

Grades: 6-8

Nova, “The Next Pompeii”

Discover Campi Flegrei, a lesser-known volcano in the shadow of Vesuvius. If it erupts, millions of lives could be at risk. Meet the scientists exploring its geography and developing a warning system to prevent Naples from becoming the next Pompeii.

After watching this episode, choose from the following questions and/or tasks to extend your learning

Question Box 1

- What evidence does the TV show director give to support his or her central idea?
- What is this program “saying”? Cite several pieces of textual evidence to support your analysis.
- Which details support the key idea? Look for the who? What? When? Where? Why? How much? How many?
- What are the program’s supporting claims or reasons that support the central message?
- What is Campi Flegrei?
- What was Vesuvius and what happened in Pompeii?
- Why is there concern about Campi Flegrei?
- What are the scientists doing to prevent Naples from being destroyed by Campi Flegrei?
- What does geography have to do with it?
- What’s a caldera? What is a super volcano?

Question Box 2

- How much did you know about the subject before we started?
- How do you feel about this program? Why?
- What parts of it do you particularly like? Dislike? Why?
- What did you enjoy about this program?
- If someone else were looking at this program, what might they learn?
- Would you be interested in living in a city at the base of a volcano? or near a caldera?
- What did the scientists do that interested you?

Box 3 (Tasks)

- From January 2012 to June 2013, volcanic action from Campi Flegrei raised the ground

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about 11 cm with a peak rate of 3 cm in the month of December. Create a linear graph of growth over time. Create a non-linear graph of growth over time. Identify key features of both graphs.

- On Sunday, April 26, 2020, a moderate Earthquake swarm hit Campi Flegrei which included approximately 34 earthquakes with a range in magnitude of 0.0 to 3.1. What would be a good measure of central tendency to represent this data: mean, median or mode? Justify your answer using mathematics.
- Research and describe with evidence the warning systems in place for volcano eruptions. (ELD) *Present your research orally to someone.*
- Research and discuss, other than the explosion and resulting pyroclastic flow, what are the other dangers to life from active volcanoes?

Box 4 (Enrichment)

- Research and discuss future volcano eruptions that could affect people in the Southern California area.
- Research and discuss past volcano eruptions that affected people in the Southern California area.
- Volcanic activity takes place on the islands of Hawaii and people continue to build homes and live in the shadow of volcanoes. How is this different or the same as Naples? <https://www.usgs.gov/observatories/hawaiian-volcano-observatory/active-volcanoes-hawaii>

Box 5 (Extend/Real-Life)

- Compare and contrast the volcanoes near Naples, Italy and the super volcano we call Yellowstone National Park in terms of its destructive capacity.
- There are places to explore volcanoes up close, search where you might be able to explore a volcano and what are the different ways to experience a volcano?
- Imagine planning a trip to explore one of Earth's many volcanoes. What would it cost, where do you need to go and what else needs to be considered? Now plan your trip!