

Standards, Text Complexity, & Vocabulary

A row of ten books with colorful spines (yellow, orange, red, green, blue) and decorative gold patterns. The books are standing upright, and their spines are visible. The background is a warm, bokeh-style image with orange and yellow circles.

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University of California,
Santa Cruz

Knowledge in the Digital Age

1986



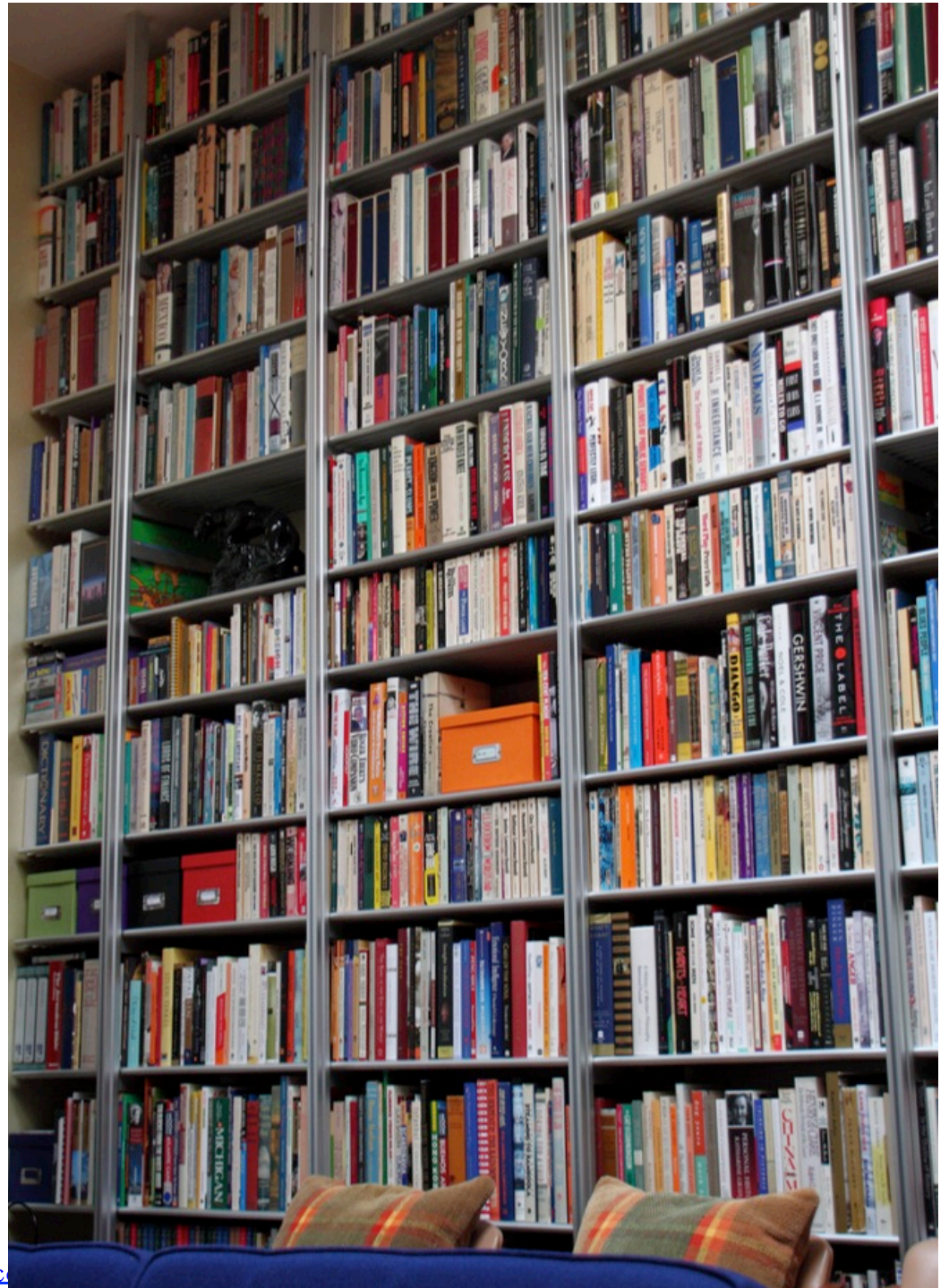
2007



2018



Knowledge is
“stored” in
texts and...



**texts typically
have more rare
words than
conversations/
oral language.**



Discussion #1:

1. How many words do you estimate are taught in your English/ Language Arts instruction in a year?
2. What percent of the English vocabulary is this?



Idea 1: You can't teach all English words but you can teach students about the underlying systems.

**ENGLISH HAS THREE DISTINCT
MORPHOLOGICAL SYSTEMS.**





SMALL CHANGE 1: Have explicit conversations about rare vocabulary in ALL texts

**Talking
Points**

**For
Teachers**

Conversations about New Words in New Texts

Why?

- Develop the understanding that every complex text has new, challenging vocabulary. Vocabulary instruction gives students the means for figuring out new words in text, not instruction in every single word that might appear in new texts.

When?

- Talks about the vocabulary of new texts need to occur across a school year (with extra doses prior to assessment periods).

How?

- Demonstrate the nature of vocabulary with texts.

When 10-year old Amelia Mary Earhart saw her first plane at a state fair, she was not impressed. “It was a thing of rusty wire and wood and looked not at all interesting,” she said. It wasn’t until Earhart attended a stunt flying exhibition, almost a decade later, that she became seriously interested in aviation.

Idea	Action	Open-Access Resource
1. English has more words than can be taught.	1. Teach students to expect new words in texts.	1. Talking Points for Teachers: New Words in New Texts
2. A small group of words does the heavy lifting in English.	2. Increase volume of reading	2. •FYI for Kids •ReadWorks.org
3. Rare words in narrative texts belong to synonym networks; those in informational texts in topic networks.	3. Teach students prolific synonym networks & organize topics into networks.	3. •Super Synonym Sets for Stories (S4) •Exceptional Expressions in Everyday Events (E4)

DISCUSSION 2

1. What percentage of the vocabulary is the same across the texts in the FL end-of-year tests for Grades 3, 5, & 7?

FL—Grade 3

What a tangle of ants! But it's just what the ants need to save their colony from drowning. As the ants weave themselves together, they don't even get their antennae wet.

Once the raft is in place, one by one and two by two, more ants march out of the nest and onto the ant raft. They carry ant eggs, ant babies, and, of course, the queen. (Some ants may even pack a bit of food for the trip.)

Up and out the ants march until the entire nest of ants is on the raft. An average sized nest is made up of 100,000 fire ants.

FL—Grade 5

In the nearby South Orchard, he grew 130 varieties of fruit trees like peach, apple, fig and cherry. All the time, he carefully documented planting procedures, spacings of rows, when blossoms appeared, and when the food should come to the table. Behind Jefferson's "zeal to categorize the world around him" was a patriotic mission, Hatch says.

Jefferson wrote, "The greatest service which can be rendered any country is to add a useful plant to its culture."

Lots of things failed in the garden. His entries from 1809 show the carrots, beets, sorrel and okra, the cauliflower, tarragon and Chinese melons missing the mark.

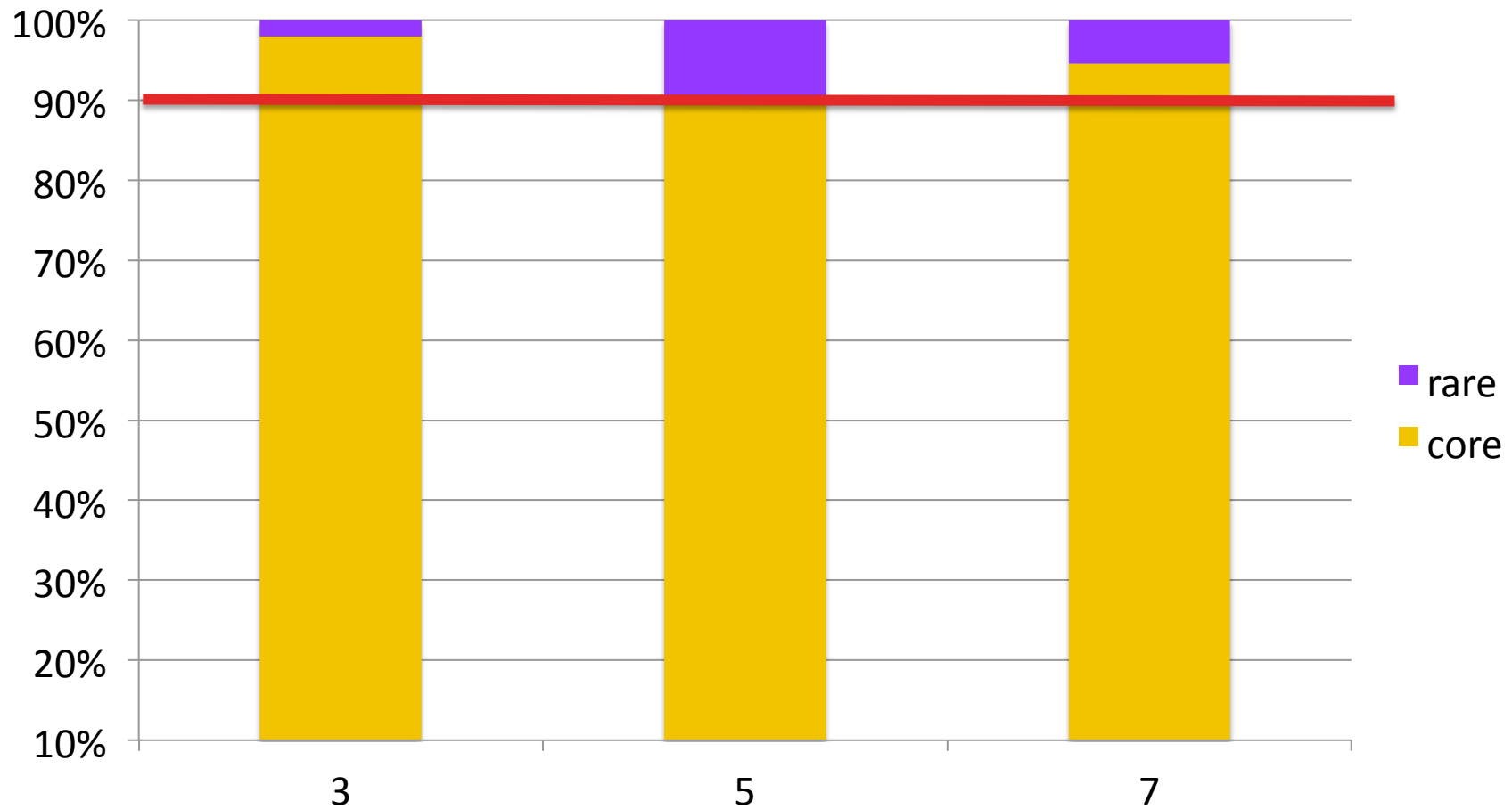
FL—Grade 7

Imagine you are Percy Spencer in the brand-new world of electrical engineering. So much to discover! And so many mistakes to make!

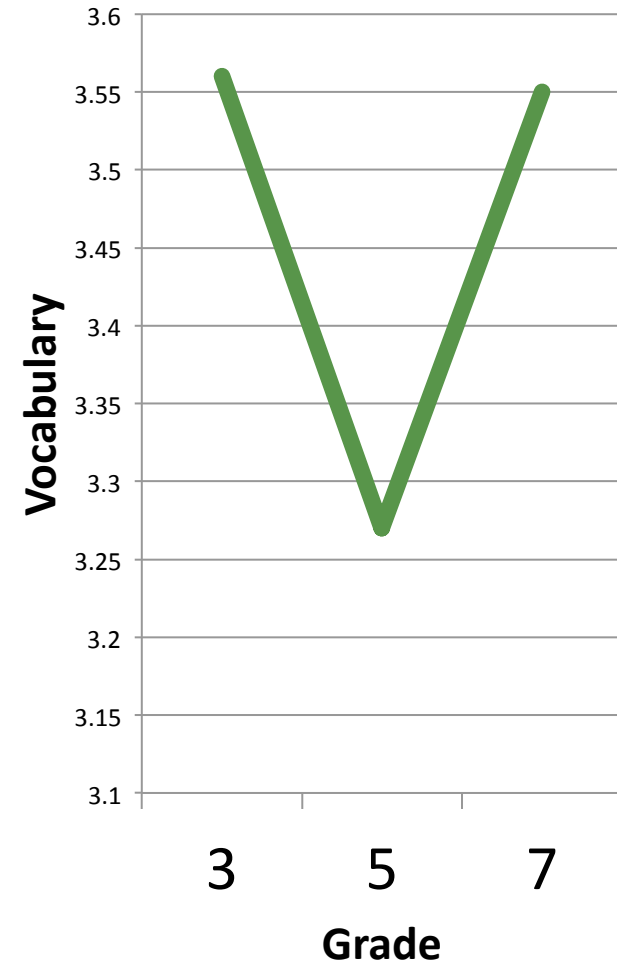
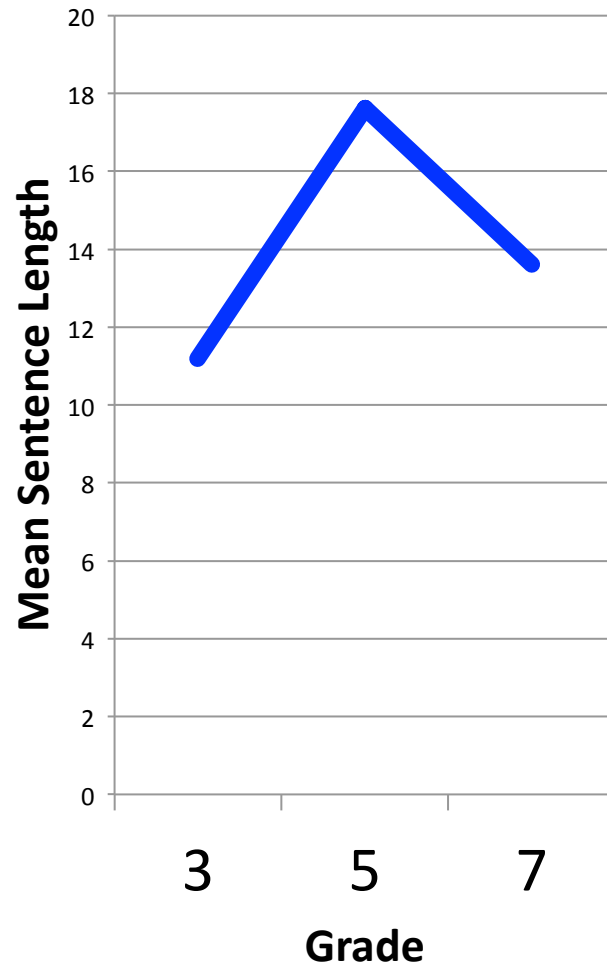
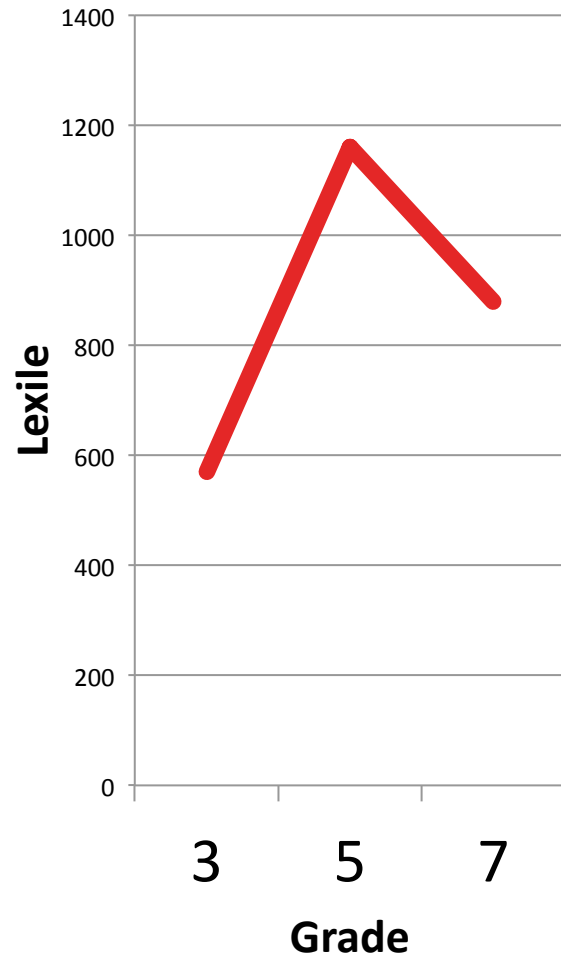
In everything he did from then on, Percy Spencer seemed to run toward discovery and take the chance of making mistakes. He joined the navy to become a telegraph operator. Once again, he did not know much about this type of work. He taught himself what he needed at night, while he was standing watch on the ship.

By the time he was in his early 20s, Percy Spencer had taken another big leap. He was only the fifth employee of the new company Raytheon.

Word Patterns in FL Texts



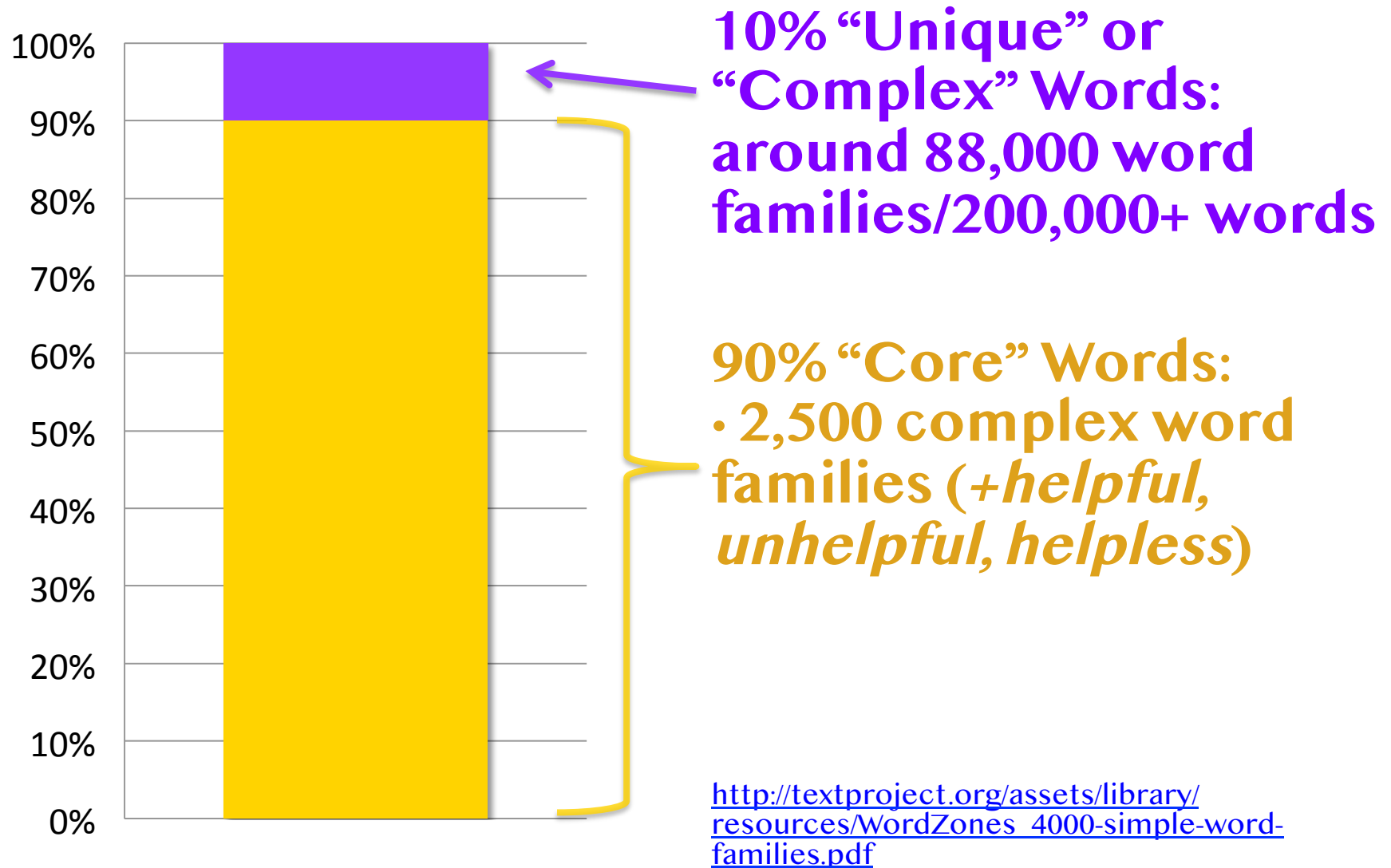
Lexiles of FL Texts





Idea 2: A small group of words does the heavy lifting in English.

The distribution of words in written English



Examples of the Words in the Core Vocabulary

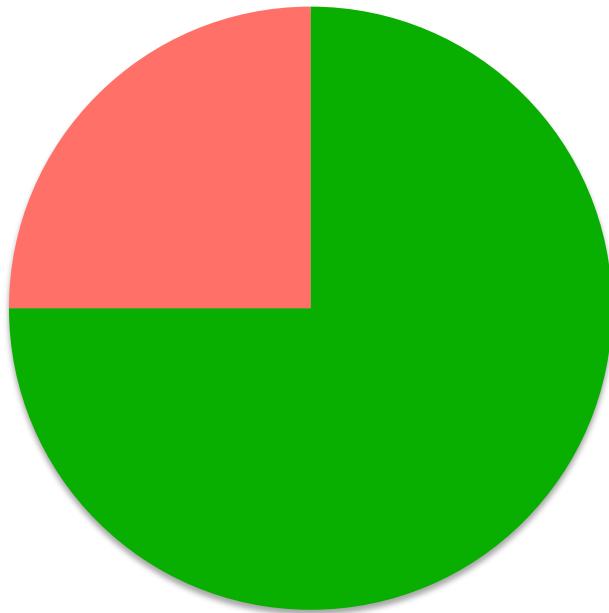
	words
1st 100	the, by, no, through, must
101-300	long, great, put, last, family
301-1,000	power, north, story, strong, answer
1,001-1,500	valley, imagine, motion, nearby, importance
1,501-2,000	character, responsible, design, presence, trail
2001-2,500	mixture, discovery, civilization, attitude, assume



Small Change 2: Support students' core vocabulary by increasing volume of reading

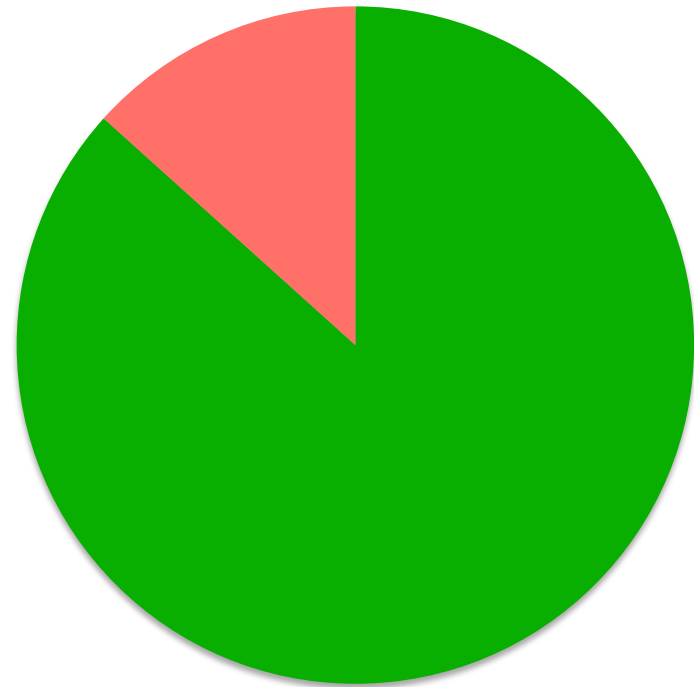
Time Spent in Reading Instruction & “Eyes on Text”

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

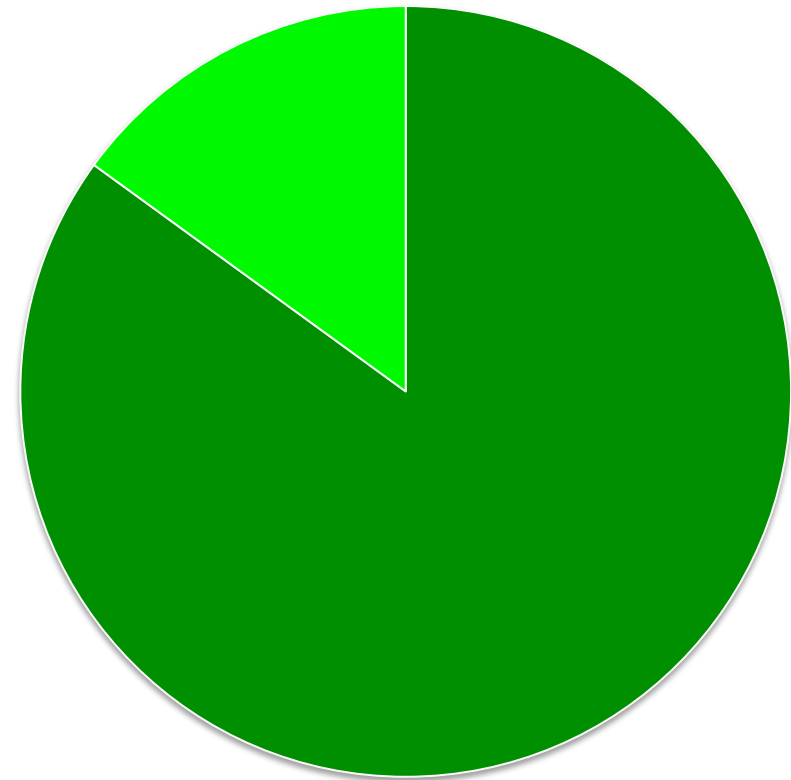


■ Instruction ■ Time Spent reading

Reading Instruction (late 1990s -)

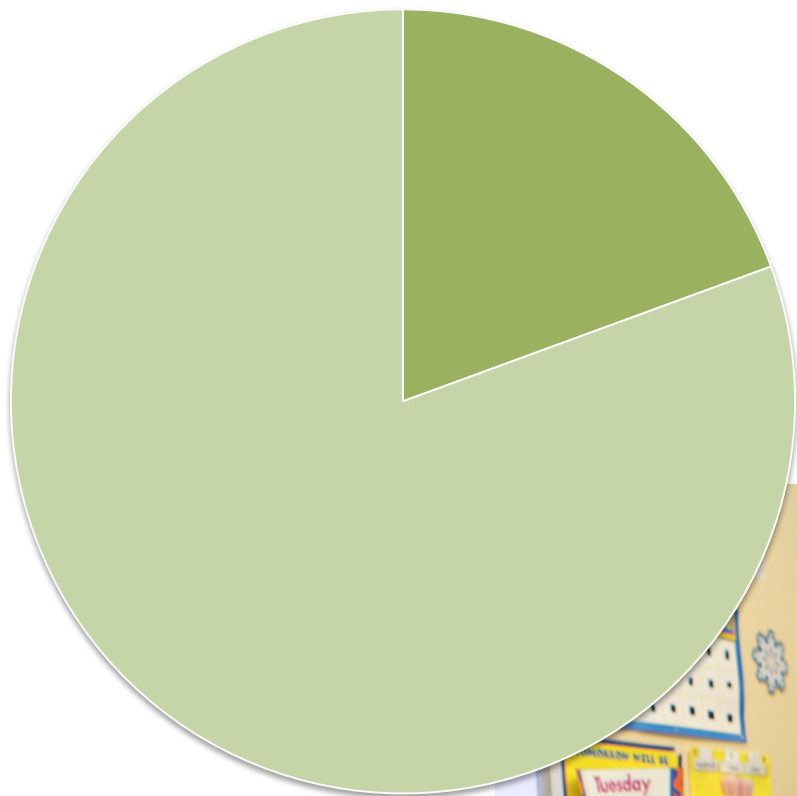


■ Instruction ■ Time Spent reading



■ Other activities ■ Reading

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



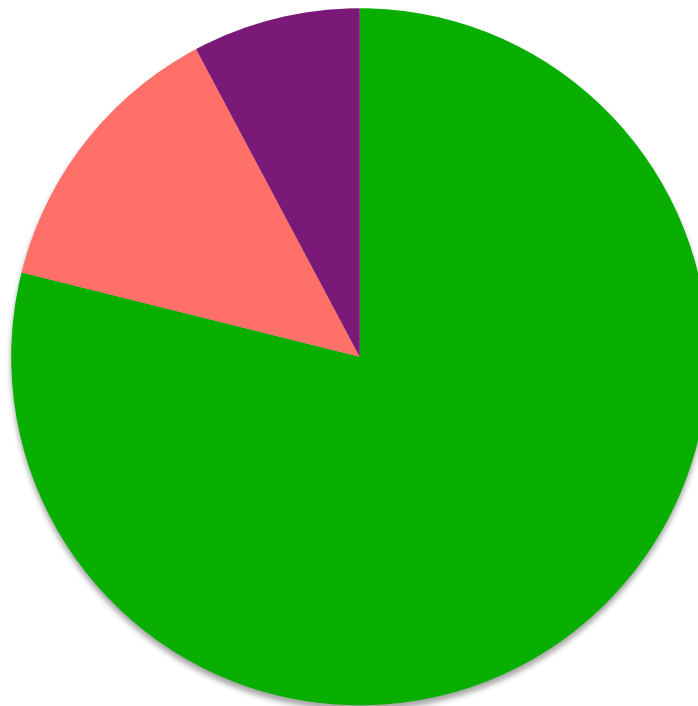
■ Silent Reading

■ Listening, Following Along to Oral Reading



7 Minutes of Additional Reading

**Reading Instruction
(w/ 7 additional minutes)**



■ Instruction ■ Time Spent reading ■ Additional 7 minutes



Way to increase reading?
Engage students in articles



Putting Two Words Together

volume 3
issue 2



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A lot of sports that people play use balls. In basketball, players try to get a ball through a hoop. In baseball, players use a bat to hit a ball. In football, players throw a ball to get it close to the goal.

There are other words with “ball” that describe things that are round. But they are not balls with which you play a game. Meatballs are not used in any sport. But

they are great with spaghetti.

Eyeballs help in playing sports. But there isn’t a sport called eyeball where teams throw and catch eyeballs. You wouldn’t want to be in a game that uses fireballs. If you would ever see a fireball, you should get as far away as fast as you can. Then call 911 right away. You should also watch out if a cannonball is going to be fired. It is round but you don’t want to play with a cannonball. You especially do not want to catch a cannonball!

There are some words, though, that have ball in them but it has nothing to do with round. Ballpoint pens make

writing a lot easier. It’s easy to see how the “point” got into ballpoint pen. But why the ball? That part is in the name because of the tip of a pen is round. There are also rooms that are called ballrooms. People hold balls in ballrooms but they aren’t the round kind.

Other words with ball have nothing to do with round. In these words, the “ball” part of the word is not even said the same as ball in baseball or meatball. Ballerina is not ball with “erina.” Ballerinas are dancers and the word has nothing to do with ball. A ballot is used by people to vote but it is not round. You don’t even say “ball” when you say the word ballot.

Whenever you see ball as part of a word, look carefully. Usually, the word has something to do with games and sports. But remember eyeballs, fireballs, and cannonballs. These balls may be round but they aren’t used in sports! Ballerina and ballot show that some words with “ball” have nothing to do with being round.



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Putting Two Words Together

volume 3
issue 2



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Kites: Dancers in the Wind

volume 3
issue 15



You're on a beach, and the wind is blowing off the ocean. Your kite floats and swirls, dancing in the wind.

Kites were invented in China more than 2,000 years ago. They were first used by the Chinese military, but about 1,000 years ago, people started flying kites for fun. Since then, kites have been used for celebrations, in competitions, and

for science. In addition, kite festivals show off the many shapes and colors of kites. These festivals are held in Japan, Pakistan, and many other countries.

The first kites were made of silk. After paper was invented, around the year 100 AD, people used it to make kites. Today, most kites are made of paper or cloth, with sticks to hold them in shape and string to hold onto them. However, there are also kites for skiing or for moving a buggy on a beach.

In ancient times, kites carried lines across rivers. These lines helped build bridges. In the 1880s, kites

were first used to take photographs. In the early 1900s, the United States Weather Bureau used kites to help with weather prediction. The kites measured winds and temperatures.

The word kite is from an Old English word that means "a kind of hawk." Kites were probably given this name because of the way they look when they fly.

To fly a kite, find a large open area, such as a park or a beach. Make sure there are no trees or power lines the kite can get caught on. Then hold the kite's string up and run. The kite will lift when it catches the wind. Guide your kite by pulling the string. Make sure you look around when you're running so you don't run into anything.

As you watch the kite, notice how it moves. If the wind is just right, your kite will dance, too, swirling as the wind takes it high up into the sky.



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**Readworks.org has
approximately 4,500 free
passages for Grades 1-High
School—including 450
curated sets of articles in the
Read-an-Article-a-Day
initiative**

Idea	Action	Open-Access Resource
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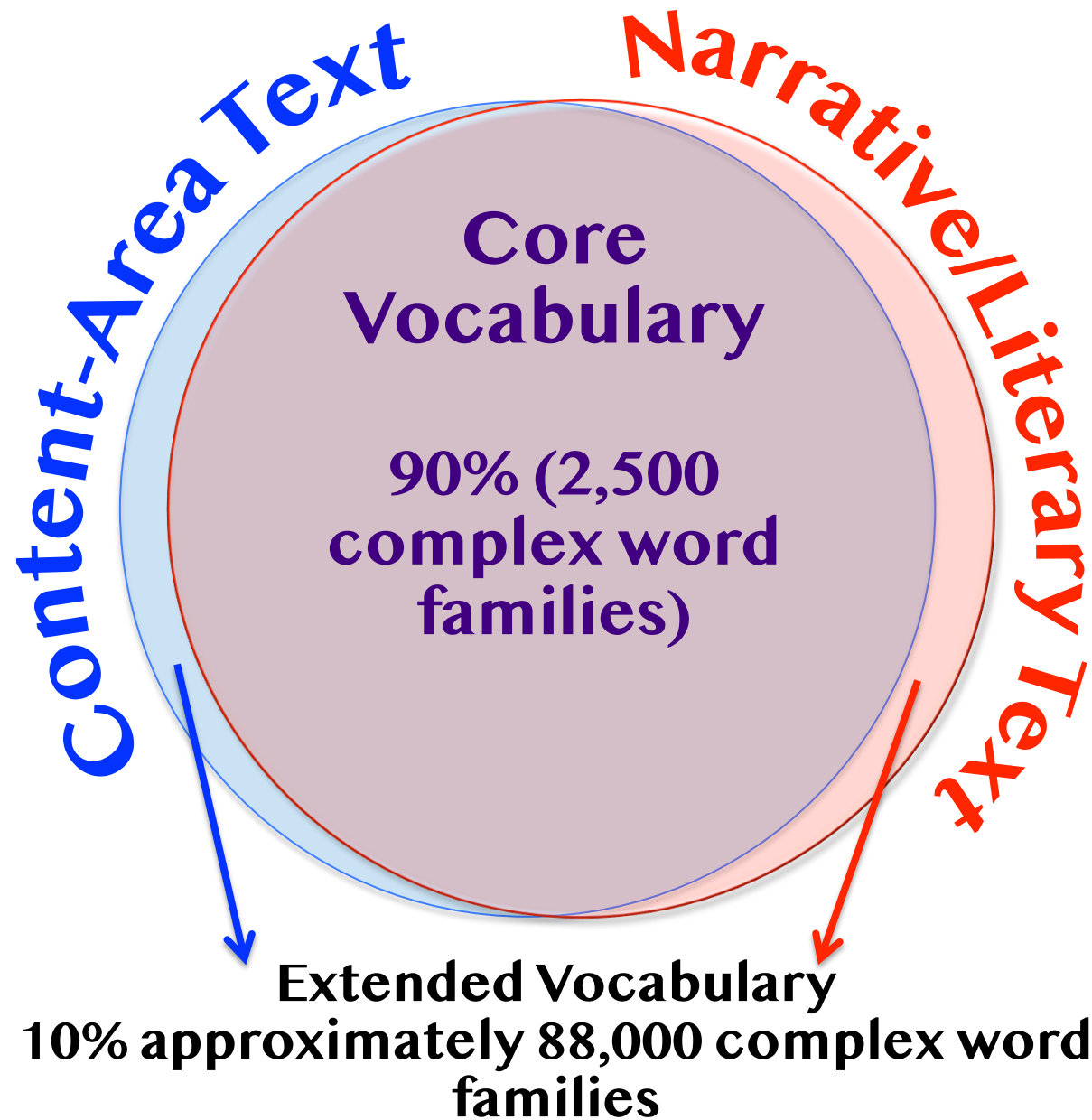
Discussion 3

- 1. How is rare vocabulary taught in narrative texts? In expository texts?



**Idea 3: Rare words are part
of networks**

The Other 10%: Rare Words in Writing



Narrative Text

Even with eyes protected by the green spectacles, Dorothy and her friends were at first dazzled by the brilliancy of the wonderful City. The streets were lined with beautiful houses all built of green marble and studded everywhere with sparkling emeralds. They walked over a pavement of the same green marble, and where the blocks were joined together were rows of emeralds, set closely, and glittering in the brightness of the sun. The window panes were of green glass; even the sky above the City had a green tint, and the rays of the sun were green.

From *The Wonderful Wizard of Oz* Frank Baum)

(a)
**Networks in
narratives
are
synonyms
related to
story
elements.**

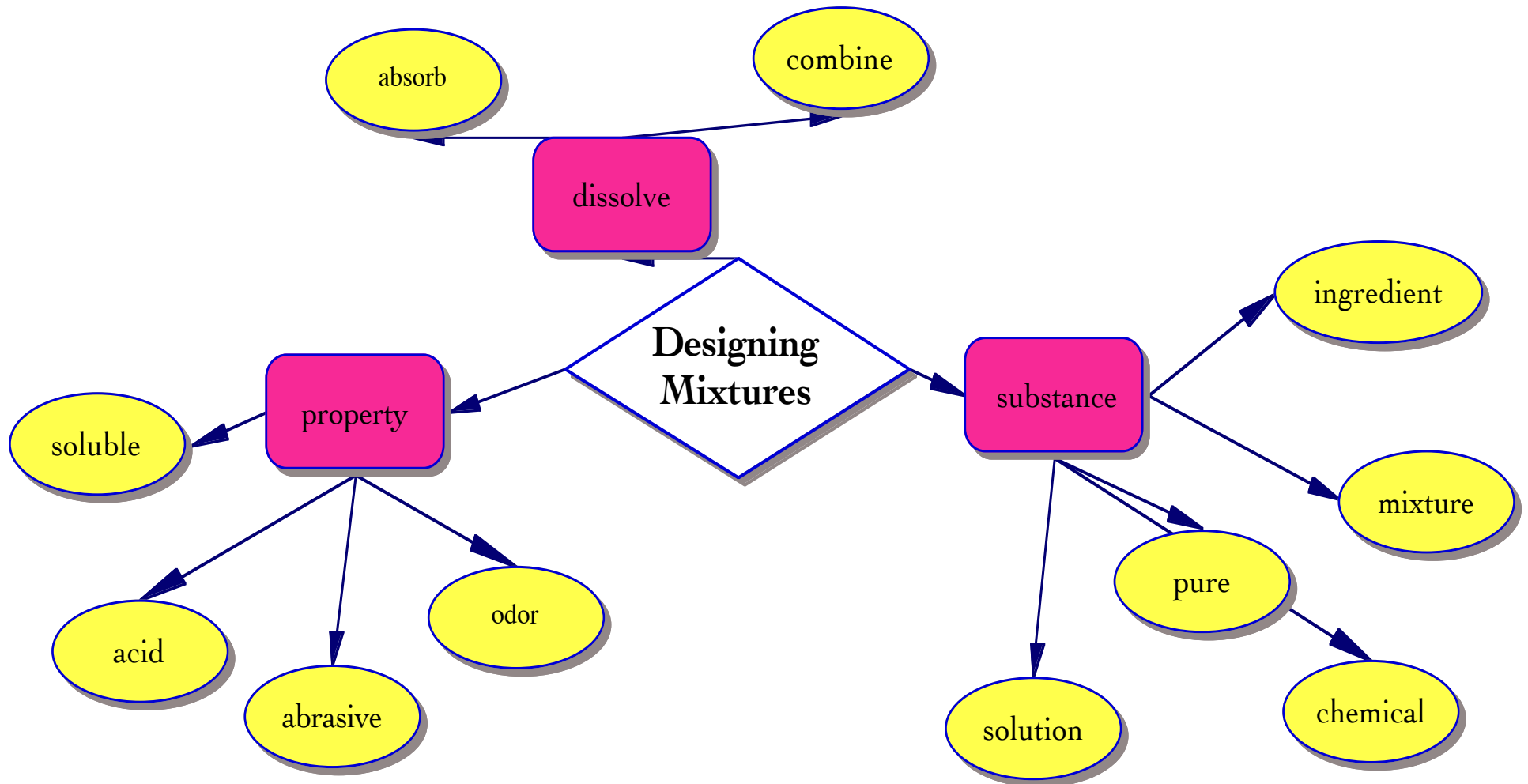
Story Word	Other Possibilities
dazzled	hypnotized awed
brilliancy	effulgence luminosity
glittering	shimmering radiance

(b) The rare words in
informational texts
belong to topical
networks.

Informational Text

A simple solution is basically two substances that are evenly mixed together. One of them is called the **solute** and the other is the **solvent**. A solute is the substance to be dissolved (sugar). The **solvent** is the one doing the dissolving (water). As a rule of thumb, there is usually more **solvent** than **solute**. The amount of **solute** that can be dissolved by the **solvent** is defined as **solubility**.

An Example of a Topical Network



A close-up photograph of a young child's face, focusing on the eyes and nose. The child has light blonde hair and blue eyes. The background is softly blurred, showing hints of a blue garment and warm, natural light. A semi-transparent yellow rectangular box is overlaid on the upper portion of the image, containing the title text in blue.

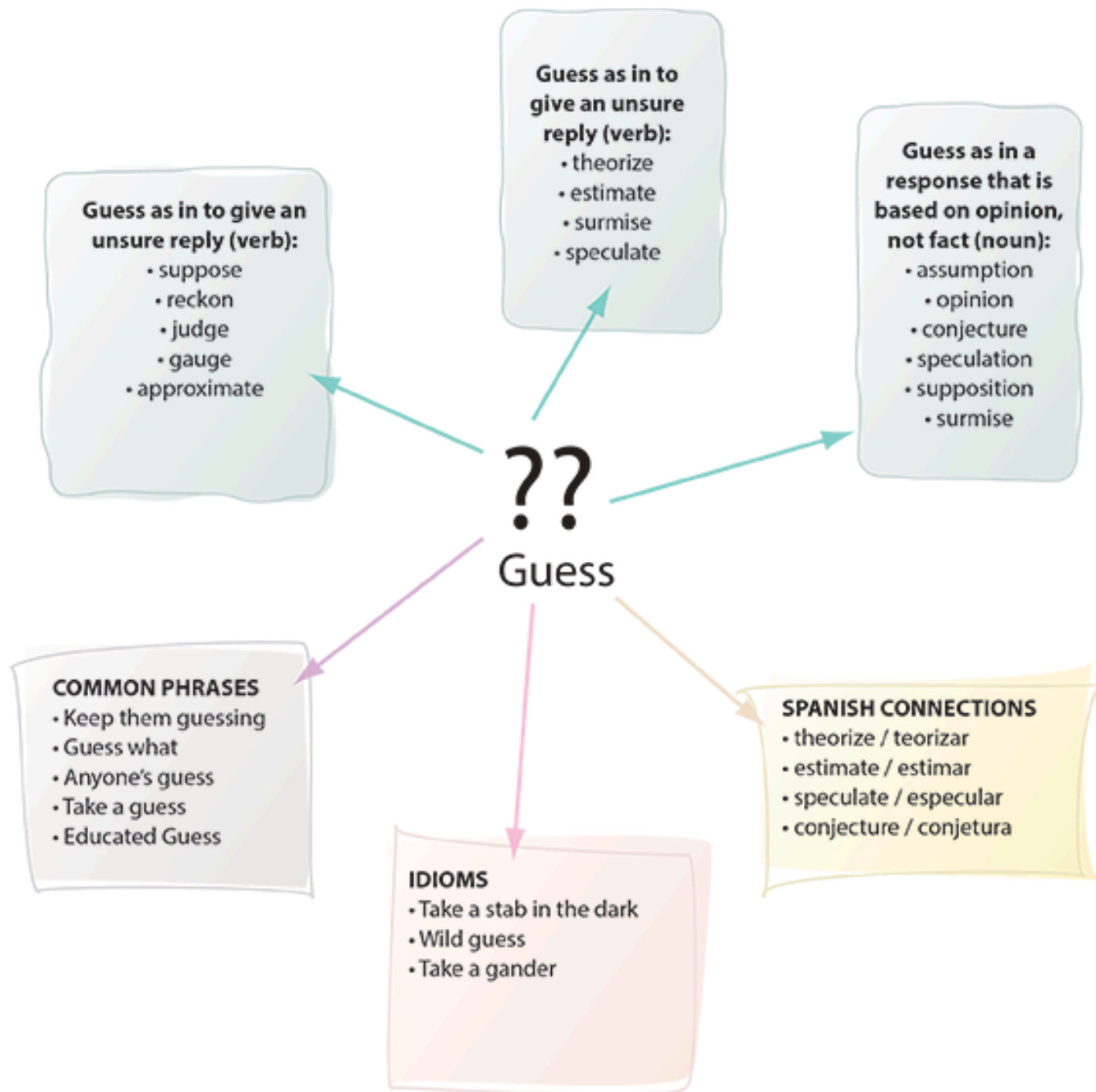
Small Change 3a: Teach Prolific Synonym Networks



Synonym Networks in Narrative Texts

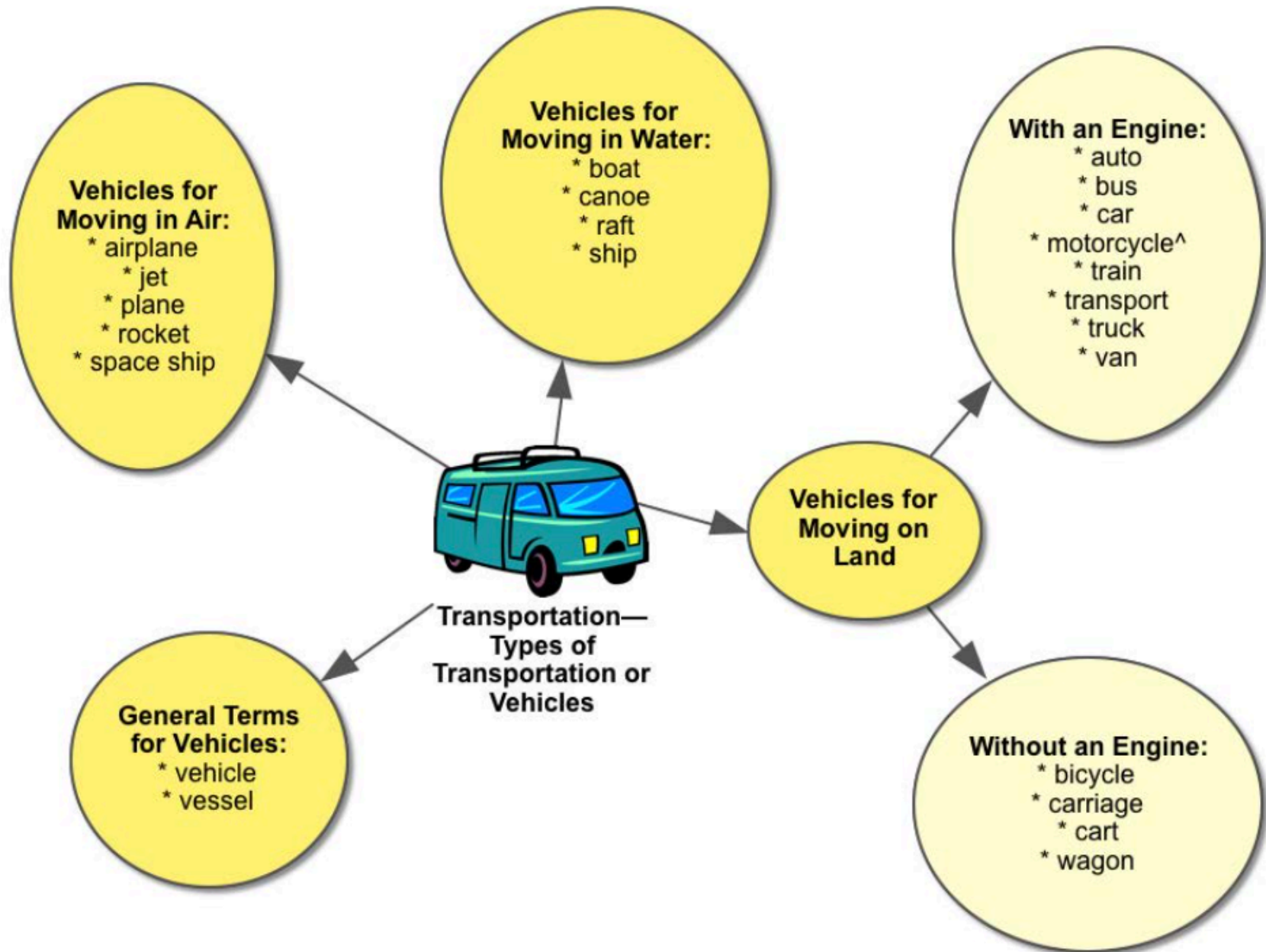
Prolific Groups of Synonyms

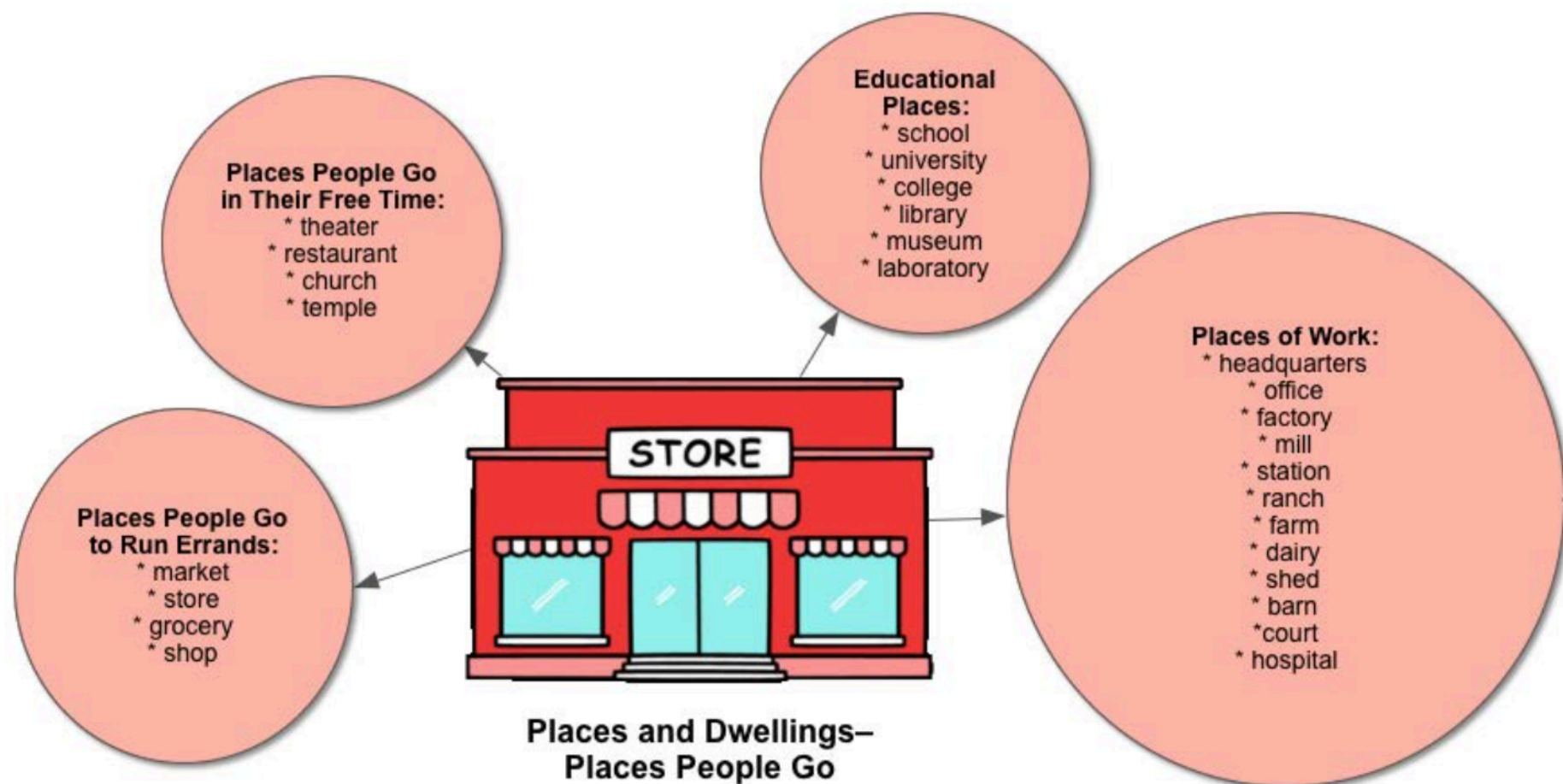
Communication /Internal Processes (verbs)	Emotions (adjectives)	Movement (verbs)	Traits (adjectives)
think	happy	go	funny
argue	sad	send	smart
look	mad	start	brave
guess	hope	stop	selfish
said	fear	stay	shy

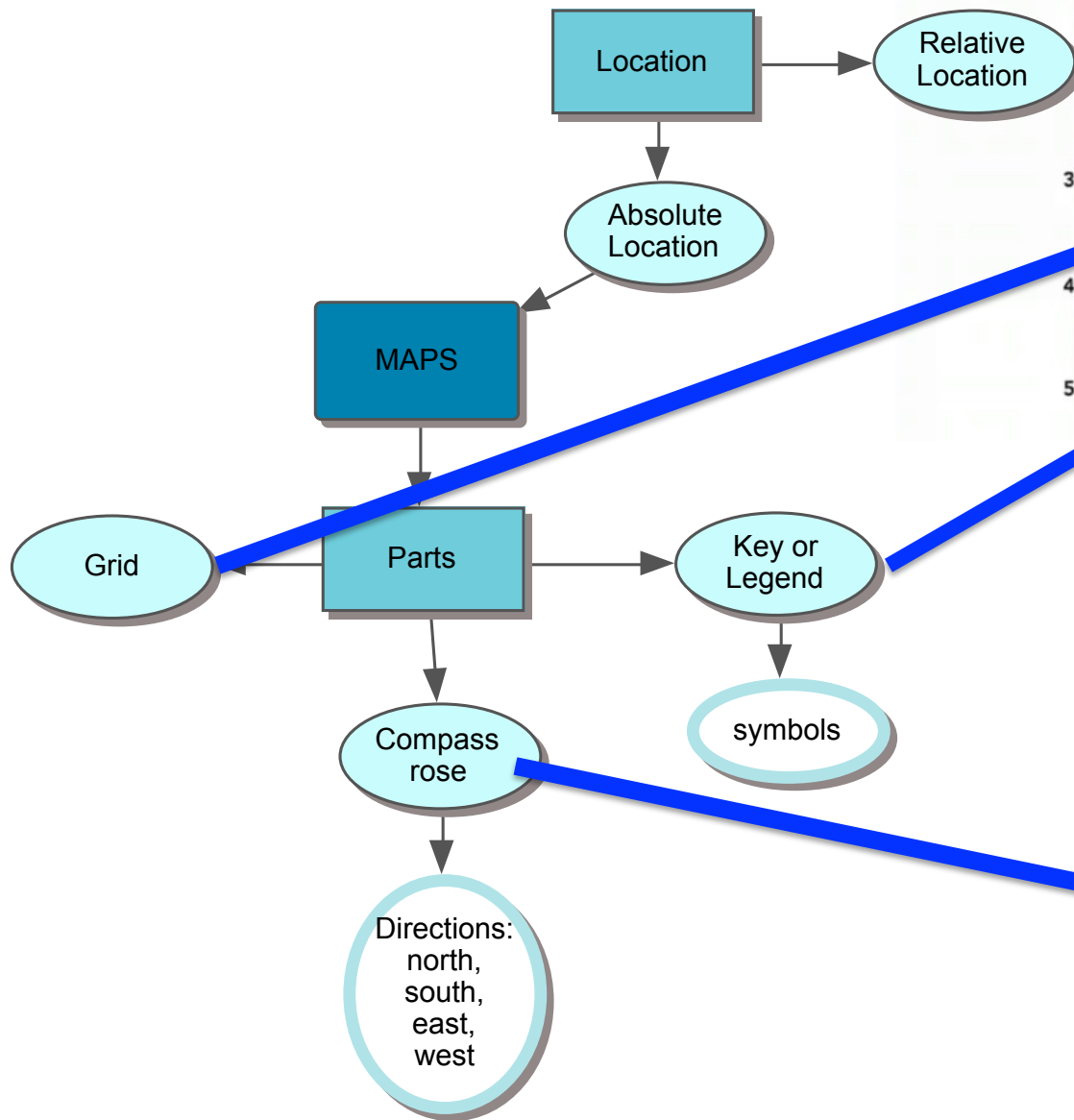


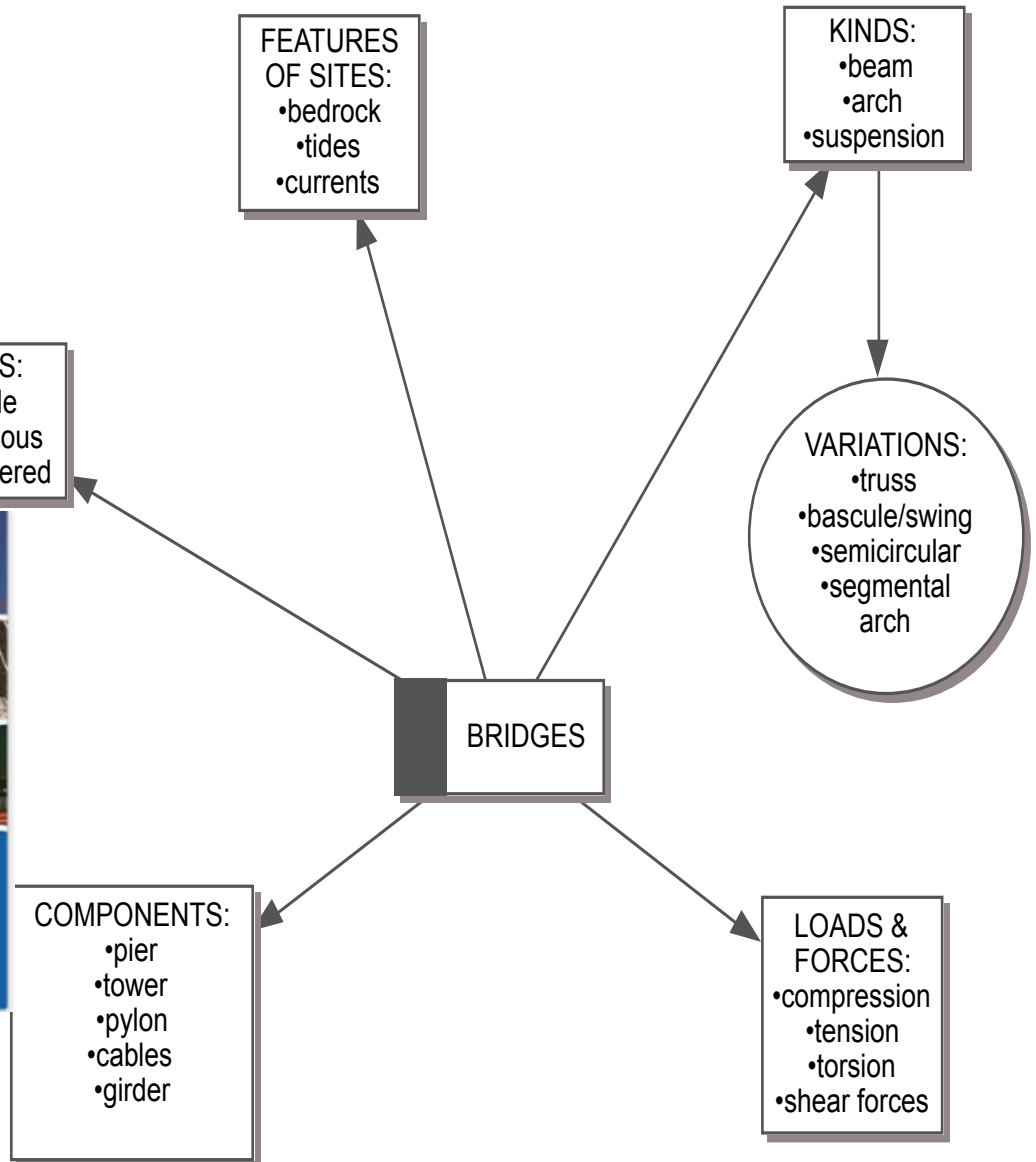
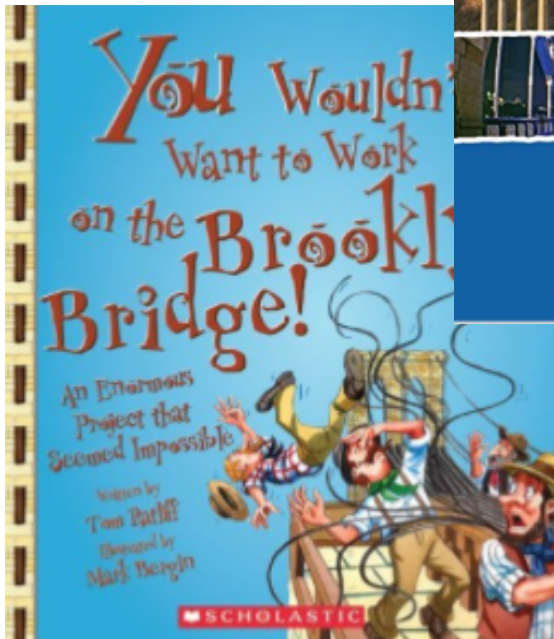
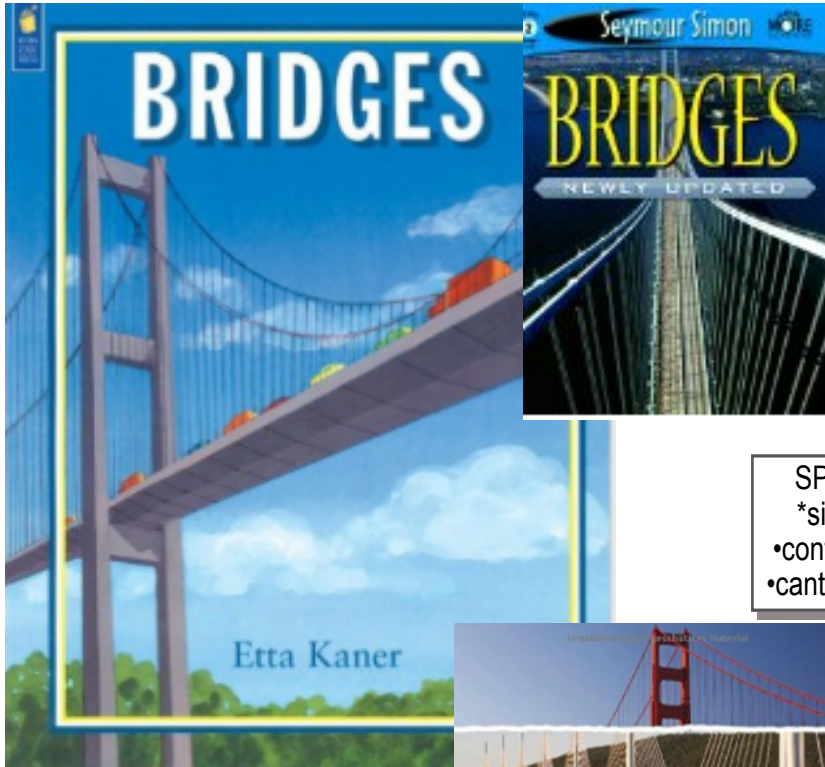


Small Change 3b. Teach vocabulary in topic networks.









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