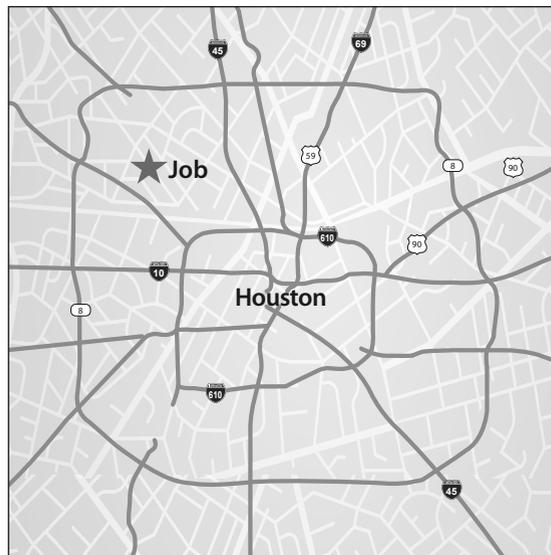


# Introduction

Imagine that you are moving to one side of a major city, but your job is on the opposite side. Sometimes, the job requires you to travel to various locations around the city or even another location within the state. Access to highways and airports is important.



If faced with this scenario, what criteria might you consider regarding a potential commute?

- Is there quick access to at least one major highway?  
Highways generally provide faster routes than city streets with traffic lights.
- Do multiple routes exist from your home to the office?  
If a wreck occurs and blocks one route, another route would be helpful.

Think of the connections between a home, an office, and various other places as a spider web (minus the stickiness and spider, of course). If you need to travel from one side of a spider web to another, the routes are nearly endless.

So what does that analogy have to do with this book? You guessed it. Considering multiple paths between your home and office is similar to how we should consider accessing vocabulary words. Do we or our students know the words well enough to access them in multiple ways? If one path is blocked, can we or our students access a word via another path? That's the goal!

Word memory should be triggered by our senses, experiences, motions, associations, and so much more. The more pathways that exist, the easier and faster we can all retrieve words.

Vocabulary can be categorized as conversational or academic. Our everyday language is considered conversational and at times, informal. Academic vocabulary is more formal and is used to speak about the content we're learning. Both types of vocabulary are useful in many contexts. Building academic vocabulary is a vertical responsibility and challenge, and as educators, it's up to us to teach and help students master it. Instead of reteaching the same words every year, students should review the words they've previously been taught while focusing on widening their vocabulary banks with new words in every grade level. Also critical is realizing that science teachers of all levels are reading teachers because students must be able to read, write, and infer meaning to be successful in science. We can reinforce and provide students with opportunities to communicate through speaking, reading, writing, and listening in science. Imagine what an invaluable, irreplaceable, life-long gift that would be for both the students and the teachers who follow. The larger students' vocabularies grow, the more

information they will be able to process. Think of how many words they could master by graduation.

Vocabulary acquisition is not isolated to one content area. It requires time and effort in all subjects. Intertwining and relating content areas is an effective way to expose learners to science vocabulary from an early age. Continuing this practice is critical for students' success as they age. For example, use reading passages in an English course that address science content. Focus on teaching measurement and conversions in math and science using the same, consistent language. Know how to align the teaching of social studies and science concepts. All of these actions contribute to students learning science vocabulary.

One of the biggest challenges teachers face is how to tackle vocabulary words.

- How do we help students commit vocabulary words to memory?
- How do we choose vocabulary words with the greatest impact on student learning?
- How do we teach vocabulary words to all students?

These questions and more will be answered in this book.