The Common Core State Standard of Text Complexity: What does it mean? How can we make it happen?

ELFRIEDA H. HIEBERT TEXTPROJECT

Today's Focus

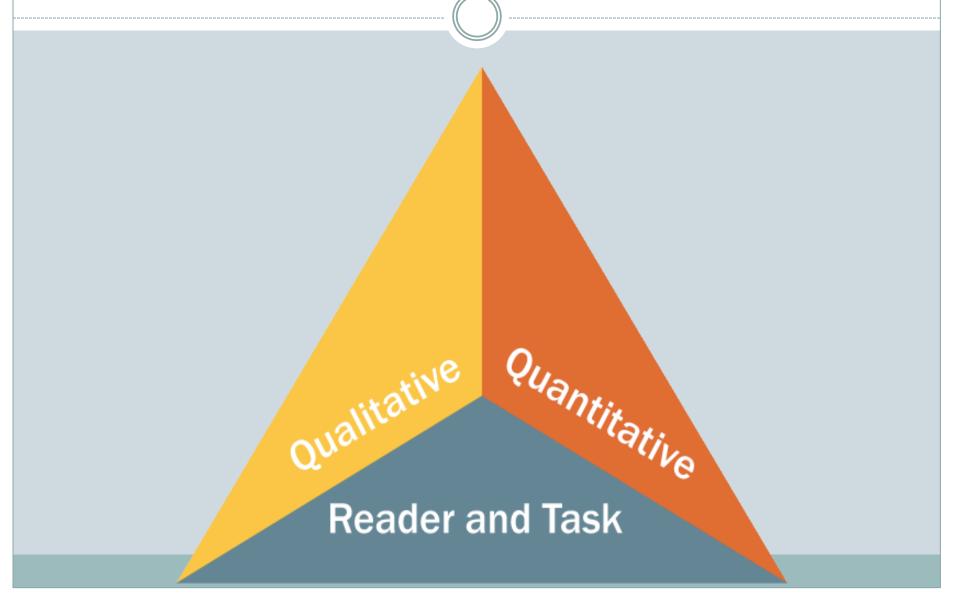
- 1. What is the "text complexity" goal of the Common Core State Standards (CCSS)?
- 2. What does it mean for American students and their teachers?
- 3. How can we make it happen?

1. What is the "text complexity goal of the Common Core State Standards?

Standard #10 of the Common Core State Standards: English/Language Arts:

 By the time they complete high school, students must be able to read and comprehend independently and proficiently the kinds of complex texts commonly found in college and careers.

The view of text difficulty within the Common Core State Standards



Grade Bands & Associated Lexile Ranges

Text Complexity Grade Band in the Standards	Old Lexile Ranges	Lexile Ranges Aligned to CCR expectation
K-1	N/A	N/A
2-3	450-725	450-790
4-5	645-845	770-980
6-8	860-1010	955-1155
9-10	960-1115	1080-1305
11-CCR	1070-1220	1215-1355

	Sarah: Plain & Tall	Bats: Creatures of Night	Henry & Mudge	Fire Cat	Martin Luther King	Art around World
Lexile	430	450	460	480	560	680
Word Frequency	3.84	3.55	3.65	3.76	3.65	3.35
Sentence Length	8.4	7.5	8.0	8.7	9.1	9.12

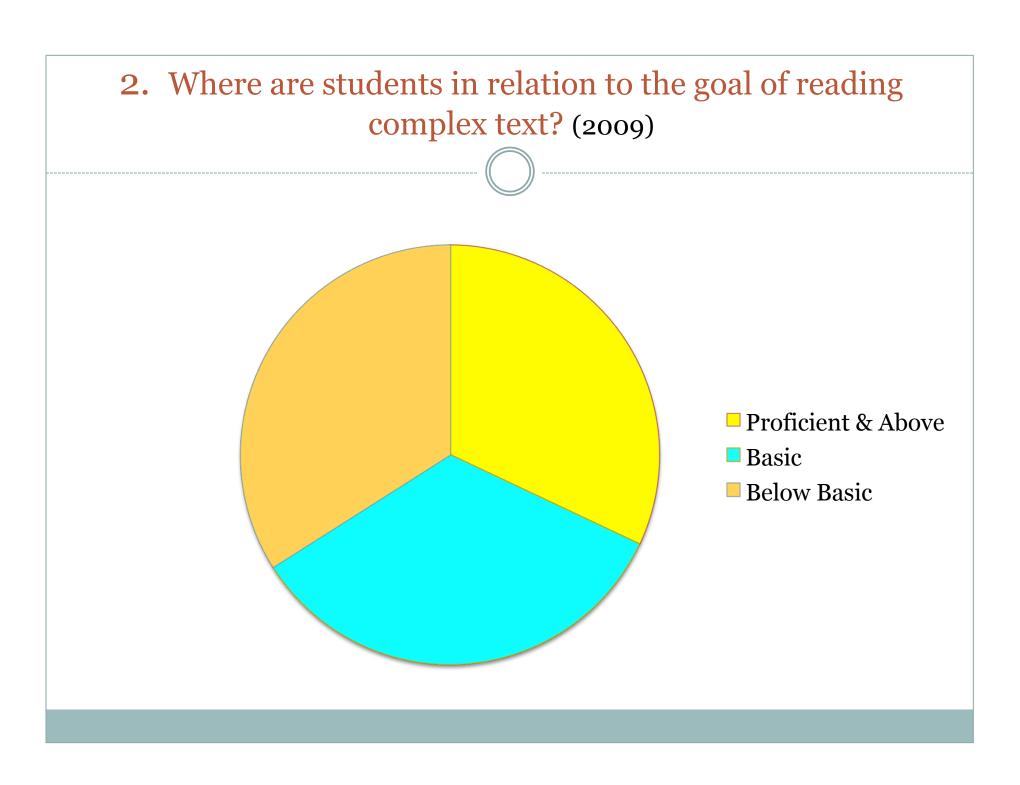
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CCS/ELA Exemplar Sample (Hiebert, 2010)

- Lexile & Sentence Length: .86
- Lexile & MLWF: -.51

K-1 set of 444 texts (Hiebert & Pearson, 2010)

- Lexile & Sentence Length: .57
- Lexile & MLWF: .06



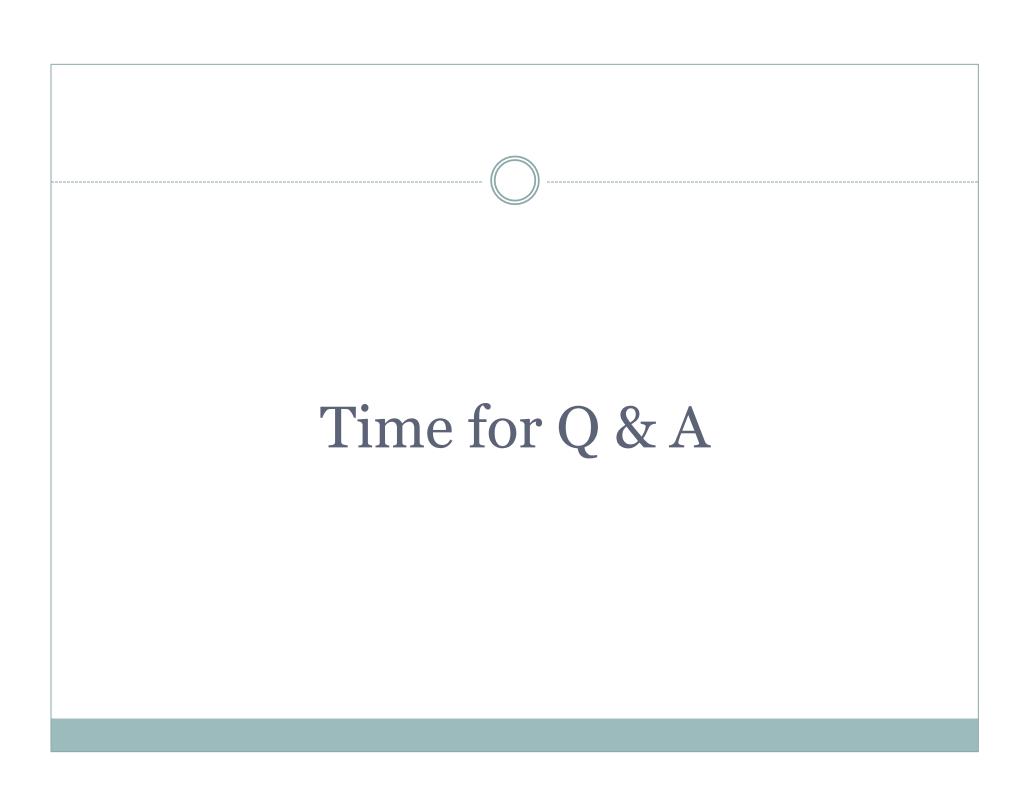
Text Difficulty Range:

New (Common Core State Standards) & Old (Metametrics)

	450-600	600-750	750-900	900-1,050	1050-1200	1200-1350
2-3		\Rightarrow				
4-5			0			
6-8						
9-10						
11-CCR						

\Rightarrow	Average level of Gr. 2-3 exemplars provided by CCS
	Average level of Gr. 4-5 exemplars provided by CCS
0	Average Level: National Assessment of Educational Progress (Gr. 4)

Hiebert, E.H. (October, 2010). Anchoring Text Difficulty for the 21st Century: A Comparison of the Exemplars from the National Assessment of Educational Assessment and the Common Core State Standards (Reading Research Report 10.02). Santa Cruz, CA: TextProject, Inc.

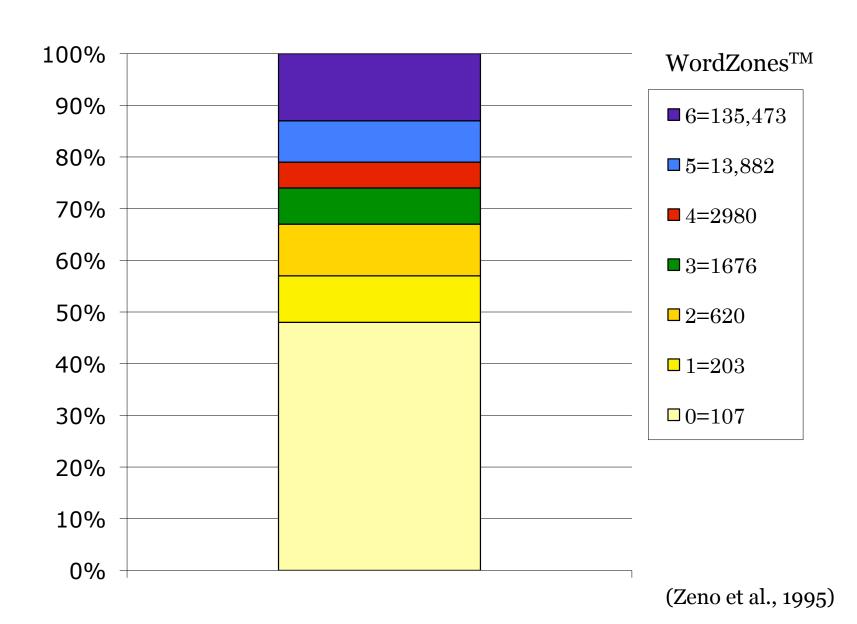


3. How can we make it happen?

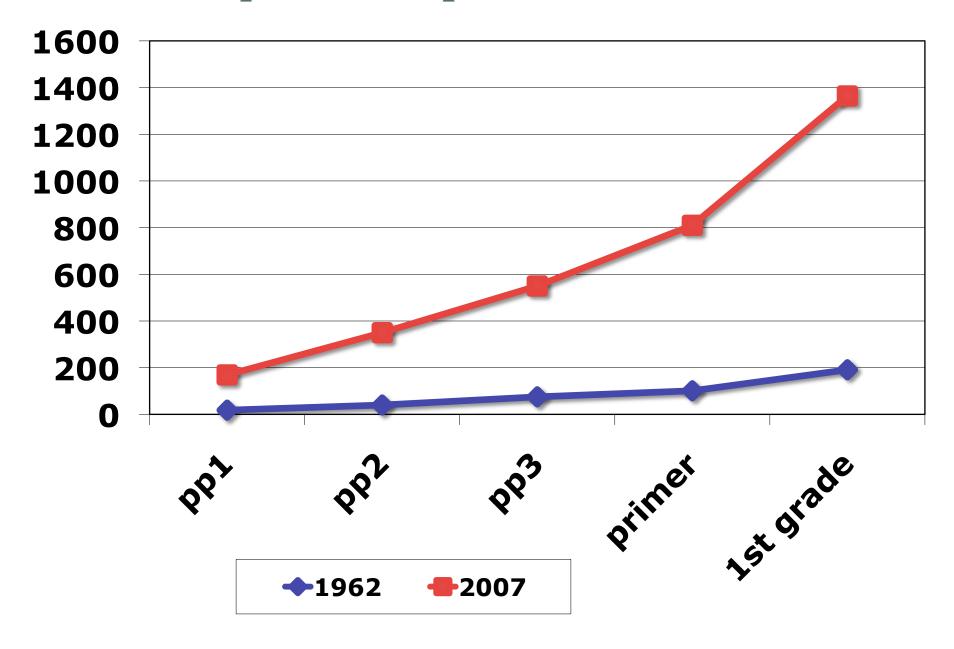
How 1: Read accessible text that supports automaticity with the goal of increasing Comprehension-Based Silent Reading Rate (CBSRR)

How 2: Concepts, concepts, concepts, especially in *accessible* informational text.

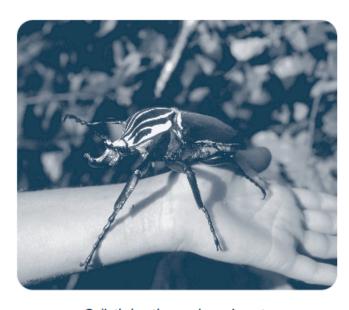
Words in American Schoolbooks



Unique Words per Unit: Grade 1



Level A	300 most frequent words; short and long vowels
Level B	600 most frequent words; short, long and r controlled vowels
Level	1000 most frequent words; all monosyllabic words
Level D	1000 most frequent words; monosyllabic words; two-syllable words with regular vowel patterns
Level E	2,500 most-frequent words (plus monosyllabic words)
Level F	5,000 most frequent words (plus monosyllabic words)



Goliath beetles are large insects that have feelers and wings.

What Is an Insect?

A flea can be so small that you might not see it land on this page. A Goliath beetle can be²⁵ as long as half of this page. Fleas and Goliath beetles are different in size, but they are both insects.

Many insects have feelers for smelling and wings for flying. However, some insects do not have feelers and wings.

How are insects the same? All insects have six legs and ⁷⁵ a three-part body. This means that fleas and Goliath beetles have six legs and three-part bodies.⁸³

Insects



The shells of ladybugs are red with black dots.

An Animal with No Bones

Without bones, people would be like jam. Bones help people walk and stand. Insects don't have any bones inside their bodies. Yet they can fly, crawl, or jump. How do they do it?

In place of bones, insects have a hard shell on the outside of their body. The hard shell makes insects strong. It keeps their soft, inside parts safe. The hard shells of many insects are beautifu. Ladybugs have a red shell with black dots. Their shells make it easy to find ladybugs resting on flowers.

The Speed of Insects

Most insects have wings. Other than birds and bats, insects are the only animals that can fly. Insects fly at different speeds. One kind of fly goes 35 miles an hour. Houseflies go five miles an hour. That's still fast when you are trying to catch a housefly!

Insects without wings jump or **crawl**. One kind of flea can jump more than one foot into the air. Other insects crawl, such as **cockroaches** and ants. One kind of cockroach can crawl 3 miles an hour. That's fast for a small insect.

Where Insects Live

When you play in a park, o to 2,000 insects may be around you. Some are underground. Others are on plants or trees. You might not see many of these insects because insects often look like the rocks or plants around them. A leaf insect looks like a leaf on the trees around it.

There are more insects on earth than any other kind of animal. Insects live in most places on earth. Some insects even live in water. The only place without insects is the deep water of the sea.

How Insects Help and Hurt

When a housefly buzzes around your head at night, it's a pest! Some insect pests can hurt plants, animals, and people. Flies can carry germs that make people sick. Ticks can feed on animals and even people. Some kinds of insects eat farmers' crops.

However, many insects are helpful to plants, animals, and people. Ladybugs eat the greenflies that eat plants. Without ladybugs, some plants would be eaten by greenflies. Many beetles eat dead things like leaves. By doing this, they help the farmers' crops to grow.

ANCHORING LEARNING IN KNOWLEDGE & COMPREHENSION: SCIENCE/SOCIAL STUDIES STANDARDS: Grade 2

Life Science	Earth Science	Physical Science
Do Animals Talk? Insects	Weather Water and Us	Magnets Forces Around Us
Trees	Rocks	Thinking Like a Scientist
Civics	Geography/ Economics	History
National Symbols	Maps	Children's Games
Being a Citizen	Money	Transportation Then
Brave Americans	Jobs Around Us	and Now
		Life in Colonial
		America

Jobs Around Us



Police officers help keep people safe.

Keeping Us Safe

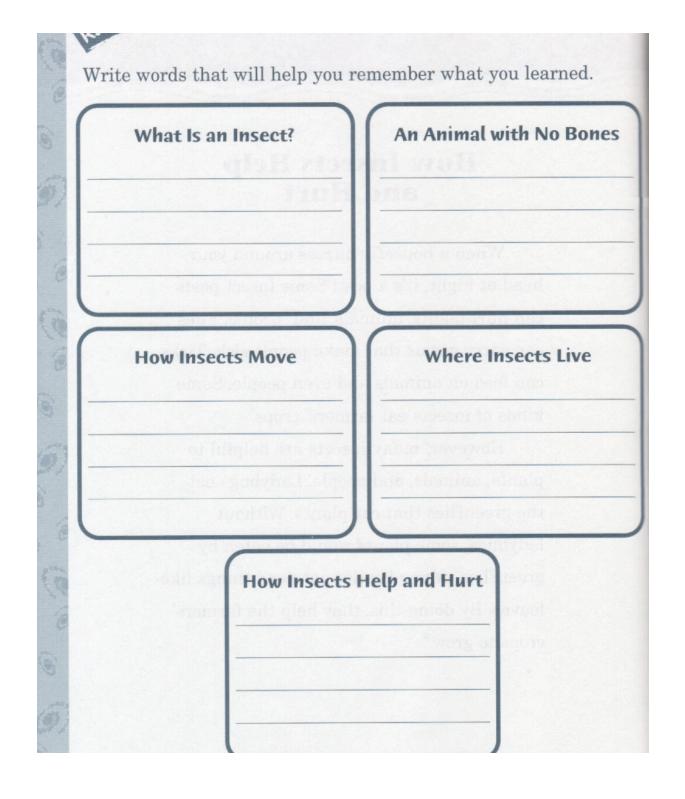
Police officers work hard to keep towns and cities safe. They help when there are accidents. Police officers also try to stop²⁵ accidents. They make sure that people don't break rules that might end in an accident.

Firefighters put out fires in buildings, cars, and forests. They⁵⁰ save people who are trapped in burning buildings. Firefighters try to stop fires in forests before the fires get to towns.

People who pick up⁷⁵ garbage also help keep towns and cities safe. If garbage is not picked up, people can get sick from germs.

People work day and night to keep us safe¹⁰⁴

Knowledge
Acquisition &
Comprehension
are the core



	I Read This	New Words I Learned	New Facts I Learned	What Else I Want to Learn About This Subject
Do Animals Talk?				
How Animals Communicate				
The Honeybee Dance				
Whales				
Dogs				
Danger Signals				
Insects				
What Is an Insect?				
An Animal with No Bones				
How Insects Move				
Where Insects Live				
How Insects Help and Hurt				
Trees				
What is a Tree?				
Make a Guess				
The Giants of Trees				
How Water Moves Through Trees				
Rings in Trees				

Vocabulary

Words represent concepts

• Instruction needs to systematically develop students' concepts BUT:

 Concepts of narrative and informational texts differ substantially from one another

Means for Features of Words in Narrative and Informational Texts

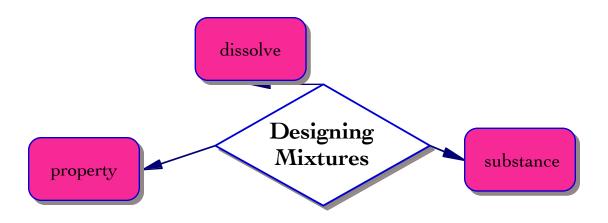
	Narrative	Informational
Familiarity (LWV Grade)	6	7.5
Frequency (U function)	13.7	39.1
Frequency of Morphological Family	26.7	31
Dispersion Index	.60	.61
Length	7.3	7.8
Conceptual Complexity	1.4	2.3

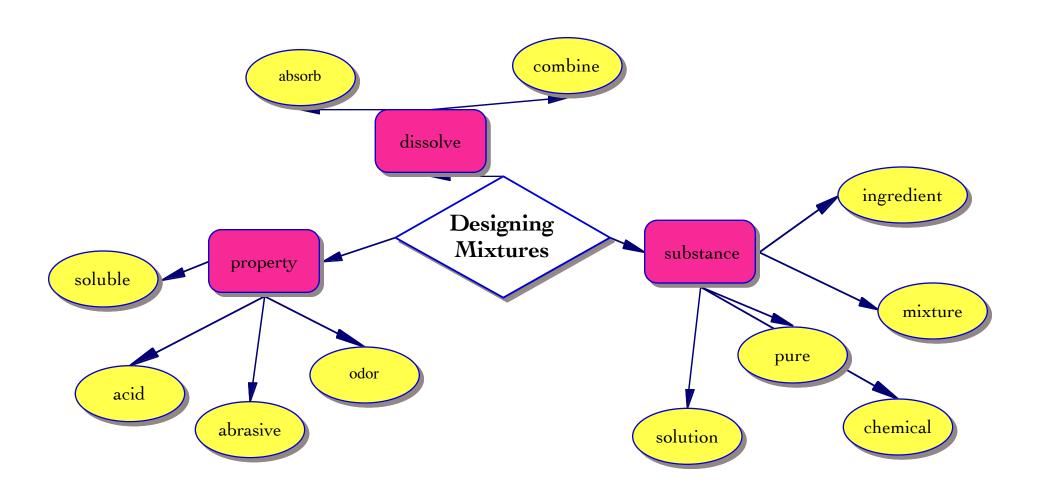
From Hiebert & Cervetti (in press). What Differences in Narrative and Informational Texts Mean for the Learning and Instruction of Vocabulary.

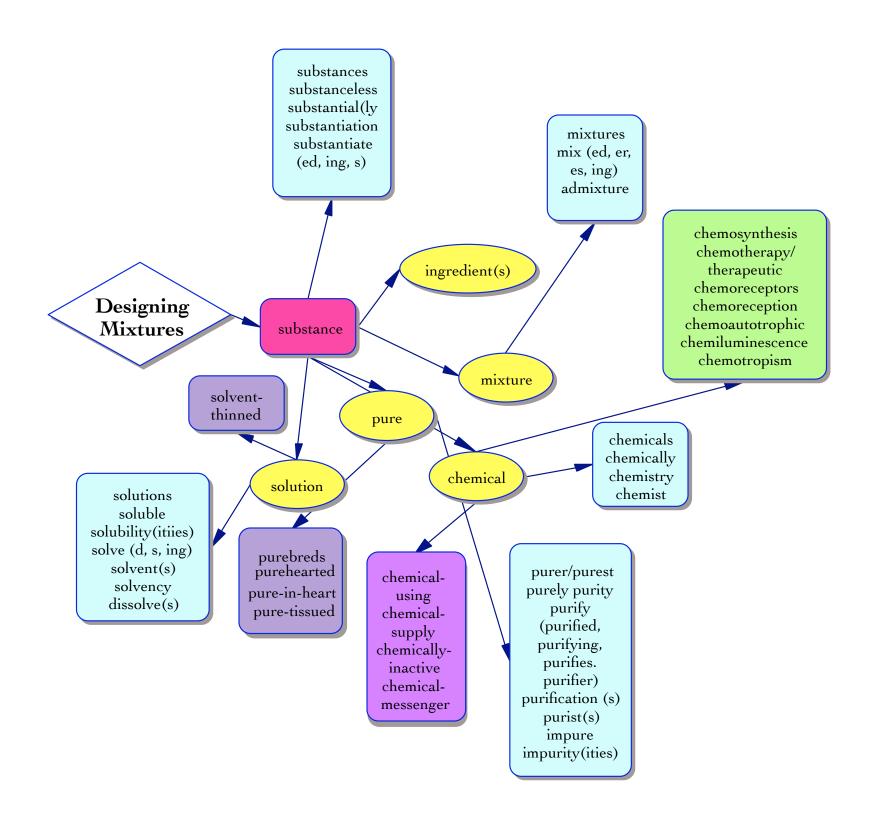
Differences between the vocabulary of narrative and informational texts

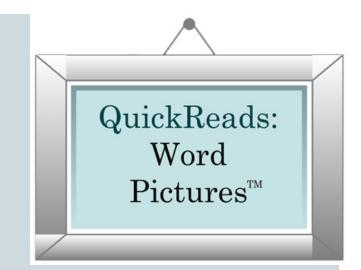
- Informational texts represent core ideas about the physical world. Choices need to be made about what core ideas are important.
- The vocabulary of narrative texts pertains to the experiences of human beings (the social/emotional world) and their interactions with one another within the physical world.

Case 1: Concepts/Vocabulary in Content Areas







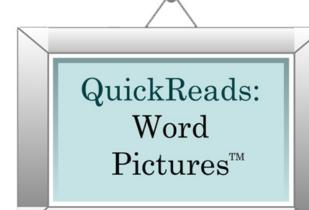


• Information

means "facts that tell you something about a person, place, event, thing, etc."



Photo: Shelves of the Main Library of Tampere, Finland. August, 2007. ©2007 by Saruwine in en:wikipedia. Some rights reserved http://creativecommons.org/licenses/by-sa/3.o/deed.en



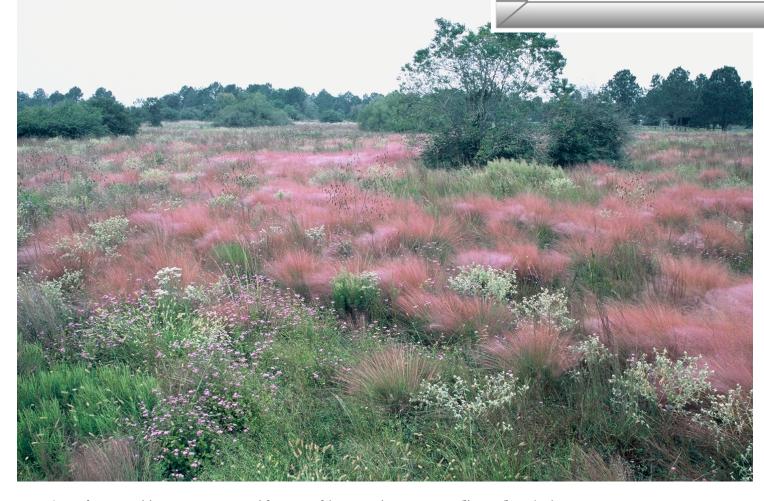
Nectar



Photo: A female ruby-throated hummingbird sipping nectar from scarlet beebalm. Louisville, Kentucky. June, 2006. ©2006 by Joe Schneid Some rights reserved (www.creativecommons.org/licenses/by/3.0).



QuickReads: Word Pictures $^{\text{\tiny TM}}$



Case 2: The concepts/vocabulary of human experiences

How the Night Came to the Sea

Motion

swirling drooping squeezed tremble calmed hushed soothed leaps/lept surging swirling wading awoke Ways of Being

faithful coward terrified rested suffering longing

reigns dwell/dwelt celebrate baking

kinship

Communication (sound)

cried
listened
begged
commanded
hum
chorus*
decided
warn
announce
screeching
stared
greet
praying

People/ Animals/ Objects/ Events

> alligators beasts bullfrog rooster

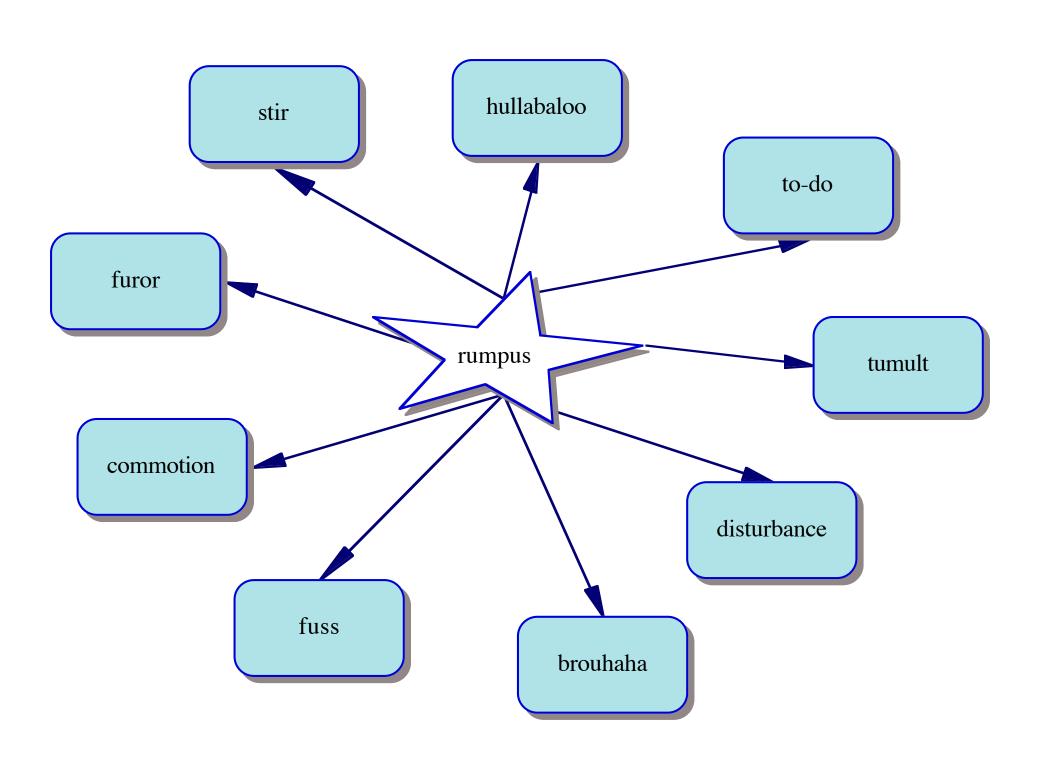
goddess watchman lemanja (African name)

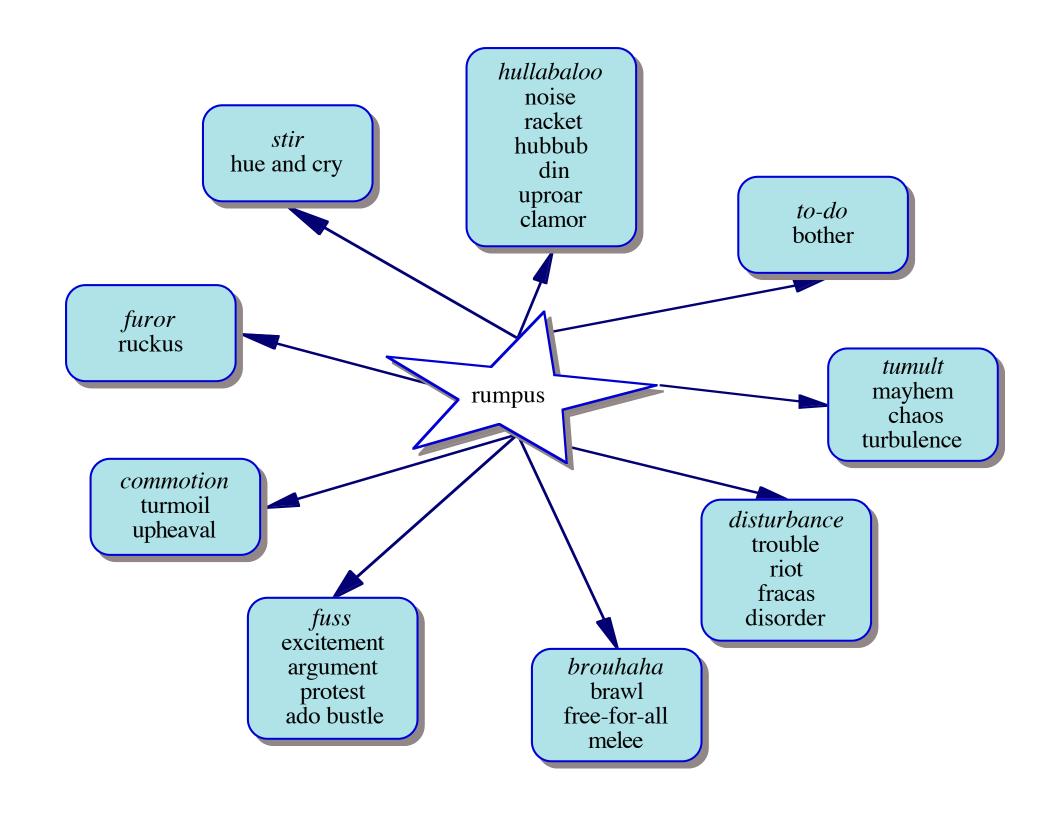
cocoa coconuts sugarcane jewels perfume petals razor reefs festivals Forms of light & the way light shines

starlight
starlight
moonlight
moonbeams
sunrise
dusk
sunset
sunlight
madragada
(early
morning:
Portuguese)

flickered gleamed shimmering* glittering gleamed* sparkling brilliant brightness







sweltering tepid warm sultry lukewarm torrid scorching steaming Scalding







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Change

EXCEPTIONAL EXPRESSIONS FOR EVERYDAY EVENTS:

Changing the subject, let's talk about *change*. *Change* is widely used as both a verb and a noun, but in all cases it refers to a situation in which something is made or becomes different in some way. A decisive battle in a war might change the course of

history. Maple leaves change bright orange and yellow in autumn. Flying from the West Coast to the East Coast of the U.S. may require travelers to change planes several times. School events may require teachers to change or adjust their class schedules. In a science class, students may learn about changes that occur in nature, such as the metamorphosis of a caterpillar to a butterfly. In history, they may study social changes during different eras. In a different context, converting a large bill into smaller denominations, or converting a dollar bill into coins, is called making change.

Changes can be very minor, for instance correcting a typo in a report, or extreme, such as the devastating impacts of a hurricane or flood. Many more explicit words exist that can be used instead of *change*, such as alter, modify, transform, evolve, adapt, revamp, revise, and mutate.

FOLLOW-UPS:

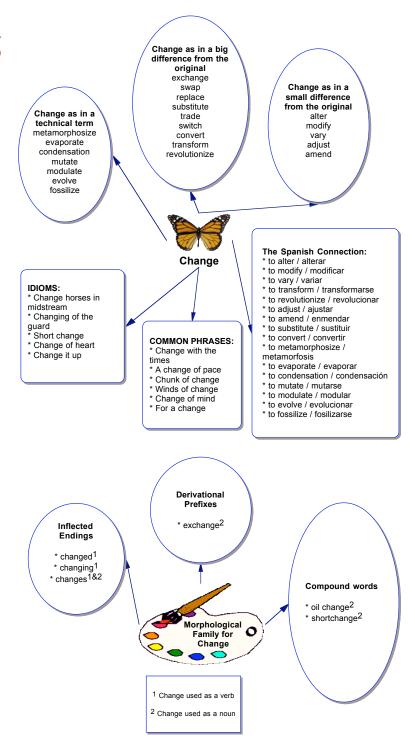
- How is revolutionizing the design of a car different from altering the design?
- Would you modify or substitute a recipe?
- How is the metamorphosis of a person different from the metamorphosis of a caterpillar?

THE SPANISH CONNECTION:

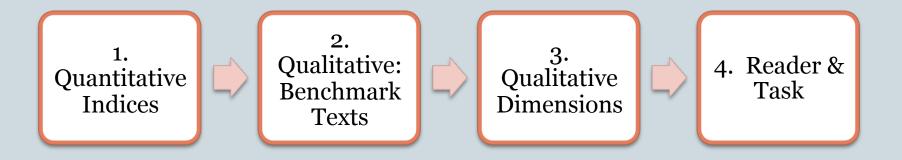
Change is a Middle English word. Experts believe that the Middle English word ultimately came from the Latin words *cambiare* and *cambire*, meaning exchange or barter. The Spanish word for change, *cambiar*, is likely to have come from the same Latin words. *Change* and *cambiar* would be cognates if *change* had not undergone modification in Old French and Middle English. Synonyms of *change* have remained close to its Latin roots and have corresponding cognates in Spanish.

WORD CHANGES:

- The idiom "sea change" describes a very deep, significant transformation. The
 industrial revolution brought a sea change in the livelihoods of people around the
 world. The phrase originated with Shakespeare in his play *The Tempest*.
- The Greek prefix meta- has several meanings, one of which is common in words having to do with change, such as metamorphosis and metamorphic rock. Metahas quite a few uses in specific content areas such as geology and chemistry.



Text Complexity Multi-Index



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Research Brief: Looking "Within" the Lexile for More Guidance: Word Frequency & Sentence Length (now available)

Reading Research Report series: Establishing Text
Complexity: A Case for Using Multiple Sources
(available on March 1)

