

## **Grade Six Union Math and Science Greetings from Ms. Henshaw, Ms. McKellar**

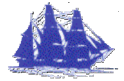
As the days fly by, the students continue to see the fruits of their labor. In the budget project many students earned raises due their consistency in diligent work efforts, while some suffered the financial consequences of not keeping up with their workloads. Apartments should be fully furnished by February break, with all rooms properly displayed. The next big hurdles in the budget project will be tackling college bills and planning their summer vacations.

We are in the process of wrapping up our geometry and measurement unit. The students must demonstrate their newly acquired knowledge of perimeter, area, volume, and surface area in planning a part or whole hotel. Some students have been assigned locations in the United States to plan a hotel, while others are competing to have their room/lobby/restaurant ideas chosen by the hotel designers. All members of the class were required to turn in floor plans before beginning the construction of their models. Students then needed to advertise their creations to the class and present their measurement calculations.

In our next unit, integers, we shall continue to make use of hands on and virtual manipulatives. When adding and subtracting negative and positive numbers, students will be using dual colored chips to represent each negative or positive. This enables students to understand, why when one is adding a negative and a positive, subtraction is actually employed. The website which includes the links that students use for virtual manipulatives can also be accessed from a home computer. Simply go to the Collins website and access them through the student lockers on the technology page. Students are familiar with many of the links and activities and will be using more as the year progresses. Practice with those and try out other resources available here and through the Library's online full text resources. Your student can bring home a guide with CMS's passwords and logons.

In science, we have just completed our study of Earth's composition, plate tectonics, as well as weathering and erosion. While investigating weathering and erosion, students were actively involved in a six-part lab. They melted a glacier and took note of the abrasion, erosion, and deposition of its sediment; created water erosion on soil; observed the effects acid rain had on the statues they had carved; determined how wind erosion impacts the composition of the desert; observed the chemical weathering of steel wool; and examined how the size of rocks impacts the rate at which it weathers. The students showed quite a bit of enthusiasm for these lab activities, particularly the acid rain and glacial erosion portion. Students then colored in their 'Weathering Parks', and explained the forces present in two, in depth, written paragraphs about weathering and erosion. The paragraphs serve to expand their writing abilities, while reinforcing and demonstrating the scientific facts learned.





In sixth grade we are introducing the students to the scientific method and they are becoming familiar with it by using the CMS lab report format. In the sixth grade the lab experience is more exploratory mainly demonstrating concepts presented in class. As students move up each grade adds more difficulty and depth to the experiments and process. For instance, adding more control/variable experiments in 7<sup>th</sup> grade and then creating more of their own experiments to test a theory in 8<sup>th</sup>. In the sixth grade we are teaching them how to record data, observe what is happening and then relate the experiment to the real world. For instance understanding that their conclusion is not that vinegar wears away chalk but relating that to acid rain caused by pollution chemically weathering away a statue. These beginnings in scientific inquiry are built on at each grade level in preparation for high school.

We are currently moving into landforms and mapping. Students spent two days researching given landforms, and constructing posters illustrating such as well as describing what it is, how it was made, and where one could find it in the world. We shall soon be heading back into our beloved lab to create a contour map of landforms. Students will determine the appropriateness of contour maps in realistic situations so that they understand the importance of such. From there we will conclude our earth unit with a dip into the contrast between weather and climate. This will necessitate another trip to the lab for multi station experiments demonstrating how convection currents work in air and water and that air has strength. In March we will be going to the Museum of Science to participate in a photosynthesis lab activity that we helped to develop. The Read Fund Grant will pay for the museum cost. All we need to cover is the buses. We thank them again for their generous support of all our science activities.

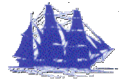
Once again, we would like to extend our sincere gratitude for all that you do at home to help your child succeed here at school. Your continued support and communication help to make this school year a success.

### **Grade Six Union Language Arts and Social Studies Greetings from Ms. Hendrickson, Mr. Harrison**

We hope you are enjoying the extremely mild winter we are experiencing. The consistency created by the absence of snow days has kept the students focused on their studies. The entire sixth grade is reading our benchmark book, Freak the Mighty by Rodman Philbrick. This powerful book makes for engaging classroom discussions. You might ask your child what 'Freak the Mighty' was up to in the last chapter they read. We have also been working in literacy circles where each student got to choose their book and work in their journals in preparation for discussion groups. Most groups are finished or close to finishing, in Ms. Hendrickson's class we will move onto our short story unit.

We continue to learn about the parts of speech (singing along to *Grammar Rock*); currently students have investigated nouns, verbs, pronouns, adjectives, subjects and predicates. We are also continuing to work on writing through the use of the John Collins Writing Program. Recently, each student was given the





opportunity to combine historical information about the ancient Phoenicians with their wild imagination about ancient sea monsters in Collins Writing piece number six. Mr. Harrison's monthly book report entails nightly journal entries. For Ms. Hendrickson's students, their current biography book report will be presented as the person they read about. It is always fun to meet Abraham Lincoln, Helen Keller, Charles Shultz and Walt Disney, all in one day!

The students have completed their study on ancient Phoenicia, the Israelites and Judaism. They made a ten-box comic strip highlighting the main events of the Israelites. They are on display all over our wharf. They are now gearing up to explore the wonders of Ancient Egypt. As we are studying the ancient Egyptian civilization, the entire six Union Wharf will get a chance to visit *The Museum of Fine Arts* in Boston during the month of February. They have one of the premier collections of Egyptian art/artifacts in the world. *"This program is supported in part by a grant from the Salem Cultural Council, a local agency which is supported by the Massachusetts Cultural Council, state agency."*

We had a wonderful opportunity to see "The Snow Queen" at Salem State College in December; we like to have our students explore the world in as many ways as possible, especially live theatre.

Again, thanks for your daily help of sending your child to school prepared, with finished homework and school supplies. Keep checking their assignment notebooks as spring fever hits. We appreciate your support.

### **Grade Six Union Student Government**

Wow! What an incredible group of senators! In our wharf, they have been actively listening to the ideas of their classes and relaying the suggestions to the group. Currently, we have planned a Teacher vs. Student volleyball/basketball tournament for February 13<sup>th</sup>. They have also begun to plan the 6<sup>th</sup> grade dance for April 4<sup>th</sup>. We'll be meeting with senators from the other wharves after February break to form our committees. The sixth union senators are VERY involved in re-opening the school store in just a few weeks. They have taken surveys for items to order, created order forms for supplies, and will soon be determining a work schedule. The proceeds from the school store will be used to improve the condition of the park on Broad St. What a great bunch of leaders ☺





## **Grade Seven Union Math and Science**

**Bonnie Muse, Karen Tucker, Barbara Dennie, Andrew Morency, Karen Hamilton, Molly Marsh**

The current unit in math surveys how negative and positive integers show up in the real world. Student class work focuses on using the number line and colored chips to represent operations with positive and negative numbers. Actually seeing the offset of positive and negative numbers or “chips” is the type of visual representation that has helped the students understand this concept. The *Connected Math* curriculum poses problems related to temperature, especially the below zero ones so well known in New England, as well as income and expense (relating to spending allowance and having to borrow and be in debt!) and gaining and losing yardage in football. As a result of these problem solving activities, students are beginning to see patterns for designing number sentences and developing algorithms to solve equations with integers. After February vacation, we will begin a new unit, Comparing and Scaling, which focuses on understanding ratio, proportion and percent.



In Science, students have continued the exploration of the human body systems. The systems were studied in pairs so that the students could see and understand the links between them. For example, after learning the structures and functions of the circulatory and respiratory systems, students produced writing pieces to demonstrate their understanding of the systems and how they work together. Along with writing, students made posters expressing their knowledge of the placement of organs in the body. As a part of this unit, Mrs. Casale, the Union adjustment counselor is teaching four sessions about puberty, making healthy choices, and relationships. This augments the learning in the reproductive, endocrine and nervous systems. Also, the negative impact of drugs, alcohol and smoking on the health and functionality of the human body systems is discussed.

**Quick update:** In Social Studies, 7-Union has successfully completed its unit on South America and now is moving toward Africa with great enthusiasm. Stay tuned! At the same time, language arts continues to engage in creative reading strategies and, of course, writing that opens up the hearts and minds of our students.





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## **Grade Eight Union Math and Science**

**Mrs. Bounds, Mrs. Hale, Mrs. Carey and Mrs. Benton**

The year is well underway and students have mastered the daily routine of eighth grade math and science. In science, students finished the Immune System Unit before the winter break and are currently focusing on physical science through the study of matter. In particular, students will understand that matter is composed of a few basic substances: elements and compounds, which have distinct physical and chemical properties. To understand characteristic properties of matter, students are continuing to investigate physical properties such as density, boiling point, conductivity, malleability and viscosity. Through hands-on, independent investigations, students are discovering that these properties remain the same regardless of the amount of material present. Students will also understand the difference between mixtures and compounds, using models such as paperclips to simulate atoms. Laboratory investigations were conducted where students examined the elements sulfur and iron and applied heat to create the compound - iron sulfide. These investigations and concepts are supported by material presented in the Prentice Hall Science Explorer textbooks (Chemical Building Blocks and Chemical Interactions). The accompanying Guided Reading and Study Workbooks, Discovery videos, online resources and class discussions will reinforce student understanding.

The Matter Unit includes two exhibitions; Design and Build a System to Calculate Density (Feb 16, 2007) and a Lab Practical common assessment. In the Design and Build a System to Calculate Density exhibition, student will use their knowledge of mass, volume and density to design and build an equal-arm balance and a volume measuring tool to ultimately determine the density of several unknown substances. The lab practical consists of students working individually to exhibit their knowledge and understanding of matter through the use of laboratory techniques.

The 8<sup>th</sup> grade math curriculum continues to address the five strands of the Massachusetts *Mathematics Curriculum Framework* through whole group instruction, discussion, note-taking, use of graphic organizers, graphing calculators, sample problems, cooperative groups, algebra tiles, games and differentiated work. The focus during the second half of the year is Number Sense / Operations, Patterns, Relations and Algebra, Probability, Measurement and Geometry. Students have and will continue to enhance their understanding and skills through math games such as Snappy Factors, Clever Catch, and Integer Flip; building proportional dolls, virtual manipulatives, algebra tiles, and hands-on activities such as Stacking Cups to understand the concept of slope. To investigate probability, students will use computer programs, graphing calculators and games. Problem solving continues to be emphasized throughout the year. A strong emphasis has been placed on students being able to dissect and translate word problems into mathematical statements and work towards solutions.

As we move towards the end of the 8<sup>th</sup> grade year in math and science, students are continuing to improve their organizational skills, gain independence and demonstrate the ability to be responsible young adults ready for high school.

