Should you always believe the news?

I was listening to a news report the other day and I heard some interesting things. The story I was listening to was about a new, huge snow blower at Gerald R. Ford International Airport in Grand Rapids, Michigan.

Go to the following website to listen to the report:

<http://fox17online.com/2015/02/10/ford-international-airport-introduces-first-snow-blower-of-its-kind-in-the-country/>

You have a copy of what the reporter is saying so you can read along. You may even need to listen to the report two or three times so you understand it. While you are listening and reading along, keep the following questions in mind:

1. There are some interesting “facts” in this report. Find at least two “facts” that you are asked to take as true.
2. Do these facts seem realistic to you? If so, why? If not, why not?

So what do you think? Just predict based on what you think, don’t worry about numbers. Think to yourself for a few minutes and then share with your group. Talk about these questions with your group.

***Product 1:*** Write a short note to your teacher explaining what you were thinking about in Questions 1 and 2. Be sure to explain your reasoning clearly and use specific descriptive words.

So let’s take a look at the main claim in the article, that little fact about “a two lane road from Grand Rapids to the Mackinaw Bridge.”

Here is the ***Central Question*** for this situation:

Is what the reporter said about the concrete at the airport true?

This is a very big question. So here are some other questions that may help you answer it.

1. Is there one correct answer to this question or more than one?
2. Is it possible to find the exact answer? Why do you think that?
3. What kinds of numbers might you encounter in your work?
4. What are some other questions you might need to answer before you can form an opinion?

In order to answer this question there are some important things to think about.

1. Talk with your group about the questions that might be important to think about or that you might have to answer to get an answer to the Central Question.

***Product 2:*** Decide with your group on two questions that you think *must* be answered in order to get to an answer to the Central Question. Write them on the Poster Paper and explain to the class why you think they have to be answered.

Now that you’ve talked about some questions and some ideas with your classmates, it is time to explore some resources on your own. Below you will find two web sources that may help you think about and possibly answer the Central Question. Review the resources before you begin calculating!!

1. Google maps: <https://www.google.com/maps>
2. Federal Highway Administration: <http://safety.fhwa.dot.gov/geometric/pubs/mitigationstrategies/chapter3/3_lanewidth.cfm>

Okay, it’s time to try to find an answer! Gather all of your data (numbers, units, labels, etc.), decide how to display your numbers, and do any calculations you need.

***Product 3:*** After you’ve found an answer, put your calculations together in a neat format on paper. Provide a detailed explanation of your calculations, both what you did and why you did it. Your explanation should be clear and in complete sentences. It should also be written for a classmate that was absent during your work time, so that he or she can easily understand what you did and why you did it.

Be prepared to discuss your results with the group.

Now that you have an answer, an explanation, and have done some thinking and calculating it’s time to ask another question, the ***Secondary Question***:

How would your calculations change if you used scientific notation to record your numbers? How about your results?

***Product 4:*** Explore the Secondary Question by recalculating using scientific notation for all of your large numbers, and provide an explanation of how your calculations changed. Be sure to talk about how *performing operations* was different and perhaps how *understanding numbers* was different.

Now that you’ve thought about your calculations from different points of view, we have another problem. One student who did this task before your class said that she really likes using scientific notation for working with big numbers.

***Product 5:*** Write a note to this student (her name is Britney) telling her if you agree or disagree with her opinion. Whatever your answer, you must tell her why you feel that way using math vocabulary and examples from your calculations.

Feel free to discuss your opinion with your group if you are having trouble thinking about this.

**Ford International Airport introduces first snow blower of its kind in the country**

POSTED 5:05 AM, FEBRUARY 10, 2015, BY [NICOLE DIDONATO](http://fox17online.com/author/nicole-didonato/)

GRAND RAPIDS, Mich. — Snow not only causes delays on the road, but in the air. But now Gerald R. Ford International Airport in Grand Rapids owns the only snow blower of it’s kind in the country, with the goal of clearing the runways faster and cutting down on delays.

The airport has 1,550,000 square yards of pavement on the field which is enough concrete to build a two-lane road from Grand Rapids to the Mackinaw Bridge! Add snow to the mix, and it’s a big project for field maintenance crews on snow days. But that has changed this winter.

“We have something unique here and different,” said Jeff McNally, field maintenance supervisor at Gerald R. Ford International Airport.

The airport purchased what is called the Snow Wolf, and it’s a beast of a snow blower. That’s snow blower, not snow plow. The machine is capable of throwing snow over 140 feet and clear and 7,500-foot path in an hour.

“It didn’t matter what kind of snow is thrown at us, we are manhandling it right now.”

What’s more, travelers will only see it in West Michigan.

McNally spent the past few years trying to obtain the massive snow blower for Grand Rapids to help reduce flight delays and increase safety for pilots and passengers.

McNally credits airport officials for seeing the importance of it and investing in the machine. Every winter, his team clears enough snow to fill 20,000 Olympic-sized swimming pools.

In addition, the airport can only use certain materials on the runways.

“Salt is an engine killer, if you will, and not allowed on the airfield,” McNally explained.

Instead, the airport uses Federal Aviation Administration-approved chemicals and heated sand.

More than 60 inches of snow has already blanketed the airfield this season, and in an industry where time is money, the Snow Wolf couldn’t be a better investment.

“Snow removal is only as fast as a blower is able to put that snow off the pavement,” McNally said.

“This has allowed us to touch snow once.”

The airport paid for the Snow Wolf with 100% local funds.