

Lauren Wolford
Methods of STEM Education
20 June 2018

Here in Southern Colorado we are in the middle of fire season and there are many articles surfacing about the 416 Fire, which is located just outside of Durango, Colorado. This article does a decent job in using the Nature of Science correctly. To start with the first tenet: Scientific Investigations Use a Variety of Methods and Scientific Knowledge is Based on Empirical Evidence go hand in hand. The article talks about how the air quality is “measured in units of micrograms per cubic meter. Then, based on the measurement, the air is given a score from 0-500.” Durango air quality is reaching a score of 205 or hazardous level. This score is based on Empirical Evidence or on previous studies that scientist have done or created to score air quality. Later in the article it talks about even when the air “looks” clear it is still not safe. I like to think that the audience’s power of observation is a Variety of Method because they are observing the clearing of the air however the data collection is stating otherwise. To sum it all up we are using the tenet: Science is a Way of Knowing to prove that the air quality is bad because of the findings of micrograms in the current air.

By using the Common Core Mathematics Practices you could construct viable arguments and critique the reasoning of others on the subject of air quality. Your friend might say that the air looks like it has cleared since that mornings and that it is safe to go for a bike ride, and you could come back at them using the data in particular the real time data and although their observation is correct the air quality is still hazardous. The article gives a separate link to show real time are quality, there are however better more mathematical places to find air quality, but by giving this extra link it is helping the article become more scientific because it is giving the audience a model with mathematics, to see the data first hand. The article is definitely using the appropriate tools to get their point across. They are using air quality measurement to show that the air is in fact hazardous instead of just using observation.

Ryan Simonovich. “Air quality in Durango measures at ‘hazardous’ levels” *The Durango Herald*, June 11, 2018, <https://durangoherald.com/articles/228036>, June 20, 2018.