

## Earth Science Newsletter – December, 2018

(Mr. Williams ~ Rm. C-423)

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Dear Parents/Families:

Welcome to the Holiday Edition of the Earth Science Newsletter. My classroom hallway is currently decorated with some amazingly creative rock cycle comic strips! I'm not sure if any of you had a chance to see your children working on their comics, but I was really impressed by how they developed their own stories and really ran with the metaphors!

I am sending this out on a Saturday because I wanted everyone to be aware that we are kicking off December with the Rocks and Minerals Unit Exam on Monday. Students should study their notes, but most importantly they should complete the "Rocks and Minerals ESRT Practice" guide that I gave to them last class (I have also posted it on Google Classroom in case anyone lost their copy!) There is very little memorization required for this unit. This exam is much more about carefully reading the questions, and understanding how to use information from the Earth Science Reference Tables (ESRT) to find the correct answers. As a bonus for being loyal readers of this newsletter, I am going to give you three "clues" to help with the exam (pay especially close attention to the underlined terms):

- 1) The physical properties of a mineral are determined by the mineral's internal arrangement of atoms (students will know this as "IAOA")
- 2) Syracuse is called the Salt City. When the shallow sea covering this area evaporated, large amounts of salt were left behind to become a part of our bedrock.
- 3) As the cooling time for an igneous rock increases, the size of its interlocking crystals also increases.

Later this week, after the unit exam, academic students will begin work on their 2<sup>nd</sup> quarter literacy project (10% of their 2<sup>nd</sup> quarter grade). Students will

examine ore samples from an actual proposed iron mine site in Iron County, Wisconsin. They will then work in teams to determine the iron content of the ore, and mathematically estimate the potential value of the mine. In lieu of a lab report, students will fill the role of an “industry consultant” and write a mock letter to the county executive outlining the information needed to decide whether or not to grant the mining permits. The intention of this project is to show that rocks and minerals have importance in the real world, not just in the classroom. It will also promote critical thinking as students will need to evaluate the economic and environmental costs/benefits of the proposed mining operations.

Once the iron mining project is complete, we will spend the remaining time before the Holiday break studying the processes of weathering and erosion. Students know how rocks form, and now they will learn how they are broken apart by the forces of nature.

As a result of inclement weather, we had to cancel our fossil expedition that was scheduled for November. We were able to replace that trip with a visit to the Metro Wastewater Treatment Plant on Saturday, December 8<sup>th</sup>. If you think your child would be interested in participating, please let me know ASAP because there is a limit to the number of students we can take. Read here for more details about the trip: [https://drive.google.com/file/d/1fu7uFJrHoEcksV7tw\\_-ziRQ7nkYZ5M02/view?usp=sharing](https://drive.google.com/file/d/1fu7uFJrHoEcksV7tw_-ziRQ7nkYZ5M02/view?usp=sharing)

Happy Holidays to All!

Honors Earth Science Only:

Symposium article outlines are due on Wednesday, December 5<sup>th</sup>, and students will begin working on their articles in class on that day. The first draft of the article is due on Tuesday, December 8<sup>th</sup>!

Season's Greetings,

Mr. Williams