

Etymology in Scientific Vocabulary

How Latin and Greek Shape the Language of Science

What is Etymology?

- Etymology is the study of the origin and history of words
- Understanding it helps us put together words and their meanings.
 - Sometimes words change their meaning as the years pass and knowing their history can give us insight on how that change may have happened.
 - Example: Explode — It's original meaning was to drive from a stage by a noisy expression of dislike (similar to the opposite of applause)

Why It Matters in Science?

- Many scientific terms are derived (come from) Latin and Greek.
- Knowing more origins of words allows you to decode unfamiliar words you come across in all fields — NOT JUST SCIENCE!

Why Greek and Latin?

- Greek and Latin, while considered a “dead” language have provided ancient scholars with the language for learning and documentation.
- Their vocabulary is very stable and definitions don’t change as a living language would.
- Over 90 percent of scientific vocabulary comes from Greek or Latin.

Common Prefixes in Scientific Terms

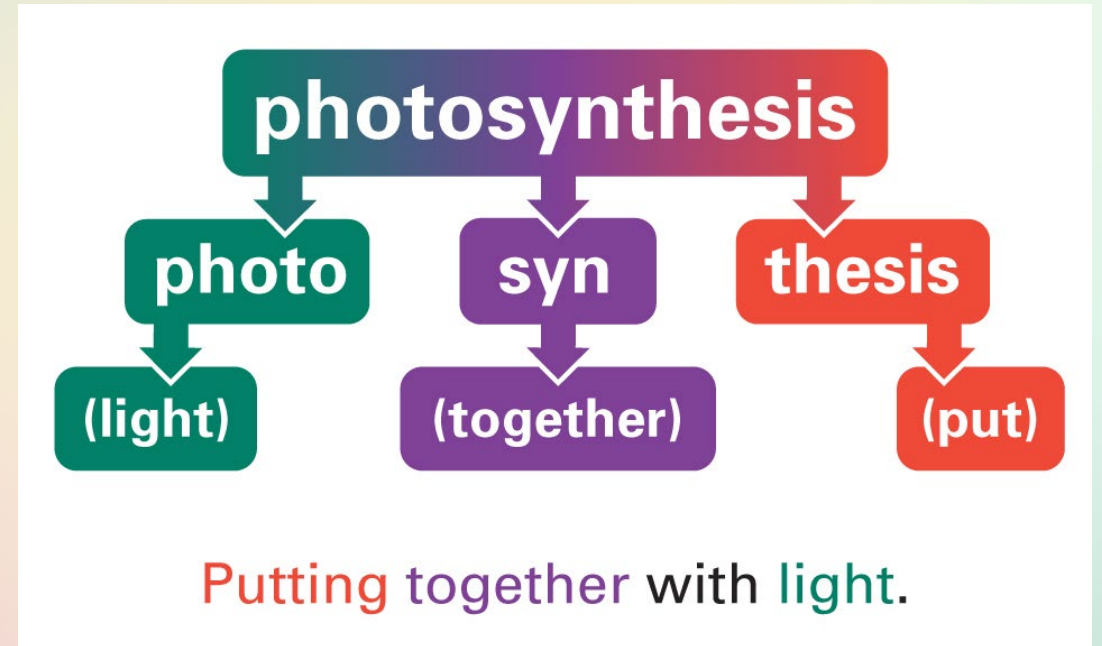
- Bio
 - Means — Life
 - Examples — Biome, Biology
- Photo
 - Means — Light
 - Examples — Photon, Photosynthesis
- Thermo
 - Means — Heat
 - Examples — Thermos, Thermometer

Common Roots and Suffixes

- -logy
 - Means — The study of
 - Examples — Geology, Biology
- -phyll
 - Means — Leaf
 - Example — Chlorophyll
- -meter
 - Means — Measure
 - Examples — Thermometer, Speedometer

Word Breakdown Example

- Photosynthesis
 - Photo — means light
 - -Synthesis — means putting together
 - Meaning of the word: The process of using light to assemble substances (like glucose)



Why Learn Etymology?

- Benefits you as a learner and scientist
 - You can decipher new terms more quickly.
 - You can build a deeper understanding of concepts.
 - You can improve your communication and retention of information.
- Fun Fact! Learning Latin and Greek roots can also improve your SAT and ACT scores!

Etymology Practice

- Break the following terms into prefixes, roots, and suffixes, then guess their meanings.
 - Seismology
 - Greek: seismos - earthquake, logos - study
 - Electrolysis
 - Greek: elektron — amber (affiliated with electrical phenomena), lysis - loosening
 - Autotroph
 - Greek: autos - self, trophe - nourishment

Where do new words come from?

- [https://www.youtube.com/watch/Ytr28t5VzAs&list=PLypJTDOVG\\$IP2v4IXv9pGTD-rpZ4E3Gf\\$&index=66&pp=gAQBiAQB](https://www.youtube.com/watch/Ytr28t5VzAs&list=PLypJTDOVG$IP2v4IXv9pGTD-rpZ4E3Gf$&index=66&pp=gAQBiAQB)