

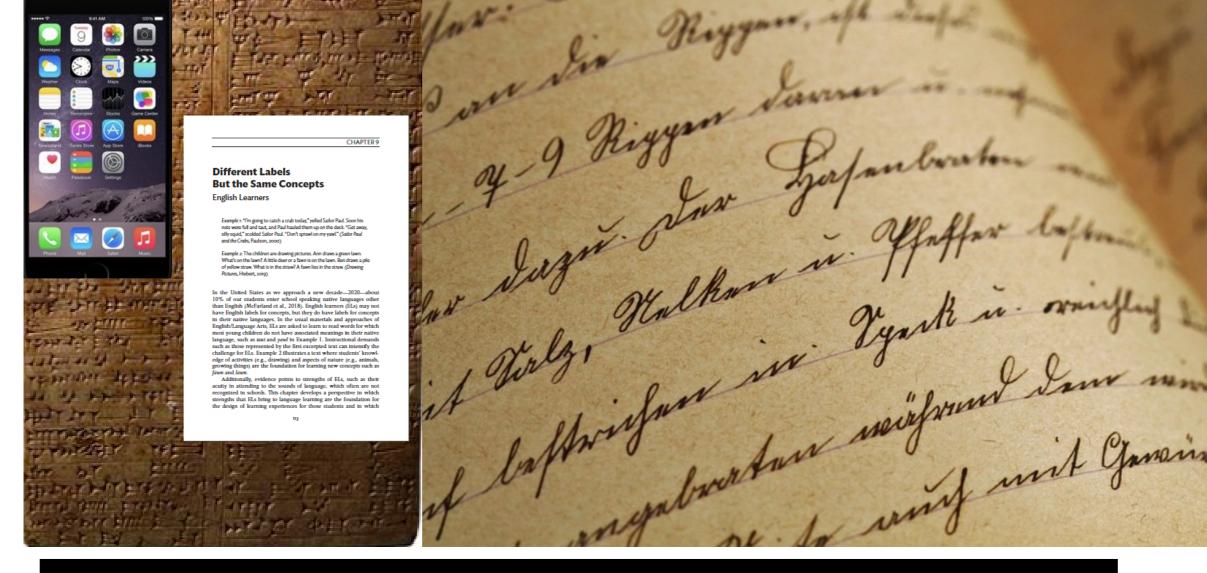
Elfrieda (Freddy) H. Hiebert TextProject

### **Decoding English**

- I. Critical Features of English Vocabulary
  - Written language is more complex than oral.
    - English has a very large lexicon.
- II. What an Etymological Language Means for:
  - Orthography
    - Morphology
      - Semantics

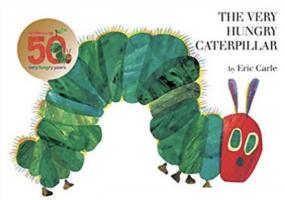
I. Critical Features of English Vocabulary

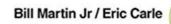




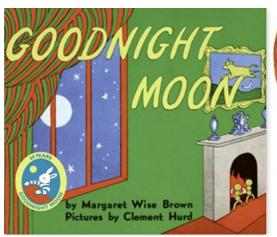
## A. The vocabulary of texts is more complex than the vocabulary of typical conversations.

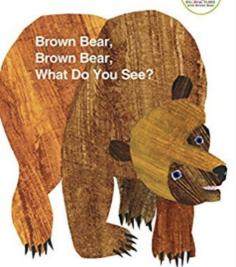


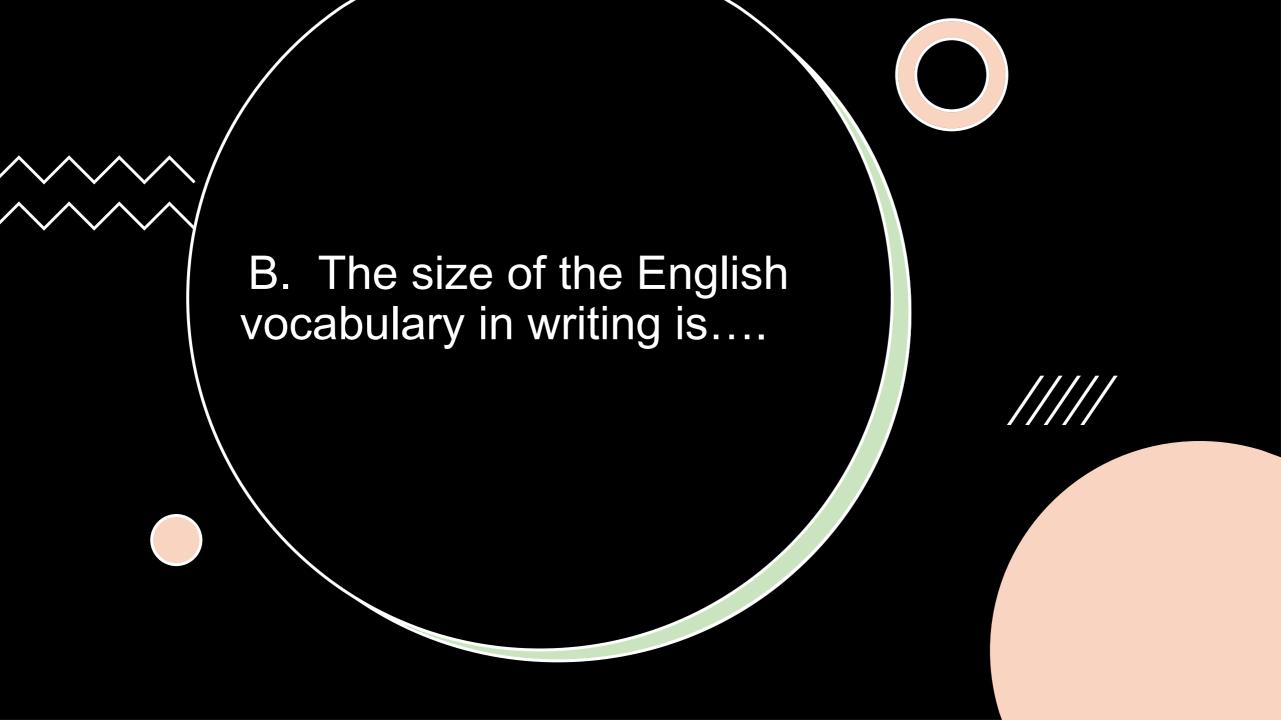












### gargantuan

### enormous

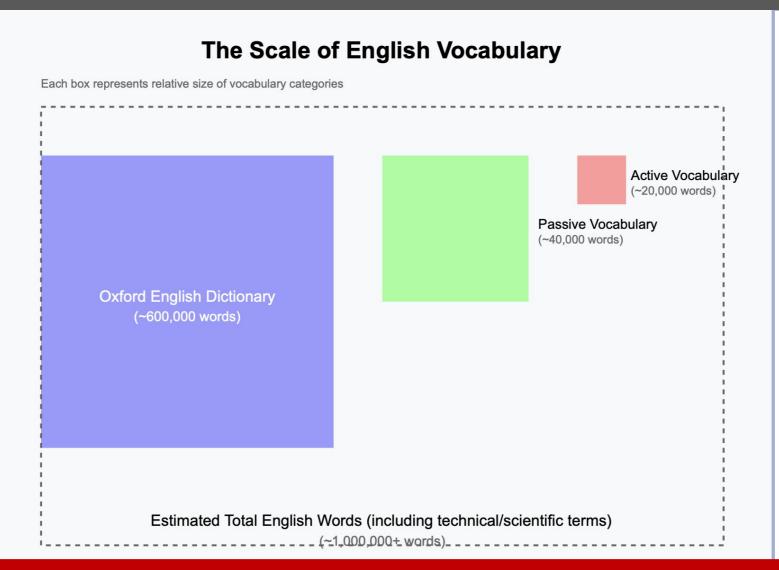
### humongous

### massive

### immense

### monumental

### colossal



And this doesn't include multiple meanings of words (e.g., root: 14 meanings (WordNet) word: 11 meanings (Word Net)





### The Sources of English Vocabulary



II. What an Etymological Language Means for:

- Orthography
- Morphology
- Semantics



## Orthography

## Layers of English: Grapheme-Phoneme Correspondences (GPC)

Types of Grapheme- Phoneme Correspondences	Anglo-Saxon	French/Latin	Greek
One to one correspondence	cat, hat, man		
Two adjacent vowels:	meet, team	ie: piece eu: feud ou (each pronounced differently): cough, though, through, bough	eu: euphoria
Final e	bite, hope	serve, dance	
Consonants	gh: <i>rough</i>		ph /f/: philosophy
Unique		eau: bureau	y as a medial vowel: myth

## English is a quasi-orthographic language.

• English words are **always alphabetic** but the patterns, especially of vowels, can vary considerably (≈106 patterns).

#### The cat was on the table.

- The letter 'a' in these words:
  - cat (/æ/ sound)
  - was (/ə/ sound)
  - table (/eɪ/ sound)

### It was rough when she coughed through the night, even though she had used her inhaler.

- The 'ough' pattern:
  - through (pronounced /uː/)
  - though (pronounced /oʊ/)
  - rough (pronounced /\nf/)
  - cough (pronounced /pf/)

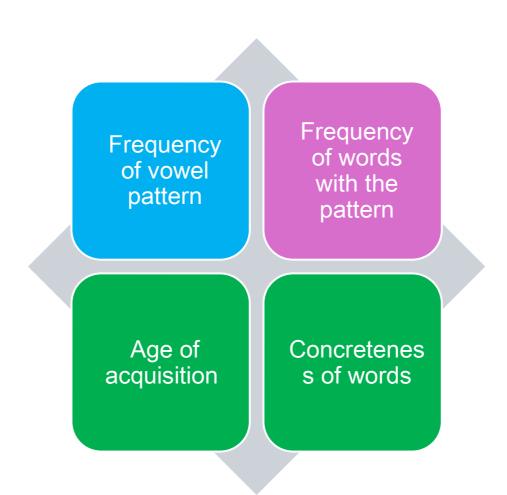
# Solutions to the complexity: Scientists' recommendation

- •Automatic connections come from substantial interactions with print: "Readers become orthographic experts by absorbing a lot of data, which is one reason why the sheer amount and variety of texts that children read is important... Major statistical patterns emerge as the child encounters a larger sample of words." (Seidenberg, 201, Language at the speed of sight, p. 92)
- •It follows that phonics instruction should aim to teach only the most important and regular of letter-to-sound relationships, because this is the sort of instruction that will most directly lay bare the alphabetic principle. Once the basic relationships have been taught, the best way to get children to refine and extend their knowledge of letter-sound correspondences is through repeated opportunities to read." (Becoming a Nation of Readers, 1985 p. 38)

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## Word Features in Texts That Shape Beginning Reading



# Total Appearances of Monosyllabic Words with Phoneme **CI**

Graphe me	Phoneme	#Total appearances in 1 million words
ai	rain	1267
a + final e	rate	3743
ay	ray	5184
eigh	reign	264
ea	break	905
еу	they	6052
a (open syllable)	ratio	
е	cafe (e at end)	

### Number of Monosyllabic Words with Phoneme **EI**

Grapheme	Phoneme (exemplar word)	#Total appearances in 1 million words	#Unique words Monosyllabic
ai	rain	1267	26
a + final e	rate	3743	26
ay	ray	5184	24
eigh	reign	264	13
ea	break	905	3
еу	they	6052	5
a (open syllable)	ratio		0
е	cafe (e at end)		0

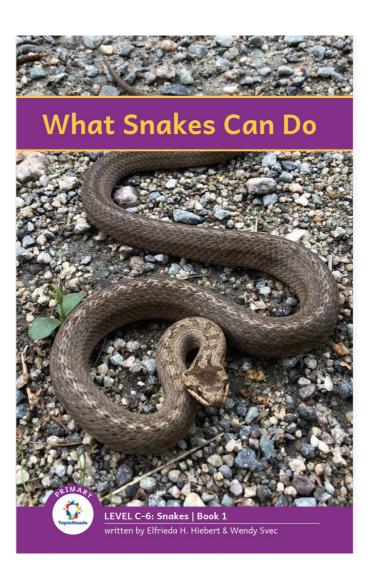
Number of
Monosyllabic
Words with
Appropriate A
oA &
Concreteness
for Phoneme

EI

Grapheme	Phoneme	#Unique words Monosyllab ic	#Total appearances in 1 million words	#words: age of acquisition =6 or less (high concreteness)
ai	rain	26	1267	13 (9)
a + final e	rate	26	3743	14 (7)
ay	ray	24	5184	14 (10)
eigh	reign	13	264	2 (2)
ea	break	3	905	2 (1)
еу	they	5	6052	1 (0)
a (open syllable)	ratio	0		
е	cafe (e at end)	0		







### TopicReads-Primary: Openaccess @textproject.org



Snakes do not have fins, like fish.

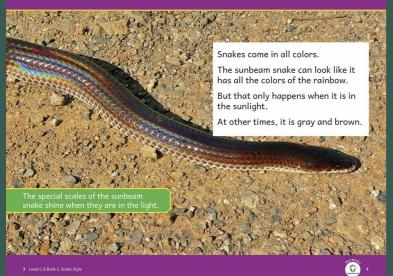
Yet some snakes can swim in the sea.

Some snakes like to float on the water.

eval Culi Rook 1 What Snoker Can Do

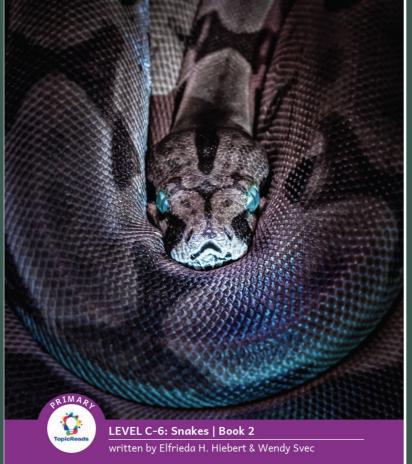






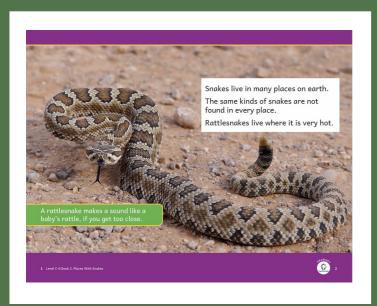


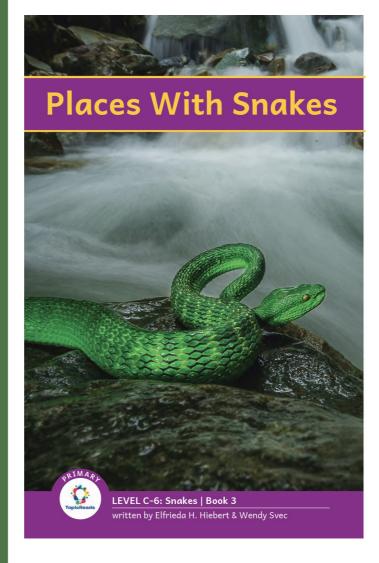
### **Snake Style**







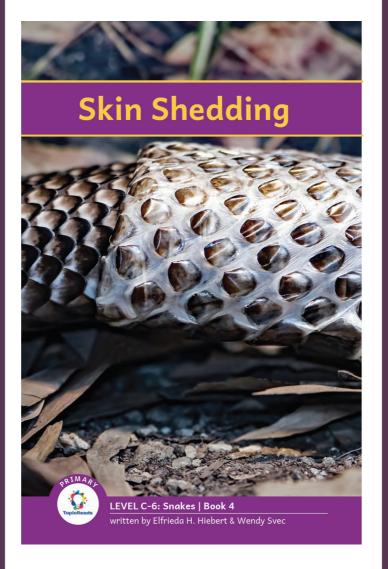


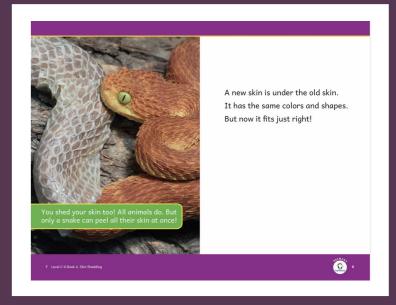


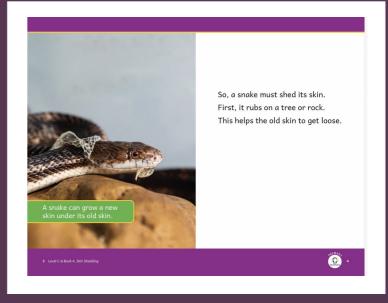










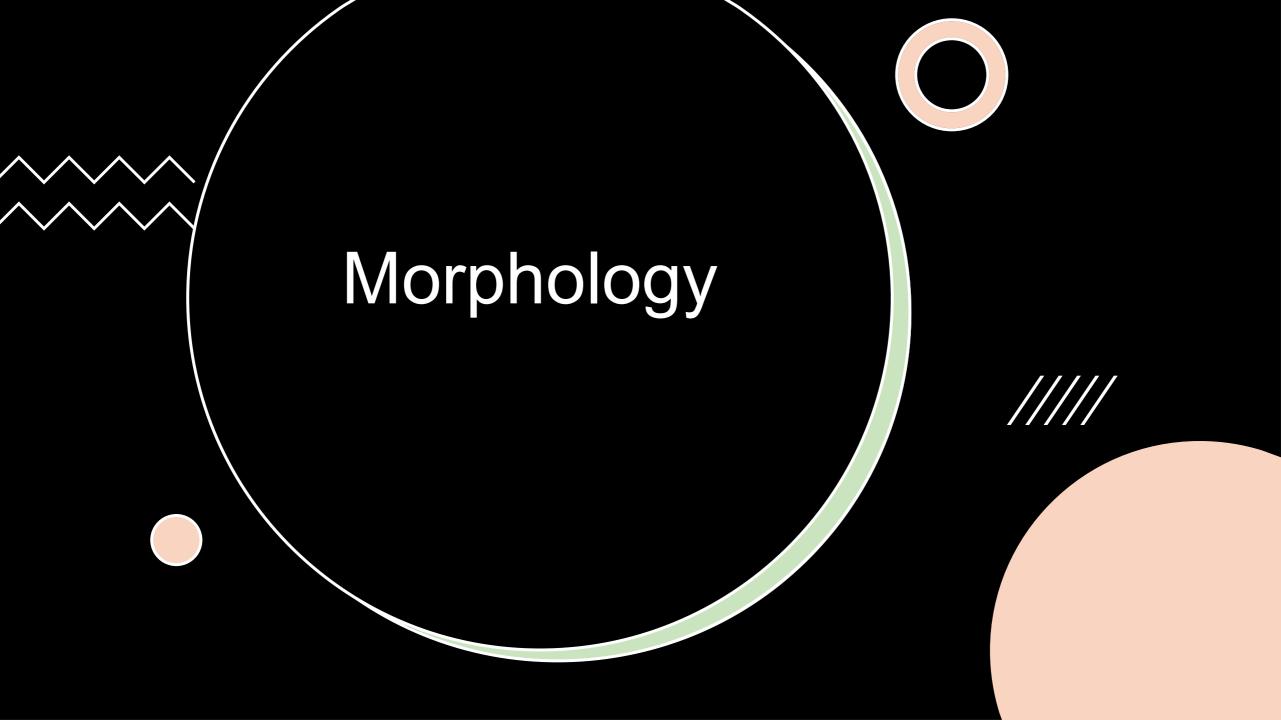


## Stance Toward GPC Coverage in Current Curriculum

- "Intensive intervention program: Approximately 9,000 words of decodable text: two decodable reading selections/passages per sound-spelling determined by the instructional sequence of letter-sound correspondences who will need this instruction. Careful attention must be given to this age group for which these decodables are designed to ensure the content is age-appropriate and engaging for students in grades four through eight."
  - California Department of Education Framework for English/Language Arts, 2015)
  - •"Instruction in Grades K–2 explicitly teaches the 150 spellings for the 44 sounds of English, following an intentional progression to ensure student success."

Amplify CKLA (2024). Developing foundational skills with explicit, systematic instruction. Retrieved from

https://amplify.com/programs/amplify-core-knowledge-language-arts/



### Layers of English: Morphology

Morphologica I Form	Anglo-Saxon	French/Latin	Greek
Affixes	un- <i>unhappy</i> -ness: <i>happiness</i>	de- deactivate -tion: action	a- atypical ism: capitalism
Inflected endings	walked, walks, walking	alumnus/alumni alga/algae	crisis/crises criterion/criteria
Compounding/ Complex phrases	homework, cowboy	weather patterns* food chain	telephone, microscope

•In German, these concepts are compound words, not complex phrases:

weather patterns: Wettermuster

food chain: Nahrungskette

## Start early: Anglo-Saxon morphological forms

### Inflected endings:

- •stopping
- •stopped
- •stops

### Compound Words:

- stoplight
- stopwatch
- backstop
- doorstop
- stopover
- pitstop
- bus stop
- truck stop
- stop sign

### **Simple affixes:**

-er - teacher, worker

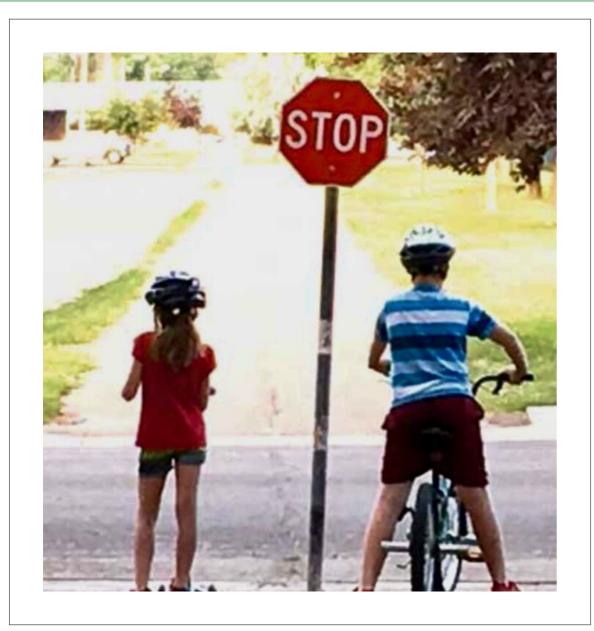
-ful - helpful, beautiful

-ly - quickly, slowly

-y -sunny, rainy

un- unhappy, unlock

mis- misuse, misplace



#### The Big Red Sign

Sam and Meg were on their way to school. Sam saw the big red sign at the corner.

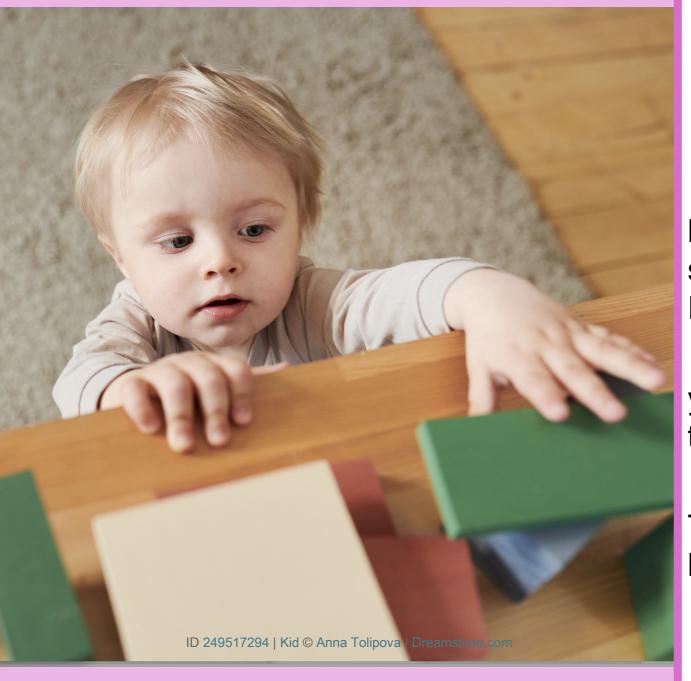
"STOP!" said Sam. "We need to stop here and look both ways."

Meg stopped next to Sam. They watched as cars stopped at the sign too.

"The cars are stopping because of the sign," said Meg.

"Now it's safe," said Sam. "Let's go!"





#### **Tomas, The Helper**

Tomas saw his little brother reaching hopelessly for a toy. His brother was still sleepy and the toy was on a dusty shelf. It was too high for him to reach.

Tomas quickly ran over. "I can be your helper!" he said. His brother was thankful when he got his toy.

Then the two children played happily. Tomas liked being a helpful, older brother.



### French-Latin affixes: Limitations of an affix-only instructional approach

#### 1re-

- a. Again or repeat:
- rebuild
- rewrite
- b. Back or return to a previous state:
  - retreat
  - restore

#### 2. **dis:**

- a. Apart/away
  - disconnect
  - disperse
- b. Not/opposite
  - dislike
  - disapprove

#### 3. **sub-**

- a. Under/below
  - •submarine
  - •submerge
- b. Secondary/lesser
  - •subplot
  - suboptimal

#### 4. counter-

- a. Against/opposing
  - counterattack
  - counterpoint
- b. Reciprocal/corresponding
  - counterpart
  - counterbalance

# Creating Morphological Families

#### announce

#### **Verb Forms**

announces announced announcing

#### **Noun Forms**

announcers
announcement
announcements

#### **Re- Forms**

reannounced reannouncing reannouncement

#### **Pre- Forms**

preannounced preannouncing preannouncement

#### **Un-Form**

unannounced

# Morphologi cal Family Members

Fill in the blank with the correct word.

Words to choose from:

announced announcement announced announced

- The baseball \_\_\_\_\_ spoke clearly into the microphone.
- 2. The principal made an \_\_\_\_\_ about the pizza party.
- My cousin made an \_\_\_\_\_ visit with her new puppy.
- 4. The teacher \_\_\_\_\_ the winner of the art contest every Friday.
- 5. Mom \_\_\_\_\_ that we could get ice cream after dinner.
- The student is \_\_\_\_\_ the weekly lunch menu over the speakers.

# The World's Greatest Mispronouncer



Jake groaned as the game show announcer butchered his aunt's company name for the third time. "Welcome back to 'Win Big or Go Home!' featuring our amazing sponsor, PURE-zone Air Purifiers!"

"It's PURI-zone!" Jake shouted at the TV. "Like PURIFY and ZONE together! How hard is that?"

The announcer's mispronunciations got wilder as the show went on. "And now, a special deal from PRIME-zone. I mean, PRIZE-zone Air Purifiers!"

Jake couldn't take it anymore. He started recording the mistakes on his phone. The announcer was getting more flustered by the minute: "Visit PRISM-zone's website... sorry, PURPLE-zone..."

By the end of the show, Jake had created a video, which he called "World's Greatest Mispronouncer." The video went viral overnight.

The next day, the announcer made an announcement: "I hereby announce that I've been pronouncing PURI-zone incorrectly. Though in my defense, I didn't call it PURGE-zone!"

Jake's aunt wasn't mad. In fact, she hired the announcer to make some funny pronunciation videos. Their partnership led to the most successful ad of the year.



#### **A Voice Against Bullying**

Maya couldn't stay quiet any longer. She had seen kids make fun of the new student's lunch every day for a week. On Friday, she stood up in the cafeteria and denounced their behavior.

"I want to announce something," she said, her voice shaking but strong. "The way you're treating Alex is wrong. Making fun of someone's food from their culture is not funny. It's mean and it has to stop."

At first, the cafeteria went silent. Then her best friend Tony stood up. "Maya's right,"he announced. "I denounce this bullying too. My dad packs me some weird lunches. I'd feel terrible if people made fun of them."

One by one, other students shared tories about special foods from their families. By the end of lunch, even the kids who had been doing the teasing renounced their mean behavior and apologized to Alex. Sometimes it just takes one person to denounce something wrong to make a real change.

# Greek roots: 5 most-prolific

#### 1. bio- (meaning life)

•biology, biography, biosphere, biochemistry, biofuel, biodiversity

#### 2. logos/logy- (meaning study of or speech)

psychology, biology, theology, geology, anthology, genealogy

#### 3. micro- (meaning small)

•microscope, microphone, microprocessor, microorganism, microwave, microcosm

#### 4. tele- (meaning far or distant)

•telephone, television, telescope, teleport, telegram, telepathy

#### 5. auto- (meaning self)

•automobile, automatic, autobiography, autopilot, autonomous, autoimmune



#### **Love to Travel? That's Hodophilia**

Ever feel super excited when you're going on a trip? There's a special word for people who love to travel - hodophilia! This word comes from two old Greek words: Hodos which means road and philia which means love. When you put them together, hodophilia means loving to travel and being on the road.

People who have hodophilia are called hodophilists. Just like how we add "ist" to make words for people who do something (like artist or scientist), we add ist to hodophilia to describe someone who loves traveling.

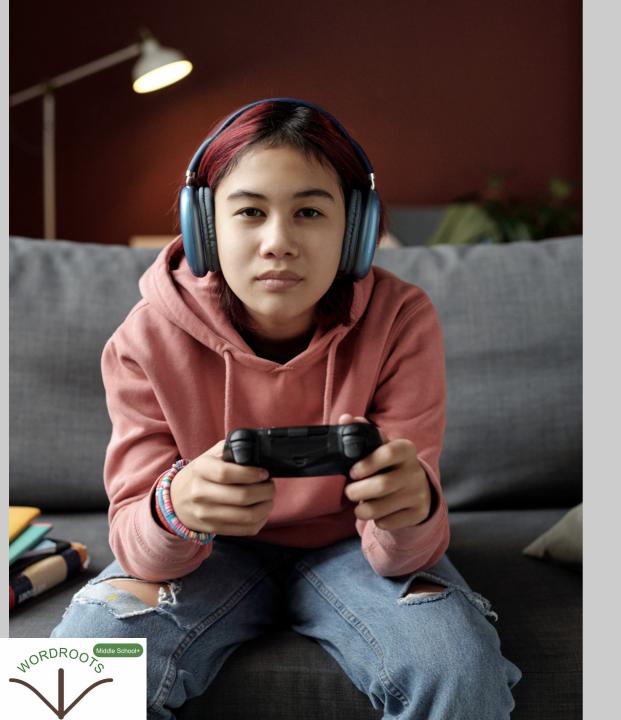
Hodophilists are happy when they're taking trips. They love planning trips and get excited just thinking about their next adventure. Do you get excited when your family says "Let's go on a trip?" That's a hodophilist in action!



Are You Scared of Santa and His Beard?

If seeing a big bushy beard makes you want to run and hide, you might have pogonophobia. This funny-sounding word comes from two Greek roots: pogon means beard and phobia means fear.

Some people get super nervous around beards. It might be Santa Claus's or the beard of an uncle. Whoever it is, pogonophics act in certain ways when they see someone with a big beard. Their hearts beat faster and they just want to go away! It's weird but true. Some people's brains tell them beards are scary. At least now you know what to call it!

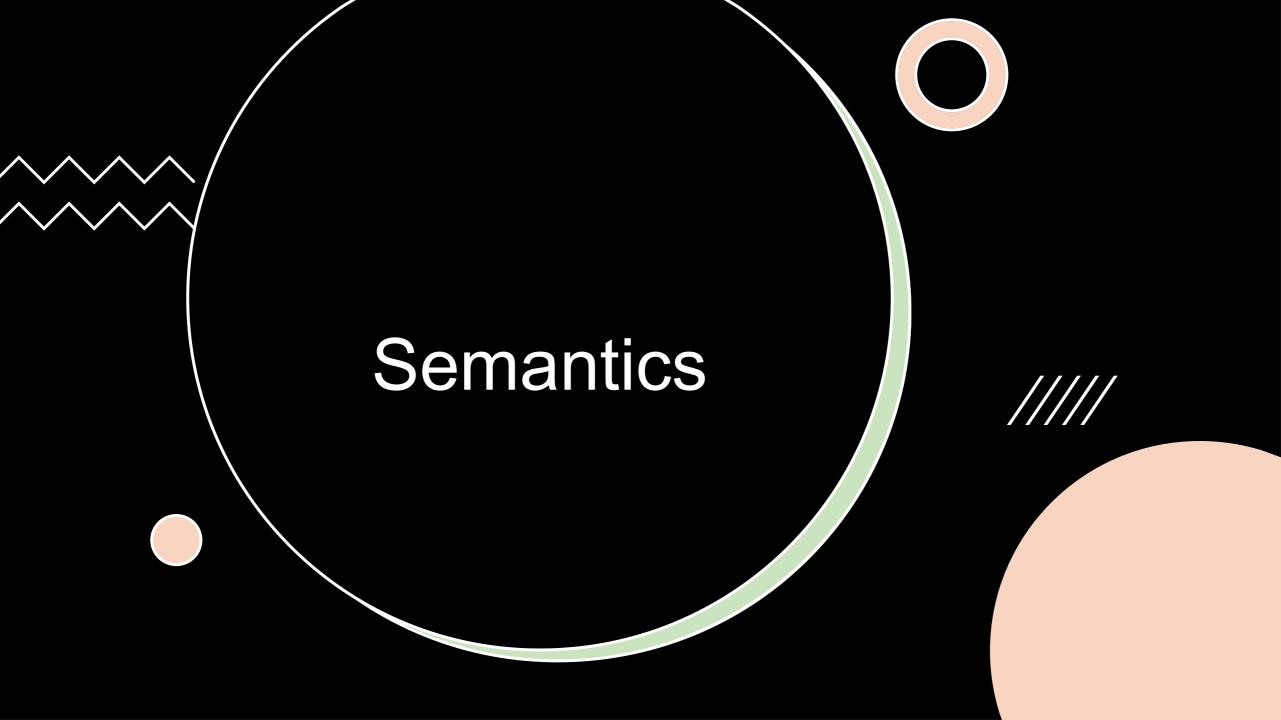


#### **The Time-Eaters**

Ever heard of a time-eater? That's what a chronophage is called. It's something that eats up a lot of time in someone's life. This word comes from two Greek roots: *chronos*, which means time and *phage*, which means eater.

Are there any chronophages in your life? Is there a video game that takes up three hours, even when you think you only spent three minutes on it? Does a TikTok scroll gobble up your whole afternoon? Even your little brother asking "why" a million times can be a chronophage!

Funny to think about time being eaten, right? But now you know. Those time-munching activities have a special name!



# Layers of English: Semantics

Anglo-Saxon	French/Latin	Greek
king	regent	monarch
flash	realization	epiphany
wreck	disaster	catastrophe

# Long-standing Approach in Selecting Words to Teach: "Cherry-picking"

slender

gallant

chimed

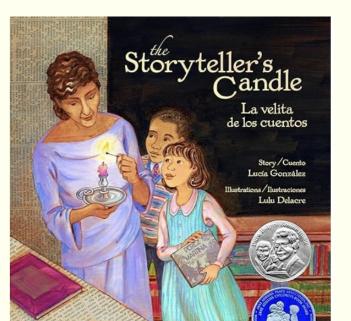
preparations

flickered

concluded

everywhere stretched afternoon
explained vegetables neighbors
shook december share
promisea nanasome customers libraries
engageted from puerto delicious sing busy
suggested froze distance ellerated ellerated whienered
wings caribbean ramon applaues simon rising
shouted snarkled rehearsed twinkling welcome
picked maria crates habe bibliateca sidewalks
bread wormth gallant boedga blenvenidos de shelves visit
characters paste bueno navidades hurray Juan beauty
cast senor es parranderos dona II stove
chosen costumes sofig ratoncito luceros bodega yacation
gathered bubbled bendito company marcas skipped mpuse
sang ponce dias Sullivieus w Jearon mami attended
purned to nenes vecinos saludos barrio scraped ractory
Journey pears poked nines hildenner cuatro mama
colobrated doe pure yes upe marting chasing email
point clapped los vendo
condies parrandas saludar en stairs
ignuary pork ig veremes todos espanol roasting smile
cha reves tres titl el que ms spanish
candle asalto the leading mating carpenter
cousin café navidad DCIPIC habia fiesta logs spoke
surprised guest perez quebueno nenita ahh balcony
chimed storyteller lindo viva den declared
blow siender nabichuelas pasteles countertop sign sold
agness puppers ya chik child para arrived
tight cucarachita iit manuel leaning
ruchod rico cockroach adulte
eweets impatiently donated decorations silly fresh
grandmother sprinkling humming begting
wave sunday parade invite gentle
replied concluded fireplace
magazines exclaimed saturday
doubting pat preparations library
belongs
surprising apartment stage
laughed

slender
gallant
chimed
preparations
flickered
concluded



# Research on the efficacy of "cherry-picking vocabulary":

- •on comprehension (Wright & Cervetti, 2017)
- •on vocabulary (beyond taught words) (Cervetti et al. (2023)

# Support from AI: Questions & Specifications

**FH:** I'm a third-grade teacher. Many of my students are not at the level of vocabulary required for strong comprehension. I'm working with a story entitled The Storyteller's Candle. The lesson plan says I should teach: slender, gallant, chimed, preparations, flickered, and concluded.

Can you help me in identifying which of these words are ones that may be challenging for students but are also words that will extend beyond third grade and support their reading in the middle grades and beyond: announcement, parade, chimed, characters, costumes, applause, gallant, fiesta, preparations, event, rehearsed, donations, celebrated, decorations. lalso want to help my students' background knowledge on the topic of what is part of a performance like a play nd a cultural event.

Let me help analyze these words from multiple angles - their long-term academic value, their role in building knowledge about performances, and their importance to the story itself.

First, let's look at the publisher's selected words:

- "slender" Limited academic utility, mainly descriptive
- "gallant" Literary word but limited modern use
- "chimed" Specific to sound, limited academic use
- "preparations" ✓ HIGH VALUE used across subjects and contexts
- "flickered" Specific to light/movement, limited academic use
- "concluded" ✓ HIGH VALUE important for academic writing and reading

Now, from your additional words, here are the most valuable ones for long-term academic success:

- 1. "announcement" ✓ HIGH VALUE formal communication across contexts
- 2. "event" ✓ HIGH VALUE used across all subjects
- 3. "preparations" ✓ HIGH VALUE (overlaps with publisher list)
- 4. "celebrated" ✓ HIGH VALUE cultural and historical contexts
- 5. "donations" ✓ HIGH VALUE civic and social studies contexts

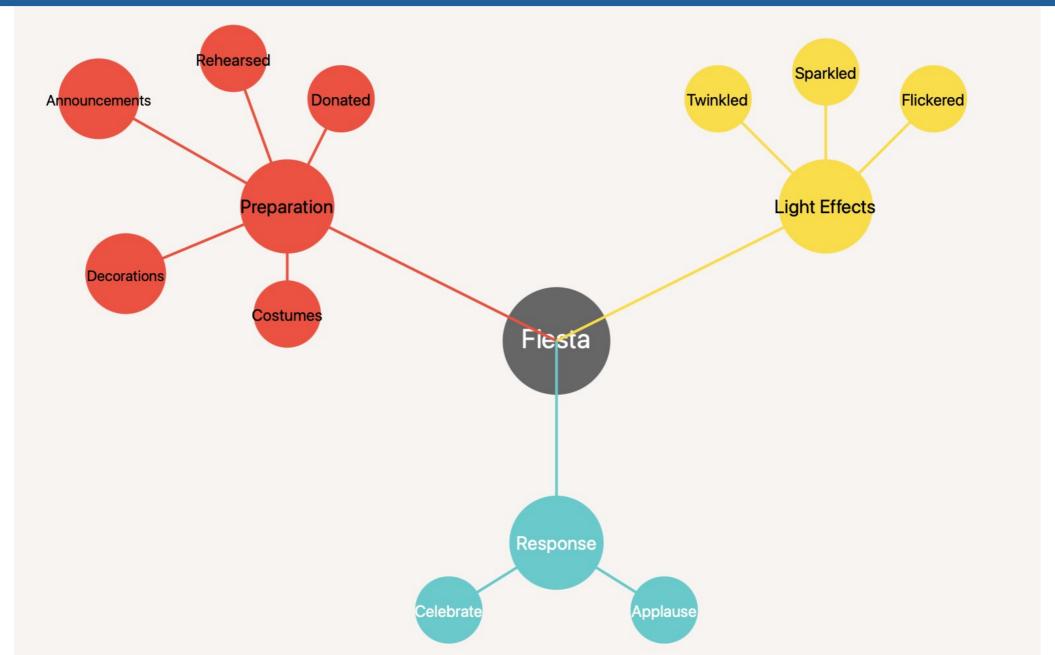
For building knowledge about performances, these words form a crucial conceptual cluster:

- 1. "rehearsed" Understanding performance preparation
- 2. "characters" Understanding story elements and roles
- 3. "costumes" Understanding visual representation
- 4. "applause" Understanding audience participation
- 5. "decorations" Understanding setting creation

Cultural celebration vocabulary that builds background knowledge:

- 1. "fiesta" Understanding cultural celebrations
- 2. "celebrated" Understanding commemoration
- 3. "event" Understanding organized gatherings

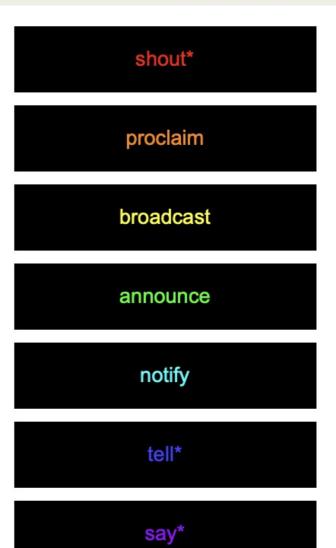
# Al's Graphic Representation of the Vocabulary



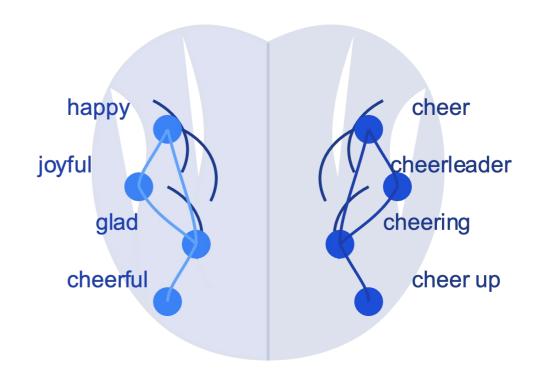
#### Generating Semantic Grids

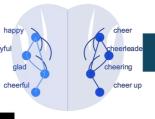


Now can you make a semantic grid for words in the semantic family of the word announce. I want 7 words, 3 of which are ones that struggling third-grade readers can read.



# My Neural Neighborhood s





#### My Neural Neighborhood: The Storyteller's Candle

#### proclaim broadcast shout\* **Verb Forms Noun Forms Ex-Forms Verb Forms Re- Forms Noun Forms** rebroadcast proclaimer exclaim broadcaster proclaim exclaimed rebroadcasts proclaimers broadcasters proclamation exclaiming broadcast rebroadcasted broadcasts rebroadcasting proclamations exclamation broadcast exclamations announce notify tell\* say\* notify announce **Verb Forms Pre-Forms Noun Forms Noun Forms Re-Forms Pre-Forms Un-Form** prenotify

#### **Verb Forms**

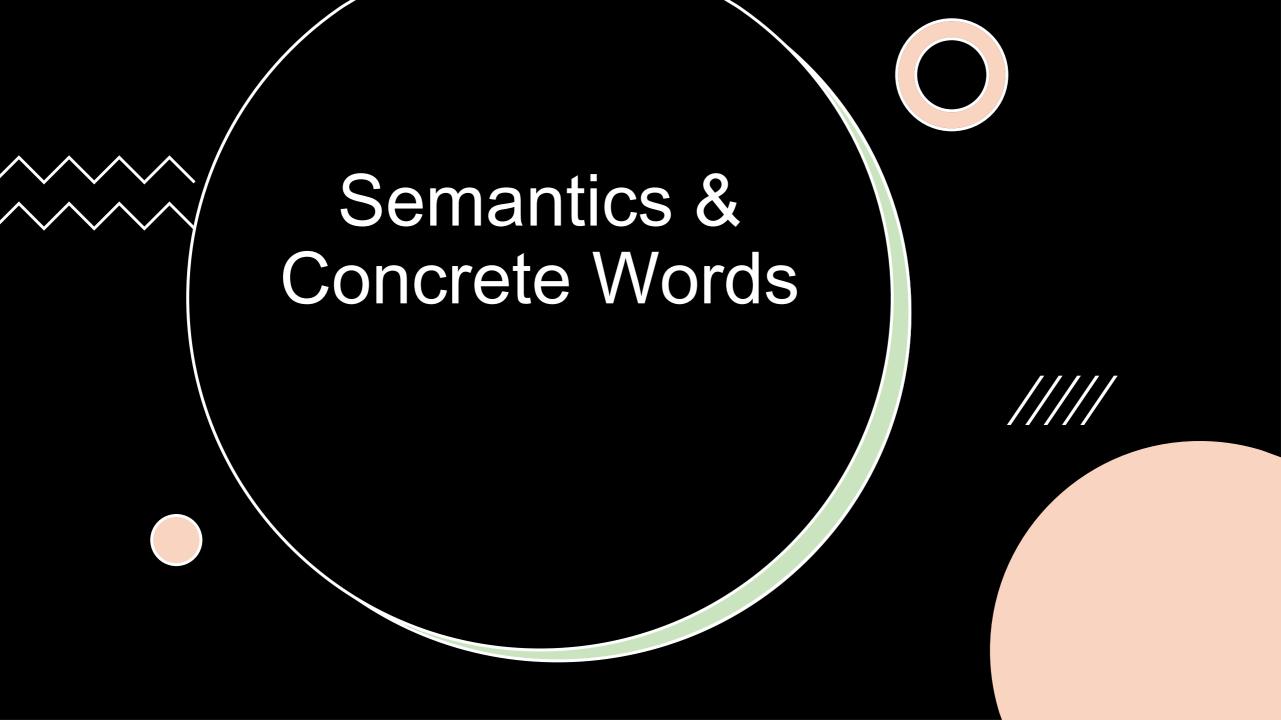
announcer announcers announcement announcements

reannounce reannounced reannouncing reannouncement

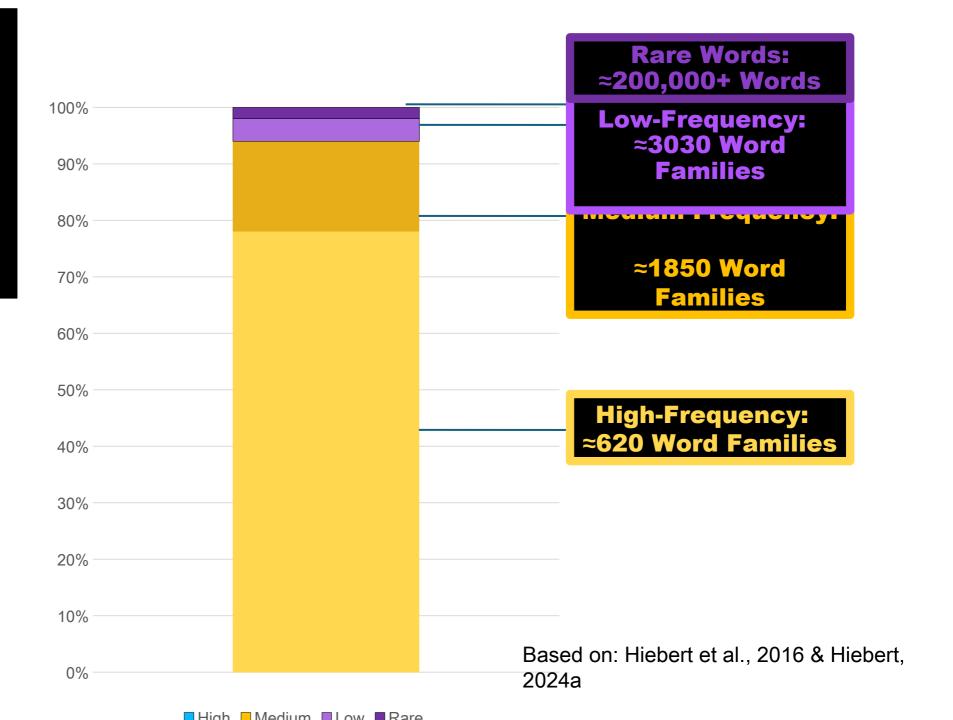
preannounce preannounced preannouncing preannouncement unannounced

notified notifying notifier notifiers notification notifications

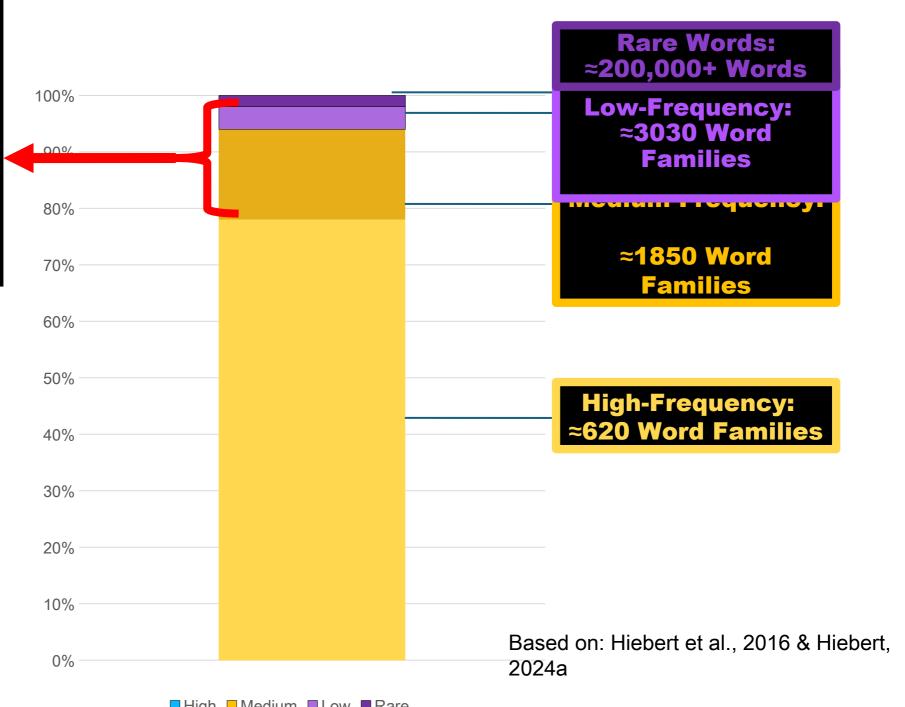
prenotified prenotifying prenotification



# Distributio n of English Lexicon



Identifying concrete words in these zones



Word	Concreteness
apprentice	3.67
sentry	4.04
reverend	4.14
bishop	4.21
tenant	4.55
museum	4.6
dock	4.64
cellar	4.68
muffin	4.78
dough	4.79
loaf	4.79
cottage	4.85
buns	4.88
biscuits	4.9
toast	4.93

_		
	Word	Age of Acquisi
	biscuits	4.63
	toast	4.67
	muffin	5.11
	buns	5.79
	dough	6.63
	loaf	6.84
	dock	8.22
	cottage	8.5
	museum	8.55
	cellar	8.94
	tenant	10.33
	bishop	10.5
	apprentice	10.58
	sentry	11.12
	reverend	12.11

Grade 1



Things We Make With Dough





When we bake dough, it can turn into lots of yummy things to eat!

We can make a big loaf of bread. The loaf is crusty on the outside but soft inside. When we slice bread and cook it again, it turns into crunchy toast.

What Can We Make With Dough?



We can pat dough flat to make biscuits. Biscuits are good with butter or jam. Isn't it amazing that all these yummy things start with dough?

# What Can We Make With Dough?





Dough is special!

It is soft and squishy like play-dough, but we can eat it after we bake it.

To make dough, we mix flour and water together.

Sometimes we add eggs and milk too.

tFieldStudios | iStockphoto

What Can We Make With Dough?



We can roll dough into round buns.

Buns are just right for hamburgers.

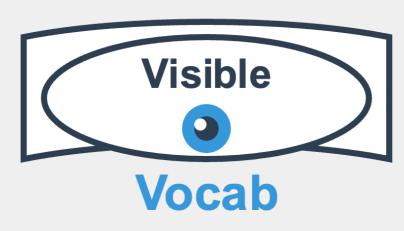
Dough can become puffy muffins.

Muffins are sweet and good for snacks

8

6

Grade 5



Structures & Buildings



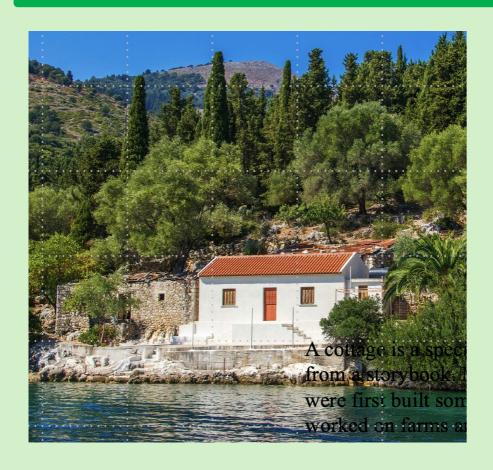
<u>Museum:</u> A museum is a place where we keep important things for everyone to see. Think of it like a giant show-and-tell. Some museums are big and some are small but each one shares special things. One museum might let us learn about space and stars, while another might have things from long ago in your town.

When you go to a museum, you can walk around and study items. Sometimes items are behind glass to keep them safe. Museums are like treasure houses that help us learn about our world.



**Cottage:** A cottage is a special kind of small house that looks like it came from a storybook. Cottages were first built some time ago in England for people who worked on farms and in villages.

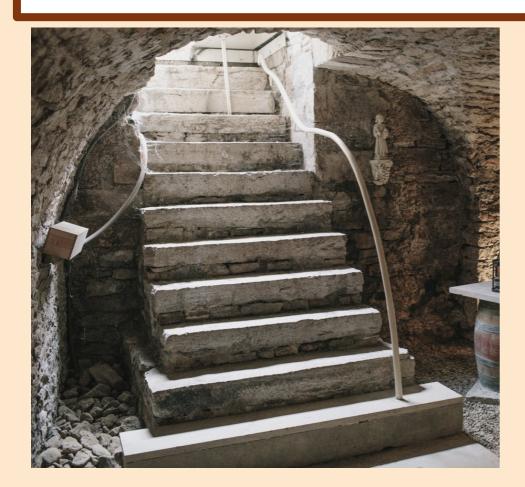
Not every small house is a cottage. Today, we call a house a cottage when it has a certain cozy look: tiny windows, steep roofs, and small wooden doors. Many cottages sit near lakes or in the woods, where people can enjoy nature. Outside, cottages often have beautiful gardens full of colorful flowers and winding paths.





**Cellar:** A cellar is a small room under a house, dug into the ground. To get into a cellar, you might have to go down steep stairs or even through a trap door. A trap door is in the floor and needs to be lifted up. Cellars usually have dirt or stone floors. People use them to keep food cool and store things like canned food.

A basement is different than a cellar. Basements have regular stairs inside the house, not steep ones. They have smooth concrete floors and nice walls. People often make rooms in basements where they can play games or watch TV. Both cellars and basements can stay cool when it is hot outside because they're underground.



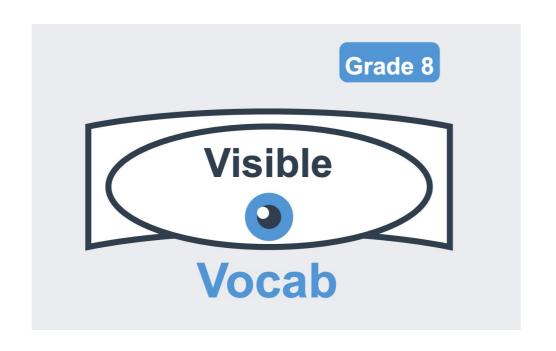




**Dock:** A dock is like a path made of wood that goes out over the water. People sometimes fish from docks. Others might dive from the end of a dock into the deep water on hot summer days.

Boats need to be tied to a dock so that they do not float away. Some docks are small, just big enough for one boat. Other docks are much bigger and hold lots of boats.

The biggest docks of all are called piers." Piers are where cargo ships stop to unload their goods. These giant ships are so heavy that their piers are made of concrete and steel instead of the wood of a dock.



Roles of People



**Sentry:** A sentry is a guard who keeps watch to keep people safe. In the old days, sentries would stand on castle walls or at army camps, looking for danger.

Ceremonial sentries are guards who carry out special duties that honor tradition, such as the Guard at Buckingham Palace in London.

Today, we usually call sentries guards. There are guards in places like banks and government buildings. Some sentries walk around checking doors and windows. Others sit in rooms full of screens, watching security cameras. Their job is as important now as it was hundreds of years ago.







**Tenant**: A tenant is someone who pays to live in a home they don't own. The person who owns the building is called a landlord. The tenant gives the landlord money to live there. Tenants might live in an apartment building or they might rent a whole house. Tenants have to follow the landlord's rules, like keeping the place clean and quiet. Most tenants sign a paper called a lease that says how long they can stay and how much they'll pay.





Apprentice: An apprentice learns a job by working alongside someone with more experience. Many apprentices work in trades like carpentry, where an experienced carpenter teaches the apprentice how to build things. The person teaching an apprentice is often called a master or mentor. Being an apprentice means doing real work while you learn. Some apprentices get paid while they learn, which makes being an apprentice different from being a regular student.





Reverend: A reverend is a religious leader who guides a community of people who share the same faith. You might hear people call their reverend "Pastor" instead, but both titles mean the same thing. A reverend leads church services, performs weddings and funerals, and helps people during hard times. Many people spend years studying before they can become a reverend.

# Decoding English

- I. Critical Features of English Vocabulary
  - Written language is more complex than oral.
    - English has a very large lexicon.
- II. What an Etymological Language Means for:
  - Orthography
    - Morphology
      - Semantics

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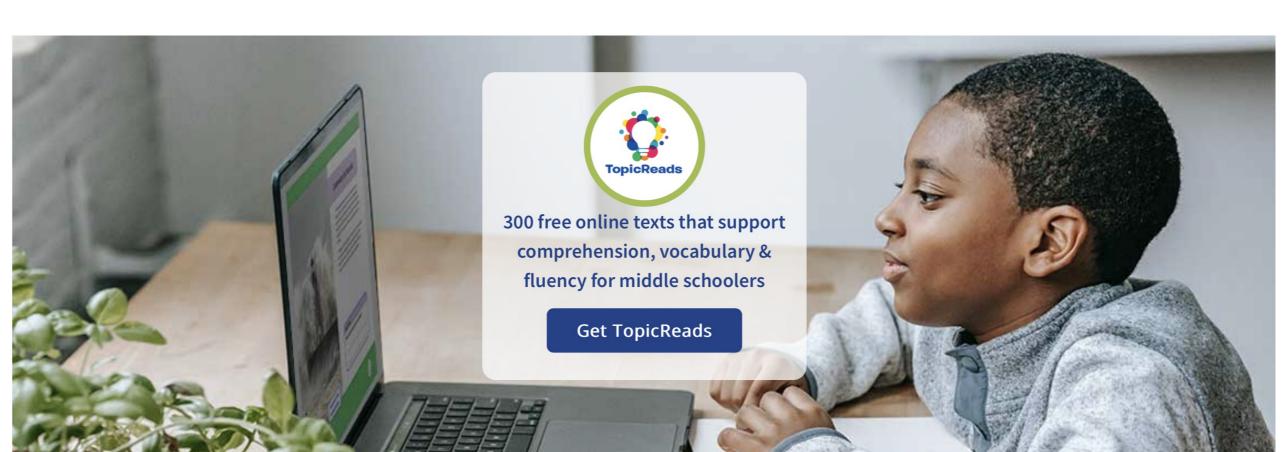
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