



Regional Training

Supporting Vocabulary and Comprehension in K-5 Classrooms

The contents of this topic area were developed under a grant from the US Department of Education, #H323A120009. However, the contents do not necessarily represent the policy of the US Department of Education, and you should not assume endorsement by the Federal Government. Project Officer, Jennifer Coffey.

Resources for supporting Vocabulary and Comprehension Development

www.achievethecore.org

Text Set Project: Building Knowledge and Vocabulary

Text Sets support all learners, especially those with background knowledge or vocabulary deficits, by building up these domains through a volume of reading on Science, Social Studies, and other high interest topics.

www.newsela.com

Read Closely. Think Critically. Be Worldly.

NEWSELA

www.tweentribune.com



www.readworks.org



www.listenwise.com



www.achievethecore.org

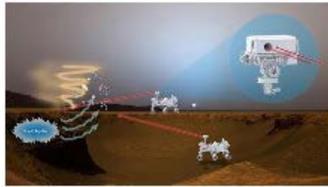


NewsELA - Sample Text Set Series "The Red Planet"



SCIENCE 11.16.16 4065

Bad brain news for astronauts headed to Mars in the future



SCIENCE 11.06.16 3212

In effort to find life on Mars, NASA's getting a brand new mechanical nose



SCIENCE & MATH Mars, the Red Planet 1950



SCIENCE 10.24.16 4810

Schiaparelli space probe beams back useful data before crashing on Mars



MONEY 10.20.16 2776

Government and private companies must work together to get to Mars



SCIENCE 10.13.16 6926

President Obama's ambitious goal is to make a "giant leap" to Mars by 2030s



SCIENCE 09.04.16 6202

"Astronauts" return from "Mars" trip



SCIENCE 05.30.16 2101

From water world to desert: That's what scientists say about Mars



SCIENCE 05.25.16 5242

NASA sends its robots to college so they can learn to work on Mars



SCIENCE 03.22.16 5116

Experts debate the best spots for astronauts to land on Mars someday



SCIENCE 03.20.16 5494

NASA is hoping for potatoes to take root on Mars



SCIENCE 12.16.13 1463

Curiosity finds a possible home for life on Mars



SCIENCE 05.21.14 1807

Travel to Mars or stay put on Earth?



SCIENCE 09.23.14 2841

U.S. spacecraft orbits Mars to check out the Red Planet's atmosphere

“Drive-thru” sequoia brought down by storm

By Amanda Lee Myers and Rich Pedroncelli *Associated Press*

January 13, 2017

640L 870L 990L 1130L



Fans are mourning a giant sequoia in California. It is famous for a "drive-thru" hole carved into its trunk. A huge storm toppled the mighty tree.

The tree shattered when it went down Jan. 8. That is what Calaveras Big Trees State Park volunteer Jim Allday said.

"It was majestic," he said. "Now it's basically a pile of rubble."

A tunnel was carved into the tree's trunk in the 1880s. It allowed tourists to pass through. It weakened the giant. The tunnel used to let cars pass. But only pedestrians crossed in recent decades.

Generations of locals and tourists have visited the tree. They posed for photos and carved their names into it. After it fell, many took to social media, posting their memories of the tree.

"It is kind of like someone in the family has died," said Joyce Brown. She is a 65-year-old retired middle school teacher. She has been visiting the tree since she was 12. She owns a cabin in nearby Arnold.

Brown said four generations of her family spent a lot of hours at the tree. They often took out-of-town visitors there. Some of those visitors came from as far away as Turkey.

"Everyone who went there was shocked at how big a tree could be," she said. "As a child you think you had come to a land of giants, that there must be giant people and giant animals living there because of the diameter of these trees."

Sumner Crawford remembers every detail of his first visit to the tree. He first saw it as a child in the 1990s.

"I remember I was walking through the tree and thinking, 'I am inside of the tree right now!'" he said. "It was madness."

He was stunned by the sequoia's size. When his family of four tried to join hands around the tree, they discovered they couldn't even come close.

"It was so different and so odd," said Crawford. He grew up on a farm in Virginia. He now lives in Charleston, South Carolina. He recently visited the tree again. He relived those memories.

"I feel like it is part of my personal history. So it is a bummer to see it go," he said.

John Ripper is a 55-year-old printer in Northville, Michigan. He said he and his wife visited the tree in May 2015.

"I was blown away," Ripper said. "I have traveled to 70 countries. But that particular tree and being able to walk underneath it and touch it was quite a memorable moment. And something I won't soon forget."

Ripper said he can't believe such a huge and sturdy-looking tree was felled by a storm.

"In the blink of an eye, it is gone," he said. "There's this giant tree everyone remembers. And it is going to be laying there in plain sight. The dead giant."

ReadWorks Article-A-Day™ is a high-impact, 10-15 minute daily routine where students choose and read one high-quality nonfiction article every day, as part of a weekly, topically-related article set. In K-1st grades the teacher reads the article out loud to the students.

You only need about 10-15 minutes each day to do Article-A-Day, as part of your students' daily routine. And it is worth it!

- Try doing Article-A-Day first thing each morning, or before/after a transition to lunch or a special. Students will know that this is their daily routine, and will be able to get into it right away.
 - Please be patient at the beginning, as it might take a couple of weeks for your students to get fully into the routine.

4 simple steps for doing Article-A-Day with your students

Step 1: Set a purpose for reading

- Please do this every day for at least the first few weeks, then just remind students every few days as the year goes on.
- Let your students know that knowledge is stored in these articles. Words are where human beings store knowledge. So by reading these articles they are learning new and valuable knowledge.
- You can also let them know that just by reading these articles they are building their own personal vocabularies, and every day they are becoming stronger independent readers with more stamina.

Step 2: Have your students read the article independently

For K-1, or where developmentally appropriate, the teacher should read the article out loud twice to the students.

Step 3: "The Book of Knowledge"

- A book of knowledge can be pieces of paper or a composition book
- Have your students write down, or draw a picture of, two or three things they learned from reading and would like to remember in their own "Book of Knowledge."
- In addition to extra writing each day, students will see, document, and own all of the knowledge they are building over the weeks and months.

Step 4: Students share knowledge in 1 or 2 minutes

- After students are done reading, and have made an entry into their Book of Knowledge, do a brief sharing activity with the class about what they've learned and would like to remember. Simply ask a few students to share with the class out loud one thing they each learned from the article.
- We suggest also having a class Book of Knowledge, for example on chart paper. This is great to use for a knowledge review with the class at the end of each week.

Why is Article-A-Day so Important?

Students need a great deal of background knowledge and vocabulary in order to comprehend, even if they are fluent readers. The biggest reasons why even fluent readers cannot comprehend is that they lack background knowledge about the topic, and lack vocabulary. The more background knowledge and vocabulary a student can learn, as early as possible, the easier and faster it is for that student to learn even more background knowledge and vocabulary as the year goes on. Knowledge begets knowledge.

Just reading one high-quality nonfiction article every day independently will have massive benefits over the course of the year on knowledge and vocabulary gain. Students will also build their reading stamina.

Sample Paired Passage

Erosion

Rachelle Kreisman



Nature is always changing. Those changes are called natural **events**. Some natural events happen quickly. Think of a fire that starts when lightning strikes a tree. Other events occur slowly, such as when rocks are worn down over hundreds of years. Erosion (ih-ROH-jzun) is the name given to that very slow change.

Moving water can cause erosion. Have you ever seen waves crash against rocks on the shore? The water can chip off small pieces of rock. As more waves hit the rocks, the pieces become even smaller. Eventually, those pieces may turn into sand.

Ice can cause erosion. Some mountains have solid sheets of ice near the top. During warmer weather, a bit of ice melts. Then the sheet of ice may move slowly down the mountain. As the solid ice moves, it scrapes rocks, breaking off pieces.

Wind also causes erosion. Wind can blow sand and dirt. It can carry the dirt far away. In some places, strong wind will push sand against rocks. Over a long period of time, the wind wears down those rocks.

Name: _____ Date: _____

1. What is erosion?

- A) the melting of solid sheets of ice near the top of a mountain
- B) a natural event that happens quickly, such as lightning striking a tree
- C) the name given to the very slow change of rocks being worn down

2. Erosion is an effect. What can cause erosion?

- A) water, ice, and wind
- B) lightning, fire, and trees
- C) rocks and sand

3. Erosion happens very slowly.

What evidence in the article supports this statement?

- A) Wind can cause erosion by wearing down rocks over a long period of time.
- B) Lightning striking a tree is a natural event that can cause a fire to start.
- C) Changes in nature are called natural events.

4. Read this paragraph from the article.

"Wind also causes erosion. Wind can blow sand and dirt. It can carry the dirt far away. In some places, strong wind will push sand against rocks. Over a long period of time, the wind wears down those rocks."

What can you infer from this paragraph about the strength of wind and how fast it wears down rocks?

- A) A wind's strength has no effect on how fast it wears down rocks.
- B) The stronger the wind blows, the more slowly it wears down rocks.
- C) The stronger the wind blows, the faster it wears down rocks.

5. What is the main idea of this article?

- A) Solid sheets of ice can cause erosion as they move slowly down a mountain.
- B) Erosion is a natural event that slowly wears down rocks.
- C) Waves can chip off pieces of rock and turn them into sand.

6. Read this paragraph from the article.

"Moving water can cause erosion. Have you ever seen waves crash against rocks on the shore? The water can chip off small pieces of rock. As more waves hit the rocks, the pieces become even smaller. Eventually, those pieces may turn into sand."

Why does the author ask the question, "Have you ever seen waves crash against rocks on the shore?"

- A) to help readers who have never been to a beach imagine what a beach looks like
- B) to suggest that readers visit a beach in order to better understand erosion
- C) to help explain how moving water can cause erosion

7. A sheet of ice on a mountain can cause erosion _____ it moves down the mountain.

- A) after
- B) when
- C) before

8. What is the definition of a natural event?

9. What happens to rocks on the shore of a beach when they are hit by water?

10. Imagine a beach with big waves and several large rocks along its shore. What might change about that beach in five hundred years? Support your answer with evidence from the article.

Avalanche!

Rachelle Kreisman



Have you ever heard of an avalanche? Avalanches are sudden natural events where large amounts of snow and ice slide down a mountain. As they slide, the snow and ice get faster. In fact, snow from an avalanche can move as fast as two hundred miles per hour. That is three times faster than a car on a highway!

Most avalanches happen after big storms. New snow puts added pressure on snow already on the mountain. That added pressure can make the old snow break loose and start sliding.

Avalanches can be dangerous. Heavy snow moving down a mountain may pull other things along, such as trees and rocks. A powerful avalanche can damage everything in its path.

Many people like to ski and snowboard. They want to have fun on mountains. They also want to stay safe. Experts can usually tell when an avalanche might happen. The experts can warn people of the risk. The risk may be low or high. People have to pay attention to warnings to be safe.

Name: _____

Date: _____

1. What are avalanches?

- A** big storms that drop new snow on mountains where there is snow already
- B** sudden natural events where large amounts of snow and ice slide down a mountain
- C** warnings that tell people when it is dangerous to be on a mountain

2. Most avalanches happen after big storms. They are often caused by new snow that falls and puts pressure on snow already on a mountain. What effect can this pressure have?

- A** It can make the old snow break loose and start sliding.
- B** It can slow the speed of sliding snow and ice.
- C** It can make people want to ski and snowboard on the mountain.

3. Read this sentence from the article.

"Avalanches can be dangerous."

What evidence in the article supports this statement?

- A** "Experts can usually tell when an avalanche might happen."
- B** "A powerful avalanche can damage everything in its path."
- C** "New snow puts added pressure on snow already on the mountain."

4. Read this sentence from the article.

"People have to pay attention to warnings to be safe."

How might paying attention to warnings keep people safe from avalanches?

- A** If people pay attention to warnings, they will understand how avalanches can move three times faster than cars on the highway.
- B** If people pay attention to warnings, they will have even more fun when they ski and snowboard.
- C** If people pay attention to warnings, they will know when avalanches are likely to happen and can stay off the mountains at that time.

5. What is the main idea of this article?

- A People who want to have fun on mountains should pay attention to avalanche warnings in order to stay safe.
- B Heavy snow moving down a mountain may pull trees and rocks along with it.
- C Avalanches can be dangerous events where large amounts of snow and ice slide down a mountain.

6. Read these sentences from the article.

"Most avalanches happen after big storms. New snow puts added pressure on snow already on the mountain. That added pressure can make the old snow break loose and start sliding."

What does the word "pressure" mean here?

- A force
- B ice
- C amount

7. Choose the answer that best completes this sentence.

Avalanches can be dangerous, _____ people on mountains have to pay attention to avalanche warnings.

- A so
- B because
- C but

8. According to the article, what happens to the snow and ice that slide down a mountain in an avalanche?

9. Could an avalanche pull along people as it moves down a mountain? Support your answer with evidence from the text.

10. Would an avalanche be more dangerous near the top of a mountain or the bottom? Support your answer with evidence from the text.

Sample Expert Pack

Expert Pack: Fossil Fun!

Submitted by: Ripley Central School, Ripley, NY and Sherman Central School, Sherman, NY

Grade: 3

Date: February 2016

Topic/Subject

Fossils and the study of fossils

Texts/Resources

Books

1. *Figuring Out Fossils*
2. *Fossils - A True Book*

Article

3. "A Mammoth Find"
4. "The Girl Who Discovered The Dinosaurs"

Other Media

5. "Exploring Fossils and Fossil Records" [Website]
6. "Fossil Fabricator" [Website]
7. "Mary Anning Lego" [Video]

Each expert pack contains a variety of selections grouped to create as coherent and gradual a learning process for students as possible, generally beginning with lower levels as measured by quantitative and qualitative measures, and moving to more complex levels in the latter selections. This graduated approach helps support students' ability to read the next selection and to become 'experts' on the topic they are reading about.

Refer to annotated bibliography on the following pages for the suggested sequence of readings.

Rationale and suggested sequence for reading:

We designed this expert pack to begin with a fun look at how to make a fossil, knowing that students will potentially have no prior knowledge of this topic. The first hook is an activity where students "fabricate fossils." In this quick game, students make a fossil or fail to make a fossil based on the conditions in which the animal bones are exposed. After the create a fossil activity, students then read the book *Figuring Out Fossils* to gain a deeper understanding about what fossils are and how they are created in nature. "A Mammoth Discovery" is the next text where students can learn about discovering fossils in a present-day news story. After this article, students will continue to learn about fossils through a different lens of fossils long ago. At this point, Mary Anning, a fossil finder from the 1800s is introduced. The next resource, "The Girl Who Found The Dinosaurs", should be read aloud because of the high Lexile level. After listening to the article, students will then watch a video about a Lego kit that describes the life of Mary Anning. Students will learn about Anning's life, while watching a Lego kit get constructed. Students then check out the fossil record and what it is like to be a paleontologist, by using a fossil finding interactive website. To wrap up this expert pack, students will read the final text *Fossils* to recap all of the learning that has taken place. Several opportunities abound for extensions from this final text if students desire more content.

The Common Core Shifts for ELA/Literacy:

1. Regular practice with complex text and its academic language
2. Reading, writing and speaking grounded in evidence from text, both literary and informational
3. *Building knowledge through content-rich nonfiction*

Though use of these expert packs will enhance student proficiency with most or all of the Common Core Standards, they focus primarily on Shift 3, and the highlighted portions of the standards below.

College and Career Readiness Anchor Standards for Reading Literary and/or Informational Texts (*the darkened sections of the standards are the focus of the Expert Pack learning for students*):

1. **Read closely to determine what the text says explicitly and to make logical inferences from it;** cite specific textual evidence when writing or speaking to support conclusions drawn from the text.
2. **Determine central ideas or themes of a text and analyze their development;** summarize the key supporting details and ideas.
10. **Read and comprehend complex literary and informational texts independently and proficiently**

Annotated Bibliography and suggested sequence for reading

N/A “Wonderville: Fossil Generator”

Author: Unknown

Genre: Interactive website

Length: N/A

Synopsis: This website offers an interactive opportunity for users to attempt to create a fossil by choosing a series of environmental conditions. How the organism died, where it died, climate after death, etc. are factors that can create fossilized remains - or not.

Citation: Fossil Fabricator. (n.d.). Retrieved November 17, 2015, from <http://www.wonderville.ca/asset/fossil-fabricator>

Cost/Access: \$0.00 <http://www.wonderville.ca/asset/fossil-fabricator>

Recommended Student Activities: A Picture of Knowledge

600L *Figuring Out Fossils*

Author: Sally M. Walker

Genre: Nonfiction

Length: 40 pages

Synopsis: Fossils give us a window to the past. Water, sediments, and pressure work together over time to preserve the shape of things that lived long ago. Studying these ancient plants and animals tells us more about our own existence. Have you ever searched for fossils? Unearth some in this book.

Citation: Walker, S. (2013). *Figuring out fossils*. Minneapolis: Lerner Publications.

Cost/Access: \$9.99 (paperback)

Recommended Student Activities: Quiz Maker

N/A “A Mammoth Find”

Author: Laura Leigh Davidson

Genre: Informational article

Length: 1 page

Synopsis: True story of a recent find; a mammoth uncovered on a Michigan farm October, 2015.

Citation: Davidson, L. (2015, October 13). A Mammoth Find. Retrieved November 17, 2015, from <http://magazines.scholastic.com/news/2015/10/A-Mammoth-Find>

Cost/Access: \$0.00 <http://magazines.scholastic.com/news/2015/10/A-Mammoth-Find>

Recommended Student Activities: Wonderings

1090L “The Girl Who Discovered The Dinosaurs”

Author: Lauren Tarshis

Genre: Informational article

Length: 5 pages

Synopsis: Mary Anning was a child when she accidentally discovered a dinosaur fossil. Her discovery shocked the world. Dinosaurs were unknown until this discovery.

Citation: Tarshis, L. (2014). The girl who discovered the dinosaurs (1st ed.). Scholastic.com. Retrieved from http://cdn.scope.scholastic.com/sites/default/files/uploads_scope/issues/040114/pdfs/SCOPE-040114-Nonfiction.pdf

Cost/Access: \$0.00 http://cdn.scope.scholastic.com/sites/default/files/uploads_scope/issues/040114/pdfs/SCOPE-040114-Nonfiction.pdf

Recommended Student Activities: A Picture of Knowledge

N/A “Mary Anning-The Paleontologist”

Author: Maddie Moate

Genre: Informational video

Length: 7 minutes

Synopsis: Lego has created a kit featuring famous women scientists. The woman in this video assembles the toy while explaining the story of Mary Anning's discovery and its scientific implications.

Citation: Moate, M. (2014). Mary Anning - The Paleontologist (Lego Research Institute!) [Video file].
https://www.youtube.com/watch?v=N_UyUL6vDcE

Cost/Access: \$0.00 https://www.youtube.com/watch?v=N_UyUL6vDcE

Recommended Student Activities: Wonderings

N/A "Exploring Fossils and the Fossil Record"

Author: N/A

Genre: Interactive website

Length: N/A

Synopsis: This is an interactive website where students can learn about how fossils are made and about the people who study them. The learning continues with details about the processes and tools used by paleontologists to unearth and study fossils.

Citation: Science - Exploring Fossils and Fossil Records. (n.d.). Retrieved November 17, 2015, from
<http://www.e-learningforkids.org/science/lesson/exploring-fossils-and-fossil-records/>

Cost/Access: \$0.00 <http://www.e-learningforkids.org/science/lesson/exploring-fossils-and-fossil-records/>

Recommended Student Activities: A Picture of Knowledge

1010L *Fossils*

Author: Ann O. Squire

Genre: Nonfiction

Length: 48 pages

Synopsis: Fossils have long fascinated humans. This book explains how fossils were formed and where they are now found. An explanation of how scientists find and use fossils to study prehistoric animals is also given.

Citation: Squire, A. (2013). *Fossils*. New York: Children's Press.

Cost/Access: \$6.95 (Paperback)

Recommended Student Activities: Wonderings

Vocabulary Quadrant

	These words merit less time and attention (They are concrete or describe events/ processes/ideas/concepts/experiences that are familiar to students)	These words merit more time and attention (They are abstract, have multiple meanings, and/or are a part of a word family)
Meaning can be learned from context		
Meaning needs to be provided		