

Steps for Technical Reading

1. Pre-read: *Goal is to understand the scope of what you are supposed to learn*
 - a. Scan the selection and look at the section titles, captions, bolded vocabulary words, and section or chapter summary
 - b. Turn the section titles into questions
 - c. How does this material relate and connect to what you already know and have learned in class?
 - d. What do you think your teacher will test you on?
 - e. Put it all together into a list of learning objectives for the reading selection (mental list or you can write it down)
2. Clarify Vocabulary: *Goal is to learn what words mean so they do not get in the way of you understanding what you read*
 - a. Scan the section for words you do not understand
 - b. Take time to find the definition for all words you do not know, especially those in bold. You can often figure out what a word means from context clues. The definitions for words in bold are often given on the same page.
3. Read for Understanding: *Goal is to understand the meaning of a section in and of itself*
 - a. Read a paragraph. As you read, replace any difficult/unfamiliar words with their definitions.

Example:

When you read this:

“The *alveoli* of the lungs of people who smoke cigarettes develop *fibrosis* thereby reducing the *surface area* for *gas exchange*.”

You would change it to this in your head:

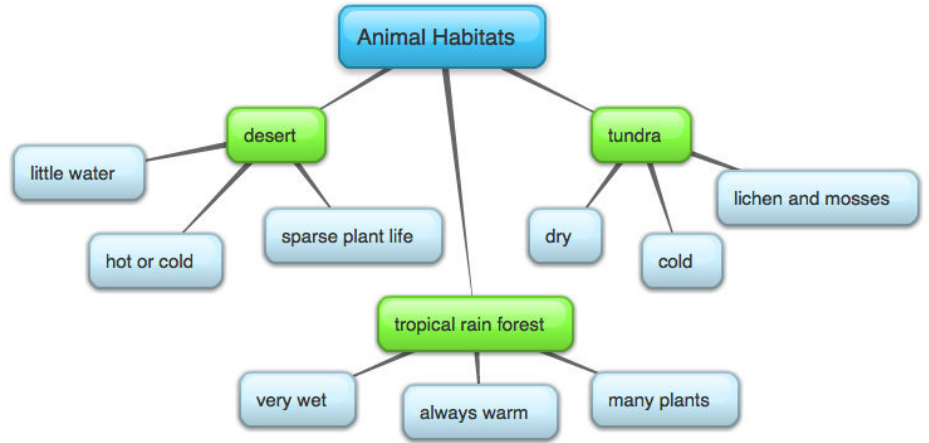
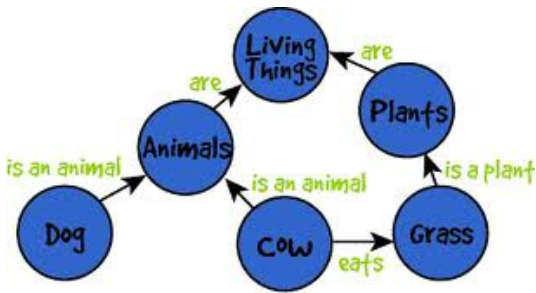
“The *tiny air sacs* in the lungs of people who smoke cigarettes develop *scar tissue* thereby reducing the *amount of surface* available for *oxygen to enter the blood and carbon dioxide to move out of the blood*.”

- b. Think about what you read and reread it as needed until you understand what it means. If you do not understand, then either you have not clarified all of the words you do not know or you do not understand a foundational concept of the material and you need to stop and take time to look up and study that material. For example, in the example above, if you have not already learned about gas exchange then you are not going to understand why surface area is important in the lungs and how they are affected by changes in surface area due to scarring.
4. Connect to Prior Concepts: *Goal is to understand a section as part of the bigger picture*
 - a. Identify how this new content is related to the content you read in previous sections or will read about in future sections (remember your list of learning objectives?)
 - b. Identify how this content is related to other material you have learned in class, especially any material learned in previous sections of the book.
5. Summarize: *Goal is to store the information in a shorter form that will help jog your memory at a later date*
 - a. Create lists and graphic organizers to help you remember main concepts and connect them to one another
 - i. Distinguish between things that you will need to take time to memorize (content) and those for which you will need to understand the connections and relationships between ideas (concepts)
 - ii. Lists and tables are a good way to summarize content – use memorization techniques like mnemonics to help you memorize what you need to know

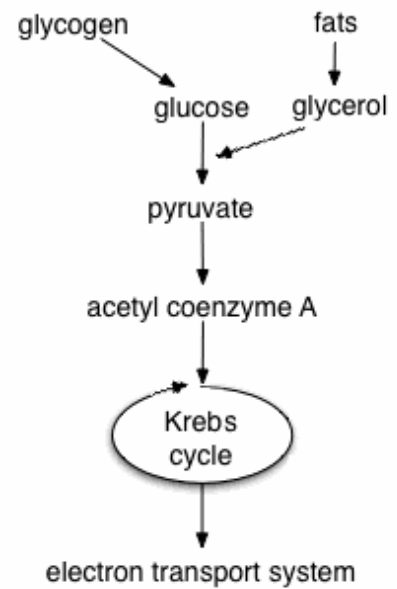
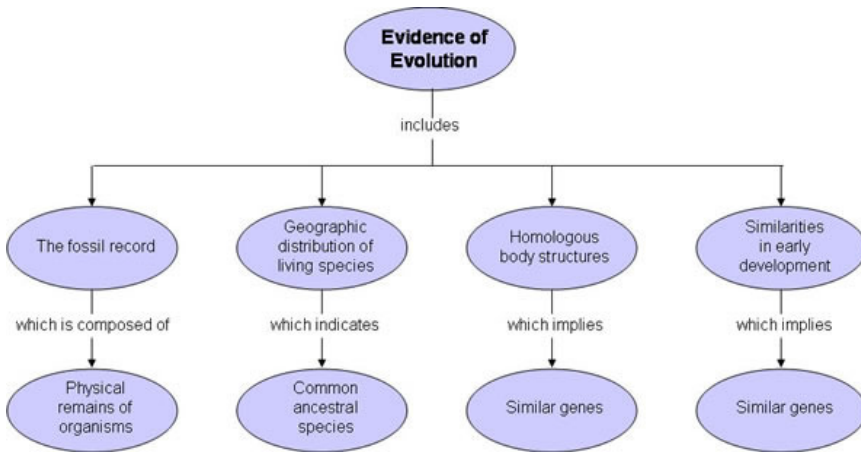
Example: “Kings Play Chess On Fine Grain Sand” is a popular mnemonics for learning the order of classification of living organisms, which is Kingdom, Phylum, Class, Order, Family, Genus, Species (notice that the first letter of each word in both phrases is the same)
 - iii. Graphic organizers are a good way to summarize concepts – use mnemonics to help you memorize key words for recalling key components of a concept
 - b. Always include key vocabulary in your summaries; pictures are a good way to remember vocabulary
 - c. Review your summaries to make sure they address all of your learning objectives

Graphic Organizers

CONCEPT MAPS



FLOW CHARTS



VEN DIAGRAMS

Characteristics of 2 Basic Cell Types

