Nature of Science and Math Based on Erupting Volcano

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Abstract

The article referenced uses a multitude of tenets from the Nature of Science discussed in NGSS. Explanations will be given of what tenets are met, and how they achieve each of the tenets. Analyses are included of each tenet met, as well as analyses of tenets that are not met.

Nature of Science and Math Based on Erupting Volcanos

As well-known media's are famous for publishing articles based on important information, the articles sometimes do not hit tenets of the NGSS. These tenets are a set of general standards that are needed to make scientific and mathematical articles generally allowable. This paper will talk about standards that were and were not hit in the article 'Extinct Volcano has Woken up and Scientists Say it Could Erupt at Any Moment.' Although this article met a variety of standards, the three that will have an analysis are open to revision, knowledge assumes an order and consistency and knowledge assumes in order and consistency and natural systems, and address questions about the natural material World. The three mathematical standards we will have an analysis on are reason abstractly and quantitatively, express regularity and repeated reasoning, construct viable arguments and critique the reasoning of others.

Scientific Standards Met

To begin we will first analogize the tenet of open to revision in light of new evidence. In the article the author Emily Dixon of CNN states that," Between 1999 and September 2017, about 100 weak seismic events were detected beneath the volcano". A little bit further in the article Dixon mentions over a four-month period about 2,400 seismic events occurred underneath the volcano. As seen by Dixon's statements new evidence was brought to life. Furthermore, Dixon says there was an earthquake seen beneath the volcano which measured at a 4.3 on the magnitude scale. The researches then changed the activity status of the volcano from inactive to active. As seen in the article revisions were made to the volcano's activity status due to light of new evidence. Another tenet that is seen in this article is knowledge assumes an order and consistency in natural systems. Perceived from the article we saw consistency from 1999 to September 2017 from the inactive volcano; then the volcano showed a drastic change signaling

activity. From the seismic events, an earthquake was seen due to order and natural systems the scientist knew the activity status needed to be changed. The final science tent we will discuss is addressing questions about the natural and material world. As seismic events and earthquakes are not man made and cannot be changed the activity status was a natural step that occurred. Although we cannot stop a volcano from being active, we can be aware of what happens leading up to the volcano erupting.

Mathematical Standards Met

To start the article adequately reasons abstractly and quantitatively. Dixon conveyed that the norm based on seismic events under the volcano implied the activity status needed to be changed. The next tenet incorporated in the article is expression of regularity and repeated reasoning. As previously mentioned, the regularity of low seismic events between 1999 and September 2017 showed an average of 100 events had a dramatic change and became regular between October 2017 to February 2019 at around 2,400. The final math tenet we will discuss is construction of viable arguments and critique the reasoning of others. Dixon states," These seismic properties may indicate the presence of magma instructions with a high content of [...] fluids, which may justify changing the current status of this volcano from 'extinct' to 'active' the researchers wrote.". As seen in the quote new facts have been found giving a reason and explanation to new arguments.

Missing Scientific and Mathematic Tenets

Although many tenets were achieved there were three tenets that were not seen in the article. The scientific tenets missing is a human endeavor. For this scenario the scientific endeavor would be extremely difficult to do. The two mathematical tenets are makes sense of the problem and preserve in solving them and look for and make use of structure. Although it is

possible to make sense of the volcanic problems, it is not possible to solve them. Also, volcanos cannot be safely changed into a useful structure.

Why it Works

The scientific and mathematical tenets can be seen throughout the article" Extinct Volcano has Women Up and Scientists Say it Could Erupt at any Moment", written Emily Dixon, CNN. Although not all tenets were seen the article manages to include an adequate amount.

References

Dixon, Emiky. (2019). Extinct Volcano has Woken Up and Scientists Say it Could Erupt at any Moment. Received from: https://www.cnn.com/2019/06/07/europe/russia-volcano-s like-intl-San/index.html