

Science Time

Program Content for January 4, 2017

Read the article “Mount Rainier to get new digital-warning system for massive mudflows” on page B1 of the Monday, January 2, 2017 edition of The Seattle Times.

Objective

- I can explain the impact of landslides in the Puget Sound region.
- I can explain how the region around Mount Rainier is and can prepare for a possible landslide.

Next Generation Science Standards (NGSS) connection

Disciplinary Core Ideas - Natural Hazards

- Mapping the history of natural hazards in a region, combined with an understanding of related geologic forces can help forecast the locations and likelihoods of future events.

Influence of Science, Engineering, and Technology on Society and the Natural World

- The uses of technologies and any limitations on their use are driven by individual or societal needs, desires, and values; by the findings of scientific research; and by differences in such factors as climate, natural resources, and economic conditions. Thus technology use varies from region to region and over time.

Pre-reading and Vocabulary: Define each term and then use it in a sentence to demonstrate your understanding.

1. lahar
2. seismologist
3. watershed
4. sediment

Comprehension Questions

1. What prompted scientists and emergency managers to launch a review of how to detect mudflows on Mount Rainier?
2. How does the mass of the Oso landslide compare to a possible Mount Rainier lahar?
3. How are volcanic mudflows formed?
4. What is the most significant upgrade being made to Mount Rainier’s detection technology?
5. What are two things that will likely occur due to the upgrade you noted in the previous question?
6. How often does Mount Rainier have volcanic mudflows?
7. How did the Mount Rainier mudflow 5,600 years ago alter the Puget Sound landscape?
8. What impact would a Mount Rainier volcanic flow have on cities and the Puget Sound region today?
9. Describe the chain of events that would occur should a lahar be detected by the computer system at Camp Murray.
10. What are some of the next steps that will be implemented to improve the lahar detection system around Mount Rainier?
11. Why do scientists consider a lahar in the Puyallup River valley a greater risk than the one that occurred in Oso?
12. Once a lahar warning siren goes off, what is the most important thing for people to do?

Prompts and Extensions

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1. Within the article you just read there is a map and information for how to prepare for an eruption of Mount Rainier. Using the preparation tips, create a list of what you believe to be the 3 most important things people should do to prepare for an eruption.
2. Read the March 21, 2016 Seattle Times article [‘2 years since Oso slide, a quiet renewal amid the sorrow’](#) for an update on how the Oso region has developed since the 2014 landslide. Within the article you will also be able to view a series of recent photographs of the slide’s impact.
3. Read about [the history of landslides](#) at Mount Rainier
4. Watch this [video](#) from National Geographic about how landslides occur and see real footage of their effects.

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