# Text Complexity & English Learners:

Assumptions, Implications, & Alternatives

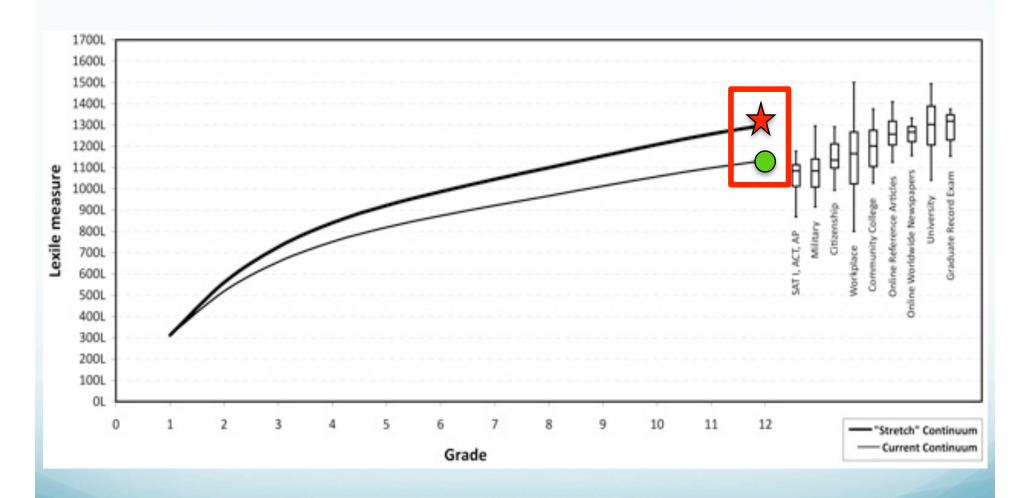
Elfrieda H. Hiebert
TextProject &
University of California, Santa Cruz

# Assumptions

# Assumption 1: Dumbing-down of texts

- K–12 reading texts have actually trended downward in difficulty in the last half century.
  - Common Core State Standards, Appendix A, page 3

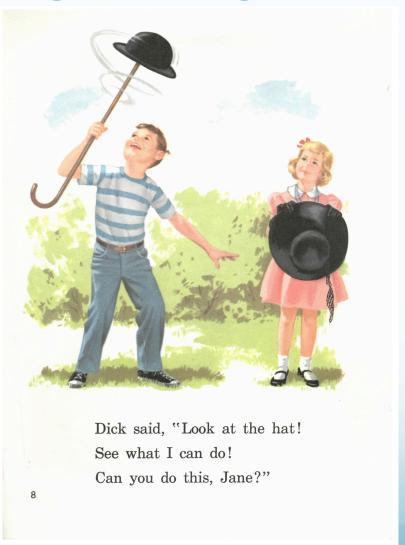
#### Claims for Dumbing Down



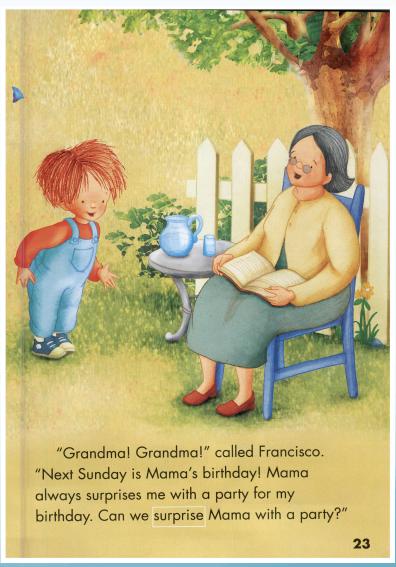
Stenner, A. J., Koons, H., & Swartz, C. W. (2010). Text complexity and developing expertise in reading. Chapel Hill, NC: MetaMetrics, Inc.

#### Grade 1 Textbooks

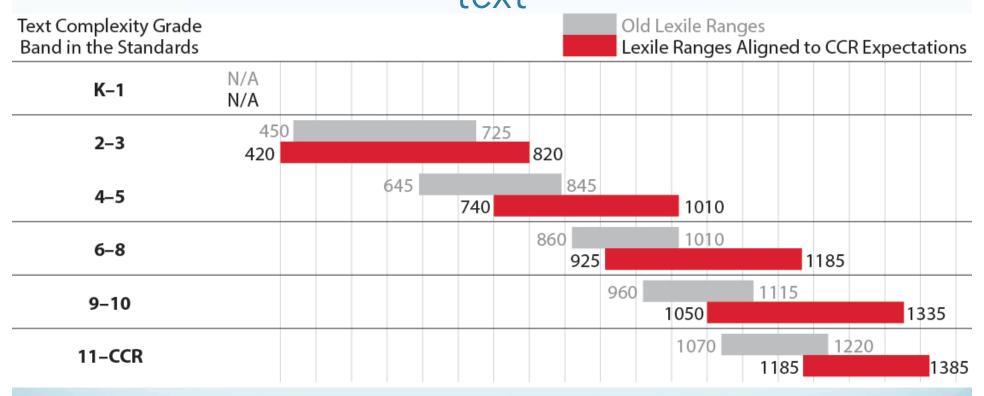
©1960 (analyzed by Chall in Learning to read the great debate)



© 2013



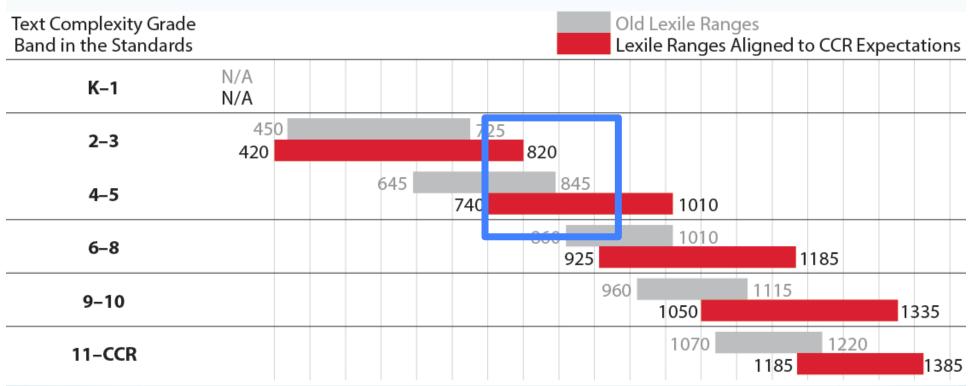
# Assumption 2: Raising text levels by end of elementary school ensures HS proficiency with complex text



Hiebert, E.H. (October, 2010). Anchoring Text Difficulty for the 21<sup>st</sup> 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.

#### Assumption 2:

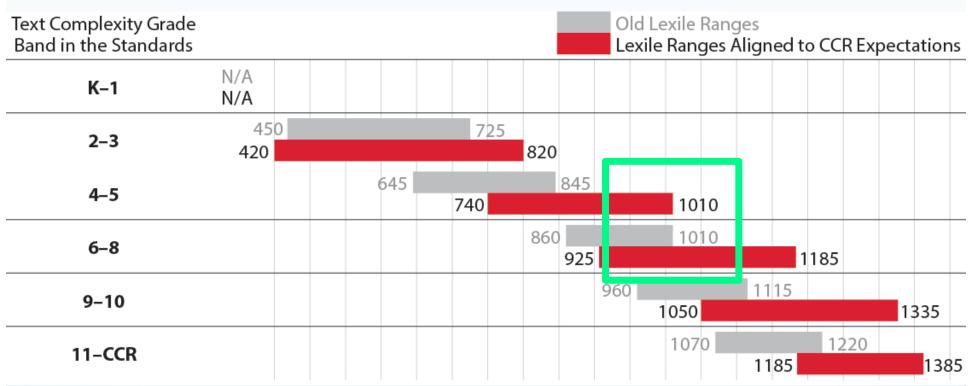
# Raising text levels by end of elementary school ensures HS proficiency with complex text



Hiebert, E.H. (October, 2010). Anchoring Text Difficulty for the 21<sup>st</sup> 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.

#### Assumption 2:

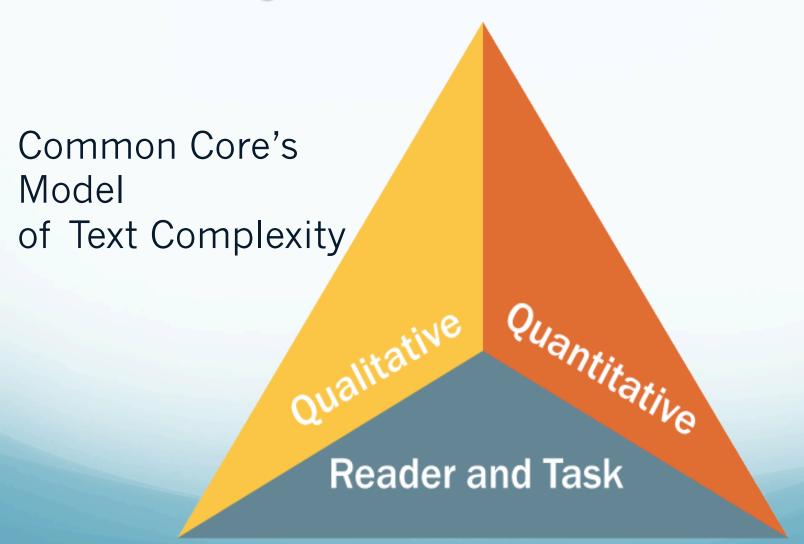
# Raising text levels by end of elementary school ensures HS proficiency with complex text



Hiebert, E.H. (October, 2010). Anchoring Text Difficulty for the 21<sup>st</sup> 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.

#### Assumption 3:

Quantitative text analysis systems that rely on syntax and vocabulary can be a primary criterion for establishing curriculum, instruction and assessment.



#### Qualitative Measurement

- Guided Reading Levels:
  - •Expert 1: O, P Gr. 3
  - •Expert 2: Q, R Gr. 4
- CCSS Rubric:
  - Levels of Meaning: Explicitly stated purpose
  - Structure: Explicit; Traits of a common genre
  - Language conventionality & clarity: literal
  - knowledge demands: some specialized knowledge; low intertextuality
  - FAIRLY SIMPLE

One scientist who spent an entire winter observing these amazing birds says it is staggering to see 10,000 penguins in a single quiet huddle. The temperature inside can be 77°F. Standing nearby when a huddle breaks up, observers can feel, smell, even see the heat. It's like a wall of steam. The penguins are packed in so tightly that when one comes out, the bird is square-shaped for a few moments from the pressure of the other birds.

#### All for One

Not only is it unbelievably cold while the emperor dad stands holding his egg all winter, it's also dark.

Nevertheless, he keeps the egg warm, without stopping for anything, even food. He loses up to a half of his body weight before his mate comes back from feeding at sea in July. She takes over the egg, which then hatches.

The male finally gets to go eat. When he gets back, the parents take turns holding the chick on their feet to keep it warm for the next eight weeks. At that point it's old enough to safely stand on the ice by itself.



A newly hatched chick stays warm by standing on top of a parent's feet.

## 1st Generation: Paper & Pencil computation--Dale-Chall

When other animals head north in March to avoid the Antarctic winter, emperor penguins head south. Antarctica is surrounded by a huge mass of sea ice in the winter. This ice floats on the ocean in the southernmost part of the earth. Harsh and frigid, it is here where emperor penguins choose to mate and lay their eggs.

- 12% of words not found on Dale-Chall Readability list
- Grades 7-8

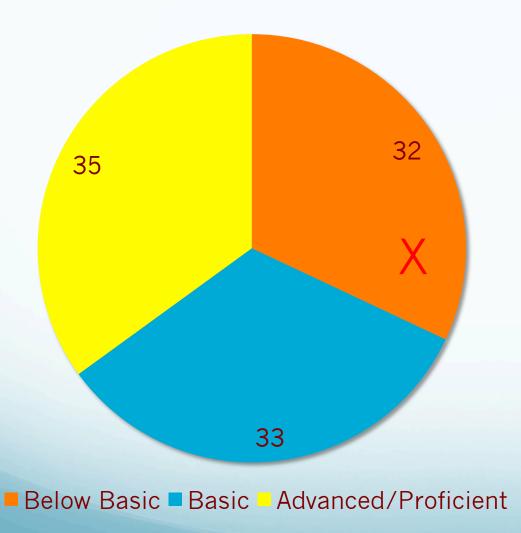
# 2<sup>nd</sup> Generation: Digitally generated--Lexiles

When<sup>3137</sup> other<sup>2205</sup> animals<sup>357</sup> head<sup>437</sup> north<sup>275</sup> in<sup>19004</sup> March<sup>47</sup> to<sup>25580</sup> avoid<sup>58</sup> the<sup>68006</sup> Antarctic<sup>2</sup> winter, 151 emperor 33 penguins 2 head<sup>437</sup> south.<sup>255</sup> Antarctica<sup>4</sup> is<sup>10257</sup> surrounded<sup>37</sup> by<sup>4083</sup> a<sup>24070</sup> huge<sup>130</sup> mass<sup>103</sup> of<sup>28526</sup> sea<sup>276</sup> ice<sup>138</sup> in<sup>19004</sup> the<sup>68006</sup> winter.<sup>151</sup> This<sup>4243</sup> ice<sup>138</sup> floats<sup>24</sup> on<sup>6674</sup> the<sup>68006</sup> ocean<sup>145</sup> in<sup>19004</sup> the<sup>68006</sup> southernmost<sup>0.8283</sup> part<sup>694</sup> of<sup>28526</sup> the<sup>68006</sup> earth.<sup>366</sup> Harsh<sup>14</sup> and<sup>27594</sup> frigid,<sup>0.9983</sup> it<sup>9386</sup>  $is^{10257} here^{655} where^{1073} emperor^{33}$ penguins<sup>2</sup> choose<sup>91</sup> to<sup>25580</sup> mate<sup>15</sup> and<sup>27594</sup> lay<sup>153</sup> their<sup>3037</sup> eggs.<sup>52</sup>

- Lexile: 1030
- Mean Sentence Length: 15.0
- Mean Log Word Frequency:3.38
- Common Core Staircase:

# Implications

# Many Struggling Readers



When other animals head north in March to avoid the Antarctic winter, emperor penguins head south. Antarctica is surrounded by a huge mass of sea ice in the winter. This ice floats on the ocean in the southernmost part of the Earth. Harsh and frigid, it is here where emperor penguins choose to mate and lay their eggs.

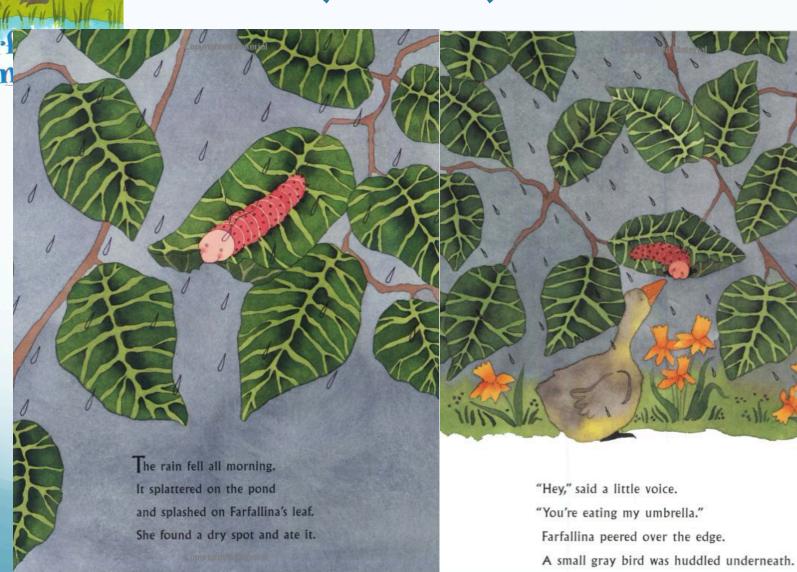


# 1. Pushing down beginning reading instruction (1985)

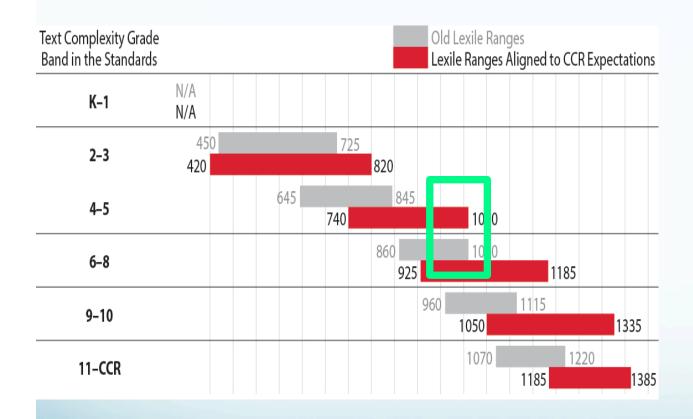




# (2008)

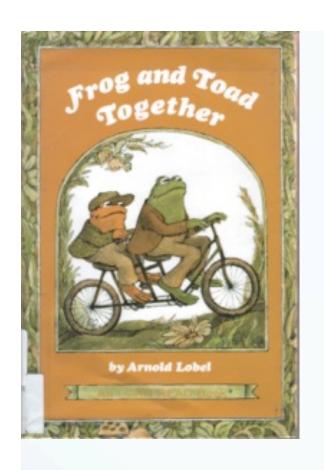


# 2. Harder text at all levels, especially in the elementary grades



#### End of Grade 5:

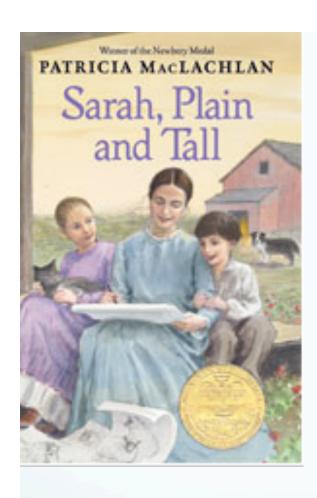
- Equivalent to End of Grade 8 in past
- 73% of reading proficiency is to have been gained by end of Grade 5



Toad read a long story to his seeds.

All the next day Toad sang songs to his seeds. And all the next day Toad read poems to his seeds. And all the next day Toad played music for his seeds.

Toad looked at the ground. The seeds still did not start to grow.



I turned the bread dough over and over on the marble slab on the kitchen table.

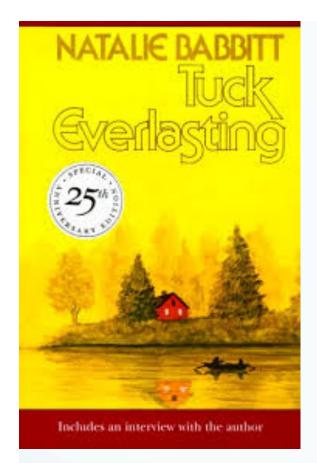
"Well, Papa doesn't sing anymore," said Caleb very softly. A log broke apart and crackled in the fireplace. He looked up at me. "What did I look like when I was born?"

"You did not have any clothes on," I told him.



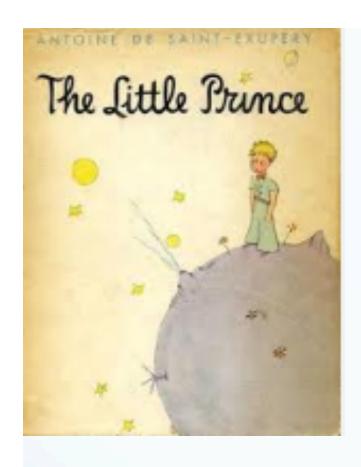


One night, in a phosphorescent sea, he marveled at the sight of some whales spouting luminous water; and later, lying on the deck of his boat gazing at the immense, starry sky, the tiny mouse Amos, a little speck of a living thing in the vast living universe, felt thoroughly akin to it all.



Here and there the still surface of the water dimpled, and bright rings spread noiselessly and vanished. "Feeding time", said Tuck softly. And Winnie, looking down, saw hosts of tiny insects skittering and skating on the surface.

"Best time of all for fishing," he said, "when they come up to feed."



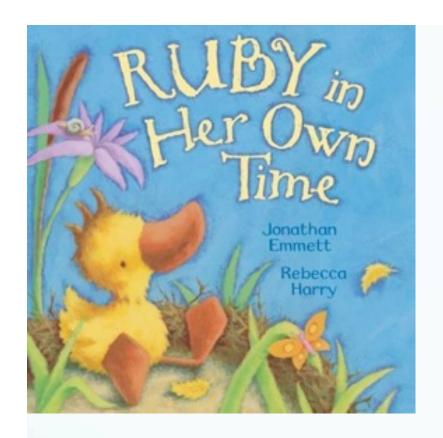
Once when I was six years old I saw a magnificent picture in a book, called True Stories From Nature, about the primeval forest. It was a picture of a boa constrictor in the act of swallowing an animal. Here is a copy of the drawing.

In the book, it said, Boa constrictors swallow their prey whole...

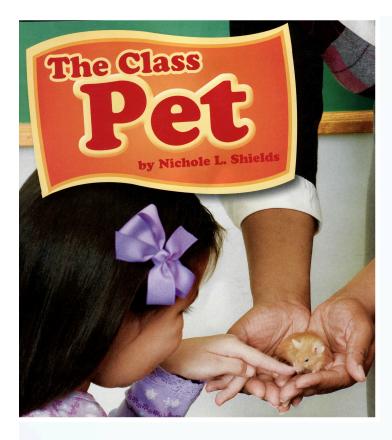
3. The word-level curriculum is left undefined—in both quantitative and qualitative systems

# What this means in Tier 1 instruction: Mid-Grade 1 Core Reading Program

Text	Guided Reading Level	Lexile	
Ruby In Her Own Time	G	510	
The Class Pet	Н	530	
Frog & Toad Together	K	420	
I'm a Caterpillar	G	200	



Then, one bright morning, the eggs began to hatch. One, two, three, four little beaks poked out into the sunlight. One, two, three, four little ducklings shook their feathers in the breeze. "We'll call them Rufus, Rory, Rosie, and Rebecca", said Father Duck. And Mother Duck agreed. But the fifth egg did nothing.

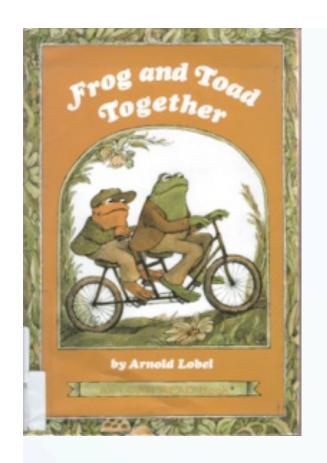


Pet stores may sell seed mixes or hard pellets.

But mice will eat all sorts of things, such as corn and nuts.

Mice like to run and jump late at night. It is time for them to sleep when the sun rises.

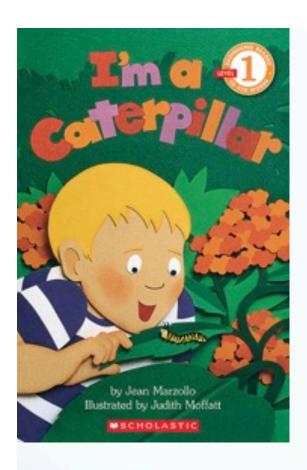
Mice use torn cloth and cotton to make nests.



Toad read a long story to his seeds.

All the next day Toad sang songs to his seeds. And all the next day Toad read poems to his seeds. And all the next day Toad played music for his seeds.

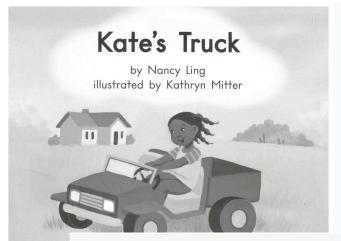
Toad looked at the ground. The seeds still did not start to grow.



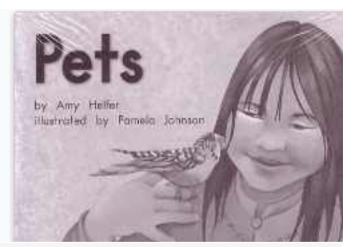
I'm a caterpillar. Munch. Crunch. I'm getting bigger. Munch. Crunch. Munch. Crunch. Munch. Crunch. That's it. No more food. I'm done. It's time to hang from a stem. I wait, and wait, and wait. I shiver. I twist. I split my skin. My old skin falls away. I am soft inside.

# What this means in Tier 2 & 3 instruction: Grade 1 Intervention Program

Text	Guided Reading Level	Lexile
<ul><li>Kate's Truck</li><li>Pets</li></ul>	С	150
<ul><li>The Big Storm</li><li>Pictures of Hugs</li></ul>	F	210
<ul><li>Stone Soup</li><li>All About</li><li>Honeybees</li></ul>	Ι	270



# Level C (End of K)



Kate got her truck.

I can ride in my truck, she said.

I want my bear, said Kate.

She put the bear in her truck.

I want my dolls, said Kate.

She put her dolls in the truck.

Kate said, I want books.

She put the books in her truck.

This is my pet. It is a mouse.

I like my pet mouse.

This is my pet. It is a bird.

I like my pet bird.

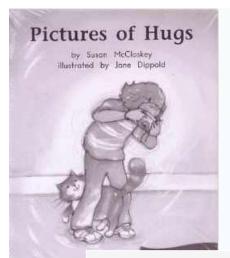
This is my pet. It is a fish.

I like my pet fish.

This is our pet. It is a rabbit.

We like our pet rabbit.

We love our pets!



# Level F (mid Gr. 1)



It was Pet Week at school.

Meg had to take a picture of Hugs to share.

She got her crayons and some paper.

"This picture doesn't look like Hugs," she said.

Meg got more paper. But she could not make a good picture of her cat.

"Do you want my camera?"

A storm was coming.

Orson did not like storms.

He ran under the table.

The storm was getting close.

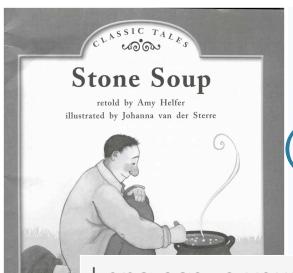
The sky got very dark.

Orson hid behind a chair.

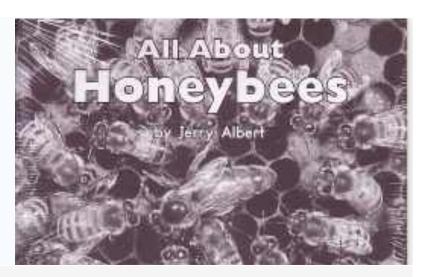
It started to rain.

Big, fat raindrops hit the window.

Orson went behind the sofa.



## Level I (late Gr. 1)



Long ago, a young man came into a poor little town.

All he had was a soup pot and a spoon.

The man was very hungry.

The young man stopped at a house.

He knocked at the door.

"I am cold and hungry," he said. "May I have a bit of food?"

The flowers bloom on a warm summer day. You can hear the sound of bees in the garden.

Buzz, buzz, buzz. Little honeybees fly around the flowers. These bees are working!

Something sweet is inside the flowers. It is called nectar.

The worker bees sip the nectar from the flowers.

Among the scientific puzzles of the spill, the fate of the herring is a particular mystery. It's a vital species for the ecosystem, giving protein to whales, salmon, birds and others. Prince William Sound was home to a flourishing spring herring fishery. It supported fishermen badly in need of cash coming off the long winter in between fishing seasons. Researchers found growths and other physical abnormalities in herring exposed to the oil. Then, four years after the spill, the herring population crashed dramatically. The reasons are a subject of intense debate, with suggestions that the effects of the spill could have made the herring weak against disease. "No other (fish) stock in Alaska crashed in 1993, so that's indirect evidence it is spillrelated," said Jeep Rice, who studied the spill for more than two decades as a federal scientist. "That's kind of weak, and yet it is about as good as we can get in terms of explaining why it happened in that year." The herring never really recovered, and the current

The herring never really recovered, and the current population is too low to overcome predators. Herring fishing, with a brief exception.

Among the scientific puzzles of the spill, the fate of the herring is a particular mystery. It's an extremely important species for the ecosystem, giving food and protein to whales, salmon, birds and others.

Prince William Sound was home to a booming spring herring fishery. It supported fishermen badly in need of cash coming off the long winter in between fishing seasons.

Researchers found physical changes in herring exposed to the oil. Then, four years after the spill, the herring population crashed dramatically. The reasons are a subject of intense debate, with suggestions that the effects of the spill could have made the herring weak against disease.

against disease.
"No other (fish) stock in Alaska crashed in 1993, so that's indirect evidence it is spill-related," said Jeep Rice. He studied the spill for more than 20 years as a federal scientist.
"That's kind of weak, and yet it is about as good as we can get in terms of explaining why it happened in that year."
The herring never really recovered, and the current population is too low to fight off predators. Herring fishing, with a brief exception, has been closed

Among the scientific puzzles of the spill, the fate of the herring is a particular mystery. It's an essential species for the ecosystem. Whales, salmon and birds all feed on it.

Prince William Sound was home to a moneymaking spring herring fishery. It helped fishermen who were badly in need of cash in between fishing seasons. Scientists found physical abnormalities in herring exposed to the oil. Then, four years after the spill, the herring population crashed dramatically. The reasons are a subject of intense debate. Suggestions have been made that the effects of the spill could have made the herring weak against disease. The herring never really recovered, and herring fishing has been closed for most of

the last 20 years.

There are puzzles left by the spill. Among them is the herring mystery. Herring are very important to other animals in the area. Whales, salmon and birds all feed on it. Scientists found physical changes in herring that swam through the oil. Then, four years after the spill, the herring population crashed. No one knows exactly why. The spill might have made the herring weak. Now herring suffer from diseases.

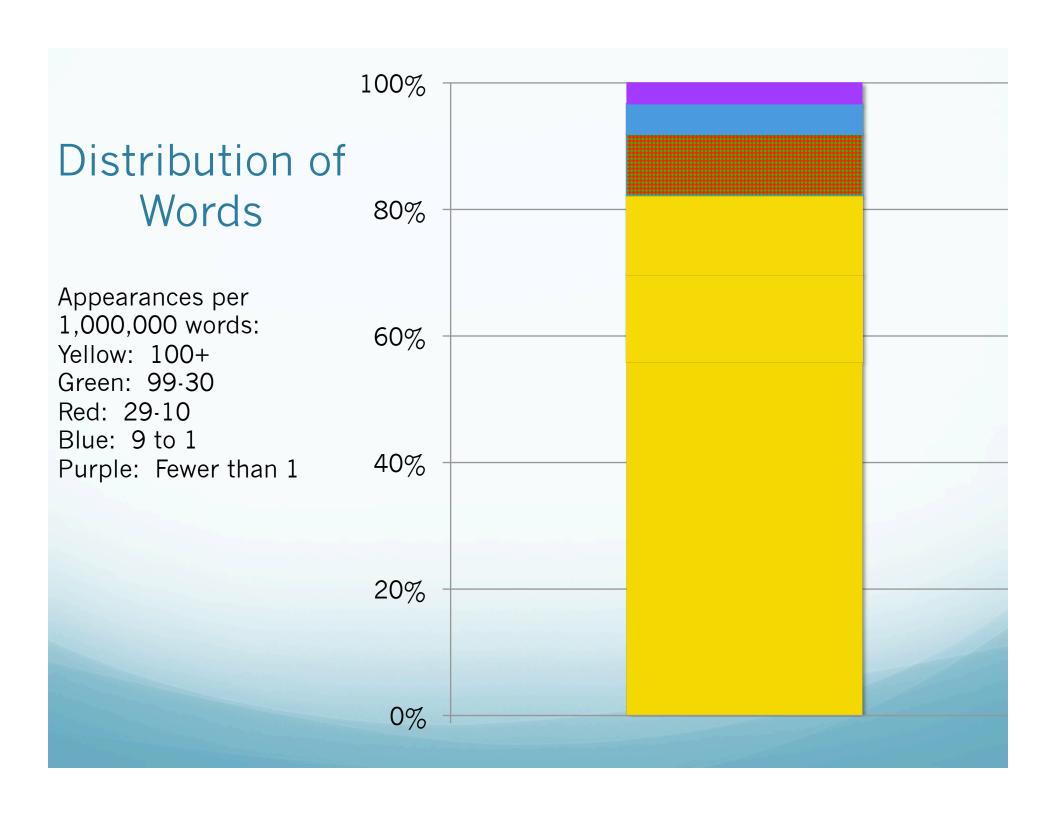
The herring never recovered. The current population is low.

# Four Same-Topic Texts: Different Lengths

# Summary of Leveled Texts

Lexile	Sentence Length	Word Frequency	No. of Words
740	10.34	3.43	662
950	14.05	3.46	773
1050	15.45	3.39	865
1150	17.09	3.37	923

# ALTERNATIVES



# Texts that Support Students Up The Staircase of Core Vocabulary

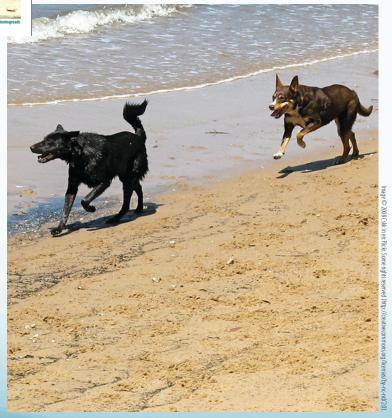
1180 Word Families (29-10 appearances per million)

750 Word Families (99-30 appearances per million)

570 Word Families (100+ appearances per million)



# Begin with concrete words- phonetically regular & highly frequent)



Dogs can run.



Dogs can dig.

### 2. In middle grades & beyond: At least one article a day

### **Bird Nests**





Most birds build nests, but all nests are not alike. The most common bird nest is the kind made by robins. Robins build nests that look like cups. They make a frame of twigs and sticks and cover it with mud. When this is done, robins line their nest with fine moss, feathers, and hair they find on the ground.

Barn swallows build nests of mud.

They make them in barns, close to the roof where it is safe. Sometimes several swallows build nests near one another.

Some birds build their nests in unusual ways. All birds use their beaks to help make their nests, but Tailorbirds use their beak as a needle to sew leaves together. Tailorbirds use threads they gather from the cotton in cotton plants.

Some birds don't build nests at all. Some lay their eggs right on the ground or on a rocky cliff. Auks are birds that lay their eggs on rocky cliffs near the sea.

Auks' eggs are pointed at one end. This shape lets the eggs roll in a circle if another animal tries to move them or if the wind blows hard. Because the eggs can roll in a circle, they do not roll off the cliff.

King penguins also do not build nests. Instead, they tuck their eggs into the folds of skin on their lower belly. The eggs rest on their feet and stay warm in the cold arctic winds.

Some bird species also lay their eggs in the nests of other birds. Cuckoos get other birds to keep their eggs safe and to feed their babies.

Most birds build a new nest each year. Some use the same nest for several years but clean the nest a little each year. Eagles build huge platform nests that they use for several years. However different they are, though, birds

build nests that are just right for their families.



# **Putting Two Words Together**



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.



©2012 by Scott Moore. Some rights reserved http://creativecommons.org/licenses/by-nc/2.0/deed.en



### **A Birthday Wish: Rachel Beckwith**



In the summer of 2011, Rachel Beckwith had just finished third grade. She was looking forward to riding her bike and playing games like jump rope with her friends. Rachel also liked dancing.

Then she heard someone say that there were children in Africa who did not have clean water to drink. The person was from an organization called

charitywater.org, a charity that builds wells for towns in Africa. The wells provide people with clean water. Without wells, people often have to walk many miles to find water, then carry it home in buckets. Often, the water is not clean.

Instead of presents for her ninth birthday, Rachel asked her family and friends to donate \$9 for clean water in Africa to charitywater.org. If she could raise \$300, 15 people could get clean drinking water.

By the time her birthday came, Rachel had raised \$220. That meant that 11 people could get clean water.



She told her mom that she would try harder the next year to raise more money for the charity.

A month later, Rachel was critically injured in a car accident. On July 23, 2011, she was taken off life support. She died soon after.

When the news about Rachel's story and her birthday wish spread, people all around the world began to donate money in her name. Some gave \$9, some \$19, some more. A month later, 30,000 people had given more than \$1.2 million. Because of Rachel Beckwith, 60,000 people in more than 100 villages now have clean water to drink.

In her honor, one village put up a sign that reads, "Rachel's great dream, kindness, and vision of a better world will live with and among us forever." Clearly, one person, even a child, can make a difference.



### Talking Points for Kids™ Living In Zoos



Written by Alice Lee Folkins & Andrew Funk

#### The Story of Knut

In 2006, twin polar cubs were born at a zoo in Germany. For unknown reasons, the cubs' mother couldn't take care of them. The zookeepers stepped in and took care of the cubs. But one cub died. The other cub they named him Knut. Zookeepers fed, bathed, played, and even slept next to him.

Visitors to the zoo fell in love with Knut. Because of Knut, people became interested in polar bears. They learned that ice and snow are slowly melting in the northern homes of the polar bears. This change makes it difficult for polar bears to survive. The interest in Knut led people to ask for laws to save wild polar bears.

When he was only four years old, Knut suddenly died. His unexpected death stunned people around the world. Doctors found that Knut had been sick for weeks. Many questions were asked about whether Knut would have lived longer in the wild, even if his mother had not cared for him. These are hard questions without easy answers. But many believe that Knut's story has helped many people care about wild polar bears and the places they live.





# Talking Points for Kids<sup>1M</sup> Physical Exercise



Written by Elfrieda H. Hiebert

### What *Some People* Say About: Physical Education

Pacifica Examiner: Letter to the Editor

Dear Editor,

I am in the 4<sup>th</sup> grade at North Shore Elementary. Every week on Friday we have a PE class. I used to hate PE classes. We used to just play games like football and basketball. I am not very good at them. Now we do exercises and play other sports. We run relays and play tennis. Our PE teacher, Mr. Kroger, says these skills will last us a lifetime.

Now our principal, Ms. Blair, says that our school is going to get rid of PE class because our test scores are so low. S he also said that we are getting enough exercise after school and at recess, and that we don't need PE class. I am not very good at soccer and basketball, and so I am not signed up for afterschool sports. PE class is one of the only times that I



get to run around and have fun. I think it is important to have a time during school where we learn about exercise, just like we learn about math and science. Please don't get rid of our PE class!

Sincerely, Gregory Diller



# Three Same-Topic Texts: Same Length (readworks.org)

950 770 640

At the meeting, the Mayor presented three experts who had different ideas about solving the problem. One man suggested they build a concrete dam upstream to block the river's path. With such a big dam, the river would never overflow into Leith, even in heavy rain.

Another lady suggested building a different structure, a high stone wall all around Leith to stop floodwater from getting in.

The last speaker, a small, slender man with a Scottish accent, had what seemed to be the craziest idea of all.

At the meeting, the mayor introduced three experts who had different ideas about how to solve the flooding problem. The first man thought they should build a concrete dam in the river to block the flow of the water. He said the river would never overflow into the town with such a big dam.

The second speaker was a woman. She thought they should build a different structure. She said that a high stone wall around Leith would stop water from getting in to the village and flooding it.

The last speaker was a small, slender man with a Scottish accent. He had what seemed to be the craziest idea of all.

At the meeting, three experts shared different ideas about how to solve the flooding problem. The first man thought they should build a concrete dam in the river. The dam would block the flow of the water. It would keep the river from overflowing into the town.

The second speaker was a woman. She thought they should build a different structure. She wanted to build a stone wall around the town. She said the wall would stop floodwater from getting in to the town.

The last speaker was a small, skinny man. His idea seemed like the craziest one of all.

# 3. Concrete Words: Images

valley (val ley)



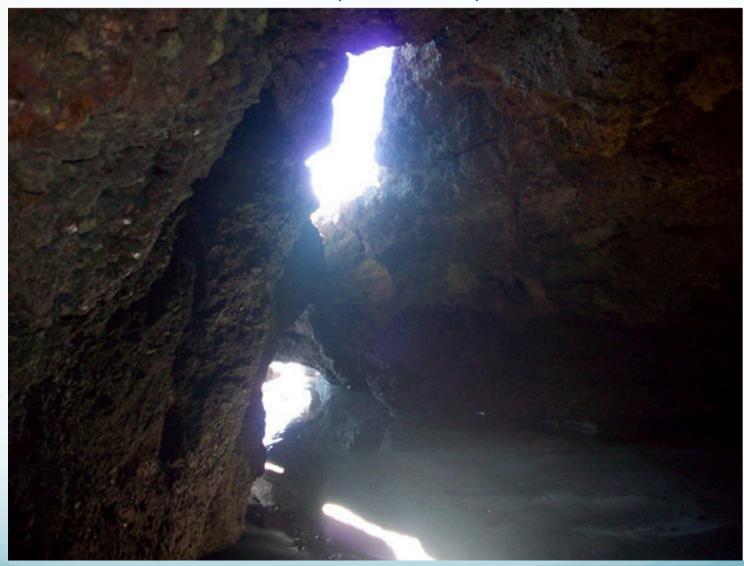
Department of Defense Public Domain Image Number 0420-0908-2000-3354

# canyon (can yon)

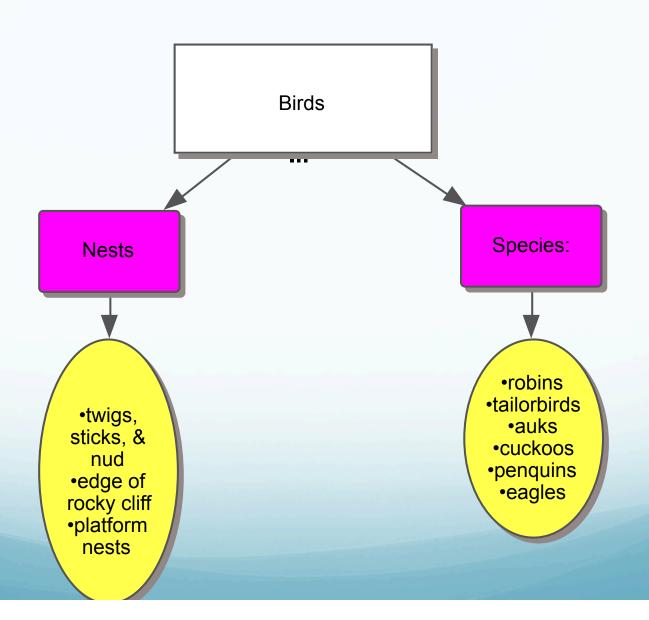


http://upload.wikimedia.org/wikipedia/commons/thumb/f/f9/USA\_09847\_Grand\_Canyon\_Luca\_Galuzzi\_2007.jpg/1280px·USA\_09847\_

# cave (cave)



# Word Maps for Content Words





## www.textproject.org











#### **TextProject**

Search

Go

TextProject aims to bring beginning and struggling readers to high levels of literacy through a variety of strategies and tools, particularly the texts used for reading instruction.

#### TextShelf



#### **TextProject Topics**



Common Core State Standards



**Text Complexity** 

More topics

### 77 Seconds on Text Complexity: What is the Difference Between Accessible and Dumbed-down Texts?

When Freddy suggests in presentations that challenged readers require large amounts of accessible text, she's often asked: But what's accessible? And are accessible texts complex enough for Common Core classrooms? Here's the answer! Watch a short video on what Freddy describes as the key difference between accessible and dumbed-down texts.

#### **Student Resources**

Free sets of texts



Stop the summer slump

"Read to learn" while learning to read







A magazine-based reading program

#### **Teacher Resources**

Free evidence-based lessons and lists



Use everyday words to teach new words



words

### WORD LISTS

Be informed about vocabulary

# Read-Aloud Favorites

Increase student knowledge through read-alouds

# Professional Development Resources

Free resources for teacher learning

Keep up with the latest research



Learn about



DEVELOPMENT complex text

View the latest **Webinars** + Presentation Slides

presentations



Answers to frequently asked questions

#### Home

Student Resources

Teacher Resources

Professional Development Resources

Research

Frankly Freddy

Library

Events

Topics

Press

TextProject



Subscribe now View latest issue





Watch You Tube

Follow Pinterest

**Recent Frankly Freddy Posts** 

What's New

14 March 2014

3 March 2014

# Questions & Queries: info@textproject.org