

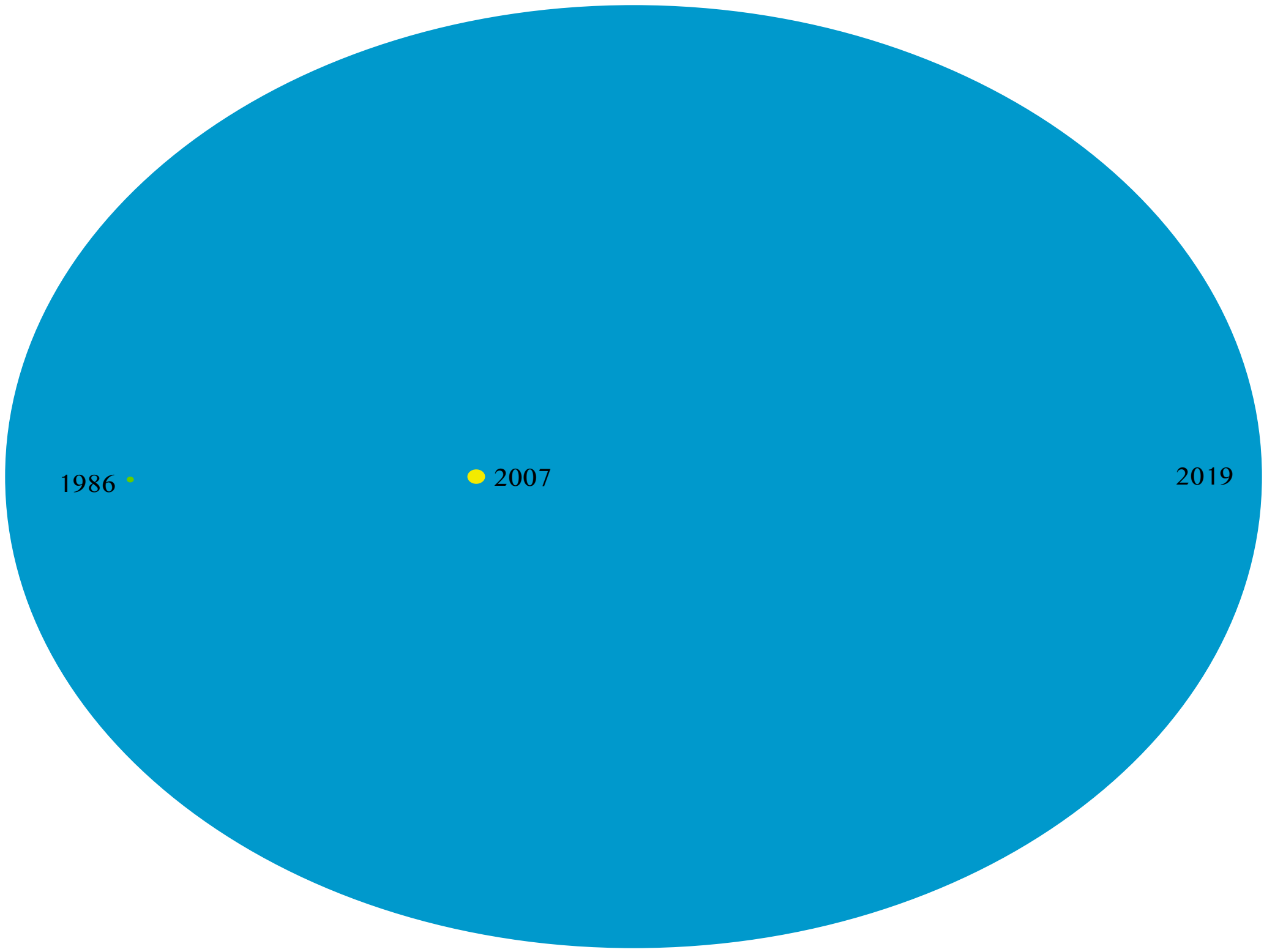
Vocabulary: The Key to Unlocking Knowledge

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TextProject



GPS

- Humankind's knowledge is stored in text. We read to learn—both stories and information.





CHAPTER 9

Different Labels But the Same Concepts

English Learners

Example 1: "I'm going to catch a crab today," yelled Sailor Paul. Soon his nets were full and taut, and Paul hauled them up on the deck. "Get away, sissy squid," scolded Sailor Paul. "Don't sprawl on my yawl!" (Sailor Paul and the Crabs, Paulson, 2000)

Example 2: The children are drawing pictures. Ann draws a green lawn. What's on the lawn? A little deer or a fawn is on the lawn. Ben draws a pile of yellow straw. What is in the straw? A fawn lies in the straw. (Drawing Pictures, Hiebert, 2019)

In the United States as we approach a new decade—2020—about 10% of our students enter school speaking native languages other than English (McFarland et al., 2018). English learners (ELs) may not have English labels for concepts, but they do have labels for concepts in their native languages. In the usual materials and approaches of English/Language Arts, ELs are asked to learn to read words for which most young children do not have associated meanings in their native language, such as *taut* and *yawl* in Example 1. Instructional demands such as those represented by the first excerpted text can intensify the challenge for ELs. Example 2 illustrates a text where students' knowledge of activities (e.g., drawing) and aspects of nature (e.g., animals, growing things) are the foundation for learning new concepts such as *fawn* and *lawn*.

Additionally, evidence points to strengths of ELs, such as their acuity in attending to the sounds of language, which often are not recognized in schools. This chapter develops a perspective in which strengths that ELs bring to language learning are the foundation for the design of learning experiences for those students and in which

a b c d e f g h i j k l m n o p q r s t u v w x y z

Collectors collect things.

Collectors collect things...



Some people collect stamps.



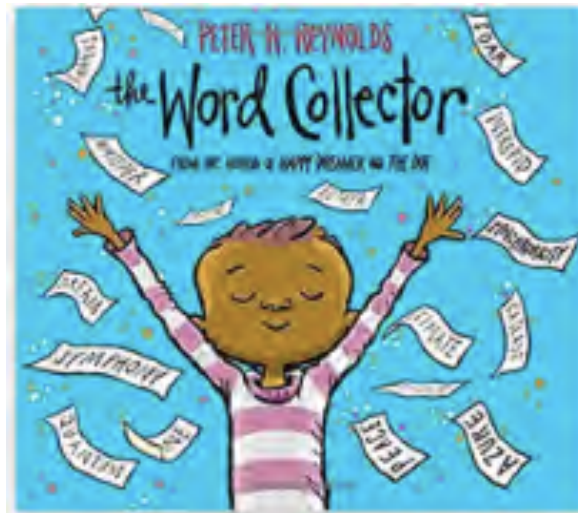
Some people collect coins.

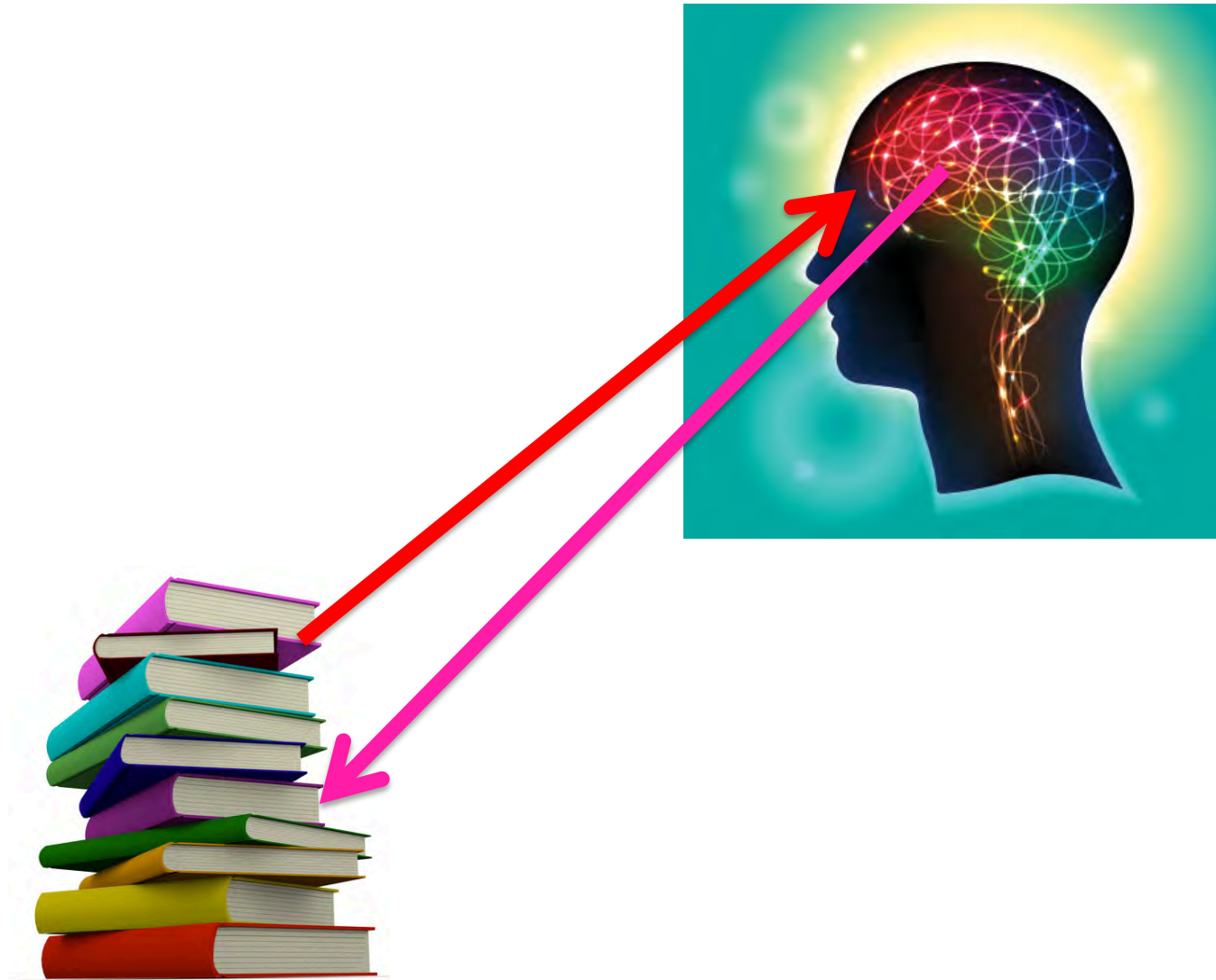


Others collect rocks.



Some collect art.





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- Words are the labels for concepts that underlie knowledge. 2,500 word families account for the majority of words in texts. They represent major bodies of knowledge & the primary English linguistic systems.

Vocabulary and Knowledge

elderly
frequent
locate
considerable
delighted
identify favorable
damaged
enjoyable

know
broken old
big
good fun find
often
happy

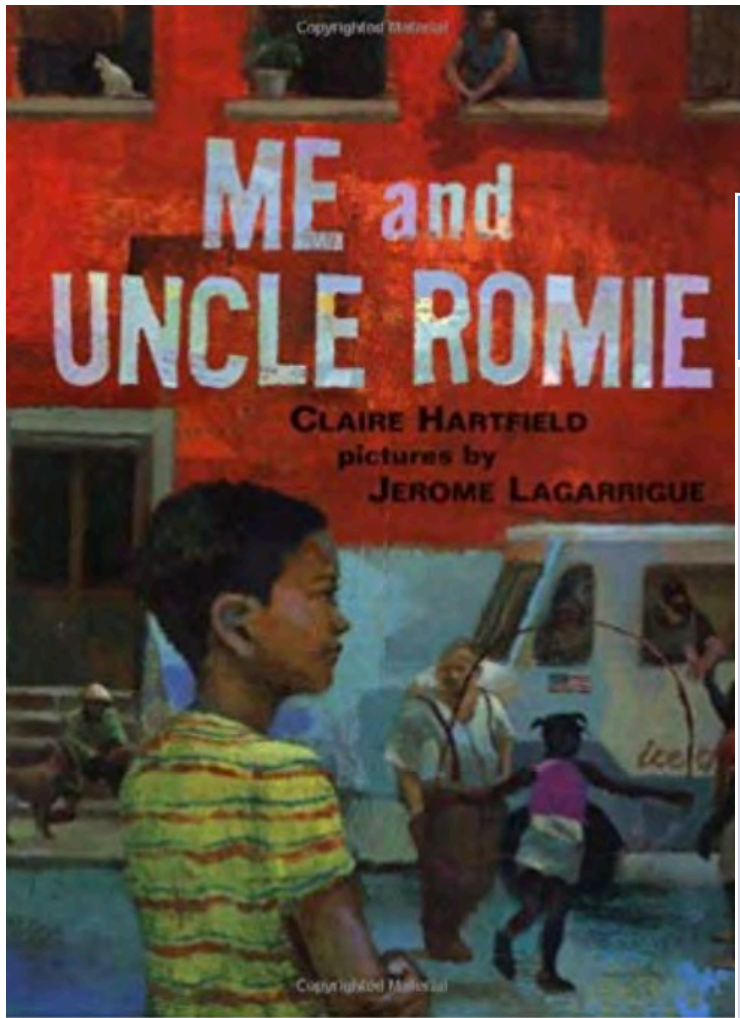
The image shows two rows of the Oxford English Dictionary volumes on a shelf. The top row contains volumes II through IX, and the bottom row contains volumes XI through XX. Each volume is a dark blue cloth-bound book with a gold-tooled spine. The spines are labeled with the volume number in Roman numerals and the title 'The Oxford English Dictionary'. A gold circular emblem is visible near the bottom of each spine.

Oxford English Dictionary

- 282,500 root or head words
- 326,000 derivatives & phrases
- 47,150 obsolete words

ticket statue stared
funeral guitar doorway
thanks hidden kissed ruined candles
flights lilies pretty market empire
boomed grandma platform chocolate double
gently rooftops disappeared scraps
avenue collecting husband neighborhood escapes studio
zoomed conductor peanuts musicians shared climbed
paints laughing cracking strangers preserves
breakfast sharing barbecue rushing explained fierce artist
reminded package smiling pitcher postcards flicked
college treasure biscuits worried blossoms schedule
photographs favorite visited contests regular memory
bouncenewspapers glorious station liberty workroom
skyscrapersgloriousstation sprayed apartment streak
undergroundsilvery birthday shouted cardboard
bleachers porches peaches greeting scoops
flowers pasted pushing paintedshopped conversations
hellos noded wrappings footsteps collage
trains drifted listening saxophones picked sister
pepper grandparents rushed guided
shells ripped gobbled garden yanked
chicago breath crowds stairs sweaty
tucked fabrics cookies subway
swarms

Typical Choices



Houghton Mifflin Harcourt
(Baumann et al. (2014))

ruined
feast
model
concerned
schedule
yanked
streak
smeared
glorious
studio

Scott Foresman
(Afflerbach et al., 2013)

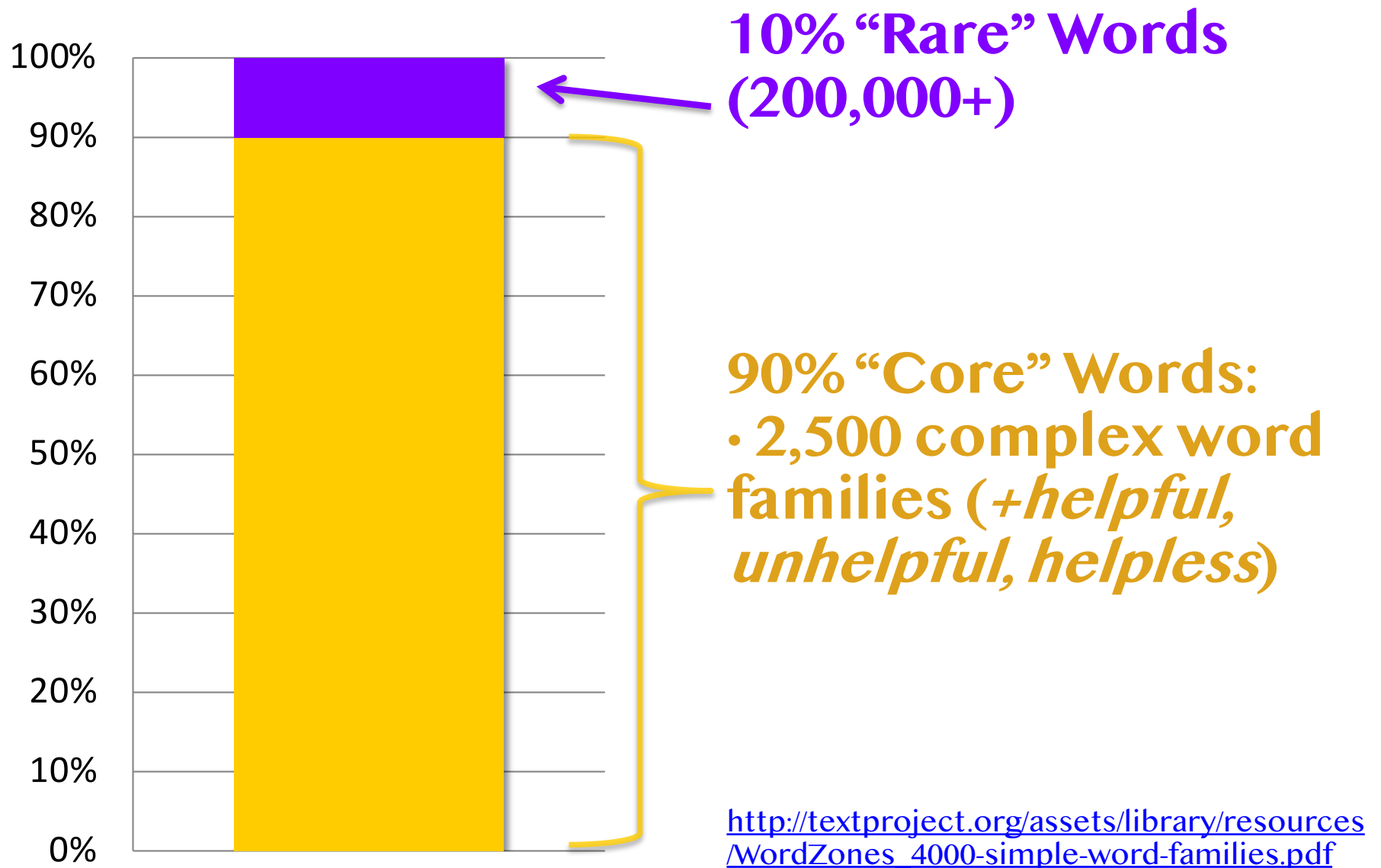
ruined
feast
cardboard
fierce
flights
pitcher
treasure
stoops



10,000 texts

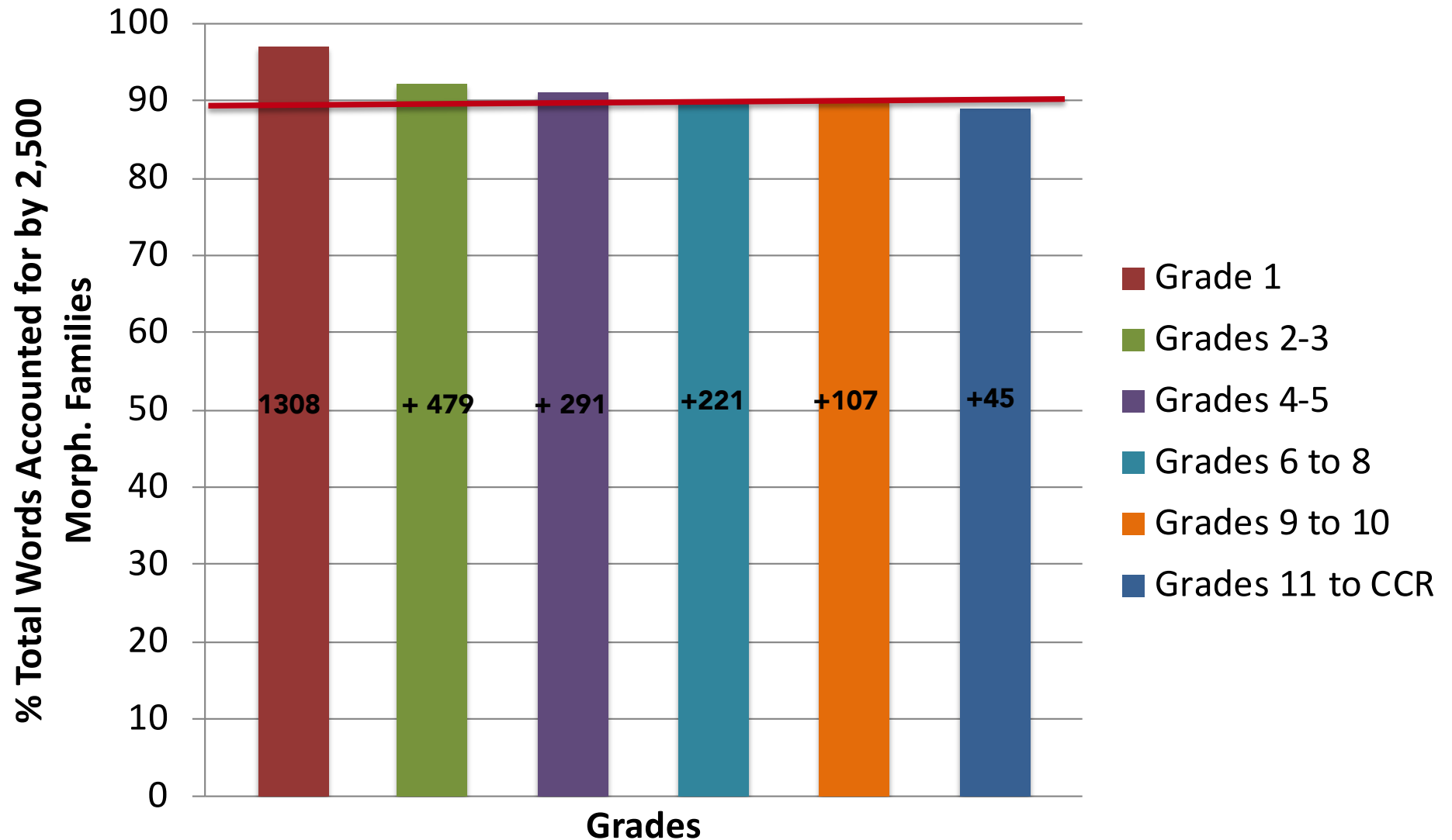
Word	Frequency	Word Length	UFunction	Supercluster	Age of Acquisition	Complex Morphological Family U	Mean Concreteness Rating
ruined	1	6	13	33a.3	7.16	34.6445	2.96
feast	1	5	13	6a.2	7.81	15.8756	4.3

Distribution of words in written English



Analysis of a Million Word Corpus

(Exemplars from Common Core State Standards)



Examples of the Words in the Core Vocabulary

	words
1st 100	the, by, no, through, must
101-300	long, great, put, last, family
301-1,000	power, north, story, strong, answer
1,001-1,500	valley, imagine, motion, nearby, importance
1,501-2,000	character, responsible, design, presence, trail
2001-2,500	mixture, discovery, civilization, attitude, assume

[illegible]

1. Topic Knowledge

Jobs

- mayor
- boss
- principal

Health & Human Body

- muscles
- ill
- germs

Places & Dwellings

- market
- ceiling
- curtains

Machines

- tools
- motor
- technology

Animals

- mammals
- frog
- dragon

2. MORPHOLOGICAL KNOWLEDGE



2. Morphological Knowledge

GREEK/ LATIN

Technical words
New words by com-
pounding: graph, para-
graph (s), photograph (s),
telegraph

ROMANCE

Most literacy and academic words
New Words through derivations:
separate, separates, separating, separ-
ated, separation, separately, separable

ANGLO-SAXON

Common, everyday, down-to-earth words
New words through compounding:
field (s), airfield (s), battlefield (s), cornfield (s)

3. Multiple Meanings

A triangle is a **shape**. A circle and a square are **shapes**, too.

Regular exercise helps people get in better **shape**.

In fact, an idea took **shape** in the jackal's mind right away.

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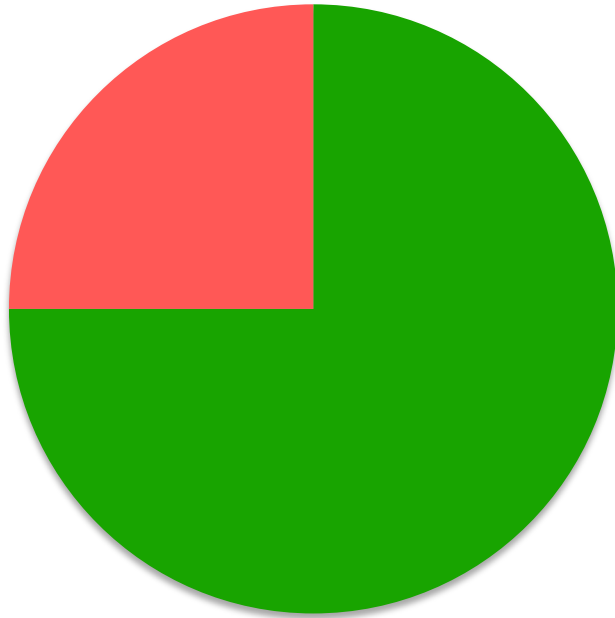
- Humankind's knowledge is stored in text. We read to learn—both stories and information.
- Words are the labels for concepts that underlie knowledge. 2,500 word families account for the majority of words in texts. They represent major bodies of knowledge & the primary English linguistic systems.
- The students who depend on schools to become highly literate need ELA instruction that focuses on world knowledge, including how English works.

A young girl with brown hair, wearing a red jacket and a purple headband, is focused on reading a book. She is standing in a library or bookstore, with tall shelves filled with colorful books visible in the background. The shelves are packed with books of various colors, creating a vibrant backdrop. The girl is holding the book open, and her expression is one of concentration.

Extensive reading of texts

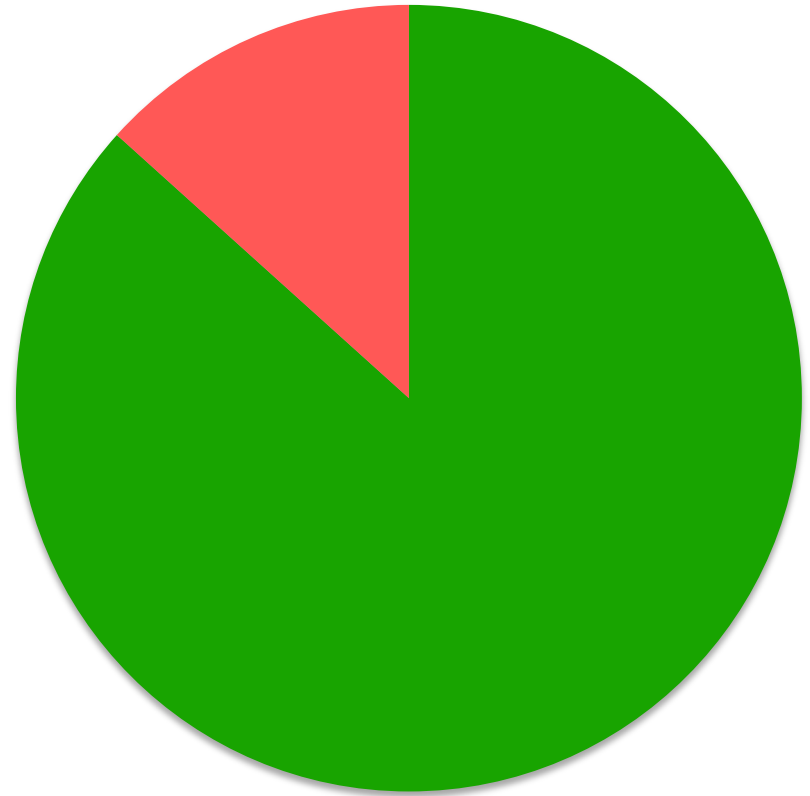
Time spent reading

**Reading Instruction (1970s
to late 1980s)**

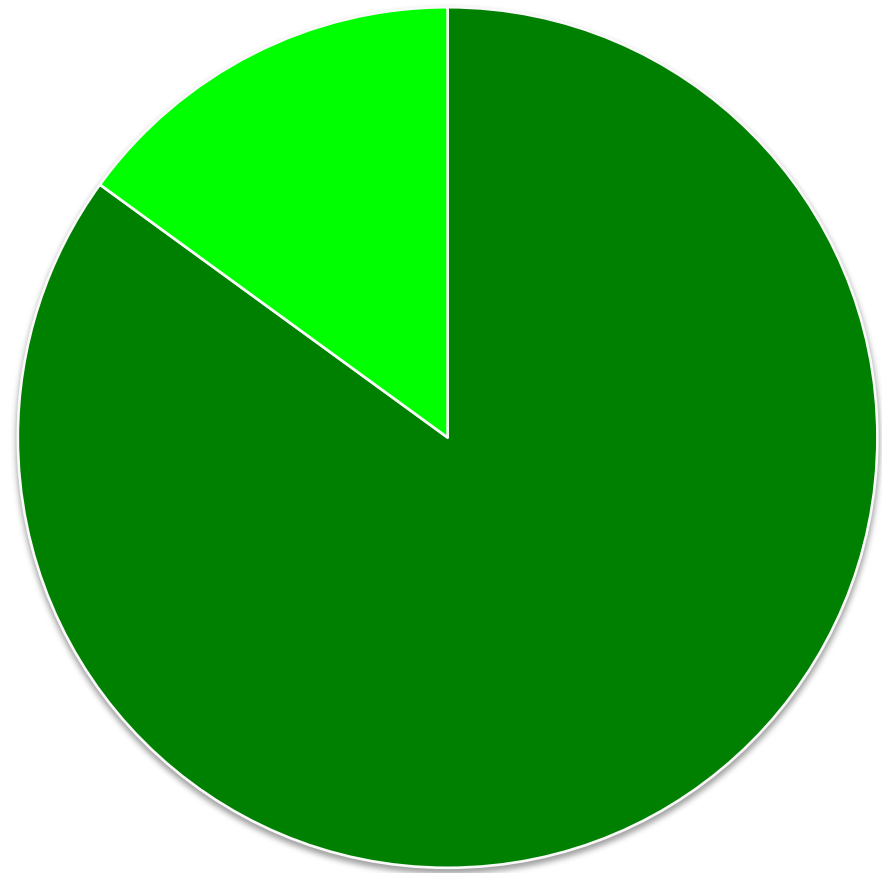


■ Instruction ■ Time Spent reading

Reading Instruction (late 1990s -)

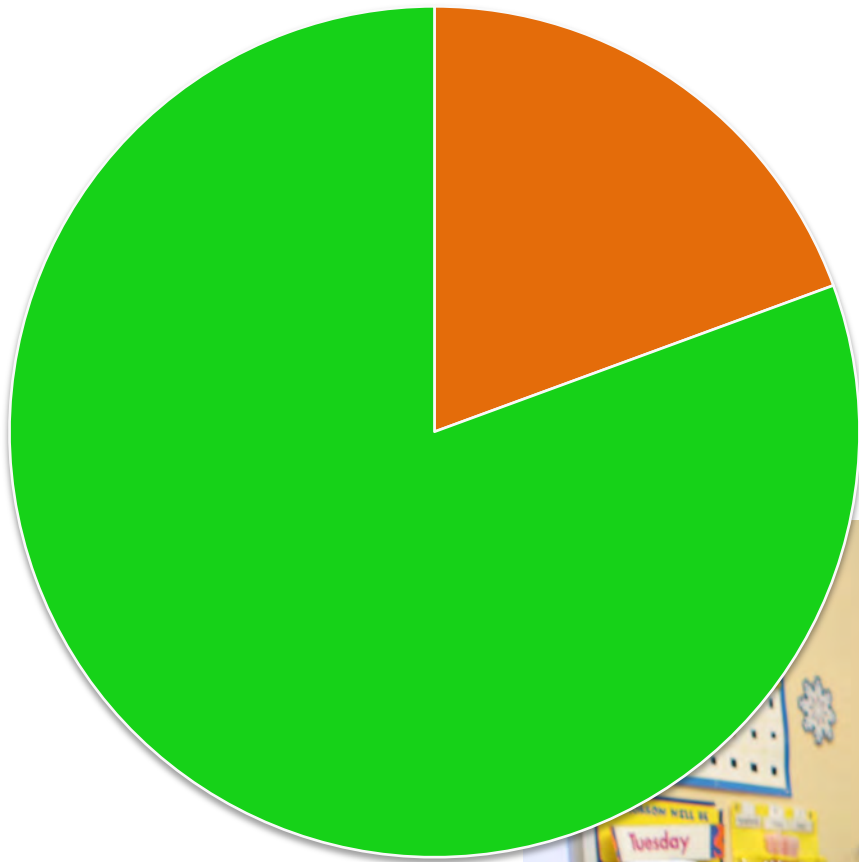


■ Instruction ■ Time Spent reading



■ Other activities ■ Reading

Swanson, Wanzek, McCulley, Stillman-Spisask, Vaughn, Simmons, Fogarty, & Hairrell, 2015.

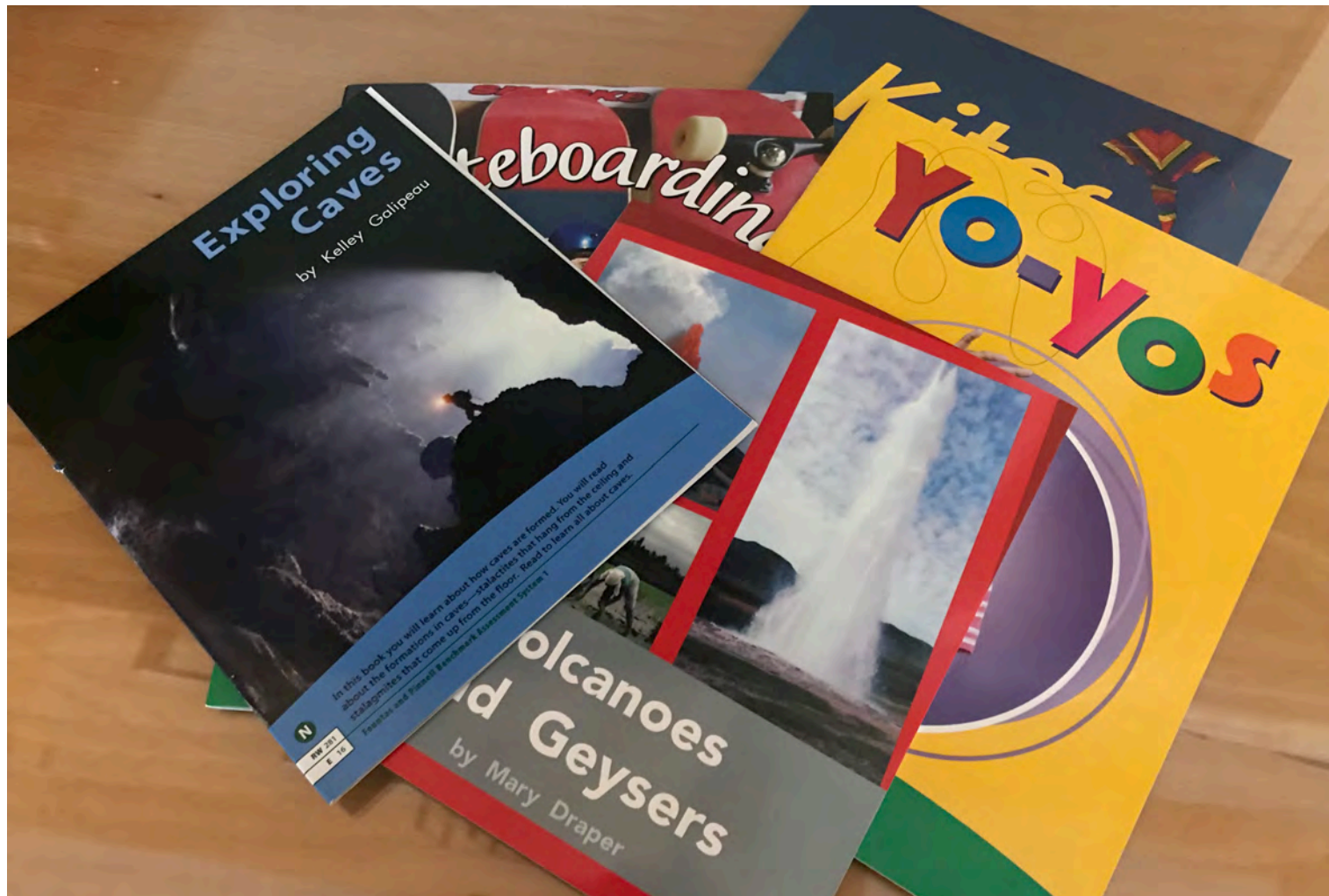


■ Silent Reading

■ Listening, Following Along to Oral Reading



Texts Leveled by Text Complexity [Grade 3]



*Texts from Leveled Literacy Intervention, Heinemann

Texts Selected for Topic & Text Complexity [Grade 3]

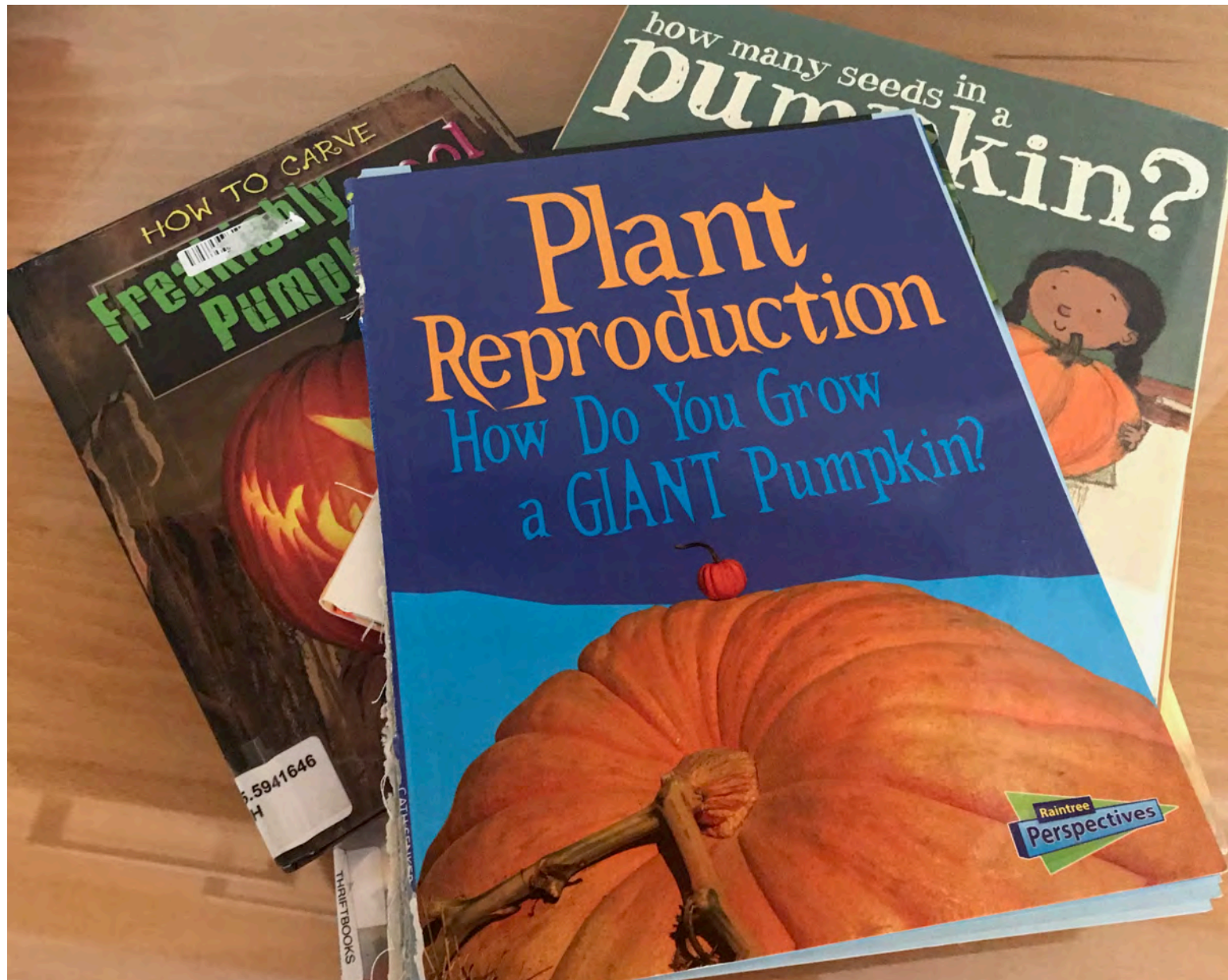


Table 3. Moderately Frequent Words With Repetitions (3 times plus)¹ in Semantically Connected Groups in Two Text Sets

Text Complexity	Topic + Text Complexity
1) journey 4 ² train 5 explorers 5 2) protect 4 safety 5 chemicals 3 competitions 5 created 3 double 4 melted 4 meter 3 mount 4 music 6 palace 3 threw 3 trick 5 volcano 8	1) flower 6 garden 6 harvest 3 nutty 3 orange 7 seeds 3 vegetable 3 vines 9 2) healthy 3 nutrients 4 vitamin 3 3) competition 3 contests 3 winners 9 4) transport 3 truck 4 5) scales 3 weighed 7 carve 4 chains 10 circle 3 create 4 football 3 native 3 patch 6 perfect 3 smooth 3 sweet 3

¹Proper names and words with 4 or fewer letters excluded

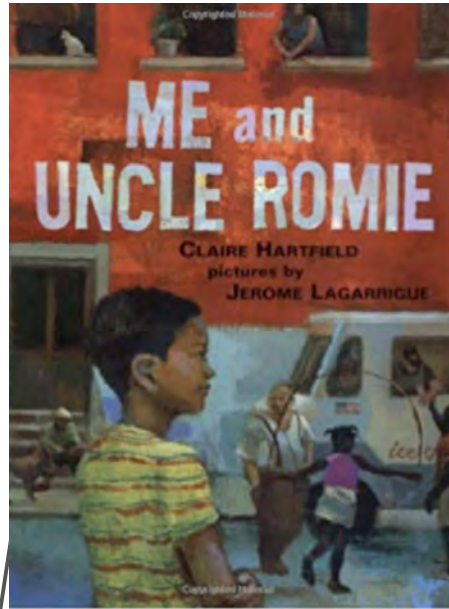
²Number of times word is repeated in the sample of 2,300 words.



Lessons on How Words Work

$$\begin{array}{l} 1 \times 1 = 1 \\ 2 \times 2 = 4 \\ 3 \times 3 = 9 \\ 4 \times 4 = 16 \end{array}$$

$$\begin{array}{l} 1 + 1 = 2 \\ 2 + 2 = 4 \\ 3 + 3 = 6 \\ 4 + 4 = 8 \end{array}$$



Me and Uncle Romie:
compound words

- skyscrapers
- workroom
- cardboard
- underground
- doorway
- stickball
- bald-headed
- home run

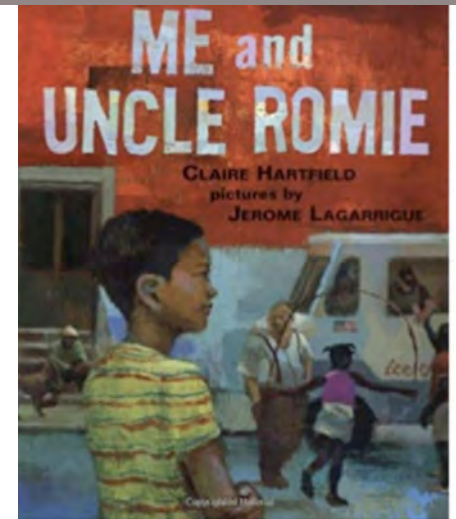
- train schedule
- fire escapes
- pepper jelly
- fierce-eyed
- postcards

ruined
feast
model
concerned
schedule
yanked
streak
smeared
glorious
studio

- photographers
- subway

ruined
feast
cardboard
fierce
flights
pitcher
treasure
stoops

Penn Station
Harlem
Statue of Liberty
Carolina
Caribbean
Chicago



Me and Uncle Romie:
Places

avenue ferry
hydrant stoops
bleachers platform
skyscrapers studio
neighborhood
underground

Conversations About the Core Vocabulary



Grade 1*

It was a cold, snowy day. Abby had *invited* two friends over to play the card game, Go Fish. Abby's little brother, Tim, had never played and wanted to learn.

"I'll *explain* during this game," said Abby.

Abby showed Tim the cards in her hand, which had *different numbers* on them. Abby explained that she needed to get all four cards with the same numbers.

Abby's friend Jen asked Abby if she had any tens. None of Abby's cards had tens on them. She *replied* "Go fish," which meant Jen had to draw a card from the *deck*. Now it was Abby's turn

*Texts from DIBELS, End-of-year

Grade 3

I have a new friend at school. She can't walk so she uses a wheelchair to get around. She comes to school in a special van that can transport four people who use wheelchairs. The van brings my friend and another boy to school. My friend is in third grade with me and the boy is a fourth grader.

I like to watch my friend get in and out of the van. The driver pushes a button and part of the van floor lowers to the driveway to form a ramp. My friend just wheels up the ramp and goes inside. After she is inside, the driver pushes the button and the ramp puts itself away.

Grade 5

Every day, tourists flock to see special places around the world. One place that is special because it is so old is the site of the ruins of an ancient city in Mexico.

The Mayan people built this ancient city more than one thousand years ago. The site covers four square miles. The structures that were left behind show that this community was once thriving. Many scientists have come to this location and tried to solve the mysteries of the city. They have excavated the ruins and carefully restored as much as they could.

One question that is still unanswered is why there are two styles of architecture in the city.

Summary

- Humankind's knowledge is stored in text. We read to learn—both stories and information.
- Words are the labels for concepts that underlie knowledge. There are 2,500 word families that account for the majority of words in texts. They represent major bodies of knowledge & the primary English linguistic systems.
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