

# How does erosion change the landscape?



## You will read:

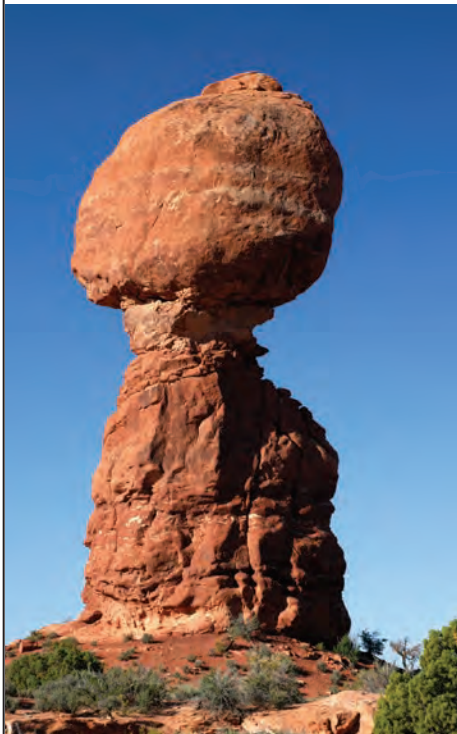
- **A Travel Advertisement**  
*Come to Arches National Park*
- **A Book Review**  
*Yosemite Valley*
- **A Journal Entry**  
*Javier's Diary*

## You will write:

- **An Informative Essay**  
*How does erosion change the landscape?*

## Source 1: Travel Advertisement

**AS YOU READ** You will be writing an informative essay that explains how erosion changes the landscape. As you read the advertisement, underline and circle information that you may cite as textual evidence when you write your essay.



**Up in the high desert of Utah** is the world's greatest collection of natural arches. And now's the time to visit! If you had come millions of years ago, all you would have seen was a flat layer of rock that extended a mile above what is now Arches National Park.

The amazing landscape at Arches was sculpted by time, water, and wind. Erosion has formed over 2,000 sandstone arches, along with spires, domes, fins, pinnacles, and hoodoos. In case you're wondering, a hoodoo is a rock formation that looks a bit like a totem pole. It's a thin spire topped with a larger, harder rock that is less

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easily worn away by the elements. When you come visit, make sure you see Balanced Rock, which is 130 feet tall and has a 3,500-ton cap rock balanced on top. It's unbelievable!

All of our arches, including Landscape Arch—at 306 feet, the longest in the world—are the result of thousands and thousands of years of softer rock being eroded faster than harder surrounding rock.

So take the time to come and see some of nature's most dramatic marvels. And take note: Wall Arch collapsed in 2008. Come soon, before they are all gone.\*

**UTAH**  
**Rocks!**

\*We're kidding! While some arches may fall during the next 50 years, there will be plenty left, and more will be slowly forming.

### Discuss and Decide

How does erosion create rock formations such as Landscape Arch?



## Source 2: Book Review

**AS YOU READ** Analyze the book review. As you read, continue to underline and circle information that you may cite as textual evidence when you write your essay.

Black Ink Review • April 23



# Yosemite Valley

by Raindrop Ferguson

*Yosemite Valley* is the fifth book in the series that presents Ferguson's

reflections on some of our national parks. As in his previous works, Ferguson mixes facts about the geology and biology of the park with anecdotes about its rangers and visitors.

The book's introduction gives information a visitor needs, such as where Yosemite National Park is, what rules the park has, and what the weather may be like. Ferguson begins the book proper with a brief history of the park. Who knew that Abraham Lincoln—in the middle of the Civil War—signed a grant protecting the valley?

The next section of the book deals with the geological formation of Yosemite Valley. It turns



out that rocks carried by glaciers gouged the valley into a U-shape with steep walls. Glacial erosion also created the spectacular domes and peaks of the park, and rocks deposited by the glaciers when they retreated created a natural dam, forming the old Lake Yosemite, which is now a meadow. Glaciers also carved gorges high above the valley floor. Once the ice was gone, some of these gorges became river beds, feeding Yosemite's stunning waterfalls.

In the final section, Ferguson's hikes through the Wilderness (95% of the park) informed his descriptions of the plants and animals of the park, including an amusing encounter with a black bear.

This short work combines the best of a guidebook, historical account, geology primer, and friendly chat. It's the most readable of Ferguson's national parks books so far.



### Close Read

How did the waterfalls form in Yosemite National Park?

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## Source 3: Journal Entry

**AS YOU READ** Analyze the journal entry. As you read, continue to underline and circle information that you may cite as textual evidence when you write your essay.

### Javier's Diary



Bright Angel Trail

June 11, 2014 —

It's my birthday, but I got up at 5:30 this morning. There was something I wanted to do!

Dad and I had a quick bite and packed the things we needed: three bottles of water each, a lot of salty snacks, sandwiches, hats, and sunscreen. Dad had a first aid kit, and we both had cameras. We set off to the head of the Bright Angel Trail down into the Grand Canyon. We weren't the only ones hiking, but it was still exciting. Within ten minutes, we reached a tunnel that was cut through the canyon wall. This hole was made by people, not erosion. But the rest of the canyon was formed by the Colorado River over millions of years. Rushing water carved out the mile-deep, 277-mile-long canyon. When I first learned that, I thought it was weird, but then I thought about the way the ocean changes the coastline. Just water.

After about a mile, the trail got steeper, but it was still a pretty easy stroll. Glad I wore hiking boots, though. The crowd started to thin out, and the views were great. Some of the rock formations at the top of the canyon have been eroded by wind (carrying sand) and there are great shapes.

Soon we reached another tunnel, and it got a bit steeper as the path ran along high cliff edges. We made it to a rest house that's about a mile and a half from the top, and stopped for some food and more water. It was still early, but we didn't want to be out in the scorching sun later on. A few people were starting to come up the trail from the bottom of the canyon, and they had the right of way. So did a mule train that was carrying supplies down the trail.



Mule train

Dad and I walked until we got to the 3 Mile Rest House, at about 8 o'clock. And ate lunch! The rest house was really four piles of rocks with a roof on it, but it was good to sit in the shade there. We rested for a while and refilled our water bottles. I wanted to keep going, but Dad's knees were starting to bother him, and he pointed out that the trail would seem steeper going up than it had coming down.

Dad was right! The trip back up took quite a bit longer, and we were both pretty exhausted when we got back to the canyon rim at about 11:30. We both have great photos from our hike, which I'm going to look at a lot to remind myself of what an amazing day (or morning) I had.



Heading back!

### Discuss and Decide

How were the rock formations created at the top of the canyon?

# Respond to Questions

The following questions will help you think about the sources you've read. Use your notes and refer to the sources as you answer the questions. Your answers will help you write your essay.

- 1** Which of the following statements is true according to the information in Source 1?
  - a.** Arches National Park hasn't changed in millions of years.
  - b.** Each arch in the park takes a million years to form.
  - c.** The arches did not exist a million years ago.
  - d.** Arches National Park has about a million rock formations.
  
- 2** How did glaciers form Yosemite Valley?
  - a.** Ice melted into the rock and then froze, breaking the rock.
  - b.** Rocks that the glaciers dragged with them eroded the valley.
  - c.** The force of the ice wall pushed everything out of the way.
  - d.** The glaciers formed a lake that then drained.
  
- 3** Which detail from Source 2 best supports your answer to Question 2?
  - a.** "Glacial erosion also created the spectacular domes and peaks ..."
  - b.** "... rocks deposited by the glaciers when they retreated created a natural dam ..."
  - c.** "... rocks carried by glaciers gouged the valley into a U-shape ..."
  - d.** "... some of these gorges became river beds, feeding Yosemite's stunning waterfalls."



**4** How was the Grand Canyon formed?

- a. Currents sculpted it when it was under the ocean.
- b. Heavy winds for millions of years wore away the soft rock.
- c. It was a natural lake that drained thousands of years ago.
- d. Over millions of years, the Colorado River carved the canyon into the land.

**5** In what way are hoodoos similar to arches?

- a. Hoodoos are what is left when arches collapse.
- b. They are both formed of rocks that erode at different rates.
- c. Both hoodoos and arches are more than 130 feet tall.
- d. They are both formed from boulders left by glaciers.

**6 Prose Constructed-Response** What formed the waterfalls that tumble down the walls of Yosemite National Park? List the causes and their effects. Cite text evidence from Source 2 in your response.

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**7 Prose Constructed-Response** What is one reason that all of the places mentioned in the sources were made national parks? Cite text evidence from each source.

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# Planning and Prewriting

Before you begin to write an informative essay, you need to determine how you will organize it. The assignment asks you to answer a question that includes the words *show* and *change*. These words suggest that you might write a cause-and-effect essay. Cause-and-effect writing explains the reason something (or more than one thing) happens.

## Assignment

Write an informative essay to answer the following question: How does erosion change the landscape?



You may prefer to plan on a computer.

## Collect Information

When you include information from a source in your writing, only use material that applies to your topic. Don't include extra information—it would make your essay confusing and distract the reader from your main point.

Complete the chart with information you'll use from each source.

Source	Evidence from Source	Cause and Effect
<b>Travel Advertisement</b> Come to Arches National Park		
<b>Book Review</b> Yosemite Valley		
<b>Journal Entry</b> Javier's Diary		

# Finalize Your Plan

Use your responses and notes from previous pages to make a plan for your essay.



## Introduction

◀ The first paragraph presents an overall look at the main causes and effects in the essay. It often includes an interesting detail, question, or idea.

## Cause and Effect

◀ The following paragraphs provide details that explain and support the ideas in your introduction.

## Cause and Effect

## Cause and Effect

## Conclusion

◀ The final paragraph often restates the overall causes and effects, and includes a further insight or observation.

# Draft Your Essay

As you write, think about:

- ▶ **Purpose** *to use sources to write a cause-and-effect essay*
- ▶ **Audience** *your teacher and your classmates*
- ▶ **Organization** *the logical structure for your essay*
- ▶ **Clarity** *easily understood relationships between causes and effects*
- ▶ **Academic Vocabulary** *words used in writing about a particular topic*



If you drafted your essay on the computer, you may wish to print it out.

## Revision Checklist: Self-Evaluation

Use the checklist below to help you revise and improve your essay.

Ask Yourself	Revision Strategies
1. Does the introduction present your main idea and grab the audience's attention?	Try to include the most interesting fact from your sources in the first paragraph, or pose and answer a thought-provoking question.
2. Is the relationship between causes and effects clear?	Make sure that each cause and its effect are clearly linked.
3. Does your essay flow well and connect the details to the overall idea?	Connecting words link ideas together. Use connecting words such as <i>because</i> , <i>as a result</i> , <i>so</i> , and <i>then</i> to explain how two ideas relate or shift from one paragraph of your essay to the next.
4. Does the conclusion restate your main idea and wrap up the essay in an interesting way?	When you restate your main idea, include an interesting insight or observation of your own on the topic.



## Revision Checklist: Peer Review

Exchange your essay with a classmate. Read and comment on your partner's essay, focusing on how well it explains how erosion changes the landscape.

Help your partner find parts of the draft that could be improved.



What to Look For	Notes for My Partner
1. Does the introduction present the main idea and grab the audience's attention?	
2. Is the relationship between causes and effects clear?	
3. Does the essay flow well and connect the details to the main idea?	
4. Does the conclusion restate the main idea and wrap up the essay in an interesting way?	

# Revision: Writing an Introduction

The best way to make readers interested in your work is to capture their attention! One way to grab a reader's attention is to include a fascinating fact in your first paragraph. You'll need to connect the fact to your main idea.



**This introduction gets the reader's attention with a question and interesting answer, and states the point of the essay:**

What could cut a gash through rock nearly 300 miles long and one mile deep? Over a long period of time, water could do it! That's how the Grand Canyon was formed. Water, wind, and ice can change the landscape in amazing ways.

## Essay Tips

### Attention-Getting Advice

- Write a statement that makes the reader want to find out more.
- Use an interesting, thought-provoking quote.
- Present a fact that will shock or surprise the reader.
- Write a brief account of a fascinating event.
- Ask a question that the reader can relate to.

## Edit

Edit your essay to correct spelling, grammar, and punctuation errors.