STEP 2

65 points Due Mon, Feb 22nd

PRACTICE THE TASK

What are the effects of an earthquake?

Somagraphs, Double Spaced,



You will read:

AN INFORMATIVE BROCHURE

If You Travelled to Gondwana...

A BLOG

A Rough Commute

A NEWS REPORT

Loma Prieta Earthquake

AN INSURANCE CLAIM

You will write:

A CAUSE-AND-EFFECT ESSAY

What are the effects of an earthquake?

AS YOU READ You will be writing an informative essay about earthquakes. Carefully study the sources in Step 2. Annotate by underlining and circling information that may be useful to you when you write your essay.

Source 1: Informative Brochure

If you Traveled to Gondwana...

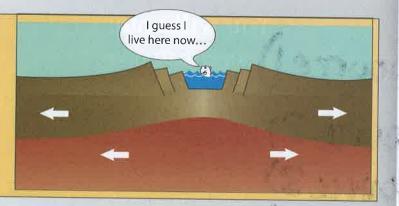
Do you wish you could ride your bike to Europe? Would you like to grow palm trees in Antarctica? Well, a mere 200 million years ago, you could have.

Ancient History

Earth's continents are not fixed in place. Rather, they slide slowly over the planet's molten mantle, colliding and separating, creating new landforms. The process is not gentle. Where two continental plates meet, mountains form, earthquakes rattle, and volcanoes erupt. Where continental plates slide apart, the consequences are no less drastic. Oceans pour in, and plants and animals that once lived together become isolated.

The lands of the southern hemisphere—South America, Africa, Australia, India, and Antarctica—were once united in the supercontinent Gondwana.

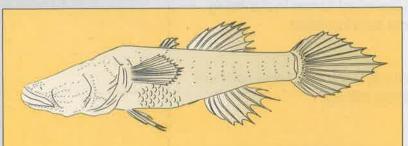
When continental plates move away from each other, huge rifts occur and ocean water spills in. These shifting seas take ocean life with it, so it's possible to find certain species—such as fish—who have been isolated from their original habitat.



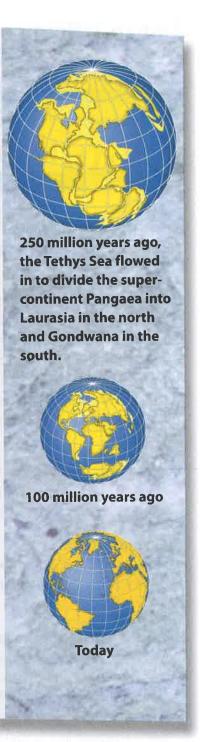
Ancient Ancestors

- The Ilama of South America is related to the camel of Africa. How could this be? How could either species cross the Atlantic Ocean? They didn't. The ancestor of Ilamas and camels lived on Gondwana—before the supercontinent split apart.
- Fossil discoveries show that the platypus has only lived in two far-flung places: in Australia and in Argentina, countries which were joined before the supercontinent broke apart.
- Even blind, cave-dwelling goby fish were scattered by Gondwana's split. Scientists recently learned that a species of goby native to Madagascar is related to a species of goby in Australia—6,000 kilometers away!

Who knows where the continents will end up 200 million years from now. Maybe some long-lost relatives, such as goby fish, can reunite!



Two contemporary species of goby fish—one native to Madagascar and the other to Australia—are said to have separated from from a goby species living in Gondwana.



Close Read

Explain what causes movement in the Earth's continents. Cite textual evidence in your response.



Source 2: Blog



EYEWITNESS REPORT

A Rough Commute Steven Nguyen Sacramento, California

3:38 pm

Traffic on Franklin Boulevard is barely crawling, and every lane is packed. It's like an early rush hour, only going in both directions.

3:55 pm

We all stop as a convoy of screaming fire engines and ambulances makes its way north. I try to call home again. No luck—just a beep-beep-beep busy signal. Everybody in California must be trying to call home now, and the telecommunications system is overwhelmed. The car radio isn't much help. Most of the dial is static; only a few stations are still transmitting. Somebody says the quake measured 7.8 on the Richter scale, with an epicenter 15 miles east.

4:29 pm

Northbound traffic on Franklin Boulevard comes to a grinding halt. I give up and turn west onto Stockton Street.

5:05 pm

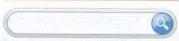
A huge cloud of blue smoke is rising to the east. Sirens wail in all directions. Helicopters clatter across the sky.

5:18 pm

The traffic on Stockton stops moving, so I take some side streets and try the freeway. I should have been suspicious by the lack of cars. Within seconds, I have to slam on the brakes. A section of asphalt six lanes wide has been tilted up like a castle drawbridge. I get out of the car and gasp. The scar of the quake is plain to see—a jagged line of raw earth tracing across miles of tomato fields. No way forward. I climb back in my car and turn around.

Welcome! About/FAQ Surprise me! Subscribe by Email

SEARCH



Archives

Discuss and Decide

What details in this blog help you picture the events described here? Cite textual evidence in your response.

Source 3: News Report



LOMA PRIETA EARTHQUAKE

San Francisco, CA

October 18, 1989

by Olivia Esposito

The earthquake struck at 5:04 P.M., while the San Francisco Giants and Oakland Athletics were warming up for the third game of the 1989 World Series. With an epicenter near Santa Cruz, about 50 miles to the south, the quake measured 7.1 on the Richter Scale and shook the ground for 15 seconds. Although the players and fans at Candlestick Park were understandably frightened, the stadium stood and nobody was injured.

Across the region, others were not so lucky. The earthquake killed more than 60 people, injured almost 4,000, and left several thousand Californians homeless. A span of the Bay Bridge collapsed, tens of thousands of buildings were damaged or destroyed, and the final repair bill came to \$6 billion.

Much of the destruction centered on the region's roadways, and some of the worst damage occurred to a raised section of Interstate 880 in Oakland. This double-deck freeway had been built in



The Loma Prieta earthquake took place during the World Series in 1989.

the 1950s and reinforced for earthquakes in the 1970s. Unfortunately this part of the structure was built on reclaimed marshland. During the earthquake, the soil liquefied. The freeway buckled, support columns failed, and the upper deck crashed onto the first deck, killing 41 people in their cars.

Some observers think that the World Series saved lives that day. Many office workers went home early to watch the game on TV, while countless others walked to restaurants to see the game. As a result, fewer cars were on the road, and an untold number of drivers avoided catastrophe.

Discuss and Decide

What was the most destructive effect of the Loma Prieta earthquake? Cite textual evidence in your response.

\$5,490

\$1,900

\$5,740

\$1,500

\$54,880



Earthquake Insurance Claim Form			
Policy Holder Sandra T. Upton		Insurance Company Alphabets, LLC	
Address 5231 Live Oak Way, Los Gatos, CA		Policy Identification Number 0221-95550123	
Covered Property (same)		Earthquake Date 10/17/89	
ltem	Damage	Estimated Repair/ Replacement Cost	
driveway	concrete buckled and cracked	\$3,200	
chimney/fireplace	partially collapsed	\$5,000	
front porch	support columns askew	\$2,800	
hallway	east wall cracked in three places	\$4,100	
kitchen	window broken, counters cracked, ceiling collapsed	\$7,250	
bedroom	window broken, closet walls cracked, floor displaced	\$9,300	
bathroom	shower wall cracked, sink crushed, toilet broken, ceiling collapsed	\$8,600	

windows broken, window frames

windows broken, wall cracked

hot-water heater, refrigerator,

stove, oven, television destroyed

porch buckled, approximately half

Total

dislodged, ceiling cracked

Discuss and Decide

front room

appliances

backyard

garage

Which details from the insurance claim help you better understand the scope and cost of an earthquake's destructiveness? Cite evidence from the claim form in your response.

of fence collapsed

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Respond to Questions on Step 2 Sources

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 to will help you write your essay.

- Who was the least impacted by the Loma Prieta Earthquake?
 - a. people on the Bay Bridge
 - **b.** people in the Oakland area
 - c. people in Candlestick Park
 - d. people near the freeway
- Which words best support your answer to Question 1?
 - a. "Many office workers went home early to watch the game on TV, while countless others walked to bars and restaurants to see the game."
 - **b.** "The freeway buckled, support columns failed, and the upper deck crashed onto the first deck, killing 41 people in their cars."
 - c. "Although the players and fans at Candlestick Park were understandably frightened, the stadium stood and nobody was injured."
 - **d.** "A span of the Bay Bridge collapsed, tens of thousands of buildings were damaged or destroyed, and the final repair bill came to \$7 billion."

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- Which of these is an effect of continental plates meeting?
 - a. oceans pour in
 - b. mountains form
 - c. plants and animals become isolated
 - d. people move to different continents
- Which damages were the most costly in Sandra T. Upton's home?
 - a. broken windows/cracked wall in the garage and support columns on the front porch
 - **b.** buckled porch/collapsed fence in backyard and east wall cracked in hallway
 - **c.** broken window/collapsed ceiling in kitchen and cracked shower wall/broken toilet in bathroom
 - **d.** replacement of appliances and cracked closet walls/displaced floor in bedroom
- What information about earthquakes can you learn from the insurance claim mentioned in Question 4 that you could you not get from the other sources?
 - **a.** The Richter Scale is the standard by which earthquake severity is measured.
 - **b.** Earthquakes can cause a lot of damage to people even if they are not injured.
 - **c.** Earthquakes can split the ground open.
 - d. Earth's continents aren't fixed in place.

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ASSIGNMENT

Write a cause-and-effect essay that answers the question: What are the effects of an earthquake?

Planning and Prewriting

When you write a cause-and-effect essay, you can usually choose from a cause-to-effect organization, an effect-to-cause organization, or a causal chain. For your essay on earthquakes, you will use a cause-to-effect organization.



奏 You may prefer to do your planning on the computer.

Decide on Cause and Effects

Based on details and evidence presented in the sources, what are the effects of earthquakes? List them below.

Cause: Earthquakes

Effects:

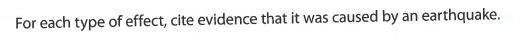


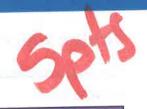
Effects on the Earth:

Effects on people:

Effects on property:

Find Evidence





Effect	Evidence	
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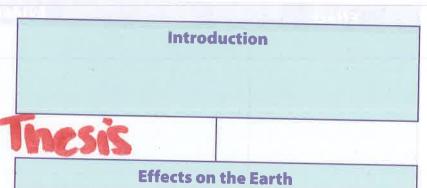
Finalize Your Plan

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

- Hook your audience with an interesting detail, question, or quotation.
- Provide any background information needed.
- Follow a framework like the one shown here to organize your main ideas and supporting evidence.
- State each effect concisely.
- Include relevant facts, concrete details, and other evidence for each effect.
- Make the nature of the cause-and-effect relationship clear.



- Summarize the key cause and effects.
- Include an observation about why the



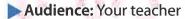
Effects on the People

Effects on the Property

Conclusion information is important.

Draft Your Essay

As you write, think about:



Purpose: Demonstrate your understanding of the specific requirements of an informative essay.

> Style: Use a formal and objective tone.

▶ Transitions: Use words and phrases such as because or so to create cohesion, or flow.

Revise

Revision Checklist: Self Evaluation

Use the checklist below to guide your analysis.



If you drafted your essay on the computer, you may wish to print it out so that you can more easily evaluate it.

Ask Yourself	Tips	Revision Strategies
1. Does the introduction grab the audience's attention?	Underline sentences in the introduction that engage readers.	Add an interesting question, fact, or observation to get the reader's attention.
2. Is each cause and its effect supported by textual evidence, facts, and concrete details?	Circle textual evidence.	Add textual evidence if necessary.
3. Are appropriate and varied transitions used to make the cause and its effects clear?	Place a checkmark next to each transitional word or phrase.	Add transitional words or phrases where needed to clarify the relationships between ideas.
4. Does the concluding section sum up ideas? Does it give the audience something to think about?	Double underline the summary of key points in the concluding section. Underline the insight offered to readers.	Add an overarching view of key points or a final observation about the significance of the cause and its effects.

Revision Checklist: Peer Review

Exchange your essay with a classmate, or read it aloud to your partner. As you read and comment on your classmate's essay, focus on how clearly the causes of earthquakes and their effects have been presented. Help each other identify parts of the drafts that need strengthening, reworking, or even a complete new approach.

What To Look For	Notes for My Partner
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3. Are appropriate and varied transitions used to make the cause and its clear?	
4. Does the concluding section sum up ideas? Does it give the audience something to think about?	

Edit



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