Unit 3/Week 2

Title: Mountains

Suggested Time: 5 days (45 minutes per day)

Common Core ELA Standards: RI.4.1, RI.4.2, RI.4.3, RI.4.4, RI.4.7, RI.4.10; RF.4.3, RF.4.4; W.4.2, W.4.10, SL.4.1, SL.4.2; L.4.1, L.4.2, L.4.4, L.4.6

Teacher Instructions

*Refer to the Introduction for further details.*

**Before Teaching**

1. Read the Big Ideas and Key Understandings and the Synopsis. Please do **not** read this to the students. This is a description for teachers, about the big ideas and key understanding that students should take away **after** completing this task.

Big Ideas and Key Understandings

The author describes different kinds of mountains, how they are formed, how they change over time, and how they affect climate.

Synopsis

In this informational text the author describes mountains in different parts of the world. He tells about the effects of erosion on mountains and the effects of mountains on climate.

1. Read entire main selection text, keeping in mind the Big Ideas and Key Understandings.
2. Re-read the main selection text while noting the stopping points for the Text Dependent Questions and teaching Vocabulary.

**During Teaching**

1. Students read the entire main selection text independently.
2. Teacher reads the main selection text aloud with students following along. (Depending on how complex the text is and the amount of support needed by students, the teacher may choose to reverse the order of steps 1 and 2.)
3. Students and teacher re-read the text while stopping to respond to and discuss the questions and returning to the text. A variety of methods can be used to structure the reading and discussion (i.e.: whole class discussion, think-pair-share, independent written response, group work, etc.)

Text Dependent Questions

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| **Text Dependent Questions** | **Answers** |
| On page 318 the author makes this statement about mountains: “They seem to be solid and unchanging, but they are not everlasting.” Based on the information in that paragraph, what does “everlasting” mean? | Something that is everlasting would be unchanging. However, the mountains are born, grow tall over the years, change their shapes, and are finally worn down to disappear into the earth. |
| Why are the peaks of many tall mountains covered in snow? (p. 319) | The temperature drops about three degrees F for every 1000 feet, so the tops of tall mountains are in very cold air. |
| On page 319 the author states “mountains like this would be called foothills.” Explain the meaning of foothill. Can you break down the word to help you determine its meaning? | A foothill is a hill at the base of a mountain (just like the foot is at the “base” of a person’s body). Whether the land is called a mountain or a foothill depends upon how high the surroundings are. |
| Look at the circular graphic on page 321. How does this graphic support the information in the text? | The graphic shows that islands are actually the tips of volcanic mountains in the ocean. |
| On page 322 the author writes, “It takes many thousands of years to bring about changes in the rocks of the earth’s crust.” How do time and pressure change rocks? | In the earth’s crust, pressure pushes sideways against the rocks. Over thousands of years the rocks twist and bend, producing great folded mountain chains. |
| How can you identify the type of a mountain? | The shape of the top of a mountain indicates how it was formed. You can also find identifying characteristics in the layers of rocks. |
| On page 327 the author says, “These constant temperature changes begin to crack the rock.” What does constant mean in this sentence? | The sun heats the rocks during the day but the temperatures are cold at night. Constant means the temperatures are warm every day and cold every night. |
| Reread the section on Weathering and Erosion on pages 326 and 327. Which words or phrases give you clues to the meaning of the word *erosion*? | “Worn down steadily and slowly”; “chemical changes”; “changing temperatures, water freezing in cracks and expanding, wind blows sand”; “rock slide or avalanche”; “carve away” (accept any appropriate text-based answers) |
| Reread the section on Climate Changes on pages 328 and 329. Describe one way that mountains affect weather and climate. | Mountains break up the flow of winds and the movement of weather fronts. When air containing water vapor is forced to rise over a mountain the air becomes colder, causing clouds, mist, fog, and rain. |
| The final paragraph on page 329 states, “Not many people live on mountains, but mountains are important to all of us.” What does the author say to support this statement? | Mountains create rain forests and deserts. They store water on snowy peaks and release it in rivers that make valleys green and fertile. The flowing water can be harnessed to manufacture electricity. People climb mountains for recreation. |

Vocabulary

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|  | **KEY WORDS ESSENTIAL TO UNDERSTANDING** | **WORDS WORTH KNOWING**  General teaching suggestions are provided in the Introduction |
| **TEACHER PROVIDES DEFINITION**  not enough contextual clues provided in the text | Page 320 – plates  Page 320 – crust  Page 320 – coast ranges  Page 320 – peaks  Page 323 – fault | Page 320 – solitary, altitude, slope |
| **STUDENTS FIGURE OUT THE MEANING**  sufficient context clues are provided in the text | Page 319 – foothill  Page 322 – strata  Page 323 – magna, molten, fault  Page 324 – eruption, depths  Page 325 – revealed  Pages 326-327 – weathering/erosion  Page 327 – contract, immediate  Page 329 – scarcely, harnessed | Page 318 – everlasting  Page 325 – welling up, gradually  Page 327 – constant |

Culminating Task

* Re-Read, Think, Discuss, Write

*Seymour Simon, the author, wrote “Mountains” to describe the different kinds of mountains and how they were formed. Using evidence from the text, list the four kinds of mountains and explain how they were formed.*

Answer: There are four kinds of mountains, and they were formed in different ways. Folded mountains were formed by pressure pushing against rocks on the earth’s surface over time. Fault-block mountains were formed when rocks broke as plates moved apart. Volcanic mountains were formed as lava and cinders cooled after a volcanic eruption. Dome mountains were formed when the magma pushed up the earth’s surface, but there was no eruption of hot lava.

Additional Tasks

* What important information did you learn about mountains from this text? What questions do you have after reading this text?

* The author tells about folded mountains and fault-block mountains on pages 322 and 323. Using a Venn diagram, compare and contrast the two types of mountains.

Answer: Folded mountains only – earth pressure pushes sideways against a plate; resembles a folded piece of paper

Same – both formed through pressure on rocks over time

Fault-block mountains only– one plate breaks away from another plate – magma causes blocks of rock to rise or fall; steep face on one side, gentle slope on another

* Adding the suffix *-al* to a noun changes the part of speech to an adjective. On page 328, the text states, “...the coastal mountain ranges...” in which the noun “coast” is changed to the adjective “coastal.” Add the adjective suffix *-al* to the words region and glacier. Write two sentences using these two words.
* Work with a partner or in small groups to label mountain ranges on a map of the continents.
* Using a multiple meaning graphic organizer (in partners or in groups) write as many meanings as you can for the following words:

Fault, crust, plates, range, peak

* After reading *To the Top of the World* (pages 332-335) independently, work in small groups to share information from the article.

Note to Teacher

* This text has a lexile of 1170L, so scaffolding may be needed.

Supports for English Language Learners (ELLs)

to use with Basal Alignment Project Lessons

When teaching any lesson, it is important to make sure you are including supports to help all students. We have prepared some examples of different types of supports that you can use in conjunction with our Basal Alignment Project Lessons to help support your ELLs. They are grouped by when they would best fit in a lesson. While these supports reflect research in how to support ELLs, these activities can help ALL students engage more deeply with these lessons. Note that some strategies should be used at multiple points within a lesson; we’ll point these out. It is also important to understand that these scaffolds represent options for teachers to select based on students’ needs; it is not the intention that teachers should do *all* of these things at every lesson.

**Before the reading:**

* Read passages, sing songs, watch videos, view photographs, discuss topics (e.g., using the [four corners strategy](http://www.theteachertoolkit.com/index.php/tool/four-corners)), or research topics that help provide context for what your students will be reading. This is especially true if the setting (e.g., 18th Century England) or topic (e.g., boats) is one that is unfamiliar to the students.
* Provide instruction, using multiple modalities, on selected vocabulary words that are *central to understanding the text*. When looking at the lesson plan, you should note the Tier 2 words, particularly those words with high conceptual complexity (i.e., they are difficult to visualize, learn from context clues, or are abstract), and consider introducing them ahead of reading. For more information on selecting such words, go [here](https://achievethecore.org/page/3167/selecting-and-using-academic-vocabulary-in-instruction). **You should plan to continue to reinforce these words, and additional vocabulary, in the context of reading and working with the text. (See additional activities in the During Reading and After Reading sections.)**

**Examples of Activities:**

* Provide students with the definition of the words and then have students work together to create [Frayer models](http://www.theteachertoolkit.com/index.php/tool/frayer-model) or other kinds of word maps for the words.
* When a word contains a prefix or suffix that has been introduced before, highlight how the word part can be used to help determine word meaning.
* Keep a word wall or word bank where these new words can be added and that students can access later.
* Have students create visual glossaries for whenever they encounter new words. Then have your students add these words to their visual glossaries.
* Create pictures using the word. These can even be added to your word wall!
* Create lists of synonyms and antonyms for the word.
* Have students practice using the words in conversation. For newcomers, consider providing them with [sentence frames](https://achievethecore.org/page/3159/ell-supports-for-writing-and-discussion) to ensure they can participate in the conversation.
  + Practice spelling the words using different spelling practice strategies and decoding strategies. Students could take turns spelling with a partner.
* Use graphic organizers to help introduce content.

**Examples of Activities:**

* Have students fill in a [KWL chart](http://www.nea.org/tools/k-w-l-know-want-to-know-learned.html) about what they will be reading about.
* Have students research setting or topic using a pre-approved website and fill in a chart about it. You could even have students work in groups where each group is assigned part of the topic.
* Have students fill in a bubble map where they write down anything that they find interesting about the topic while watching a video or reading a short passage about the topic. Then students can discuss why they picked the information.

**During reading:**

* Read the text aloud first so that ELLs can hear the passage read by a fluent reader before working with the text themselves.
* Allow ELLs to collaborate in their home languages to process content before participating in whole class discussions in English. Consider giving them the discussion questions to look over in advance (perhaps during the first read) and having them work with a partner to prepare.
* Encourage students to create sketch-notes or to storyboard the passage when they are reading it individually or with a partner. This will help show if they understand what they are reading as they are reading it.
* Ask questions related to the who, what, when, why, and how of the passage. For students that may need a little more help, provide them with [sentence stems](https://achievethecore.org/page/3159/ell-supports-for-writing-and-discussion).
* Continue to draw attention to and discuss the words that you introduced before the reading.

**Examples of Activities:**

* Have students include the example from the text in their glossary that they created.
* Create or find pictures that represent how the word was used in the passage.
* Practice creating sentences using the word in the way it was using in the passage.
* Have students discuss the author’s word choice.
* Use graphic organizers to help organize content and thinking.

**Examples of Activities:**

* Have students fill in a chart to keep track of their 5ws while they read to help them summarize later and figure out the central idea of a passage.
* It may again be beneficial to have somewhere for students to store new words that they encounter while reading the text. Students could use a chart to keep track of these new words and their meanings as they read.
* If you had students fill in a KWL, have them fill in the “L” section as they read the passage.
* Utilize any illustrations or text features that come with the story or passage to better understand the reading.
* Compare/contrast the passage with what the illustrations convey about the passage. Have students consider if the illustrations look the way they visualized the passage in their own minds or if the passage matches their predictions based on the illustrations.
* Identify any text features such as captions and discuss how they contribute to meaning.

**After reading:**

* Present directions for any post-reading assignments orally and visually; repeat often; and ask English Language Learners to rephrase.
* Allow ELLs to use English language that is still under development. Students should not be scored lower because of incorrect spelling or grammar (unless the goal of the assignment is to assess spelling or grammar skills specifically). When grading, be sure to focus on scoring your students only for the objective(s) that were shared with students.
* Scaffold questions for discussions so that questioning sequences include a mix of factual and inferential questions and a mix of shorter and more extended responses. Questions should build on each other and toward inferential and higher-order-thinking questions. There are not many factual questions already listed in the lesson instructions, so you will need to build some in as you see fit. More information on this strategy can be found [here](https://achievethecore.org/aligned/creating-sequencing-text-dependent-questions-support-english-language-learners/).
* Reinforce new vocabulary using multiple modalities

**Examples of activities:**

* Using the words that you had students work with before reading, have students write sentences in reference to the passage that you just finished reading.
* Require students to include the words introduced before reading in the culminating writing task.
* For newcomers, print out pictures that represent the words that you focused on and have students match the words to the pictures.
* Based on different features of the words, have the students sort them into different categories and explain their choices. For example, the students could sort the words by prefixes, suffixes, connotation, etc.
* After reading the passage, continue to examine important sentences (1–2) in the text that contribute to the overall meaning of the text. Guide students to break apart these sentences, analyze different elements, and determine meaning. More information on how to do this, including models of sentence deconstruction, can be found [here](https://achievethecore.org/page/3160/juicy-sentence-protocol).
* Provide differentiated scaffolds for writing assignments based on students’ English language proficiency levels.

**Examples of Activities:**

* For all students, go over the prompt in detail, making sure to break down what the prompt means before having the students get to work. Then have the students explain the directions back to you.
* Have students create an evidence tracking chart during reading, then direct them to look back over their evidence chart and work with a group to see if their evidence matches what the rest of the class wrote down. If some of the chart does not match, students should have a discussion about why.
* For students who need more support, model the proper writing format for your students and provide them with a properly formatted example for reference.
* For newcomers, you may consider creating sentence or paragraph frames to help them to write out their ideas.
* To further discussion about the passage, have students create their own who, what, when, where, why, and how questions related to the passage to ask each other and have students pair up and practice asking each other the questions. If available, pair students of the same home language to support the use of language still under development.