#### Unit Classroom Activities:

- 1. Daily Quiz
- 2. Video Overviews
- 3. Discuss terminology words and pronunciation.
- 4. Give practice in both pronunciation and understanding the words.
- 5. Provide students with handouts for in-class collaborative work: Crossword Puzzles, Word Searches and case studies pertinent to the unit and have students analyze and define medical terms.
- 6. StudyWare Games and Quizzes as time permits
- 7. Current events in Healthcare

#### Summative/Benchmark Assessment(s):

Unit Assessments:

- 1. Terminology quizzes
- 2. Class Participation: Completion of handouts, labeling diagrams, discussion contribution
- 3. Completion of Homework
- 4. Quarterly projects
- 5. Multiple choice and matching tests.
- 6. Presentation on Pathology and Diseases of the Skeletal System.

#### Resources/Materials (copy hyperlinks for digital resources):

Introduction to Medical Terminology, 3rd Edition, 2017, Cengage Publishing

Ann Ehrlich; Carol L. Schroeder

ISBN-13:978-1-133-95174-0

ISBN-10:1-133-95174-0

http://cengage.com/us

Chapter 4 Resources: Crossword Puzzles, Word Searches, and Case Studies, Chapter Quizzes, Tests and Cengage StudyWare CD-ROM.

Chapter 4 Games and Quizzes

**Newspaper and Journal Subscriptions** 

Workbook to Introduction to Medical Terminology, 3rd Edition, Cengage Publishing

Ann Ehrlich; Carol L. Schroeder

ISBN-13:978-1-133-95173-5

ISBN-10:1-133-95173-2

http://cengage.com/us

Downloadable Complete Ancillary for instructors, and a StudyWare site and CD-ROM for students

#### **Modifications:**

#### **Special Education Students:**

- Allow errors
- Rephrase questions, directions, and explanations
- Allow extended time to answer questions, and permit drawing, as an explanation.
- Accept participation at any level, even one word.
- Consult with Case Managers and follow IEP accommodations/modifications.

#### **English Language Learners:**

- Assign a buddy, same language or English speaking.
- Allow errors in speaking
- Rephrase questions, directions, and explanations.
- Allow extended time to answer questions, and permit drawing, as an explanation.
- Accept participation at any level, even one word.

#### At-Risk Students:

- Provided extended time to complete tasks.
- Consult with Guidance Counselors and follow I&RS procedures / action plans.
- Consult with classroom teacher(s) for specific behavior interventions.
- Provide rewards as necessary.

#### **GIfted and Talented Students:**

- Provide extension activities
- Build on students' intrinsic motivations.
- Consult with parents to accommodate students' interests in completing tasks at their level of engagement.

Lesson#	Lesson Name	Time frame (day(s) to complete)
1	Functions and Structures of the Muscular System	1 day

2	Types of Muscles and Movements	1 day
3	The naming and functions of muscles	1 day
4	Pathology of the muscular system	1 day
5	Diagnostic procedures of the muscular system	1 day

**Teacher Notes:** 

#### **Additional Resources**

Click links below to access additional resources used to design this unit:

Muscles - https://youtu.be/Ktv-CaOt6UQ

https://youtu.be/I8Xx7pA9hQ

Content Area: Health - Medical Terminology

Unit Title: The Cardiovascular System - Unit 5

Grade Level: 10-12

**Unit Summary:** This unit describes the heart in terms of chambers, valves, blood flow, heartbeart, and blood supply. The three different types of blood vessel, the major components of blood and circulation are discussed. By the end of this unit students should be able to recognize, define, spell, and pronounce the primary terms related to the pathology and the diagnostic and treatment procedures of the cardiovascular system.

#### Interdisciplinary

#### **Connections:**

SCIENCE:

2.1A - Personal Growth & Development

2.1C - Disease

2.2E - Health Services

2.3A - Medicine

#### SOCIAL STUDIES:

Similar connections may be made between social studies content areas (6.3) and the following areas of content such as (2.2A) interpersonal communication skills, (2.1E) social, and (2.2E) health services.

#### LANGUAGE ARTS LITERACY:

#### CCCS.ELA-LITERACY.CCRA.W.4

Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

#### CCCS.ELA-LITERACY.CCRA.W.8

Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.

#### CCSS.ELA-LITERACY.CCRA.W.9

Draw evidence from literary or informational texts to support analysis, reflection, and research.

#### CCSS-ELA.LITERACY.CCRA.W10

Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.

#### CCCS.ELA-LITERACY.RST.11-12.9

Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.

#### WIDA English Language Development Standard 1

English language learners communicate for social and instructional purposes within the school setting.

#### MATH:

CCSS.MATH PRACTICES 1 and 2

Make sense of problems and reason abstractly during health data analysis.

#### 21st Century

#### Themes and Skills:

Creativity and Innovation, Critical Thinking and Problem Solving, Communication and Collaboration, Information Literacy, Media Literacy, Communication Literacy, and Life and Career Skills

#### **Career Ready Practices:**

CRP2. Apply appropriate academic and technical skills.

CRP4. Communicate clearly and effectively and with reason.

CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.

CRP10. Plan education and career paths aligned to personal goals.

CRP11. Use technology to enhance productivity.

#### **CTE Standards:**

9.3 HL.1 - Communicate health information accurately.

9.3HL.2 - Describe the content and diverse uses of health information.

#### Standards (Content and Technology):

2.1 Wellness: All students will acquire health promotion concepts and skills to support a healthy, active lifestyle.

#### C. Diseases and Health Conditions

Personal health is impacted by family, community, national, and international efforts to prevent and control diseases and health conditions

2.2 Integrated Skills: All students will develop and use personal and interpersonal skills to support a healthy, active lifestyle.

#### A. Interpersonal Communication

Technology increases the capacity of individuals to communicate in multiple and diverse ways.

#### E. Health Services and Information

Potential solutions to health issues are dependent on health literacy and available resources. Affordability and accessibility of healthcare impacts the prevention, early detection, and treatment of health problems.

CPI#:	Statement:	
2.1.12.C.1	Predict diseases and health conditions that may occur during one's lifespan and speculate on potential prevention and treatment strategies.	
2.2.12.A.1	Employ skills for communicating with family, peers, and people from other backgrounds and cultures that may impact the health of oneself and others.	
2.2.12.A.3	12.A.3 Analyze the impact of technology on interpersonal communication in support wellness and a healthy lifestyle.	
8.1.12.F.1	Evaluate the strengths and limitations of emerging technologies and their impact on educational, career, personal and or social needs.	

#### Unit Essential Question(s):

- What are the structures of the cardiovascular system?
- What is systemic and pulmonary circulation?
- What is the heartbeat?
- What are the three types of blood vessels?
- How are blood types classified?
- What are the medical specialties related to the cardiovascular system?
- What are some of disorders of the cardiovascular system?

#### **Unit Enduring Understandings:**

- The structures of the cardiovascular system are the heart, the pericardium, the walls, chambers, and valves of the heart.
- Systemic circulation includes the flow of blood to all parts of the body. Pulmonary circulation is the flow of blood only between the heart and lungs.
- The heartbeat is the ability to pump blood effectively throughout the body.
- The three types of blood vessels are arteries, capillaries and veins.
- Blood types are classified according to the presence of absence of certain antigens.
- Medical specialties related to the cardiovascular system are a cardiologist, a hematologist, and a vascular surgeon.
- Disorders of the cardiovascular system are congenital heart defects, coronary artery disease, atherosclerosis, ischemic heart disease, angina, myocardial infarction, heart failure and carditis.

#### **Unit Learning Targets/Objectives:**

Students will

- Describe the heart in terms of chambers, valves, blood flow, heartbeat, and blood supply.
- Identify the major components of blood and the major functions of each component.
- Recognize, define, spell, and pronounce the terms related to the pathology and the diagnostic and treatment procedures of the cardiovascular system.
- Differentiate among the three different types of blood vessels and describe the major function of each.
- State the difference between pulmonary and systemic circulation.

#### Formative Assessments:

Unit Assignments:

- 1.Complete <u>handwritten</u> flashcards of chapter terms
- 2.Complete Learning Exercises at chapter end.

#### Unit Classroom Activities:

- 1. Daily Quiz
- 2. Video Overviews
- 3. Discuss terminology words and pronunciation.
- 4. Give practice in both pronunciation and understanding the words.
- 5. Provide students with handouts for in-class collaborative work: Crossword Puzzles, Word Searches and case studies pertinent to the unit and have students analyze and define medical terms.
- 6. StudyWare Games and Quizzes as time permits
- 7. Current events in Healthcare

#### Summative/Benchmark Assessment(s):

Unit Assessments:

- 1. Terminology quizzes
- 2. Class Participation: Completion of handouts, labeling diagrams, discussion contribution
- 3. Completion of Homework
- 4. Quarterly projects
- 5. Multiple choice and matching tests

#### Resources/Materials (copy hyperlinks for digital resources):

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Ann Ehrlich; Carol L. Schroeder

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ISBN-10:1-133-95174-0

http://cengage.com/us

Chapter 5 Resources: Crossword Puzzles, Word Searches, and Case Studies, Chapter Quizzes, Tests and Cengage StudyWare CD-ROM.

Chapter 5 Games and Quizzes

**Newspaper and Journal Subscriptions** 

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Ann Ehrlich; Carol L. Schroeder

ISBN-13:978-1-133-95173-5

ISBN-10:1-133-95173-2

http://cengage.com/us

Downloadable Complete Ancillary for instructors, and a StudyWare site and CD-ROM for students

#### **Modifications:**

#### **Special Education Students:**

- Allow errors
- Rephrase questions, directions, and explanations
- Allow extended time to answer questions, and permit drawing, as an explanation.
- Accept participation at any level, even one word.
- Consult with Case Managers and follow IEP accommodations/modifications.

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- Consult with classroom teacher(s) for specific behavior interventions.
- Provide rewards as necessary.

#### **GIfted and Talented Students:**

- Provide extension activities
- Build on students' intrinsic motivations.
- Consult with parents to accommodate students' interests in completing tasks at their level of engagement.

Lesson #	Lesson Name	Time frame (day(s) to complete)	
1	Functions of the	1 day	
	Cardiovascular System		

2	Structures of the Cardiovascular System	1 day
3	Blood Vessels	1 day
4	Pathology of the Cardiovascular System	1 day
5	Treatment procedures of the Cardiovascular System	1 day

#### **Teacher Notes:**

#### **Additional Resources**

Click links below to access additional resources used to design this unit:

<u>YouTube Crash Course</u>- The Heart, Blood, Blood Vessels <a href="https://youtu.be/X9ZZ6tcxArl">https://youtu.be/X9ZZ6tcxArl</a>

Content Area: Health - Medical Terminology

Unit Title: The Lymphatic and Immune Systems - Unit 6

Grade Level: 10-12

**Unit Summary:** This unit focuses on the major functions and structures of the lymphatic and immune systems. Medical specialists who treat disorders of the lymphatic and immune systems are discussed. By the end of this unit, students will be able to recognize, define, spell, and pronounce the primary terms related to the structures, functions, pathology, and the diagnostic and treatment procedures of the lymphatic and immune systems, as well as terms related to oncology.

#### Interdisciplinary

#### **Connections:**

#### SCIENCE:

- 2.1A Personal Growth & Development
- 2.1C Disease
- 2.2E Health Services
- 2.3A Medicine

#### SOCIAL STUDIES:

Similar connections may be made between social studies content areas (6.3) and the following areas of content such as (2.2A) interpersonal communication skills, (2.1E) social, and (2.2E) health services.

#### LANGUAGE ARTS LITERACY:

#### CCCS.ELA-LITERACY.CCRA.W.4

Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

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Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.

#### CCSS.ELA-LITERACY.CCRA.W.9

Draw evidence from literary or informational texts to support analysis, reflection, and research.

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Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.

#### CCCS.ELA-LITERACY.RST.11-12.9

Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.

WIDA English Language Development Standard 1

English language learners communicate for social and instructional purposes within the school setting.

#### MATH:

CCSS.MATH PRACTICES 1 and 2

Make sense of problems and reason abstractly during health data analysis.

#### 21st Century

#### Themes and Skills:

Creativity and Innovation, Critical Thinking and Problem Solving, Communication and Collaboration, Information Literacy, Media Literacy, Communication Literacy, and Life and Career Skills

#### **Career Ready Practices:**

CRP2. Apply appropriate academic and technical skills.

CRP4. Communicate clearly and effectively and with reason.

CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.

CRP10. Plan education and career paths aligned to personal goals.

CRP11. Use technology to enhance productivity.

#### **CTE Standards:**

9.3HL.1 - Communicate health information accurately.

9.3HL.2 - Describe the content and diverse uses of health information.

#### Standards (Content and Technology):

2.1 Wellness: All students will acquire health promotion concepts and skills to support a healthy, active lifestyle.

#### C. Diseases and Health Conditions

Personal health is impacted by family, community, national, and international efforts to prevent and control diseases and health conditions

# 2.2 Integrated Skills: All students will develop and use personal and interpersonal skills to support a healthy, active lifestyle.

#### A. Interpersonal Communication

Technology increases the capacity of individuals to communicate in multiple and diverse ways.

#### E. Health Services and Information

Potential solutions to health issues are dependent on health literacy and available resources. Affordability and accessibility of healthcare impacts the prevention, early detection, and treatment of health problems.

CPI#:	Statement:	
2.1.12.C.1	Predict diseases and health conditions that may occur during one's lifespan and speculate on potential prevention and treatment strategies.	
2.2.12.A.1	Employ skills for communicating with family, peers, and people from other backgrounds and cultures that may impact the health of oneself and others.	

2.2.12.A.3	Analyze the impact of technology on interpersonal communication in supporting wellness and a healthy lifestyle.
8.1.12.F.1	Evaluate the strengths and limitations of emerging technologies and their impact on educational, career, personal and or social needs.

#### Unit Essential Question(s):

- What are the main functions of the lymphatic system?
- What are the structures of the lymphatic system?
- What are the harmful substances the immune system protects the body from?
- What are the medical specialties related to the lymphatic and immune systems?
- What are some common problems of the immune system?
- How can problems of the immune system be treated?
- What is oncology?

#### **Unit Enduring Understandings:**

- The main functions of the lymphatic system are to absorb fats and vitamins, remove waste products from tissues, destroy pathogens, and return filtered lymph.
- The structures of the lymphatic system are lymphatic capillaries, vessels and ducts, lymph nodes, lymphocytes, B cells, T cells, tonsils, thymus gland, appendix, and spleen.
- The immune system protects the body from pathogens, allergens, toxins, and malignant cells
- The medical specialties related to the immune system are an allergist, an immunologist, a lymphologist, and an oncologist.
- Common problems of the immune system are allergic reactions, autoimmune disorders, and immunodeficiency disorders.
- Problems of the immune system can be treated with immunotherapy, antibody therapy, and immunosuppression.
- Oncology is the study of the prevention, causes, and treatments of tumors and cancers.

#### **Unit Learning Targets/Objectives:**

#### Students will

- Describe the major functions and structures of the lymphatic and immune systems.
- Recognize, define, spell, and pronounce the major terms related to the pathology and the diagnostic and treatment procedures of the lymphatic and immune systems.
- Recognize, define, spell, and pronounce terms related to oncology.
- Pronounce medical terms correctly using the "sounds-like" system.
- State why caution is important when using abbreviations.

#### Formative Assessments:

Unit Assignments:

- 1.Complete <u>handwritten</u> flashcards of chapter terms
- 2.Complete Learning Exercises at chapter end.

#### Unit Classroom Activities:

- 1. Daily Quiz
- 2. Video Overviews
- 3. Discuss terminology words and pronunciation.
- 4. Give practice in both pronunciation and understanding the words.
- 5. Provide students with handouts for in-class collaborative work: Crossword Puzzles, Word Searches and case studies pertinent to the unit and have students analyze and define medical terms
- 6. StudyWare Games and Quizzes as time permits
- 7. Current events in Healthcare

#### Summative/Benchmark Assessment(s):

**Unit Assessments:** 

- 1. Terminology quizzes
- 2. Class Participation: Completion of handouts, labeling diagrams, discussion contribution
- 3. Completion of Homework
- 4. Quarterly projects
- 5. Multiple choice and matching tests

#### Resources/Materials (copy hyperlinks for digital resources):

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Chapter 6 Games and Quizzes

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# **Modifications:**

# **Special Education Students:**

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- Consult with classroom teacher(s) for specific behavior interventions.
- Provide rewards as necessary.

#### **GIfted and Talented Students:**

- Provide extension activities
- Build on students' intrinsic motivations.
- Consult with parents to accommodate students' interests in completing tasks at their level of engagement.

Lesson #	Lesson Name	Time frame (day(s) to complete)
1	Functions and Structures of the Lymphatic System	1 day
2	Functions and Structures of the Immune System	1 day
3	Pathology and Diagnostic Procedures of the Lymphatic and Immune Systems.	1 day
4	Oncology	1 day
5	Oncology	1 day

# **Teacher Notes:**

# **Additional Resources**

Click links below to access additional resources used to design this unit:

YouTube Crash Course Lymphatic Systemhttps://youtu.be/I7orwMgTQ51

DVD Lesson
PBS Series - RX for Survival
<a href="http://www.pbs.org/wgbh/rxforsurvival/index.html">http://www.pbs.org/wgbh/rxforsurvival/index.html</a>

Content Area: Health - Medical Terminology

Unit Title: The Respiratory System - Unit 7

Grade Level: 10-12

**Unit Summary:** This unit discusses the major functions and structures of the respiratory system. By the end of this unit, students should be able to recognize, define, spell, and pronounce the primary terms related to the pathology and the diagnostic and treatment procedures of the respiratory system.

# Interdisciplinary

#### Connections:

SCIENCE:

2.1A - Personal Growth & Development

2.1C - Disease

2.2E - Health Services

2.3A - Medicine

#### SOCIAL STUDIES:

Similar connections may be made between social studies content areas (6.3) and the following areas of content such as (2.2A) interpersonal communication skills, (2.1E) social, and (2.2E) health services.

#### LANGUAGE ARTS LITERACY:

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Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

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English language learners communicate for social and instructional purposes within the school setting.

#### MATH:

CCSS.MATH PRACTICES 1 and 2

Make sense of problems and reason abstractly during health data analysis.

# 21st Century

#### Themes and Skills:

Creativity and Innovation, Critical Thinking and Problem Solving, Communication and Collaboration, Information Literacy, Media Literacy, Communication Literacy, and Life and Career Skills

#### **Career Ready Practices:**

CRP2. Apply appropriate academic and technical skills.

CRP4. Communicate clearly and effectively and with reason.

CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.

CRP10. Plan education and career paths aligned to personal goals.

CRP11. Use technology to enhance productivity.

#### **CTE Standards:**

9.3HL.1 - Communicate health information accurately.

9.3HL.2 - Describe the content and diverse uses of health information.

#### Standards (Content and Technology):

2.1 Wellness: All students will acquire health promotion concepts and skills to support a healthy, active lifestyle.

#### C. Diseases and Health Conditions

Personal health is impacted by family, community, national, and international efforts to prevent and control diseases and health conditions

- 2.2 Integrated Skills: All students will develop and use personal and interpersonal skills to support a healthy, active lifestyle.
  - A. Interpersonal Communication

Technology increases the capacity of individuals to communicate in multiple and diverse ways.

#### E. Health Services and Information

Potential solutions to health issues are dependent on health literacy and available resources. Affordability and accessibility of healthcare impacts the prevention, early detection, and treatment of health problems.

CPI#:	Statement:	
2.1.12.C.1 Predict diseases and health conditions that may occur during one's lifespar speculate on potential prevention and treatment strategies.		
2.2.12.A.1	Employ skills for communicating with family, peers, and people from other backgrounds and cultures that may impact the health of oneself and others.	
2.2.12.A.3	Analyze the impact of technology on interpersonal communication in supporting wellness and a healthy lifestyle.	

# 8.1.12.F.1

Evaluate the strengths and limitations of emerging technologies and their impact on educational, career, personal and or social needs.

# **Unit Essential Question(s):**

- What are the functions of the respiratory system?
- What are the structures of the respiratory system?
- What is respiration?
- What are medical specialties related to the respiratory system?
- What are some common issues of the respiratory system?
- What are the treatment procedures of the respiratory system?

# **Unit Enduring Understandings:**

- The functions of the respiratory system are to deliver air to the lungs, convey oxygen from air to the blood, expel waste products, and produce airflow.
- The structures of the respiratory system are the nose, the tonsils, the sinuses, the pharynx, the larynx, the trachea, the bronchi, the alveoli, the lungs, the mediastinum, the pleura, and the diaphragm.
- Respiration is the exchange of oxygen for carbon dioxide.
- Medical specialties related to the respiratory system are an otolaryngologist, a pulmonologist, and a thoracic surgeon.
- Common issues of the respiratory system are COPD, Bronchitis, emphysema, and asthma.
- Treatment procedures of the respiratory system are medications, surgery, and respiratory therapy.

# **Unit Learning Targets/Objectives:**

Students will

- Identify and describe the major structures and functions of the respiratory system.
- Recognize, define spell, and pronounce terms related to the pathology and the diagnostic and treatment procedures of the respiratory system.

#### **Formative Assessments:**

Unit Assignments:

- 1.Complete <u>handwritten</u> flashcards of chapter terms
- 2.Complete Learning Exercises at chapter end.

#### **Unit Classroom Activities:**

- 1. Daily Quiz
- 2. Video Overviews
- 3. Discuss terminology words and pronunciation.
- 4. Give practice in both pronunciation and understanding the words.
- 5. Provide students with handouts for in-class collaborative work: Crossword Puzzles, Word Searches and case studies pertinent to the unit and have students analyze and define medical terms.

- 6. StudyWare Games and Quizzes as time permits
- 7. Current events in Healthcare

## Summative/Benchmark Assessment(s):

**Unit Assessments:** 

- 1. Terminology quizzes
- 2. Class Participation: Completion of handouts, labeling diagrams, discussion contribution
- 3. Completion of Homework
- 4. Quarterly projects
- 5. Multiple choice and matching tests

# Resources/Materials (copy hyperlinks for digital resources):

Introduction to Medical Terminology, 3rd Edition, 2017, Cengage Publishing

Ann Ehrlich; Carol L. Schroeder

ISBN-13:978-1-133-95174-0

ISBN-10:1-133-95174-0

http://cengage.com/us

Chapter 7 Resources: Crossword Puzzles, Word Searches, and Case Studies, Chapter Quizzes, Tests and Cengage StudyWare CD-ROM.

Chapter 7 Games and Quizzes

Newspaper and Journal Subscriptions

Workbook to Introduction to Medical Terminology, 3rd Edition, Cengage Publishing

Ann Ehrlich; Carol L. Schroeder

ISBN-13:978-1-133-95173-5

ISBN-10:1-133-95173-2

http://cengage.com/us

Downloadable Complete Ancillary for instructors, and a StudyWare site and CD-ROM for students

## **Modifications:**

#### **Special Education Students:**

- Allow errors
- Rephrase questions, directions, and explanations
- Allow extended time to answer questions, and permit drawing, as an explanation.

- Accept participation at any level, even one word.
- Consult with Case Managers and follow IEP accommodations/modifications.

# **English Language Learners:**

- Assign a buddy, same language or English speaking.
- Allow errors in speaking
- Rephrase questions, directions, and explanations.
- Allow extended time to answer questions, and permit drawing, as an explanation.
- Accept participation at any level, even one word.

#### At-Risk Students:

- Provided extended time to complete tasks.
- Consult with Guidance Counselors and follow I&RS procedures / action plans.
- Consult with classroom teacher(s) for specific behavior interventions.
- Provide rewards as necessary.

#### **GIfted and Talented Students:**

- Provide extension activities
- Build on students' intrinsic motivations.
- Consult with parents to accommodate students' interests in completing tasks at their level of engagement.

Lesson #	Lesson Name	Time frame (day(s) to complete)
1	Structures and Functions of the Respiratory System	1 day
2	Medical Specialties related to the Respiratory System	1 day
3	Pathology of the Respiratory System	1 day
4	Upper Respiratory Diseases	1 day

5	Treatment Procedures of	1 day	
	the Respiratory System		

# **Teacher Notes:**

# **Additional Resources**

Click links below to access additional resources used to design this unit:

YouTube Crash Course Respiratory System https://youtu.be/bHZsvBbUC21

DVD - RX for Survival

"Rise of the SuperBugs"

<a href="http://www.pbs.org/wgbh/rxforsurvival/series/video/c\_iim\_dis\_tb1.html">http://www.pbs.org/wgbh/rxforsurvival/series/video/c\_iim\_dis\_tb1.html</a>

American Doctors https://voutu.be/BS05uKPAcil

DVD - The Incredible Human Machine https://youtu.be/QhRpxkJnsKA?t=20m25s

Content Area: Health - Medical Terminology

Unit Title: The Digestive System - Unit 8

Grade Level: 10-12

**Unit Summary:** This unit identifies the major structures and functions of the digestive system. The processes of digestion, absorption, and metabolism is discussed. By the end of this unit, students will be able to recognize, define, spell, and pronounce the primary terms related to the pathology and the diagnostic and treatment procedures of the digestive system.

# Interdisciplinary

#### Connections:

## SCIENCE:

2.1A - Personal Growth & Development

2.1C - Disease

2.2E - Health Services

2.3A - Medicine

#### SOCIAL STUDIES:

Similar connections may be made between social studies content areas (6.3) and the following areas of content such as (2.2A) interpersonal communication skills, (2.1E) social, and (2.2E) health services.

#### LANGUAGE ARTS LITERACY:

## CCCS.ELA-LITERACY.CCRA.W.4

Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

#### CCCS.ELA-LITERACY.CCRA.W.8

Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.

## CCSS.ELA-LITERACY.CCRA.W.9

Draw evidence from literary or informational texts to support analysis, reflection, and research.

# CCSS-ELA.LITERACY.CCRA.W10

Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.

#### CCCS.ELA-LITERACY.RST.11-12.9

Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.

#### WIDA English Language Development Standard 1

English language learners communicate for social and instructional purposes within the school setting.

#### MATH:

#### CCSS.MATH PRACTICES 1 and 2

Make sense of problems and reason abstractly during health data analysis.

# 21st Century

# Themes and Skills:

Creativity and Innovation, Critical Thinking and Problem Solving, Communication and Collaboration, Information Literacy, Media Literacy, Communication Literacy, and Life and Career Skills

# **Career Ready Practices:**

- CRP2. Apply appropriate academic and technical skills.
- CRP4. Communicate clearly and effectively and with reason.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
- CRP10. Plan education and career paths aligned to personal goals.
- CRP11. Use technology to enhance productivity.

#### CTE Standards:

- 9.3HL.1 Communicate health information accurately.
- 9.3HL.2 Describe the content and diverse uses of health information.

# Standards (Content and Technology):

- 2.1 Wellness: All students will acquire health promotion concepts and skills to support a healthy, active lifestyle.
  - C. Diseases and Health Conditions

Personal health is impacted by family, community, national, and international efforts to prevent and control diseases and health conditions

- 2.2 Integrated Skills: All students will develop and use personal and interpersonal skills to support a healthy, active lifestyle.
  - A. Interpersonal Communication

Technology increases the capacity of individuals to communicate in multiple and diverse ways.

E. Health Services and Information

Potential solutions to health issues are dependent on health literacy and available resources. Affordability and accessibility of healthcare impacts the prevention, early detection, and treatment of health problems.

CPI#:	Statement:	
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2.2.12.A.1	Employ skills for communicating with family, peers, and people from other backgrounds and cultures that may impact the health of oneself and others.	
2.2.12.A.3	Analyze the impact of technology on interpersonal communication in supporting wellness and a healthy lifestyle.	

# 8.1.12.F.1

Evaluate the strengths and limitations of emerging technologies and their impact on educational, career, personal and or social needs.

# **Unit Essential Question(s):**

- What are the structures of the digestive system?
- What are the major structures of the oral cavity?
- What are the accessory digestive organs?
- What is digestion?
- What are the medical specialties related to the digestive system?
- What are the major digestive issues?
- What are the diagnostic procedures of the digestive system?
- What are the treatments of the digestive system?

# **Unit Enduring Understandings:**

- The structures of the digestive system the upper GI tract, the lower GI tract, and the bowels.
- The structures of the oral cavity are the mouth, the lips, hard and soft palates, salivary glands, tongue, teeth, and the periodontium.
- The accessory digestive organs are the liver, the biliary tree, the gallbladder, and the pancreas.
- Digestion is the process by which complex foods are broken down into nutrients.
- Medical specialties related to the digestive system are bariatrics, a dentist, a gastroenterologist, an oral surgeon, an orthodontist, a periodontist, and a proctologist.
- Gastric issues including eating disorders, nutritional conditions, indigestion, intestinal disorders, irritable bowel syndrome, inflammatory bowel disease, Ulcerative Colitis, Crohn's Disease, and intestinal obstructions.
- Digestive procedures of the digestive system are abdominal cts, ultrasound, cholangiography, enema, upper GI series, and stool samples.
- Treatments of the digestive system include medications, bariatric surgery, and ostomies.

# **Unit Learning Targets/Objectives:**

#### Students will

- Identify and describe the major structures and functions of the digestive system.
- Describe the processes of digestion, absorption, and metabolism.
- Recognize, define, spell, and pronounce the primary terms related to the pathology and the diagnostic and treatment procedures of the digestive system.

#### Formative Assessments:

Unit Assignments:

- 1.Complete <u>handwritten</u> flashcards of chapter terms
- 2.Complete Learning Exercises at chapter end.

#### Unit Classroom Activities:

- 1. Daily Quiz
- 2. Video Overviews
- 3. Discuss terminology words and pronunciation.
- 4. Give practice in both pronunciation and understanding the words.
- 5. Provide students with handouts for in-class collaborative work: Crossword Puzzles, Word Searches and case studies pertinent to the unit and have students analyze and define medical terms
- 6. StudyWare Games and Quizzes as time permits
- 7. Current events in Healthcare

## Summative/Benchmark Assessment(s):

Unit Assessments:

- 1. Terminology quizzes
- 2. Class Participation: Completion of handouts, labeling diagrams, discussion contribution
- 3. Completion of Homework
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# **Modifications:**

# **Special Education Students:**

- Allow errors
- Rephrase questions, directions, and explanations
- Allow extended time to answer questions, and permit drawing, as an explanation.
- Accept participation at any level, even one word.
- Consult with Case Managers and follow IEP accommodations/modifications.

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### **At-Risk Students:**

- Provided extended time to complete tasks
- Consult with Guidance Counselors and follow I&RS procedures / action plans.
- Consult with classroom teacher(s) for specific behavior interventions.
- Provide rewards as necessary.

## **GIfted and Talented Students:**

- Provide extension activities
- Build on students' intrinsic motivations.
- Consult with parents to accommodate students' interests in completing tasks at their level of engagement.

Lesson #	Lesson Name	Time frame (day(s) to complete)
1	Structures of the Digestive System	1 day

2	The Process of Digestion	1 day
3	Medical Specialties Related to the Digestive System	1 day
4	Pathology of the Digestive System	1 day
5	Treatment Procedures of the Digestive System	1 day

# **Teacher Notes:**

# **Additional Resources**

Click links below to access additional resources used to design this unit:

YouTube - Crash Course Biology #28 https://youtu.be/s06XzaKqELk

DVD - <u>The Incredible Human Machine</u> - Digestion

Newspaper and Journal Subscriptions Digestive System Models.

Content Area: Health - Medical Terminology

Unit Title: The Urinary System - Unit 9

Grade Level: 10-12

**Unit Summary:** This unit identifies and describes the major functions and structures of the urinary system. Medical specialists who treat disorders of the urinary system are discussed. By the end of this unit, students will be able to recognize, define, spell, and pronounce the primary terms related to the pathology and the diagnostic and treatment procedures of the urinary system.

# Interdisciplinary

#### **Connections:**

SCIENCE:

2.1A - Personal Growth & Development

2.1C - Disease

2.2E - Health Services

2.3A - Medicine

## SOCIAL STUDIES:

Similar connections may be made between social studies content areas (6.3) and the following areas of content such as (2.2A) interpersonal communication skills, (2.1E) social, and (2.2E) health services.

#### LANGUAGE ARTS LITERACY:

#### CCCS.ELA-LITERACY.CCRA.W.4

Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

#### CCCS.ELA-LITERACY.CCRA.W.8

Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.

# CCSS.ELA-LITERACY.CCRA.W.9

Draw evidence from literary or informational texts to support analysis, reflection, and research.

## CCSS-ELA.LITERACY.CCRA.W10

Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.

#### CCCS.ELA-LITERACY.RST.11-12.9

Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.

# WIDA English Language Development Standard 1

English language learners communicate for social and instructional purposes within the school setting.

#### MATH:

CCSS, MATH PRACTICES 1 and 2

Make sense of problems and reason abstractly during health data analysis.

## 21st Century

# Themes and Skills:

Creativity and Innovation, Critical Thinking and Problem Solving, Communication and Collaboration, Information Literacy, Media Literacy, Communication Literacy, and Life and Career Skills

# **Career Ready Practices:**

CRP2. Apply appropriate academic and technical skills.

CRP4. Communicate clearly and effectively and with reason.

CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.

CRP10. Plan education and career paths aligned to personal goals.

CRP11. Use technology to enhance productivity.

#### **CTE Standards:**

9.3HL.1 - Communicate health information accurately.

9.3HL.2 - Describe the content and diverse uses of health information.

# Standards (Content and Technology):

2.1 Wellness: All students will acquire health promotion concepts and skills to support a healthy, active lifestyle.

# C. Diseases and Health Conditions

Personal health is impacted by family, community, national, and international efforts to prevent and control diseases and health conditions

# 2.2 Integrated Skills: All students will develop and use personal and interpersonal skills to support a healthy, active lifestyle.

#### A. Interpersonal Communication

Technology increases the capacity of individuals to communicate in multiple and diverse ways.

# E. Health Services and Information

Potential solutions to health issues are dependent on health literacy and available resources. Affordability and accessibility of healthcare impacts the prevention, early detection, and treatment of health problems.

CPI#:	Statement:	
2.1.12.C.1	Predict diseases and health conditions that may occur during one's lifespan and	
	speculate on potential prevention and treatment strategies.	
2.2.12.A.1	Employ skills for communicating with family, peers, and people from other	
	backgrounds and cultures that may impact the health of oneself and others.	
2.2.12.A.3	Analyze the impact of technology on interpersonal communication in supporting	
	wellness and a healthy lifestyle.	

8.1.12.F.1 Evaluate the strengths and limitations of emerging technologies and their impact on educational, career, personal and or social needs.

# Unit Essential Question(s):

- What are the functions of the urinary system?
- What are the structures of the urinary system?
- What is urination?
- What are the problems of the urinary system?
- What are the diagnostic procedures of the urinary system?
- What are the treatment procedures of the urinary system?

# **Unit Enduring Understandings:**

- The functions of the urinary system are maintaining proper balance of water, salts, and acids in the body, filtering blood to remove toxins, and converting waste products and excess fluid.
- The structures of the urinary system are the kidneys, the renal pelvis, the ureters, the urinary bladder, and the urethra
- Urination is the process of excreting urine.
- Problems of the urinary system include nephropathy, renal failure, nephrotic syndrome, kidney conditions, and stones.
- Diagnostic procedures of the urinary system are urinalysis, bladder ultrasound, urinary catheterization, cystoscopy, and CAT scan.
- Treatment procedures of the urinary system are medications, dialysis, catheterization, radiation, and hormone therapies.

# **Unit Learning Targets/Objectives:**

Students will

- Identify and describe the major functions and structures of the urinary system.
- Identify the medical specialists who treat disorders of the urinary system.
- Recognize, define, spell, and pronounce the primary terms related to the pathology and the diagnostic and treatment procedures of the urinary system.

# **Formative Assessments:**

Unit Assignments:

- 1.Complete handwritten flashcards of chapter terms
- 2.Complete Learning Exercises at chapter end.

#### Unit Classroom Activities:

- 1. Daily Quiz
- 2. Video Overviews
- 3. Discuss terminology words and pronunciation.
- 4. Give practice in both pronunciation and understanding the words.
- 5. Provide students with handouts for in-class collaborative work: Crossword Puzzles, Word Searches and case studies pertinent to the unit and have students analyze and define medical terms.
- 6. StudyWare Games and Quizzes as time permits
- 7. Current events in Healthcare

# Summative/Benchmark Assessment(s):

Unit Assessments:

- 1. Terminology quizzes
- 2. Class Participation: Completion of handouts, labeling diagrams, discussion contribution
- 3. Completion of Homework
- 4. Quarterly projects
- 5. Multiple choice and matching tests

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## **Modifications:**

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- Allow extended time to answer questions, and permit drawing, as an explanation.
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- Provide rewards as necessary.

#### **GIfted and Talented Students:**

- Provide extension activities
- Build on students' intrinsic motivations.
- Consult with parents to accommodate students' interests in completing tasks at their level of engagement.

Lesson #	Lesson Name	Time frame (day(s) to complete)
1	Functions and Structures of the Urinary System	1 day
2	Pathology of the Urinary System.	1 day
3	Diagnostic Procedures of the Urinary System	1 day
4	Treatment Procedures of the Urinary System	1 day
5	Medical Specialties Related to the Urinary System.	1 day

# **Teacher Notes:**

# **Additional Resources**

Click links below to access additional resources used to design this unit:

YouTube - Crash Course Biology #29 https://youtu.be/WtrYotjYvtU - Urinary System

DVD - <u>The Incredible Human Machine</u> - Urinary System

Newspaper and Journal Subscriptions Model of the Kidneys.

Content Area: Health - Medical Terminology

Unit Title: The Nervous System and Mental Health - Unit 10

Grade Level: 10-12

**Unit Summary:** This unit describes the functions and structures of the nervous system. The major divisions of the nervous system and its structures are discussed. Medical specialists who treat disorders of the nervous system are introduced. By the end of this unit, students will be able to recognize, define, spell, and pronounce the primary terms related to the pathology and the diagnostic and treatment procedures of the nervous system and mental health disorders.

# Interdisciplinary

# **Connections:**

## SCIENCE:

2.1A - Personal Growth & Development

2.1C - Disease

2.2E - Health Services

2.3A - Medicine

# SOCIAL STUDIES:

Similar connections may be made between social studies content areas (6.3) and the following areas of content such as (2.2A) interpersonal communication skills, (2.1E) social, and (2.2E) health services.

#### LANGUAGE ARTS LITERACY:

#### CCCS.ELA-LITERACY.CCRA.W.4

Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

#### CCCS.ELA-LITERACY.CCRA.W.8

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WIDA English Language Development Standard 1

English language learners communicate for social and instructional purposes within the school setting.

## MATH:

CCSS.MATH PRACTICES 1 and 2

Make sense of problems and reason abstractly during health data analysis.

## 21st Century

#### Themes and Skills:

Creativity and Innovation, Critical Thinking and Problem Solving, Communication and Collaboration, Information Literacy, Media Literacy, Communication Literacy, and Life and Career Skills

## **Career Ready Practices:**

CRP2. Apply appropriate academic and technical skills.

CRP4. Communicate clearly and effectively and with reason.

CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.

CRP10. Plan education and career paths aligned to personal goals.

CRP11. Use technology to enhance productivity.

## **CTE Standards:**

9.3HL.1 - Communicate health information accurately.

9.3HL.2 - Describe the content and diverse uses of health information.

#### Standards (Content and Technology):

# 2.1 Wellness: All students will acquire health promotion concepts and skills to support a healthy, active lifestyle.

# C. Diseases and Health Conditions

Personal health is impacted by family, community, national, and international efforts to prevent and control diseases and health conditions

# 2.2 Integrated Skills: All students will develop and use personal and interpersonal skills to support a healthy, active lifestyle.

#### A. Interpersonal Communication

Technology increases the capacity of individuals to communicate in multiple and diverse ways.

#### E. Health Services and Information

Potential solutions to health issues are dependent on health literacy and available resources. Affordability and accessibility of healthcare impacts the prevention, early detection, and treatment of health problems.

CPI#:	Statement:	
2.1.12.C.1	12.C.1 Predict diseases and health conditions that may occur during one's lifespan and speculate on potential prevention and treatment strategies.	
2.2.12.A.1 Employ skills for communicating with family, peers, and people from othe backgrounds and cultures that may impact the health of oneself and othe		

2.2.12.A.3	Analyze the impact of technology on interpersonal communication in supporting wellness and a healthy lifestyle.	
8.1.12.F.1	Evaluate the strengths and limitations of emerging technologies and their impact on	
	educational, career, personal and or social needs.	

## **Unit Essential Question(s):**

- What is the function of the nervous system?
- What are the structures of the nervous system?
- What is the central nervous system made up of?
- What does the peripheral nervous system consist of?
- How is the autonomic nervous system organized?
- What are the medical specialities related to the nervous system?

## **Unit Enduring Understandings:**

- The function of the nervous system is to coordinate and control all body activities
- Structures of the nervous systems include the nerves, the reflexes, the neurons, neurotransmitters, glial cells, and myelin sheath.
- The central nervous system is made up of the brain and spinal cord.
- The peripheral nervous system consists of the 12 pairs of cranial nerves plus 31 pairs of spinal nerves.
- The autonomic nervous system is organized into two divisions, the sympathetic nerves and the parasympathetic nerves.
- Medical specialties related to the nervous system are an anesthesiologist, a neurologist, a neurosurgeon, a psychiatrist, and a psychologist.

# **Unit Learning Targets/Objectives:**

#### Students will

- Identify and describe the major functions and structures of the nervous system.
- Identify the major divisions of the nervous system, and describe the structures of each by location and function.
- Identify the medical specialists who treat disorders of the nervous system.
- Recognize, define, spell, and pronounce the primary terms related to the pathology and the diagnostic and treatment procedures of the nervous system.
- Recognize, define, spell, and pronounce the primary terms related to the pathology and the diagnostic and treatment procedures of mental health disorders.

#### **Formative Assessments:**

Unit Assignments:

- 1.Complete <u>handwritten</u> flashcards of chapter terms
- 2.Complete Learning Exercises at chapter end.

## **Unit Classroom Activities:**

- 1. Daily Quiz
- 2. Video Overviews
- 3. Discuss terminology words and pronunciation.
- 4. Give practice in both pronunciation and understanding the words.
- 5. Provide students with handouts for in-class collaborative work: Crossword Puzzles, Word Searches and case studies pertinent to the unit and have students analyze and define medical terms.
- 6. StudyWare Games and Quizzes as time permits
- 7. Current events in Healthcare

## Summative/Benchmark Assessment(s):

Unit Assessments:

- 1. Terminology quizzes
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**Newspaper and Journal Subscriptions** 

Workbook to Introduction to Medical Terminology, 3rd Edition, Cengage Publishing

Ann Ehrlich; Carol L. Schroeder

ISBN-13:978-1-133-95173-5

ISBN-10:1-133-95173-2

http://cengage.com/us

Downloadable Complete Ancillary for instructors, and a StudyWare site and CD-ROM for students

#### **Modifications:**

# **Special Education Students:**

- Allow errors
- Rephrase questions, directions, and explanations
- Allow extended time to answer questions, and permit drawing, as an explanation.
- Accept participation at any level, even one word.
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# **English Language Learners:**

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#### **GIfted and Talented Students:**

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- Build on students' intrinsic motivations.
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Lesson #	Lesson Name	Time frame (day(s) to complete)
1	Functions and Structures of the Nervous System	1 day

2	Pathology of the Nervous System	1 day
3	Diagnostic Procedures of the Nervous System	1 day
4	Treatment Procedures of the Nervous System	1 day
5	Medical Specialties Related to the Nervous System.	1 day

**Teacher Notes:** 

# **Additional Resources**

Click links below to access additional resources used to design this unit:

YouTube - Crash Course Biology #26 https://youtu.be?x\$PPZCLnVkA

DVD - <u>The Incredible Human Machine</u> - Nervous System Segment on the Brain.

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Content Area: Health - Medical Terminology

Unit Title: The Special Senses: The Eyes and Ears

Grade Level: 10-12

**Unit Summary:** This unit describes the functions and structures of the eyes and their accessory structures and the functions and structures of the ears. By the end of this unit, students will be able to recognize, define, spell, and pronounce the primary terms related to the pathology and the diagnostic and treatment procedures of the eyes and vision and the ears and hearing.

# Interdisciplinary

# **Connections:**

## SCIENCE:

2.1A - Personal Growth & Development

2.1C - Disease

2.2E - Health Services

2.3A - Medicine

#### SOCIAL STUDIES:

Similar connections may be made between social studies content areas (6.3) and the following areas of content such as (2.2A) interpersonal communication skills, (2.1E) social, and (2.2E) health services.

#### LANGUAGE ARTS LITERACY:

# CCCS.ELA-LITERACY.CCRA.W.4

Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

#### CCCS.ELA-LITERACY.CCRA.W.8

Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.

### CCSS.ELA-LITERACY.CCRA.W.9

Draw evidence from literary or informational texts to support analysis, reflection, and research.

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Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.

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WIDA English Language Development Standard 1

English language learners communicate for social and instructional purposes within the school setting.

#### MATH:

CCSS.MATH PRACTICES 1 and 2

Make sense of problems and reason abstractly during health data analysis.

#### 21st Century

#### Themes and Skills:

Creativity and Innovation, Critical Thinking and Problem Solving, Communication and Collaboration, Information Literacy, Media Literacy, Communication Literacy, and Life and Career Skills

# **Career Ready Practices:**

CRP2. Apply appropriate academic and technical skills.

CRP4. Communicate clearly and effectively and with reason.

CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.

CRP10. Plan education and career paths aligned to personal goals.

CRP11. Use technology to enhance productivity.

#### **CTE Standards:**

9.3HL.1 - Communicate health information accurately.

9.3HL.2 - Describe the content and diverse uses of health information.

#### Standards (Content and Technology):

2.1 Wellness: All students will acquire health promotion concepts and skills to support a healthy, active lifestyle.

# C. Diseases and Health Conditions

Personal health is impacted by family, community, national, and international efforts to prevent and control diseases and health conditions

# 2.2 Integrated Skills: All students will develop and use personal and interpersonal skills to support a healthy, active lifestyle.

## A. Interpersonal Communication

Technology increases the capacity of individuals to communicate in multiple and diverse ways.

## E. Health Services and Information

Potential solutions to health issues are dependent on health literacy and available resources. Affordability and accessibility of healthcare impacts the prevention, early detection, and treatment of health problems.

CPI#:	Statement:
2.1.12.C.1	Predict diseases and health conditions that may occur during one's lifespan and speculate on potential prevention and treatment strategies.
2.2.12.A.1	Employ skills for communicating with family, peers, and people from other backgrounds and cultures that may impact the health of oneself and others.

2.2.12.A.3	Analyze the impact of technology on interpersonal communication in supporting wellness and a healthy lifestyle.
8.1.12.F.1	Evaluate the strengths and limitations of emerging technologies and their impact on
	educational, career, personal and or social needs.

# Unit Essential Question(s):

- What is the function of the eyes?
- What are the structures of eyes?
- What are the medical specialities related to the eyes?
- What are the functional defects of the eves?
- What are the diagnostic procedures for vision and the eyes?
- What are the functions of the ears?
- What are the structures of the ears?
- What are medical specialties related to the ears?
- What are diagnostic procedures of the ears and hearing?

# **Unit Enduring Understandings:**

- The function of the eyes are to receive images and transmit them to the brain.
- Structures of the eyes include the adnexa of the eyes, the eyeball, the uvea, and the normal action of the eyes.
- Medical specialties related to the eyes are an ophthalmologist, an optometrist, and an optician.
- Functional defects of the eyes include diplopia, monochromatism, photophobia, and presbyopia.
- Diagnostic procedures for the vision and the eyes include diagnostic procedures, surgery and corrective lenses.
- The ears are able to receive sound impulses and transmit them to the brain.
- The structures of the ears are the outer ear, the middle ear, and the inner ear.
- Medical specialties related to the ear are an audiologist.
- Diagnostic procedures include an evaluation, audiometry, a hertz, an otoscope, and testing.

#### **Unit Learning Targets/Objectives:**

#### Students will

- Describe the functions and structures of the eyes and their accessory structures.
- Recognize, define, spell, and pronounce the primary terms related to the structures and functions, pathology, and the diagnostic and treatment procedures of the eyes and vision.
- Describe the functions and structures of the ears.
- Recognize, define, spell, and pronounce the primary terms related to the structures and functions, pathology, and the diagnostic and treatment procedures of the ears and hearing.

#### Formative Assessments:

Unit Assignments:

- 1.Complete *handwritten* flashcards of chapter terms
- 2.Complete Learning Exercises at chapter end.

# Unit Classroom Activities:

- 1. Daily Quiz
- 2. Video Overviews
- 3. Discuss terminology words and pronunciation.
- 4. Give practice in both pronunciation and understanding the words.
- 5. Provide students with handouts for in-class collaborative work: Crossword Puzzles, Word Searches and case studies pertinent to the unit and have students analyze and define medical terms.
- 6. StudyWare Games and Quizzes as time permits
- 7. Current events in Healthcare

# Summative/Benchmark Assessment(s):

Unit Assessments:

- 1. Terminology quizzes
- 2. Class Participation: Completion of handouts, labeling diagrams, discussion contribution
- 3. Completion of Homework
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Lesson #	Lesson Name	Time frame (day(s) to complete)
1	Functions and Structures of the Eyes and Ears	1 day

2	Pathology of the Eyes and Ears	1 day
3	Diagnostic Procedures of the Eyes and Ears	1 day
4	Treatment Procedures of the Eyes and Ears	1 day
5	Medical Specialties Related to the Eyes and Ears	1 day

**Teacher Notes:** 

# **Additional Resources**

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YouTube - Crash Course for Unit 11

DVD - <u>The Incredible Human Machine</u> - Sight, Sound, and Smell.

Newspaper and Journal Subscriptions

Content Area: Health - Medical Terminology

Unit Title: Skin: The Integumentary System - Unit 12

Grade Level: 10-12

**Unit Summary:** This unit identifies and describes the functions and structures of the integumentary system. Medical specialties associated with the integumentary system are discussed. By the end of this unit, students will be able to recognize, define, spell, and pronounce the primary terms related to the structures and function, pathology, and the diagnostic and treatment procedures of the skin, hair, nails, and sebaceous glands.

# Interdisciplinary

## **Connections:**

# SCIENCE:

2.1A - Personal Growth & Development

2.1C - Disease

2.2E - Health Services

2.3A - Medicine

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Make sense of problems and reason abstractly during health data analysis.

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# Themes and Skills:

Creativity and Innovation, Critical Thinking and Problem Solving, Communication and Collaboration, Information Literacy, Media Literacy, Communication Literacy, and Life and Career Skills

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9.3HL.1 - Communicate health information accurately.

9.3HL.2 - Describe the content and diverse uses of health information.

#### Standards (Content and Technology):

2.1 Wellness: All students will acquire health promotion concepts and skills to support a healthy, active lifestyle.

#### C. Diseases and Health Conditions

Personal health is impacted by family, community, national, and international efforts to prevent and control diseases and health conditions

2.2 Integrated Skills: All students will develop and use personal and interpersonal skills to support a healthy, active lifestyle.

#### A. Interpersonal Communication

Technology increases the capacity of individuals to communicate in multiple and diverse ways.

#### E. Health Services and Information

Potential solutions to health issues are dependent on health literacy and available resources. Affordability and accessibility of healthcare impacts the prevention, early detection, and treatment of health problems.

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8.1.12.F.1	Evaluate the strengths and limitations of emerging technologies and their impact on
	educational, career, personal and or social needs.

# **Unit Essential Question(s):**

- What is the function of the integumentary system?
- What are the structures of integumentary system?
- What are the medical specialities related to the integumentary system?
- What are the functional defects of the integumentary system?
- What are the diagnostic procedures for the integumentary system?
- What the treatment procedures of the integumentary system?

# **Unit Enduring Understandings:**

- The function of the integumentary system is to perform important functions in maintaining the health of the whole body.
- Structures of the integumentary system include the skin, the sebaceous glands, the sweat glands, the hair, and the nails.
- Medical specialties related to the integumentary system include a dermatologist, a plastic surgeon, and a cosmetic surgeon.
- Defects of the integumentary system are acne, cysts, dermatitis, cancer, and keratosis.
- Diagnostic procedures for the integumentary system are biopsies and cytologies.
- Treatment procedures of the integumentary system include preventative measures, tissue removal, laser treatments, medications, and cosmetic procedures.

# **Unit Learning Targets/Objectives:**

Students will

- Identify and describe the functions and structures of the integumentary system.
- Identify the medical specialists associated with the integumentary system.
- Recognize, define, spell, and pronounce the primary terms related to the structures and functions, pathology, and the diagnostic and treatment procedures of the skin, hair, nails, and sebaceous glands.

# **Formative Assessments:**

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2	Pathology of the Integumentary System.	1 day	
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4	Treatment Procedures of the Integumentary System.	1 day	

5	Medical Specialties	1 day		
	Related to the			
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Teacher I	Notes:			
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000 - <u>In</u>	<u>e Incredible Human Body</u> - Ski	n		
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Content Area: Health - Medical Terminology

Unit Title: The Endocrine System - Unit 13

Grade Level: 10-12

**Unit Summary:** This unit identifies and describes the role of the endocrine glands in maintaining homeostasis. The functions of the primary hormones secreted by each of the endocrine glands are discussed. By the end of this unit, students will be able to recognize, define, spell, and pronounce the primary terms relating to the pathology and the diagnostic and treatment procedures of the endocrine glands.

# Interdisciplinary

### **Connections:**

### SCIENCE:

- 2.1A Personal Growth & Development
- 2.1C Disease
- 2.2E Health Services
- 2.3A Medicine

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# Unit Essential Question(s):

- What is the function of the endocrine system?
- What are the structures of endocrine system?
- What are the medical specialities related to the endocrine system?
- What are the functional defects of the endocrine system?
- What are the diagnostic procedures for the endocrine system?
- What the treatment procedures of the endocrine system?

# **Unit Enduring Understanding(s):**

- The function of the endocrine system is to produce hormones that work together to maintain homeostasis.
- Structures of the endocrine system include the endocrine glands, the pituitary gland, the pineal gland, the thyroid gland, the parathyroid glands, the thymus, the pancreas, the adrenal glands, and the gonads.
- Medical specialties related to the endocrine system include an endocrinologist and a certified diabetes educator.
- Defects of the endocrine system are growth disorders, hormone conditions, thyroid issues, and diabetes.
- Diagnostic procedures for the endocrine involve blood work.
- Treatment procedures of the endocrine system include medications and procedures.

# **Unit Learning Targets/Objectives:**

### Students will

- Describe the role of the endocrine glands in maintaining homeostasis
- Name and describe the functions of the primary hormones secreted by each of the endocrine glands.
- Recognize, define, spell, and pronounce the primary terms relating to the pathology and the diagnostic and treatment procedures of the endocrine glands.

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2	Pathology of the Endocrine System.	1 day
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Teacher Notes:

# Additional Resources Click links below to access additional resources used to design this unit: Great Glands - Your Endocrine System: Crash Course Biology #33 https://youtu.be?WVr1HH14q3o Endocrine System - Glands and Hormones DVD - The Incredible Human Body - Endocrine System

Content Area: Health - Medical Terminology

Unit Title: The Reproductive System - Unit 14

Grade Level: 10-12

**Unit Summary:** This unit identifies and describes the major functions and structures of the male and female reproductive systems. Sexually transmitted diseases are discussed. By the end of this unit, students will be able to recognize, define, spell, and pronounce the terms related to the pathology and the diagnostic and treatment procedures of the male and female reproductive systems.

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### CCSS.ELA-LITERACY.CCRA.W.9

Draw evidence from literary or informational texts to support analysis, reflection, and research.

### CCSS-ELA.LITERACY,CCRA.W10

Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.

### CCCS.ELA-LITERACY.RST.11-12.9

Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.

WIDA English Language Development Standard 1

English language learners communicate for social and instructional purposes within the school setting.

### MATH:

CCSS, MATH PRACTICES 1 and 2

Make sense of problems and reason abstractly during health data analysis.

# 21st Century

# Themes and Skills:

Creativity and Innovation, Critical Thinking and Problem Solving, Communication and Collaboration, Information Literacy, Media Literacy, Communication Literacy, and Life and Career Skills

# **Career Ready Practices:**

CRP2. Apply appropriate academic and technical skills.

CRP4. Communicate clearly and effectively and with reason.

CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.

CRP10. Plan education and career paths aligned to personal goals.

CRP11. Use technology to enhance productivity.

### **CTE Standards:**

9.3HL.1 - Communicate health information accurately.

9.3HL.2 - Describe the content and diverse uses of health information.

### Standards (Content and Technology):

- 2.1 Wellness: All students will acquire health promotion concepts and skills to support a healthy, active lifestyle.
  - C. Diseases and Health Conditions

Personal health is impacted by family, community, national, and international efforts to prevent and control diseases and health conditions

- 2.2 Integrated Skills: All students will develop and use personal and interpersonal skills to support a healthy, active lifestyle.
  - A. Interpersonal Communication

Technology increases the capacity of individuals to communicate in multiple and diverse ways.

E. Health Services and Information

Potential solutions to health issues are dependent on health literacy and available resources. Affordability and accessibility of healthcare impacts the prevention, early detection, and treatment of health problems.

CPI#:	Statement:
2.1.12.C.1 Predict diseases and health conditions that may occur during one's lifes speculate on potential prevention and treatment strategies.	
2.2.12.A.1 Employ skills for communicating with family, peers, and people from other backgrounds and cultures that may impact the health of oneself and others.	

2.2.12.A.3	Analyze the impact of technology on interpersonal communication in supporting	
8.1.12.F.1	wellness and a healthy lifestyle.  Evaluate the strengths and limitations of emerging technologies and their impact on	
	educational, career, personal and or social needs.	

# **Unit Essential Question(s):**

- What are the functions of the male and female reproductive systems?
- What are the structures of the male and female reproductive systems?
- What are the medical specialties related to the male and female reproductive systems?
- What are the most common sexually transmitted diseases?
- What are the treatment procedures for the male and female reproductive systems?

### **Unit Enduring Understanding(s):**

- The function of the male reproductive system is to produce sperm. The function of the female reproductive system is to produce eggs, support the developing child, and produce milk to feed the child.
- The structures of the male reproductive system are the scrotum, testicles, penis, vas deferens, prostate gland, and urethra. The structures of the female reproductive system are the breasts, the ovaries, the fallopian tubes, the uterus, and vagina.
- The medical specialties related to the male and female reproductive systems are a urologists, a gynecologist, an obstetrician, a neonatologist, and an infertility specialist.
- The most common sexually transmitted diseases are chlamydia, bacterial vaginosis, genital herpes, genital warts, gonorrhea, HIV, syphilis, and trichomoniasis.
- Treatments for the male and female reproductive systems include medications, surgeries, and assisted reproduction.

# **Unit Learning Targets/Objectives:**

# Students will

- Identify and describe the major functions and structures of the male and female reproductive systems.
- Name at least six sexually transmitted diseases.
- Recognize, define, spell, and pronounce the terms related to the pathology and the diagnostic and treatment procedures of the male and female reproductive systems.
- Recognize, define, spell, and pronounce the terms related to the pathology and the diagnostic and treatment procedures of the woman during pregnancy, childbirth, and th postpartum period.

### **Formative Assessments:**

Unit Assignments:

- 1.Complete handwritten flashcards of chapter terms
- 2.Complete Learning Exercises at chapter end.

### Unit Classroom Activities:

- 1. Daily Quiz
- 2. Video Overviews
- 3. Discuss terminology words and pronunciation.
- 4. Give practice in both pronunciation and understanding the words.
- 5. Provide students with handouts for in-class collaborative work: Crossword Puzzles, Word Searches and case studies pertinent to the unit and have students analyze and define medical terms.
- 6. StudyWare Games and Quizzes as time permits
- 7. Current events in Healthcare

# Summative/Benchmark Assessment(s):

Unit Assessments:

- 1. Terminology quizzes
- 2. Class Participation: Completion of handouts, labeling diagrams, discussion contribution
- 3. Completion of Homework
- 4. Quarterly projects
- 5. Multiple choice and matching tests

# Resources/Materials (copy hyperlinks for digital resources):

Introduction to Medical Terminology, 3rd Edition, 2017, Cengage Publishing

Ann Ehrlich; Carol L. Schroeder

ISBN-13:978-1-133-95174-0

ISBN-10:1-133-95174-0

http://cengage.com/us

Chapter 14 Resources: Crossword Puzzles, Word Searches, and Case Studies, Chapter Quizzes,

Tests and Cengage StudyWare CD-ROM.

Chapter 14 Games and Quizzes

**Newspaper and Journal Subscriptions** 

Workbook to Introduction to Medical Terminology, 3rd Edition, Cengage Publishing

Ann Ehrlich; Carol L. Schroeder

ISBN-13:978-1-133-95173-5

ISBN-10:1-133-95173-2

http://cengage.com/us

Downloadable Complete Ancillary for instructors, and a StudyWare site and CD-ROM for students

# **Modifications:**

# **Special Education Students:**

- Allow errors
- Rephrase questions, directions, and explanations
- Allow extended time to answer questions, and permit drawing, as an explanation.
- Accept participation at any level, even one word.
- Consult with Case Managers and follow IEP accommodations/modifications.

# **English Language Learners:**

- Assign a buddy, same language or English speaking.
- Allow errors in speaking
- Rephrase questions, directions, and explanations.
- Allow extended time to answer questions, and permit drawing, as an explanation.
- Accept participation at any level, even one word.

# **At-Risk Students:**

- Provided extended time to complete tasks.
- Consult with Guidance Counselors and follow I&RS procedures / action plans.
- Consult with classroom teacher(s) for specific behavior interventions.
- Provide rewards as necessary.

### **GIfted and Talented Students:**

- Provide extension activities
- Build on students' intrinsic motivations.
- Consult with parents to accommodate students' interests in completing tasks at their level of engagement.

Lesson	Lesson Name	Time frame (day(s) to complete)
#	* Total Control of the Control of th	Contractive Special Contract C

1	Functions and Structures of the Male and Female Reproductive Systems.	1 day
2	Pathology of the Male and Female Reproductive Systems.	1 day
3	Diagnostic Procedures of the Male and Female Reproductive Systems.	1 day
4	Treatment Procedures of the Male and Female Reproductive Systems.	1 day
5	Medical Specialties Related to the Reproductive Systems.	1 day

# **Teacher Notes:**

# **Additional Resources**

Click links below to access additional resources used to design this unit:

YouTube - Reproduction <a href="https://youtu.be/QhRpxJnsKA?t=1h6m33s">https://youtu.be/QhRpxJnsKA?t=1h6m33s</a>

 ${\rm DVD} - \underline{\it The~Incredible~Human~Body} - {\rm The~Reproductive~Systems}$ 

DVD - Life's Greatest Miracle - PBS: NOVA