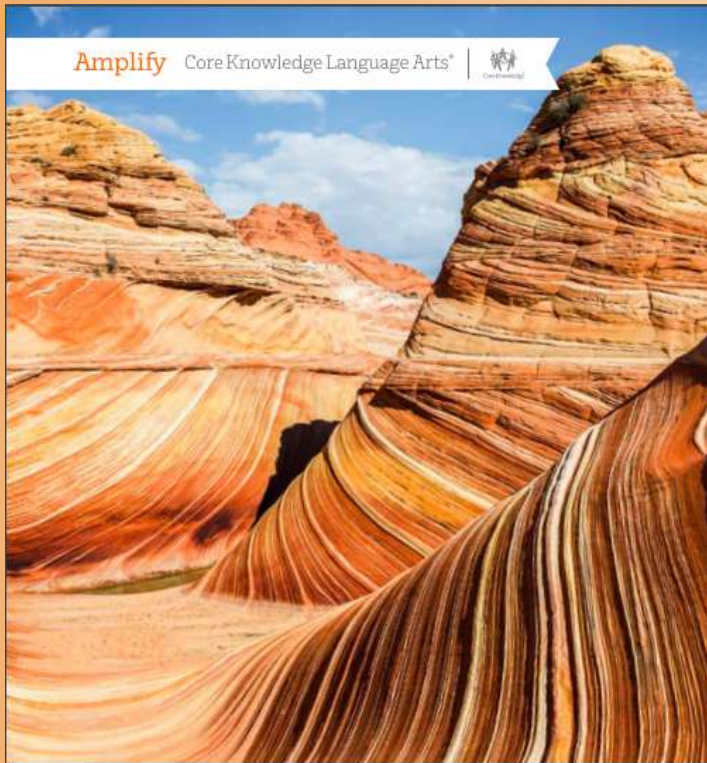


# Lesson 10: Weathering and Erosion, Part 1



Let's take a look at Activity  
page 9.1 before we get  
started!





# We are going to be reading chapter 7: Earth's Powerful Forces of Change

Before we start reading, let's go over  
some vocabulary first! Turn to Activity  
page 10.2 (workbook page 101)

Unit 5

Reader

Grade 4

**Geology: The Changing Earth**



## Vocabulary for “Earth’s Powerful Forces of Change”

1. **expand**, *v.* to get bigger (63)
2. **contract**, *v.* to shrink slightly or get smaller (63)
3. **ultimately**, *adv.* finally; at the end of a process (65)
4. **pepper**, *v.* to sprinkle or cover (67)
5. **deposit**, 1. *v.* to put or leave something in a particular place; 2. *n.* material laid down or left by a natural process (*v.* **deposited**, *n.* **deposits**) (69)
6. **state**, *n.* the condition of being a solid, liquid, or gas (67)
7. **silt**, *n.* very small sediments deposited by water (69)
8. **canyon**, *n.* a deep valley with steep sides and often a stream or river flowing through it (**canyons**) (70)

Word(s) from the Chapter	Pronunciation	Page
Yunnan	/yoo*nan/	65
Shilin	/shee*leen/	65

Let’s echo read the words  
and then we will discuss a  
few unfamiliar words and  
review a few familiar ideas!



# WEATHERING

*Chemical*



Do you  
remember  
the  
difference?

*Physical*





## Chapter 7

# Earth's Powerful Forces of Change

THE BIG QUESTION  
How do weathering and erosion continually reshape Earth's surface?

**THE BIG QUESTION**  
How do weathering and erosion continually reshape Earth's surface?

Have you ever dodged a pothole while riding your bike? Or skidded on grit that rain had washed in your path? Potholes and grit might seem like little more than bike-riding hazards. Yet they are evidence of two powerful forces at work. Weathering and erosion, as you read in Chapter 6, are processes that drive the rock cycle. They break down rock into sediments and then move them to new locations. Together, weathering and erosion are slowly but steadily reshaping Earth's surface. They are changing everything from the streets in neighborhoods and towns to the world's tallest mountains.

### Weathering at Work

Weathering breaks rock into smaller pieces. Some of these tiny pieces combine with once-living material to form topsoil. Other small pieces of rock collect as sediments. This breakdown of rocks happens as they interact with air, water, and living things. There are two basic types of weathering: physical weathering and chemical weathering.

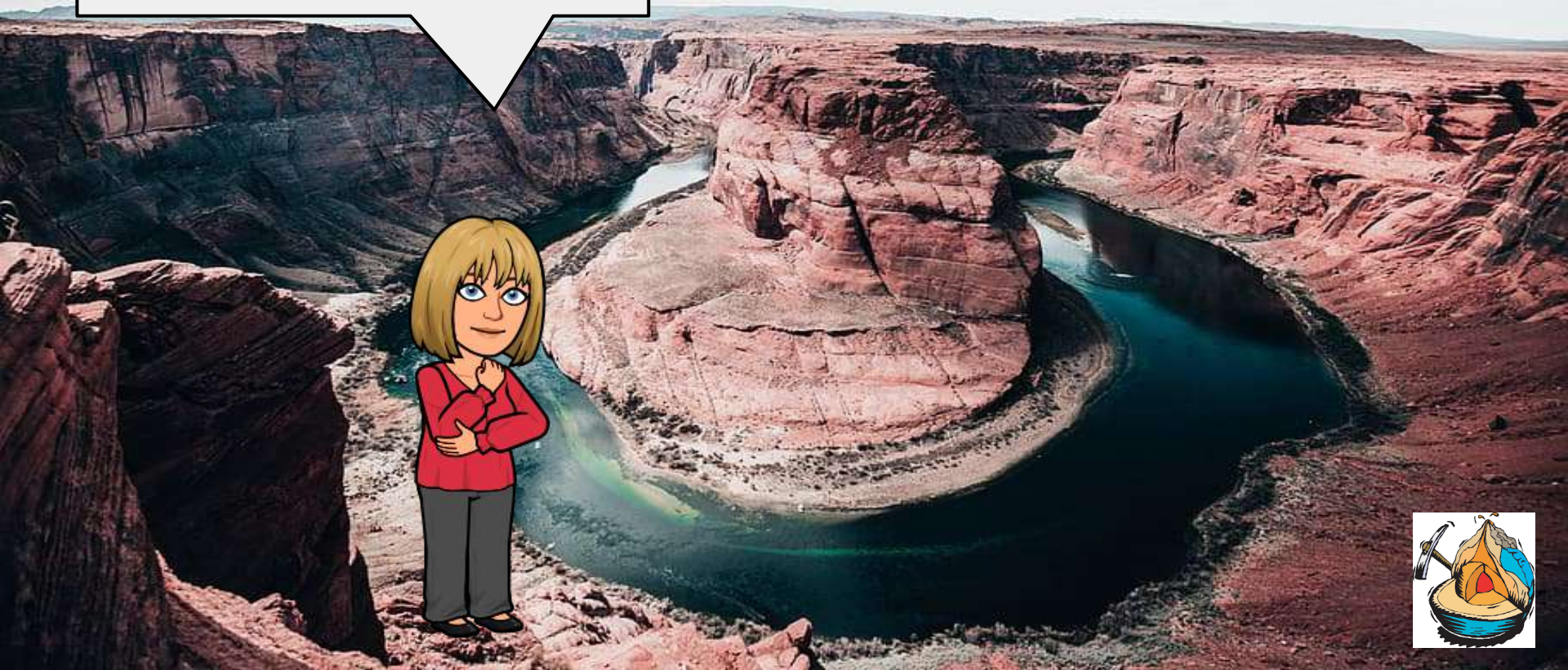


Turn to page 62 in your reader and follow along as we begin to read this chapter together.

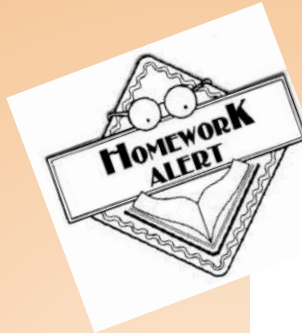


How do weathering and erosion continually change the Earth's surface?

Turn to Activity Page 10.3  
(workbook page 103)







Choose 3 words  
to use in the chart  
on Activity Page  
10.3 for  
homework!

NAME: \_\_\_\_\_

10.3

TAKE-HOME

DATE: \_\_\_\_\_

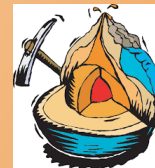
### Earth's Powerful Forces of Change

The following words were used in Chapter 7, "Earth's Powerful Forces of Change." For each word, pick an activity and complete the chart below.

sweep	<b>Vocabulary Activities</b> 1. Write a definition in your own words. 2. Provide a synonym (similar meaning). 3. Provide an antonym (opposite meaning). 4. Use the word in a sentence. 5. Provide another word that the word or phrase makes you think of and explain why. (Apple makes me think of bananas because they are both fruits.) 6. Think of an example of the word or phrase and write about it. (An example of fruit is cantaloupe. It is a melon that is white on the outside and orange on the inside. They are really tasty in the summer.)
finest	
accumulate	
countless	
deposit	
massive	

Word	Activity	Activity Response

Choose 3 words!



# Word Work: state

## Text Example:

"Water doesn't have to be in its liquid state to erode sediments."

## Meaning:

condition of being solid, liquid, or gas

## Part of Speech:

noun



## My Example:

Water flowing from the faucet is in a liquid state, but water frozen in an ice cube tray is in a solid state.

## Alternate Meaning:

there are 2 alternative meanings





Meaning 1 – one of many smaller units of government that make up a country



OR

Meaning 2 – the condition of being a solid, liquid, or gas



OR

Meaning 3 – to express something in speech or writing



# Wiki Entry

Let's go back to our Wiki Entry.

Turn to Activity Page 7.4 (workbook p. 73). We are going to use my Wiki Entry to go through the rubric. Then we will look again at my Wiki Entry while using the Editing Checklist.

## Volcano

### Description

A volcano is a hill or mountain that forms over a crack in Earth's crust from which lava erupts.

### Location

Volcanoes occur all over the world, particularly along tectonic plate boundaries and above hotspots.

### Types of Volcanoes

There are three types of volcanoes:

- active
- dormant
- extinct

An active volcano has erupted in the past 10,000 years and is likely to erupt again. A dormant volcano is considered active but has not erupted for a very long time—several hundred years, for example. An extinct volcano has not erupted for at least 10,000 years. An extinct volcano no longer has a chamber full of magma beneath it, so it is not expected to erupt again.

### Additional Information

Volcanoes can be creative forces. They can add new land to our planet and bring minerals from deep inside the earth to the surface. Volcanoes can also be dangerous and destructive. They can fill the air with poisonous gases and hot ash. They can also release rivers of lava that destroy everything in their path. Volcanoes can add things to Earth's surface but can also destroy things on Earth's surface.

### References

*The Changing Earth* (2014)



Now you will work with your Speed Dial 3 partner to review and edit your Wiki Entries. Use the comments from me, the rubric, and the checklist.

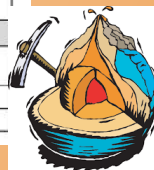


## Wiki Entry Rubric

	Exemplary	Strong	Developing	Beginning
Introduction	Initial section(s) provide accurate, general information related to location and type of volcano	Initial section(s) provide accurate information related to either location or type of volcano, but not both	Initial section(s) provide information loosely related to location and/or type of volcano	Initial section(s) lack information related to location and type of volcano
Body	Additional sections provide increasingly specific information about the volcano	Additional sections provide more information about the volcano	Additional sections provide some information about the volcano	Additional sections provide little to no information about the volcano
Conclusion	A final statement provides a thought-provoking summative or closing reflection about the volcano	A final statement provides a summary or closing reflection about the volcano	A final statement provides a summary or closing reflection about the volcano	A final statement provides a summary or closing reflection about the volcano
Structure of the Piece	All sentences in sections are presented logically	Most sentences in sections are presented logically	Some sentences in sections are presented logically	Many sentences in sections are presented logically
	All information has been paraphrased	Most information has been paraphrased	Some information has been paraphrased	Many sentences in sections are presented logically

## Wiki Entry Editing Checklist

Wiki Entry Editing Checklist	After checking for each type of edit, place a check here.
<b>Meaning</b>	
All my sentences have a subject and predicate.	
I included all the words I wanted to write.	
I took out repeated words or information.	
I have checked how long my sentences are and split run-on sentences into two.	
I have used nouns and adjectives correctly.	
<b>Format</b>	
The volcano name is the title at the top.	
Each section of the entry has a heading.	
Indenting is not used.	
If lists are included, they are bulleted or numbered.	
There is a reference list at the end in the appropriate format.	
<b>Capitals</b>	
I began each sentence with a capital letter.	
I used capital letters for all proper nouns.	
I used capital letters for all words in titles or headings.	
<b>Spelling</b>	
I have checked the spelling for any words I was unsure of or my teacher marked.	
<b>Punctuation</b>	
I read my writing piece aloud to check for commas at pauses and periods, question marks, and exclamation points at the ends of my sentences.	
I used commas and quotation marks in places where they belong.	
The titles in my reference list are underlined or in italics.	



Remember to complete Activity  
Page 10.3 for homework!

