

NEWS BREAK

Article: **Mount Rainier is getting shorter, has a new summit**

Section: **MAIN, A1**

Sunday's News Break selects an article from **Sunday, October 6, 2024** of The Seattle Times print replica for an in-depth reading of the news. Read the selected article and answer the attached study questions.

You are encouraged to modify this lesson to fit the needs of your students. For example, some teachers might use this as a take-home assignment and others might read and answer the questions in a small group or larger, class discussion.

****Please be sure to preview all NIE content before using it in your classroom to ensure it is appropriate for your students.***

Standards:

CCSS.ELA-Literacy.RI.4.1

- Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.

CCSS.ELA-Literacy.RI.4.2

- Determine the main idea of a text and explain how it is supported by key details; summarize the text.

Objectives:

Students will learn about Mt. Rainier and other mountains in danger of atmospheric warming. They will learn about how fossil fuels and greenhouse gasses are impacting our world. They will talk about the future of the mountains and our planet.

Pre-Reading Discussion:



- What do you think the article will be about, using these pictures?
- Are there any clues? What can you infer?

Vocabulary Building:

Read this sentence, what do you think the highlighted words mean using *context clues*? A **context clue** is a word or words that are hints and refers to the sources of information outside of words that readers may use to predict the identities and meanings of unknown words.

The snowy caps and glaciers across Washington's mountaintops **fluctuate** throughout the year as snow builds up in the winter and melts again in the summer.

Fluctuate Guess:

Fluctuate Definition:

Comprehension Questions:

1. The top of Mount Rainier is no longer the top of Mount Rainier. The frozen ice cap on top of Washington's iconic mountain — recognized for generations as the tippy top — is melting as the _____ warms.
2. Now, that frozen _____ has sunk below a rocky patch on the mountain's southwest rim, crowning that spot as the new highest point.
3. Eric Gilbertson, a mountaineer and mechanical engineer, summited Rainier in August and September, taking measurements along the way to _____ the change.
4. He's collecting a series of data points across the Cascades, and the general conclusion is that Washington's perpetually ice-capped mountains are _____.
5. Federal officials are now considering what to do with Gilbertson's measurements, which would chop about _____ feet off the long-standing height of Rainier, taking the mountain from 14,410 feet above sea level down to 14,399.6 feet.
6. The phenomenon isn't limited to Washington, which has more _____ than any other state in the Lower 48. It's happening in California and Sweden, among other places.
7. A warming atmosphere, caused by an ongoing reliance on _____, is chipping away at snow and ice around the world.
8. Since 1984, which is when Mauri Pelto began collecting annual measurements, glaciers across Washington have lost on average perhaps _____% of their volume, he said. "And obviously, we've watched a lot of them disappear," said Pelto, who teaches at Nichols College in Massachusetts, returning to Washington for his work every year.
9. What does a differential GPS system do?
10. _____ emitted by people burning fossil fuels like gas, oil and coal are warming the atmosphere.
11. Not only was this summer the warmest in the Earth's _____-year record but we've also seen month after month heat records around the world.
12. At our current rate, average surface warming on Earth could hit an increase of _____ degrees Celsius by 2040, surpassing what many scientists believe to be a critical climate threshold, beyond which point the danger for our way of life increases sharply.

13. That warming trend is sure to include further melting of the icy and snowy peaks across the world, Pelto said. "There aren't very many glaciers in the North Cascades that can survive the next _____ years," Pelto said.
14. The work is a perfect intersection of _____, _____ and _____.

Discussion Questions (small/large groups), Journal Prompts or Essay Questions:

Class Discussion Questions:

- What surprised (or stood out to) you in the article?
- At first, I thought _____, but now I think _____?
- What things did you already know from prior experience?

Diving Deeper-Journal, Essay Prompts & Discussion Questions:

- Imagine Mount Rainier is a giant ice cream cone. What happens to the cone if you leave it out in the hot sun? How is this similar to what's happening to Mount Rainier?
- Based on the article, what evidence suggests Mount Rainier is losing height?
- How does this article make you feel about the future of mountains and our planet?

Climate Change Detectives:

- The article mentions "fossil fuels" as a culprit in warming the atmosphere. Research what fossil fuels are and how they contribute to climate change.
- The article mentions glaciers around the world are shrinking. Can you find other examples besides those mentioned?

The Science of Shrinking Mountains:

- The article mentions "differential GPS." How does this technology work and how is it used to measure mountain heights?
- How might the loss of glaciers on Mount Rainier impact the surrounding ecosystem?
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The Future of Mountains:

- The article mentions a critical climate threshold of 1.5 degrees Celsius. Research the concept of tipping points in climate change.

- What are some potential consequences of losing glaciers on mountains worldwide?
- Propose solutions or mitigation strategies to slow down the melting of glaciers.

News Break is posted to the Web on Tuesday. Please share this NIE News Break program with other teachers. To sign-up for the print replica for your class, please [register online](#) or call 206/652-6290 or toll-free 1-888/775-2655.
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