

Earth Science Newsletter – November, 2017
(Mr. Williams ~ Rm. C-423)
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Hello Everyone, here is your monthly earth science update. The first quarter is now in the books, and report cards will be available for viewing on November 17th. Students completed the second unit exam (rocks and minerals) last week. The exam was difficult (with some tricky constructed response questions from recent Regents exams). But I noticed that many students scored higher relative to the first unit exam, so I am recognizing a positive trend. The first quarter of high school can be a difficult transition for some students as they struggle to balance increased independence and heightened academic expectations. Most of my students have now realized that diligence and hard work are the keys to success, and I expect to see continued academic growth as we move through the school year. Students should check Google classroom on a regular basis (probably daily) to be sure that they are staying on top of their coursework. Also, students must learn to advocate for themselves. When they need help or clarification with something we have covered in class, it is critical that they inform me so that we can schedule additional help during academic advisement or after school. I am here for ALL of my students, but I cannot always read minds to know when a student is struggling. Communication is key.

Students have thus far completed a total of 11 lab credits. Students have learned how to test and determine the various physical properties of minerals, and they are able to identify specific rocks based on their observable characteristics. Go ahead, give them a rock and see if they can tell you what it is! Recently, students also analyzed ore samples from an actual proposed iron mine site in Iron County, Wisconsin. Students worked in teams to determine the iron content of the ore, and then estimated the potential value of the mine. In lieu of a lab report, students played the role of “industry consultant” and wrote 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 was to show that rocks and minerals have importance in the real world, not just in the classroom.

Outside the classroom, Mr. Calderwood, Mrs. Barnell, and I brought 18 students on a fossil collection expedition to Tully, NY. Students did actual paleontological field work, and then spent time in the lodge at Highland Forest analyzing their fossil data. They will be able to use this data to make inferences about environmental changes that occurred during the middle Devonian period, when the Tully fossil beds were formed. A good time was had by all, and the learning was authentic. The next expedition is coming up in early February (weather permitting). Students will be out on the ice at camp Talooli performing sediment cores; a great opportunity to experience winter field work!

November is a shortened month as we approach the holiday season. The remainder of the month will be focused on weathering, erosion, and deposition (basically, how rocks are broken down and transported by natural forces). In December, students will study the larger scale phenomena in the Earth's crust (earthquakes, volcanoes, plate tectonics, etc.). In the meantime, Happy Thanksgiving to all. Enjoy the time with your family and loved ones.

I would be remiss without giving a shout-out to Emilie Mussi for producing an AWESOME music video to go along with her rap about the mineral calcite. You can view the video on the "Monthly Newsletter" section of my website (<http://williamslhx.weebly.com/monthly-newsletter.html>), and I encourage you to do so. You will also see there an additional shout-out to Malia Azure for her original artwork depicting the rock cycle as an allegory for World War II era concentration camps. Finally, one more shout-out to Zach Ormsby for writing one of the finest iron mine consulting letters I have seen, despite dealing with a severe Ultimate Frisbee injury!

Honors Earth Science Only:

On or before Wednesday, November 15th students need to use Google Classroom to submit links to their 3 general articles and PDF versions of the 3 peer-reviewed scientific journal articles that they intend to use for their symposium project. Please check with your child to make sure that they are on track to complete this task. If not, they should schedule a time to meet with me this Monday or Tuesday

for additional assistance. Now that students have identified their symposium topic, the next step will be to dive in to the peer-reviewed articles and read them closely. They need to print the articles and mark them up with underlining, highlighting, notes in the margins, etc. On 12/1, students will bring a folder containing all 3 peer-reviewed articles, and I will be checking to see that they have been marked up and closely read. Additionally, students will be given blank outlines this week to help them organize their thoughts and understand what they are looking for as they read through the peer-reviewed articles. The completed outline will be due on 12/8, and the first draft on their symposium article is due in class on 12/19 (more details about this will be provided in next month's newsletter). It is important that students adhere to the due dates outlined above. Otherwise, they may become overwhelmed by the evil forces of procrastination. I recommend that you start to have conversations about your symposium topic as you read through the peer-reviewed articles. Talk about them with your family. Talk about them with your friends. Talk about them with your teachers. The more you talk about something, the more you will understand it.

Best,

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