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| **TEXAS CTE LESSON PLAN**[www.txcte.org](http://www.txcte.org) |
| **Lesson Identification and TEKS Addressed** |
| **Career Cluster** | Health Science |
| **Course Name** | Medical Terminology |
| **Lesson/Unit Title** | Introduction to Medical Terminology – A Language of Its Own |
| **TEKS Student Expectations** | **130.223. (c) Knowledge and Skills**(2) The student recognizes the terminology related to the health science industry.(A) The student is expected to identify abbreviations, acronyms, and symbols related to the health science industry(B) The student is expected to identify the basic structure of medical words(3) The student demonstrates communication skills using the terminology applicable to the health science industry. (B) The student is expected to employ increasingly precise language to communicate(5) The student interprets medical abbreviations. (A) The student is expected to distinguish medical abbreviations used throughout the health science industry(B) The student is expected to translate medical abbreviations in simulated technical material such as physician progress notes, radiological reports, and laboratory reports |
| **Basic Direct Teach Lesson**(Includes Special Education Modifications/Accommodations and one English Language Proficiency Standards (ELPS) Strategy) |
| **Instructional Objectives** | Upon completion of this lesson, the learner should be able to:Explain and synthesize the basic word partsDifferentiate an acronym and an abbreviation* Define and decipher various medical abbreviations and acronyms
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| **Rationale** | Healthcare professionals must have a comprehensive medical vocabulary to communicate effectively with other health professionals. |
| **Duration of Lesson** | 1-1.5 hours |
| **Word Wall/Key Vocabulary***(ELPS c1a, c, f; c2b; c3a, b, d; c4c; c5b) PDAS II (5)* |  |
| **Materials/Specialized Equipment Needed** | * Medical Terminology book
* List of abbreviations
* List of Prefixes
* List of Suffixes
* Computer
* Index cards
* Markers
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| **Anticipatory Set**(May include pre-assessment for prior knowledge) | Write a sentence on the board using medical terms, abbreviations, and acronyms. Ask if anyone can read the sentence. Example of a doctor’s order:Dx CHF, ADLs BR c BRP, vs q2h, valium 5mg po hs.Diagnosis: Congestive Heart Failure: activities of daily living; bed rest with bathroom privileges, vital signs every 2 hours and 5 milligrams of valium by mouth at bedtime |
| **Direct Instruction \*** | 1. Medical Terminology
	1. Like a foreign language to most people
	2. Made of terms that describe the human body in detail
	3. Used to convey the greatest quantity of information, with the least confusion and the most precision, to any medical professional in the world
	4. A single medical term can describe a disease, condition or procedure that might otherwise take several words
		1. Example: *appendectomy* = surgical removal of the appendix
		2. Example: coxitis = inflammation of the hip joint
	5. The foundation of medical terms is Greek and Latin
		1. 75% of all medical terms are based on Latin or Greek terms
	6. The Greeks were the founders of modern medicine
	7. Latin is the language of choice for medicine and science
	8. The first medical dictionary appeared in the 1830s
		1. *Dorland’s Illustrated Medical Dictionary* was first published in1890
		2. The rapid increase in medical and scientific knowledge necessitates a new medical vocabulary to describe it
		3. It is impossible to learn **all** medical terms, but it is possible to figure out their meanings by analyzing the word parts
		4. By learning the meaning of the basic word parts, you will frequently be able to interpret the meaning of a word
	9. Etymology
		1. The science of the origin and development of words
		2. Indicates the origin and historical development of a term
		3. Helps you to find its origin and historical development
		4. Helps you to decipher words with Latin and Greek origins
	10. Eponyms – words named after people
		1. Parkinson’s disease – named after the English physician Dr. James Parkinson
	11. Acronyms – modern language terms that stand for longer phrases
	12. Abbreviations
		1. Shortened forms of words
		2. Used in many health fields
		3. Each medical facility has an approved abbreviation list
		4. It is the responsibility of healthcare workers to learn the meanings of the abbreviations used in the facility in which they work
		5. Refer to the abbreviation/acronym list
2. Basic Word Parts: Roots
	1. The glue that holds all medical terms together
	2. The basic form around which the final word is formed
	3. The main part of the word
	4. The foundation of the word
	5. Gives you a clue as to what you’re dealing with
	6. Specifies the body part
	7. Combining vowel, usually “o” or “i”, joins the root with a prefix or suffix, or another root
3. Basic Word Parts: Combining Vowels
	1. Are not used if the word root or suffix begins with a vowel
	2. Example:
		1. Encephal (o) (root meaning brain)
			1. Encephalitis (means inflammation of the brain)
				1. “itis” is a suffix meaning “inflammation”
				2. “itis” starts with an “i” so a combining vowel is not needed
			2. Encephalogram
				1. “gram” is a suffix meaning “tracing” or “record”
				2. “gram” does not start with a vowel
				3. The combining vowel “o” is used
4. Basic Word Parts: Prefixes
5. Appear at the beginnings of words
6. Tell “how, why, where, when, how much, how many, position, direction, time. or status”
7. Give us a clue of what to expect in a word’s meaning
8. Serve to further define the word root
9. Refer to the prefix list
10. Basic Word Parts: Suffixes
	1. Appear at the ends of words
	2. Tell us what is happening with a specific body part or system
	3. Entail what is wrong with you or the procedure used to diagnose or fix it
	4. Refer to the list of suffixes
11. Combining Form
12. The combination of a word root with the combining vowel
13. Example: Cardi /o/ gram

combining form1. Refer to the list of combining forms
2. Analysis
3. Your goal is to learn the tools of word analysis
4. This will make the understanding of complex terminology easier
5. Learning to divide words into basic elements will help you to interpret them
	1. Basic elements: roots, suffixes, prefixes, combining vowels
	2. Example:
6. *Gastroenterology*

GASTR / O/ ENTER / O / LOGY root root suffix combining vowelsThe root **gastr** means **stomach**The root **enter** means **intestines**The suffix -**logy** means process of studyThe combining vowel **o** links root to root, and root to suffix Meaning of the word: **the process of the study of the** **stomach and intestines**1. *Electrocardiogram*

ELECTR / O/ CARDI / O / GRAM root root suffix combining vowelsThe root **electr** means **electricity**The root **cardi** means **heart**The suffix -**gram** means **record**The entire word means: **the record of the electricity of** **the heart.**1. Rules to Remember
2. Read the meaning of medical terms from the suffix back to the first part of the word
3. Drop the combining vowel (usually o) before a suffix beginning with a vowel – ***gastric*** not *gastroic*
4. Retain the combining vowel between two roots in a word
5. Spelling is essential
	1. Many words are pronounced alike but spelled differently and have entirely different meanings
	2. Examples
		1. **Ileum** is a part of the small intestine
		2. **Ilium** is a part of the pelvic, or hip, bone
6. Pronunciation is also important
	1. Words spelled correctly but pronounced incorrectly may be misunderstood
	2. Example
7. **Urethra** (y*oo*-**ree**-thr*uh*) is the urinary tract tube leading formthe urinary bladder to the external surface
8. **Ureter** (y*oo*-**ree**-ter) is one of two tubes leading from thekidney to the urinary bladder
9. Learning a new language
10. Learning medical words is like learning a new language
11. The words sound strange and complicated at first
12. The medical language is logical in that each term, complex or simple, can be broken down into its basic component parts.
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| **Guided Practice \*** | * Complete the Abbreviations Worksheet.
* Make flash cards of medical terminology abbreviations.
* Complete the Prefixes Worksheet.
* Complete the Suffixes Worksheet.
* Make flash cards of medical terminology suffixes.
* Review media terms with the students using review games such as the “Fly Swatter Game” or the “Flash Card Drill” (see the Medical Terminology Activity Lesson Plan -

**Accommodations for Learning Differences**For reinforcement, the students will use index cards and markers to make flash cards of the medical abbreviations you expect them to learn. |
| **Independent Practice/Laboratory Experience/Differentiated Activities \*** | *Individualized Education Plan (IEP) for all special education students must be followed. Examples of accommodations may include, but are not limited to:*NONE |
| **Lesson Closure** |  |
| **Summative/End of Lesson Assessment \***  | Successful completion of activities |
| **References/Resources/****Teacher Preparation** |  |
| **Additional Required Components** |
| **English Language Proficiency Standards (ELPS) Strategies** |  |
| **College and Career Readiness Connection[[1]](#footnote-1)** | Understand new vocabulary and concepts and use them accurately in reading, speaking, and writing.1. Identify new words and concepts acquired through study of their relationships to other words and concepts.
2. Apply knowledge of roots and affixes to infer the meanings of new words.
3. Use reference guides to confirm the meanings of new words or concepts. *Cross-Disciplinary Standards*,

I. Key Cognitive Skills D. Academic Behavior: 1. Self-monitor learning needs and seek assistance when needed, 3. Strive for accuracy and precision, 4. Persevere to complete and master task. E. Work habits: 1. Work independently, 2. Work collaborativelyII. Foundation Skills A. 2. Use a variety of strategies to understand the meaning of unfamiliar words. 4. Identify the key information and supporting details |
| **Recommended Strategies** |
| **Reading Strategies** |  |
| **Quotes** |  |
| **Multimedia/Visual Strategy****Presentation Slides + One Additional Technology Connection** |  |
| **Graphic Organizers/Handout** |  |
| **Writing Strategies****Journal Entries + 1 Additional Writing Strategy** |  |
| **Communication****90 Second Speech Topics** |  |
| **Other Essential Lesson Components** |
| **Enrichment Activity**(e.g., homework assignment) | the students will choose 20 medical abbreviations and make a crossword puzzle using the chosen abbreviations. |
| **Family/Community Connection** |  |
| **CTSO connection(s)** | HOSASkillsUSA |
| **Service Learning Projects** |  |
| **Lesson Notes** |  |

1. Visit the Texas College and Career Readiness Standards at <http://www.thecb.state.tx.us/collegereadiness/CRS.pdf>, Texas Higher Education Coordinating Board (THECB), 2009. [↑](#footnote-ref-1)