

*Instructor's Guide for*  
**Medical Terminology  
in a FLASH!**

A MULTIPLE LEARNING STYLES APPROACH

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Instructors in educational institutions who have adopted *Medical Terminology in a FLASH! A Multiple Learning Styles Approach* 3<sup>rd</sup> edition for use as a textbook may freely reproduce material from this Instructor's Guide for educational purposes only.

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# P R E F A C E

*Medical Terminology in a FLASH!* 3rd edition was created for students of all ages with all types of learning styles. Visual, auditory, verbal, and kinesthetic (hands-on) learners are supported through textbook and online resources.

## ■ ■ ■ For Instructors

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The third edition has been reorganized to facilitate use in all types of classrooms. The **new structure** allows instructors of traditional, online, flipped, and self-study courses to effortlessly use all or part of each chapter and utilize the book across multiple semesters if they choose. The **new PowerPoint Presentations** will allow students to participate in the lecture rather than passively listen to it. The addition of the **Medical Language Lab** will be especially appealing to instructors who would like to include an online component in their course. *DavisPlus* continues to be a valuable online resource for instructors and students.

Updates to this edition include **Flash Cards** for every suffix, prefix, combining form, abbreviation, and pathology term in the book. New **Boxes** and improved **Flashpoint** features offer more information on certain topics as well as where to find additional information online. The **Learning Style Tips** feature has been improved by adding ideas to engage multiple learning styles in a single activity and by offering suggestions on how technology can be used to boost learning. The **Structure and Function** section of each chapter has been enhanced by supplying new exercises to strengthen the students' knowledge of key terms and definitions. Many of the exercises throughout the book are written by the author, and all of the answer keys are now located only in this Instructor's Guide to ensure that students are dedicating enough time to their assignments. There are **more Abbreviations** in this edition, some of which will be helpful for those in rehabilitation professions. The new **Pharmacology** section in each chapter is a great introduction to medications and will benefit those students who will soon be taking pharmacology courses.

## NEW! THE MEDICAL LANGUAGE LAB

The Medical Language Lab (MLL) is an interactive, online experience for mastering the language of medicine. The MLL uses proven language methodology to give students the practice needed to become fluent medical language speakers. Step by step, it guides students from basic through advanced levels of proficiency to become confident medical language speakers while also providing instructors **administrative capabilities** to create, customize, and manage classes and gradebooks.

Each lesson in the Medical Language Lab enables students to develop skills to listen critically for important terms, respond to others using medical terminology, and generate their own terminology-rich writing style and speech. By following the activities in each lesson, students graduate from simple memorization to becoming stronger users of medical language.

## ■ ■ ■ For Students

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*Medical Terminology in a FLASH!* includes many features to facilitate student success.

### IN THE TEXTBOOK

- Nearly 200 flash cards, including all suffixes and prefixes. Hundreds more are online at *DavisPlus*. The **IN A FLASH** icon will appear throughout each chapter to remind students to use their flash cards before moving on to the next section. See the *Flash Card Games* section for new ways they can use the cards.
- A **workbook format** supports student learning by encouraging them to write directly in the book. The act of writing actively engages their brain in a way that reading alone cannot. Perforations allow students to remove as many pages as they like. They are able to tear out a few pages to carry instead of transporting the whole book. This can be especially helpful when they are experiencing “wasted” moments in their day such as waiting in a line. If they have a few pages in their bag, they are able to have a quick study session!
- **Learning style tips** throughout the book help students learn and retain new information through activities that use their visual, auditory, verbal, and kinesthetic (hands-on) senses. They should look for the learning style tip icons that represent the four learning styles *Learning Style Tip*. Students are encouraged to use multiple learning styles. This will help them recognize their preferences for learning and identify study strategies that are most effective for them.
- **Flashpoints and Boxes** provide more information on certain topics within each chapter.
- **Clearly marked sections in each chapter** enable students to quickly and easily find specific assignments or information on which they need to focus. This is especially helpful for self-study, online, or flipped classroom students. Chapters 1 and 2 help them discover their learning style preferences and provide the suffix and prefix word parts necessary for using medical terminology. Each chapter that follows includes a section on:
  - **Structure and Function**, with key medical terms and full-color anatomical illustrations of the body systems. Body parts are labeled, and combining forms are listed. This information is reinforced at the end of the section in matching and labeling exercises.
  - **Combining Forms and Abbreviations** that pertain to each body system with color-coded tables. You will notice that *prefixes* are coded *green*, *suffixes* are coded *blue*, *combining forms* (word root + a vowel) are coded *teal*, *abbreviations* are coded *orange*, and *pathology terms* are coded *purple*. When students go to *DavisPlus* to print out more flash cards, they may want to consider using colored paper or markings that correspond to the color of the tables.
  - **Pathologies, Procedures, and Pharmacology** that pertain to each body system. Students will find more than 300 medications that are new to the third edition. The medications are described by their generic name, brand name, therapeutic classification, and common use. In addition, students will gain some insight into how the medications act on the body.

- **Exercises that correspond to each section** for courses that do not cover the entire chapter or that divide the material into multiple semesters. Students can easily find the exercises that pertain only to the sections they studied.
- **End-of-chapter exercises** provide even more practice on everything students learned in the chapter.

### **ONLINE AT DAVISPLUS**

Students should go to <http://davisplus.fadavis.com/> for free access to several more resources including:

- Hundreds more printable flash cards!
- Audio glossary
- Interactive audio exercises
- Listening exercises
- Labeling exercises
- Memory games
- Concentration games
- Interactive flash cards
- Practice quizzes

### **ONLINE AT MEDICAL LANGUAGE LAB**

Students should go to <http://www.medicallanguagelab.com> and register using the access code provided in new copies of *Medical Terminology in a FLASH! 3e*. Their free access includes:

- Audio tutorials and pronunciation guides
- Critical listening exercises
- Response exercises
- Term-generation exercises, both spoken and written
- Word-building exercises
- Labeling exercises
- Crosswords, and more!

### **FLASH CARDS**

Flash cards that correspond to all of the tables are provided for the students. The back of the book contains all of the flash cards for the terms in Chapters 2 and 3 as well as all of the combining form cards for Chapter 4. All of the combining form cards for Chapters 5 through 14 are online, ready for students to print out. They will also find cards for the abbreviation and pathology tables from every chapter online. Many of the flash cards contain visual cues, while others have an area for students to draw their own visual cues, which have meaning for them.

Students should be reminded to practice with the flash cards after they complete each related section of the book. They can take them when they exercise or go on road trips. Additionally, each day they can select a few cards

to take with them in their purse or pocket so that they are on hand during otherwise “wasted” moments such as when they’re stuck waiting in a line.

- If students review 5 to 10 different flash cards several times each day, they can easily memorize 35 to 70 new terms each week without using their “official” study time. Over 10 weeks, that adds up to 350 to 700 new terms! Repetition is the key to memorization; flash cards make repetition easy.
- If students color-code their flash cards, they will not only memorize the meanings of the word parts but will also memorize whether the word parts are suffixes, prefixes, combining forms, or pathology terms, without even making a conscious effort!
- The flash cards have terms with the same or similar meanings grouped together. Therefore, students will easily memorize two, three, or more terms in the time it would normally take to memorize just one.



# INTRODUCTION

The purpose of this Instructor Guide is to support you in creating a learning experience for your students that is both fun and effective. There is a big push for instructors to move away from a passive learning environment, where students sit quietly listening to lectures, to an active learning environment, where students participate in their learning experience. It is difficult for both instructors and students to change from what has been the norm for many years. The suggested class activities in this Instructor Guide and the Learning Style Tips in the textbook provide ideas and instructions for incorporating active learning experiences into class time and study time without investing a lot of time or money.

## OVERCOMING RESISTANCE TO ACTIVE LEARNING

Your students want to sit passively listening to your lecture. This is what is easy, and safe, and this is what they have always done. They don't want to stand, move around the classroom, speak aloud, or even speak to each other. Many students are afraid to do these things. It is especially important for medical terminology students to overcome these fears. They will be working in medical professions where they will constantly be meeting new people and having conversations with people who are basically strangers. Medical terminology students need to *get comfortable with being uncomfortable*.

How much are students really learning in a passive environment? Students of all ages tend to “tune out” during lectures at approximately 20 minutes. You have probably seen this happen in your classes. It doesn't mean that the material is boring, although we have all presented material that is important but not interesting. Perhaps the amount of information is overwhelming. You may have seen that “deer in the headlights” look on your students' faces. Active learning provides a break for the students while allowing the learning to continue. It increases their attention and arousal levels. It allows them to think about or apply the information given to them. It addresses multiple learning styles and introduces students to new ways of learning, retaining, and retrieving information.

At the beginning of a course, when I instruct my students to begin an active learning activity, I see them roll their eyes, and I hear them groan. As an older college student, I did the same thing when I was first introduced to this type of environment. I didn't want to interact with a class full of young students. Why would they even want to talk to me? I was extremely uncomfortable and instantly regretted choosing the course. I noticed, however, that everybody else seemed to feel the same way I did, which brought me some comfort. The instructor explained why we were doing the activity and how it would benefit us, which increased my comfort level a bit more. As we interacted with each other, we smiled and laughed. It didn't kill me to participate; it wasn't too bad at all. This quickly became my favorite class and I ended up taking every course this instructor offered. *I got comfortable with being uncomfortable*. Active learning activities made it easy for me to recall information and I didn't feel like I needed to study much for the exams! My other courses seemed boring and much more difficult.

After experiencing the benefits of active learning, I changed my teaching style. I include at least one activity, or game, in every class period. The increased popularity of television shows such as “Hollywood Game Night” and “The Tonight Show Starring Jimmy Fallon” help the students accept that playing games at school is not a childish behavior. I even use some of the games I see on television by substituting my own information for answers. This is really easy to do with game shows such as “Jeopardy!” There are numerous free websites that allow instructors to create games by inserting their own information.

I watch as my students overcome their fear of participation and actually have fun in class. I see improved quality of work, elevated exam scores, and higher final grades. Students report that they are more prepared for every class because they don't know what they will be asked to do. I continue to be surprised and impressed at the end of each semester when my students do their oral presentations. They are only required to deliver specific information but they *choose* to include class participation activities and competitions. I recently discovered that I have a reputation for being “the fun instructor” and that students are making an effort to get

into my classes. It was my students who encouraged me to write this book.

How do we get our students to overcome resistance to active learning activities? First, it's important to introduce this type of learning environment on the first day of class and let students know that they will be expected to participate throughout the course. Start with simple activities and, as the students get more comfortable with each other, progress to more-involved activities. Next, be consistent. Use active learning in every class session as you said you would. Last, be sure to give clear instructions and always explain why they are doing the activity and how they will benefit from participation. For group work, help students divide up and get to know their classmates better by providing instructions such as, "Find two classmates who were born in the same month as you" or "Find two classmates who are wearing the same color shirt as you."

## **COURSE PLANNING**

The textbook is designed to allow you to use all or part of each chapter. If your class meets two days per week and you will be using the entire chapter, you may want to spend one day on structure and function, combining forms, and abbreviations and one day on pathologies, procedures, and pharmacology. If you are not using the entire chapter, you will have more time in each class to focus on the sections you are using. Please note that Chapter 2 has more terms and abbreviations than the other chapters. You may need to spend additional time covering Chapter 2.

Take a good look at each chapter and decide what you will cover in class and what the students will need to cover on their own. Consider how much time you have in each class session. Try to limit any passive learning periods to under 20 minutes. Remember that there are interactive PowerPoint Presentations and an Image Bank available at *DavisPlus*. Here is a suggestion for an 80-minute class:

- A 10-minute attendance and announcement period that includes questions from the students and a review of the Learning Style Tips in the chapter. The textbook is designed to help students learn, retain, and retrieve information by using multiple learning styles. They should be reminded of the benefits of the Learning Style Tips feature.
- A 10-minute active warm-up that reviews material from the last class or material students were instructed to cover on their own. This is a good time to play flash card games or use crossword puzzles that you create online.
- A 30-minute interactive PowerPoint Presentation from *DavisPlus* **OR**

- A 15-minute lecture period that includes use of a PowerPoint, images, or videos and a 15- to 20-minute activity to reinforce, or allow for practice, of the material.
- A 15-minute lecture period that includes further use of a PowerPoint, images, or videos. This is also a good time to use "Think-Pair-Share" discussions.
- A 10-minute wrap-up activity to reinforce, or allow for practice, of the material. This is a good time to assess what the students learned on this day.

## **RESOURCES**

This Instructor Guide includes suggested class activities for each chapter in the book. Ideas and instructions are provided to help you keep students engaged through active learning. In addition, you may choose to utilize available resources such as:

- *DavisPlus* games, exercises, and quizzes
- *Medical Language Lab* tutorials and exercises
- Interactive PowerPoint Presentations
- Color pictures from the Image Bank
- Exercises in the textbook for each section of the chapter
- Printable Quizzes for each section of the chapter
- A Test Bank for creating your own quizzes and exams
- Tables of information for creating your own crossword puzzles and games such as Jeopardy! on your favorite website

## **FLASH CARD GAMES**

### **Partner Flash/Two Players:**

You will need one set of any number of flash cards. This is a good exercise to use when the student's partner is a friend or family member who is not learning medical terminology.

**Instructions to students:** Give selected cards to your partner to shuffle. The partner will flash each card in front of you, one at a time. You will agree on a preset amount of time (5 seconds or less) to name the correct meaning, or correct term, depending upon which side is being flashed. Run through the cards until you can name each of them within the designated time limit. If you make a pile of cards for those you answered correctly and a pile for those you answered incorrectly, you will know which terms you need to practice a bit more.

### **Single-Player Flash:**

You will need one set of any number of flash cards.

**Instructions to students:** Run through your cards alone, while racing against the clock. Challenge a

classmate with the same set of cards to see who can complete the cards correctly in the shortest amount of time.

### Single-Player Video Flash:

You will need one set of any number of flash cards and a video recording device.

*Instructions to students:* Shuffle your cards. One at a time, show a term on your card to your video recorder. Hold it there for 3 to 5 seconds before you flip your card, showing the meaning. As you watch your completed recording, the hold time will allow you to guess the meaning of the term before you see the correct answer. Make another recording in which you start by showing the meaning and then need to guess the term.

### Single-Player Audio Flash:

You will need one set of any number of flash cards and an audio recording device.

*Instructions to students:* Shuffle your cards. One at a time, read a term aloud into your audio recorder. Pause quietly for 3 to 5 seconds and then flip your card and read the meaning aloud. As you listen to your completed recording, the quiet pause will allow you to guess the meaning of the term before you hear the correct answer. Make another recording in which you start by reading the meaning aloud and then need to guess the term.

### Systems Game/One or More Players:

You will need the same set of systems flash cards for each player and blank pieces of paper with the name of each system written on top.

*Instructions to students:* Start by playing with cards from two systems such as the integumentary system and the nervous system. Slowly add cards from more systems to make your game more challenging.

Players use their own cards and their own papers. The papers with the system names are laid out in front of each player in whatever order they choose. Shuffle the cards and, when ready, begin matching cards to the system they belong to by laying them down on the correct sheet of paper. The first player to match all of his or her cards to the correct system is the winner. This game can also be played alone while racing against the clock.

### Speed/Two Players:

You will need two sets of the same flash cards. Students should be sure to label their cards with an identifying mark or color so that their cards can be returned to them at the end of the game.

*Instructions to students:* Players shuffle their cards, face each other, and, when ready, begin laying down

cards (each in a separate pile) at the same time. When players happen to lay down identical cards, the first one to correctly say the term and name the correct definition takes the matching cards from both piles and puts them aside. Matches will be infrequent at the beginning but will occur more and more frequently as cards are eliminated from play. The game continues until all cards are out of play. The winner is the one who collects the most pairs.

### Score Four/Three or More Players:

You will need one set of the same cards per player. Students should be sure to label their cards with an identifying mark or color so that their cards can be returned to them at the end of the game.

*Instructions to students:* Each player contributes a set of the same cards related to one or more body systems. All cards are shuffled together, and four are dealt to each player. Remaining cards are placed in a “draw” pile in the center of the table. The object of the game is to collect all four cards of a term. Because the cards have identifying data on both sides, the players will have to hold the cards so that no one else can see them. Players take turns asking other players for cards with a specific term. For example, the first player already has two cards with the term “gastr/o” and wants to collect the other two. On her turn, she would name another player and ask for all cards with the term “gastr/o” and would also pronounce the correct translation “stomach.” The other player must hand over all cards with that term. If the other player does not have that card, then the first player must draw a card from the draw pile. Once a player has collected all four cards, that player should lay them on the table and state the term and the correct translation aloud. If the player forgets these steps when laying down the cards, another player may claim the cards by stating the magic words “Score Four!” and must then pronounce the term and identify the correct translation. If the player is unable to name the correct translation (without looking), the original player keeps control of the cards. The winner of the game is the one with the most four-card matches when all cards have been played.

## WARM-UPS AND WRAP-UPS

Here are some examples of activities that can be used at any time during the class period but may work especially well at the beginning or end of class.

- *Abbreviation Integration and Translation:* The students will need one or more abbreviations tables. Divide the class into groups of two or three students. Instruct each group to create a sentence using as many abbreviations as possible. The sentence does

not need to be grammatically correct and can be comical, but the abbreviations must be used properly. The sentence is written on the board for the class to translate aloud.

- **Word Salad:** The students will need one set of combining form flash cards per team. Divide the class into groups of two or three students and make sure each group has a set of the chapter's combining form flash cards. Shuffle the cards and draw four from the stack. Each group must create a sentence using the terms on the four cards. They may add prefixes or suffixes of their choice. The sentence does not need to be grammatically correct and can be comical, but the terms must be used properly. After a preset amount of time, such as 5 minutes, each group will stand and read its sentence aloud to the class.
- **Pathology Name Game:** The students will need one set of pathology term flash cards per group. Divide the class into groups of four. Each group will then split into teams of two: Team A and Team B. On each team, one student will be describing a pathology, while the other student guesses the name of the pathology. Team A will play first. Shuffle the cards. Team B draws a card and shows only the name of the pathology to the student on Team A who will be describing it. The student may not see the description of the pathology. Team A is given a set amount of time, such as 30 seconds, for one student to describe the pathology, while the other student guesses the name of it. If a correct guess is made, Team A gets one point, and the card is set aside. If an incorrect guess is made, no point is given, Team B shows the card to Team A, and the card is set aside. Team B now plays for a point. At the end of a set amount of time, such as 15 minutes, the team with the most points is the winner.
- **Partner Flash:** Students will need one set of combining forms, abbreviations, and pathology terms flash cards per team. Divide students into teams of two. Student A will shuffle the cards and will flash each card in front of Student B. There is a set amount of time, such as 5 seconds or less, for Student B to name the correct meaning, or correct term, depending upon which side of the card is being flashed. Cards that were answered incorrectly can be placed in a separate pile so that they can be focused on in a second run-through. Repeat the game with Student B flashing the cards to Student A.
- **Systems Game:** Students will need one set of combining forms flash cards from three or more chapters per team. For every set of chapter flash cards being played, there must be a half-sheet of paper with the chapter name written on it. For example, if students are using the flash cards from Chapters 5, 6, and 7, their half-sheets of paper would be labeled nervous system, cardiovascular system, and lymphatic and immune system. Divide students into teams of two. Shuffle the combining forms flash cards into one pile. One team member will keep track of time, while the other member matches each card to the system to which it belongs by laying it down on the correct sheet of paper. The student should lay the cards down as fast as possible. When all cards are down, the team ensures that each card has been matched with the correct system. If any cards are matched incorrectly, the time doesn't count. The team members trade places, and the game continues. At the end of a set amount of time, such as 10 minutes, the class can be polled, and the student with the fastest time is the winner.
- **Pathology Pics:** Students are awarded one to two extra credit points for searching for pictures and more information on a pathology in the chapter and presenting their findings to the class. This activity should take less than 2 minutes per student. This activity can be used online.
- **I Heard It/I Read It:** Students are awarded one extra credit point for sharing a medical term that they heard on a television show, in a movie, in a video, or in a conversation; perhaps during a medical or dental appointment. They may also share a term that they read somewhere such as in a research study, in medical literature, or on a website. Students should stand and say, "I heard it (where)" or "I read it (where)." They must provide the term and the definition and must note whether the term was used correctly. This activity can be used online.
- **Crosswords:** Use definitions from the structure and function; combining forms; or pathologies, procedures, and pharmacology sections of the textbook to create your own crossword puzzles. Search for websites that allow you to do this for free. This activity can be used prior to, or immediately following, a lecture. If used before a lecture, the students who completed their assigned readings before class will finish this activity faster than those who did not. It can be an open- or closed-book activity.
- **Structure and Function Matching or Labeling:** Students are paired or grouped to complete the matching or labeling exercises from the structure and function section of the chapter. This activity can be used prior to, or immediately following, the structure and function lecture. If used before a lecture, the students who completed their assigned readings before class will finish this activity faster than those who did not. It can be an open- or closed-book activity.

- **Question Generation:** Each student writes one or more challenging exam questions with answers. The questions can be multiple choice, fill in the blank, matching, or ordering. Students may not write a true/false question. The instructor collects all of the questions and chooses which of them will be used on an upcoming exam.
- **Corners:** This activity can be used as an alternative to students raising their hands to answer questions. Each corner of the room can represent a multiple-choice or true/false answer. After a question is asked, students go stand in the corner that they think is the correct answer.

## **SUGGESTED CLASS ACTIVITIES**

For each chapter, you will find:

- A list of the resources available to you. This list includes a reminder that you can find websites that allow you to use your own information to create crossword puzzles or games such as “Jeopardy!”
- A compilation of all of the Learning Style Tips in that chapter. Please review these with the students in case they skipped over them as they read their textbook. It is important for them to recognize the benefits of this feature.
- Think-Pair-Share Discussion Questions that correspond to the case study in that chapter. For Think-Pair-Share discussions, students are asked a question. First, they think about the answer and may even write their thoughts down on paper. Next, they pair up with a classmate to discuss their thoughts regarding the question. Last, they discuss their thoughts with a group of classmates or they share their final answer aloud, speaking to the entire class.
- Ideas and instructions for Active Learning Classroom Activities. Some of the activities include handouts that you can print out to use immediately in the classroom. Many of the activities can be modified slightly for use in an online classroom or on a social media site.
- A set of printable quizzes that correspond to the sections in that chapter. There is a quiz for combining forms, abbreviations, pathologies, and pharmacology. There is no quiz for structure and function as there are comprehensive exercises for this section in the textbook. The textbook exercises allow students to match terms with definitions and to label structures. You may want to use these exercises as group activities in the classroom.





# Learning Styles

## RESOURCES

- *Davis Plus* games, exercises and quizzes
- *Medical Language Lab* tutorials and exercises
- Interactive Power Point Presentations
- Color pictures from the Image Bank
- Exercises in the textbook for each section of the chapter
- Printable Quizzes for each section of the chapter
- A Test Bank for creating your own quizzes and exams
- Tables of information for creating your own crossword puzzles and games such as Jeopardy! on your favorite website

## LEARNING STYLE TIPS

*There are no Learning Style Tips in the Preface or Chapter 1. Instead, call attention to the textbook and online resources that have been provided to facilitate student success and the suggested study strategies for the four learning styles. Log on to Davis Plus and Medical Language Lab to demonstrate how to access the online materials.*

### In the Textbook

- Nearly 200 flash cards
- Flash card games
- A workbook format
- Learning Style Tips
- Flashpoints and Boxes
- Color-coded tables
- Structure and Function section with exercises
- Combining Forms and Abbreviations section with exercises
- Pathologies, Procedures, and Pharmacology section with exercises
- End-of-chapter exercises

### Online at Davis Plus

- Hundreds more printable flash cards
- Audio glossary
- Interactive audio exercises
- Listening exercises
- Labeling exercises
- Memory games
- Concentration games
- Interactive flash cards
- Practice quizzes

### Online at the Medical Language Lab

- Audio tutorials and pronunciation guides
- Critical listening exercises
- Response exercises
- Term-generation exercises, both spoken and written
- Word-building exercises
- Labeling exercises
- Crosswords and more

### Visual Learning Devices

- Written words
- Diagrams
- Shapes
- Patterns
- Colors
- Symbols
- Illustrations
- Graphs
- Photos
- Tables
- Flowcharts
- Time lines

- Maps
- Handouts
- Posters
- Flash cards
- PowerPoint presentations
- Internet data
- Videos
- Live demonstrations
- Mnemonics
- Acronyms

### Auditory Learning Devices

- Audio recordings of lectures
- Audio recordings of your own voice
- Videos with sound
- Online exercises or tutorials with sound
- Oral discussions
- Hearing mnemonics
- Music
- Partner flash cards

### Verbal Learning Devices

- Reciting data aloud
- Explaining concepts aloud
- Describing pictures, charts, graphs, etc. aloud
- “Teaching” others
- Speaking during a demonstration
- Oral discussions
- Speaking mnemonics
- Partner flash cards

### Kinesthetic Learning Devices

- Touching or manipulating objects and models
- Physical demonstrations
- Physical simulations
- Practicing a skill
- Flash cards

## THINK-PAIR-SHARE DISCUSSION QUESTIONS

*The students must have read Chapter 1 and completed numbers one and two in the Chapter Activities before*

*participating in this discussion. Use these questions with the Active Learning Classroom Activity number 2, below.*

1. Briefly describe what you learned about your strengths and what may be your preferred learning style(s). Do you agree? Why or why not?
2. Identify some new study strategies you are willing to try. Are they solitary or social types of learning activities?

## ACTIVE LEARNING CLASSROOM ACTIVITIES

*\*Activities with an asterisk can be modified slightly for use in an online classroom or on a social media site.*

1. Use an “icebreaker” such as having students line up in alphabetical order by first name to help them get to know each other. When they have formed their line, have each student say their name aloud, in order, from A to Z.
2. *\*What’s Your Style? Part One:* Make four columns or rows on the board and label them with each of the sensory learning styles: visual, auditory, verbal, and kinesthetic. Ask each student to randomly stand and briefly answer the *Think-Pair-Share Discussion Question* number one above. Make a mark in each column that represents the student’s learning style, even if he or she reports more than one. As a variation, have each student get up and mark the board in the appropriate column(s) and continue to part two of the activity.  
*\*What’s Your Style? Part Two:* Designate four areas in the room as the visual area, auditory area, verbal area, and kinesthetic area. After completing part one above, have the students go stand in the area that represents their answer to discussion question number one. If their answer included more than one learning style, they will need to choose which area *best* represents them. Give the groups in each area 5 to 10 minutes to share ideas about their answers to *Think-Pair-Share Discussion Question* number two. Each group will take turns reporting its findings aloud to the class.



**Chapter 1 Quiz****Name:** \_\_\_\_\_

Circle “True” or “False” for each of the following statements.

- |      |       |  |
|------|-------|--|
| True | False | 1. “Cramming” for an exam will help you store information in your long-term memory, which enables you to pass your exam and recall the information later, in your future career. |
| True | False | 2. Making and listening to an audio recording of yourself as you read your notes aloud uses your visual, verbal, and auditory learning styles.                                   |
| True | False | 3. You are able to use all four learning styles if you participate in flash card games with a partner.   |
| True | False | 4. Making and watching a video of a classmate who is speaking aloud while practicing a skill uses your visual, verbal, auditory, and kinesthetic learning styles.                |
| True | False | 5. All people perceive, understand, and remember information in the same way.  |
| True | False | 6. Making and watching a video of yourself as you explain all of the components of a piece of equipment uses your auditory, visual, verbal, and kinesthetic learning styles.     |
| True | False | 7. Mnemonics are memory aids that are useful when you need to remember lists or sequenced pieces of information.   |
| True | False | 8. Solitary learners may enjoy using online discussion boards and social media for group assignments.  |
| True | False | 9. Acronyms are abbreviations created by using the first letters or word parts in names or phrases.  |
| True | False | 10. Analytical learners generally see the big picture first and later pay more attention to the details.   |
| True | False | 11. Relating the information being studied to strong emotions or significant events decreases your ability to store the information in long-term memory.                         |
| True | False | 12. Reading your textbook quietly to yourself only uses your visual learning style.  |

# Answers

## Chapter 1 Quiz

---

1. False
2. True
3. True
4. False
5. False
6. True
7. True
8. True
9. True
10. False
11. False
12. True

# Answer Key to Textbook Practice Exercises

## Chapter 1

### MATCHING

#### Exercise 1

1. b 2. d 3. c 4. f 5. e 6. a

### TRUE OR FALSE

#### Exercise 2

1. False 2. True 3. True 4. False 5. True

### MULTIPLE CHOICE

#### Exercise 3

1. a 2. c 3. c 4. c 5. c 6. b 7. a  
8. d 9. b 10. d

### TRUE OR FALSE

#### Exercise 4

1. True 2. False 3. False 4. True 5. True

### MULTIPLE CHOICE

#### Exercise 5

1. b 2. e 3. d 4. c 5. d 6. c 7. c  
8. a 9. d 10. b

## Chapter 2

### FILL IN THE BLANKS

#### Exercise 1

- |                    |                     |
|--------------------|---------------------|
| 1. Combining Vowel | 9. Combining Vowel  |
| 2. Abbreviations   | 10. Prefix          |
| 3. Suffix          | 11. Word Root       |
| 4. Documenting     | 12. Symbols         |
| 5. Combining Form  | 13. Pathology Terms |
| 6. Abbreviations   | 14. Suffix          |
| 7. Acronyms        | 15. Pathology Terms |
| 8. Word Root       |                     |

### FILL IN THE BLANKS

#### Exercise 2

- |                      |                  |
|----------------------|------------------|
| 1. -iatrics, iatry   | 3. -plasty       |
| 2. -logist, -ologist | 4. -cidal, -cide |

5. -graphy

6. study of

7. surgical fixation of bone  
or joint, binding, tying  
together

8. excision, surgical  
removal

9. measurement

10. visual examination

### TRUE OR FALSE

#### Exercise 3

1. False 2. True 3. True 4. True 5. False  
6. False 7. True 8. True 9. False 10. False

### FILL IN THE BLANKS

#### Exercise 4

- |                                       |                         |
|---------------------------------------|-------------------------|
| 1. -acusia, -acusic, -cusis           | 6. -rrhage and -rrhagia |
| 2. -opia, -opsia, -opsis,<br>-opsy    | 7. -phage and -phagia   |
| 3. -phoria                            | 8. -emesis              |
| 4. -osmia                             | 9. -lysis               |
| 5. -gen, -genesis, -genic,<br>-genous | 10. -rrhexis            |

### TRUE OR FALSE

#### Exercise 5

1. False 2. False 3. True 4. False 5. True  
6. True 7. True 8. False 9. False 10. False

### FILL IN THE BLANKS

#### Exercise 6

- |                    |              |
|--------------------|--------------|
| 1. -gravida        | 6. -phonia   |
| 2. -lith           | 7. -static   |
| 3. -lepsy, -leptic | 8. -stenosis |
| 4. -cele           | 9. -oma      |
| 5. -malacia        | 10. -oid     |

### TRUE OR FALSE

#### Exercise 7

1. False 2. True 3. False 4. False 5. True  
6. False 7. False 8. True 9. True 10. True