

**Earth Science Newsletter – November, 2019**  
**(Mr. Williams ~ Rm. C-423)**  
**Volume 4, Issue No. 2**

Hello from C-423 in the Annex. The pressure gradients are causing a bit of wind today, so that gives me a good opportunity to send out an Earth Science update. I apologize for the length of this message, but it has been a very busy month. Also, I wanted to get out some information about a summer travel opportunity for students (to Costa Rica!). That information is at the very bottom, so please be sure to read through that if interested.

Perhaps the most important upcoming date to note is the end of the 1st grading quarter on Friday, November 8th. Having said that, there is one more unit exam that will count toward the 1st quarter grade. The exam for honors classes will be on Monday, 11/4. The exam for academic classes will be on Thursday, 11/7. I have created a Jeopardy review game to play during the class prior to the exam. Each question in the game is designed to prepare students for a specific concept from the exam. After playing the Jeopardy game I will also post it on Google Classroom so that students can use it to guide their studying.

I suggest you strike up a conversation with your child this weekend about the threat of “The Really Big One”. Students learned a lot about earthquakes and emergency preparedness by reading Kathryn Shulz’s Pulitzer Prize winning article about the Cascadia Subduction Zone in the Pacific Northwest. It is an incredibly engaging article, and students have already turned in their responses to the fifteen article-related questions as a major 1<sup>st</sup> quarter assignment. If you check schooltool this weekend and see a zero for this assignment please discuss it with your child and know that students can still complete it for late credit (20 points off). I posted PDF files of the questions on Google Classroom along with the article.

Students have completed ten labs during the 1<sup>st</sup> quarter. Recent labs have included analysis of the formation and age of the Hawaiian Islands, exploration of the features along the seafloor across the Mid-Atlantic Ridge (underwater

volcanic mountain chain), and using seismic data to determine the locations of earthquake epicenters. However, the highlight of recent lab activity was likely the evaluation of several types of candy as models for the Earth's interior layers. This assignment culminated with students presenting their own designs for new edible treats that would more accurately represent the characteristics of the Earth's five distinct layers. I was VERY impressed with the creativity of student submissions. During our next unit, we will spend time in the lab identifying rocks and minerals based on their physical characteristics.

Liverpool High School's Expedition Earth Science program is in full swing. Seventeen students spent an incredible weekend in the Adirondacks hiking, canoeing, and doing authentic field science. More recently, fourteen students spent last Friday aboard a research vessel on Seneca Lake for the "Science on Seneca" expedition. Students classified sediment (and mussels!) from three dredge locations, and collected water samples to analyze chemical parameters and plankton diversity with a digital microscope. We also had a phenomenal tour of the Hobart and William Smith campus (including a visit to the dining hall)! The Fossil Expedition (Tully, NY) is coming up this Saturday, November 9<sup>th</sup>. If your child signed up for this trip he/she will be coming home with more information on Wednesday. Please let me know if you are willing to be a volunteer driver; these expeditions are only possible with the help of parent drivers.

Finally, keep in mind that students do not report on Tuesday, 11/5 because teachers will be attending a superintendent's conference on that day. And please remind students to regularly check my weekly homework calendar moving forward (it is updated every Friday, and critical for student success):

[https://docs.google.com/document/d/1Gn\\_sjw44lGNsw7Eprxz2f9eXnMP3OsUdAzFnB9leQa8/edit?usp=sharing](https://docs.google.com/document/d/1Gn_sjw44lGNsw7Eprxz2f9eXnMP3OsUdAzFnB9leQa8/edit?usp=sharing)

In general, students have not been checking the calendar often enough. The calendar is there to help students keep track of homework due dates and upcoming quizzes/tests. I update the calendar every Friday for the following week, and recommend that students bookmark the calendar's URL on all devices they use for internet access. Please let me know if you have any questions/concerns.

### Honors Earth Science Only:

The symposium process is off to a strong start! Students are exploring their topics, and must submit six articles (3 newspaper articles and 3 scientific journal articles) relating to their topic for my approval by Friday, November 8<sup>th</sup>. I have provided instructions on Google Classroom. I have also posted on Classroom instructions for how to use the free research databases at SUNY-ESF's Moon Library (the only catch is they can only be used at the actual library itself). A visit to Moon Library is absolutely not required, but it can make the research process much easier and more fruitful for students. I have arranged to be at Moon Library from 11:30 AM to 1:30PM on Sunday, November 3<sup>rd</sup> to assist any students who would like additional support with the research process.

As always, please feel free to contact me via email at [jwilliams@liverpool.k12.ny.us](mailto:jwilliams@liverpool.k12.ny.us) should you have any questions or concerns.

Regards,

Mr. Williams

P.S. I promised my students that I would mention a travel opportunity coming up this summer (August 5 – August 12). The trip is not affiliated with the Liverpool Central School District, but three of the other Earth Science teachers and I will be taking 30 LHS students to Costa Rica. The trip is through Education First (EF Tours) and includes visits to Arenal Volcano, La Fortuna waterfall, and a sustainable coffee plantation, as well as snorkeling and zip-lining experiences. It is going to be a truly unique travel experience in which students get to have a ton of fun while still thinking about the connections between humans, culture, science, and nature conservation. The price is \$2760, and includes ALL lodging and meals as well as roundtrip airfare from Syracuse. Here is the link for more information: <https://www.eftours.com/educational-tour/costa-rica-natural-wonders>. We currently have four spots remaining, and the deadline to enroll is December 1<sup>st</sup>. Please let me know if you would like any additional information.