

Middle School Science News – June 2, 2016
Our Savior Lutheran School
‘Aiea, O’ahu, Hawai’i:

Aloha 6th-8th grade families!

Our 2015-2016 school year has officially ended. Congratulations to our graduating 8th grade class, I wish you all the best on your new endeavor. You are all blessed with unique gifts to share with the world. I believe in each one of you and your potential to do great things.

We have spent our last few classes together summing up our textbooks. We completed our science labs, dissecting perch fish, clam, star fish, squid, shark, and piglets. During our STEM activity, our students built vacuums to engage their inner engineer as they constructed a fully functional vacuum. Our students also built a robot made out of 156 K’NEX parts; including classic rods and connectors which included motorized features and hops along like a primate.

Wishing everyone a wonderful summer vacation.

All God’s Blessings,
Mrs. Bracy



Middle School Science News – May 20, 2016

Our Savior Lutheran School

‘Aiea, O’ahu, Hawai’i:

Aloha 6th-8th Grade Families,

I am happy to announce there is a special opportunity that our students can participate in. The American Association of University Women is holding Tech Savvy, a STEM conference for middle school girls, **May 21, 2016, 8:00 a.m. -4:00 p/m/ at Hawaii Pacific University**. Tech Savvy consists of STEM workshops, Savvy Skills workshops (soft skills such a communication, understanding social media, public speaking), and College Savvy. Please contact Dr. Kaupp for more information lauren_kaupp@notes.k12.hi.us

This week our 6th grade students completed their study of climates and climate change and integrated environmental science in our section covering global changes in the atmosphere. The 6th grade students learned about human activities that add greenhouse gases to the atmosphere that may be warming Earth's atmosphere and chemicals produced by humans that may be damaging to our ozone layer. After completing these lessons students should be able to describe hoe Earth's surface changes during an ice age and list the theories that have been proposed to explain climate change. Our students also participated in mini dissection labs and completed their chapter 4 test.

This week our 7th grade students explored materials. They learned about polymers, composites, metals, alloys, ceramic, glass, and radioactive elements. During our Discovery Activity: What Did You Make? students created a putty-like substance out of borax and glue a they learned that a change in properties indicates a chemical reaction occurred. After these lessons, students should be able to explain the composition of a composite or polymer and give several examples of polymers, cite examples of common alloys and list uses for those alloys, identify properties of ceramic and describe the composition of glass, and identify uses and dangers of radioactive isotopes.

This week our 8th grade students began their study of circulation and learned about the body's transportation system, a closer look at blood vessels, blood and lymph. The 8th grade students lab this week was to dissect lamb organs consisting two brains, two hearts, and two eyeballs. After completing these lessons, students should be able to describe the function of the cardiovascular system, describe the structure of the heart and explain its function, trace the path taken by blood through the circulatory system, describe the function of the arteries, capillaries, and veins, and explain blood type and how it determines what blood a person can receive in a transfusion.

I hope to see you at the Tech Savvy Conference this Saturday, May 21st!

Diana Bracy
6th-8th Grade Science Teacher
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Middle School Science News – May 13, 2016

Our Savior Lutheran School

'Aiea, O'ahu, Hawai'i:

Aloha OSLS 6th-8th grade families!

Last Monday we had the opportunity to embark on the Atlantis Submarine tour. Our students utilized a Dive Log as we submersed 110 ft under the pacific ocean. The Atlantis Submarine tour was an ideal way to gain first hand insight into the value and importance of reefs and to become good stewards of our ecosystems reefs. Together we can take our part in preserving, exploring and researching our undersea marine life. Thank you, Kokua Foundation, for funding this wonderful experience and Mr. Shiraishi for chaperoning.



Our 8th grade students completed a three day food log project and evaluated their results on how to improve their diet. The students learned about healthy eating, the digestive process, final digestion and absorption. After these lessons students should be able to explain the role of the small intestine and large intestine in digestion, describe the general functions carried out by the digestive system and the specific functions of the mouth, esophagus and stomach, lastly list and describe the information that is included on nutrition labels.

Our lab this week was a leopard frog dissection. Our objective was to describe the appearance of various organs found in the frog, name locate and identify the organs that make up various systems of the frog, contrast and compare various frog's organs to human.

This week our 7th grade students learned about acids, bases, and solutions, working with solutions, and digestion and pH. Our Discover Lab this week was to classify what colors litmus paper turn using a plastic dropper, lemon juice, vinegar, tap water, or orange juice. After completing these lessons, students can explain what happens to particles of a solute when a solution forms, identify those factors that affect solubility of a substance, identify properties of acids and bases, describe the pH scale and tell how it is used, lastly distinguish between mechanical and chemical digestion and tell the importance of each.

This week our 6th grade students learned about what causes climate and climate regions. During the sharpen your skills classifying activity, students matched the climates to three cities Miami, L.A. and Portland. After these lessons students should be able to identify factors used to define climates, name the five climate regions, and identify factors that influence temperature and perceptions. We also dissected a few leopard frogs and are completing a lab sheet to label its internal structures.

Wishing everyone a joyful weekend!

Diana Bracy

6th-8th Grade Science Teacher

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Middle School Science News - April 30, 2016 Our Savior Lutheran School 'Aiea, O'ahu, Hawai'i:

Aloha Families of Our Savior's 6th – 8th Grade Saints,

Our school year is quickly coming to an end, and we still have more to learn, discover and explore during science class!

Celebrating Earth Day this week, our 6th grade students are becoming responsible energy stewards. Using our Monitoring and Mentoring manuals, students were introduced to the concepts of energy, energy consumption, its economic and environmental effects, and conservation and efficiency through monitoring energy usage. Our students became "energy detectives" to find out what kind of energy systems they have at home and the energy sources they use. They also drew kitchen and classroom diagrams and completed home energy usage surveys.

Both our 6th and 8th graders completed a hands-on insulation investigation where each group was given a task to insulate one metal radiation can using various insulation materials. Students measured and recorded the temperature of heat loss from hot water in the cans to determine the insulating properties of the material over time. Now, students can explain insulation purposes and its bearing on energy savings.

Our 8th grade students learned about the skin's functions and ways we can keep skin healthy. Students identify and describe the layers of the skin. Students also reviewed for, and completed, their chapter 2 test.

Our 7th grade students learned about ionic bonds, covalent bonds and crystal chemistry. During our lab, our class attempted to create rock candy using a wooden stick, string, pot, burner, food coloring, spoon, two jar containers, water, and tons of sugar! During our Sharpen Skills Interpreting Data Activity, students looked at a list of compounds and using the period table, identified the charges of the ions in each compound and write the formula for each compound. After completing these lessons, students should be able to explain the differences between an atom and an ion, describe how an ionic and covalent bonds form, identify properties of ionic and molecular compounds, distinguish between polar and nonpolar bonds and between polar and nonpolar compounds, and explain how the chemical bonds of a crystal determine the substances' properties. Friday night, the 7th graders visited the Bishop Museum Candy Exhibit as part of their overnight stay.

Blessings,
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April 22, 2016, Middle School Science News
Our Savior Lutheran School, 'Aiea, O'ahu, Hawai'i

Aloha 6th -8th grade families!

Our 6th and 7th grade students learned about and created Fractal models. A fractal is a pattern that is "self similar" across scales. They are created by repeating a simple process over and over in an ongoing feedback loop.

This week our 6th grade students reviewed inside earth, plate tectonics, earthquakes, volcanoes, minerals, rocks, and thinking like a scientist.

This week our 7th grade students learned about the engineering design process and constructed a model using K'NEX to explain concepts of position, motion, displacement, distance, velocity, and acceleration. They also reviewed Electricity, Magnetism, Motion, Forces and Energy.

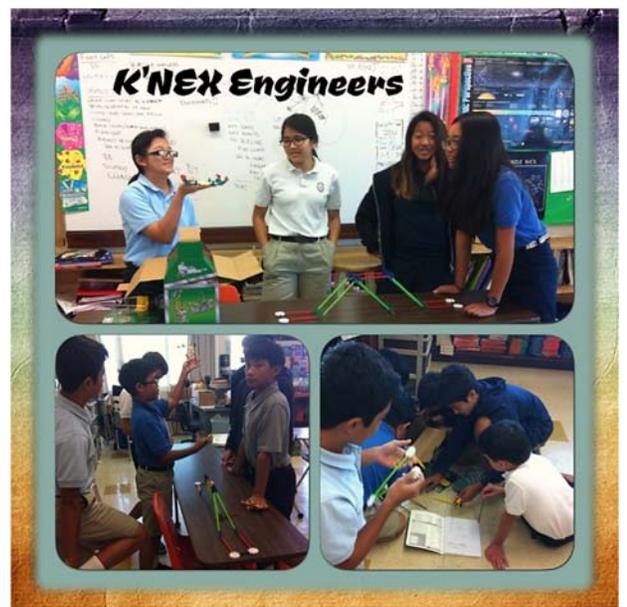
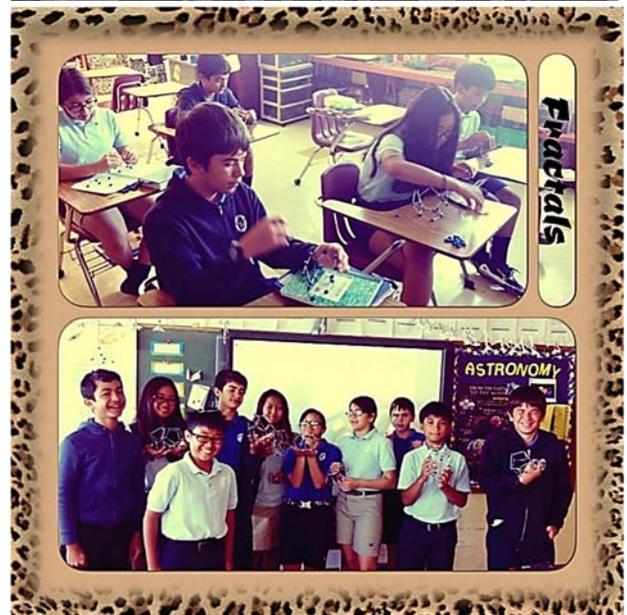
Our 8th grade students reviewed Cells and Heredity before their Maui departure.

All of the middle school students individually presented on various sections covered in their textbooks.

Blessings,

Mrs. Bracy

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April 15, 2016, Middle School Science News Our Savior Lutheran School, 'Aiea, O'ahu, Hawai'i

Aloha 6th -8th grade families!

Last Thursday our 8th grade students visited JABSOM, met with varied scientists as they discussed their careers and daily duties, completed a scavenger hunt throughout the campus, conducted CPR and took blood pressure, toured the cancer center, and learned about the vast health careers available to them. Thank you Jolene Mueno Pre-Health Career Director for our activities, JABSOM doctors and staff.

Thank you, Mr. Fahrni and Mr. Markillie, for transporting our 8th grade students.

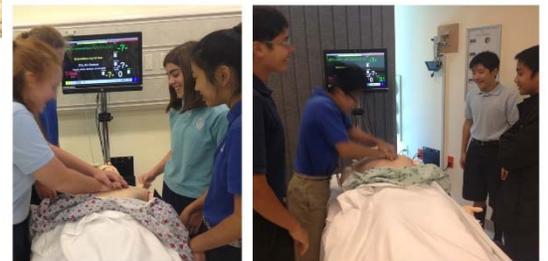
To better prepare our students for the upcoming Stanford Achievement tests, this week our students reviewed previous concepts learned.

Our 6th-8th graders reviewed Astronomy and looked at different organs of study such as, pig heart, tendon, intestines, liver, kidney, brain, and stomach.

8th grade students reviewed bacteria to plants, living things, viruses, bacteria, protists, and fungi.

7th grade students reviewed forces and motion, speed, representing motion, acceleration, force, gravity, and momentum. I hope everyone has a lovely weekend and wonderful 8th grade trip to Maui next week!

Blessings, Mrs. Bracy, 6th-8th Grade Science Teacher
Our Savior Lutheran School Aiea, HI. 96701(808) 488-0000



April 8, 2016, Middle School Science News Our Savior Lutheran School, 'Aiea, O'ahu, Hawai'i

Aloha Parents of Our Savior's 6th-8th Grade Saints,

Our 6th grade students had a great time this week visiting wetlands. They learned about the native plants and even assisted in the removal of the invasive pickle weed plant from a designated area. Thank you, Mrs. Markillie, for connecting our field-trip with Justin Fujimoto, a biologist with NAVFAC Pacific, who oversees one of NAVFAC Hawaii's/JBPH-Hickam projects at the Ahua Reef Restoration site. Justin taught us about his work managing the wetland restoration effort, removal of invasive species and re-planting with native Hawaiian vegetation. Thank you, Mrs. Hume and Mrs. Jackson, for transporting our students to/from the site. This week our 6th grade students completed and reviewed Chapter 3 Weather Patterns. They concluded the week with a chapter test.

This week our 7th graders reviewed chapter 1 on matter and its changes, describing chemical reactions, controlling chemical reactions, and fire safety. Our class began their study of Atoms and Bonding, Inside and Atom and Atoms in the Periodic Table. During our Discover Activity, students modeled how far away is the electron. After completing these lessons, students should be able to describe the structure of an atom and define protons, neutrons, and electrons, explain the role of valence electrons in forming chemical bonds, describe the organization of the periodic table, and identify the groups within the periodic table and state what properties elements in a group have in common.

Our 8th grade students began their study of the skeletal system, diagnosing bone and joint injuries, and the muscular system. During our Discover Activity, "Hard as a Rock", students observed a big horn goat skull and rock. They listed ways in which rocks and bones are similar and different and observed many characteristics, such as, size, shape, color, texture, composition, and strength. Now, students should be able to identify three types of muscles found in the body and describe the function of each, explain how skeletal muscles work in pairs, list ways in which people can keep their muscles healthy, list common skeletal system injuries and describe methods for their diagnosis, and describe the structure of bones and how they grow and form.

All God's Blessings,
Mrs. Bracy



March 18, 2016, Middle School Science News
Our Savior Lutheran School, 'Aiea, O'ahu, Hawai'i

Aloha Parents of Our Savior's 6th-8th Grade Saints,

Congratulations to our middle school students who earned a movie and popcorn party for the end of this quarter! They watched a short (non-violent) section of the sci-fi movie Ender's Game. I hope you all have a wonderful spring break. My family and I will be traveling to Lake Tahoe and Reno during our vacation. Remember to sign up for the 3rd annual Expanding Your Horizons in Hawaii on Saturday April 16th, 2016 at the University of Hawaii at Mānoa from 9:30-3:30 pm. Girls 6-8th grade are invited to participate. The event is FREE and girls will have the choice of three hands-on workshops in different disciplines. This year we have 22 workshops to choose from with topics such as Botany, Meteorology, Ocean Science, Marine Biology, Astronomy, Architecture, Chemistry, Math and More! Registration is now open and can be reached through the <http://eyhhawaii.org> website or <https://www.eyhreg.org/registration.php?cid=13708>

This week our 8th grade students began their studies of healthy body systems. Their weekly project is to identify a habit that they would like to change, carry out a plan to change that habit and record on a daily log their progress. Students learned how the body is organized, keeping the body in balance, and wellness. During our Real-World Lab this week: A Body of Knowledge, students discovered how much they already knew about the human body by using their skills of observing, inferring, and posing questions. After completing these lessons, students should be able to identify the levels of organization in the body, describe the four basic types of tissue in the human body, describe the physical responses to stress and ways to deal with stress, and explain how to evaluate wellness and list ways to improve personal health.

Our 7th grade students continued their study of Chemical Reactants. They learned about describing chemical reactions, controlling chemical reactions, and fire safety. During our Discover Activity: How does baking soda affect a fire? students developed a hypothesis by observing the gas produced in the beaker. After completing these lessons, students should be able to describe the information conveyed in a chemical equation, apply the principle of conservation of mass, identify the three categories of chemical reactions, list factors that control the rate of chemical reactions, and explain how water inhibits combustion.

Our 6th grade students completed their chapter on weather patterns. This week our students learned about tornadoes, hurricanes, floods, and predicting the weather. During our Discover Activity: What cause floods? students inferred how the funnel was like a river valley. After completing these lessons, students should be able to identify causes of flooding, explain how the dangers of floods can be reduced, explain how technology helps forecasters predict the weather, and identify the types of information shown on weather maps.

Blessings,
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March 11, 2016, Middle School Science News
Our Savior Lutheran School, 'Aiea, O'ahu, Hawai'i

Aloha 6th-8th grade parents!

News: 3rd annual Expanding Your Horizons in Hawaii. Expanding Your Horizons - Hawaii will take place on Saturday April 16th, 2016 at the University of Hawaii at Mānoa from 9:30-3:30 pm. 6-8th grade GIRLS are invited to participate. The event is **FREE** and girls can choose between three hands-on workshops in different disciplines. This year we have 22 workshops to choose from with topics such as Botany, Meteorology, Ocean Science, Marine Biology, Astronomy, Architecture, Chemistry, Math and More! Registration is now open and can be reached through the <http://eyhhawaii.org> website or <https://www.eyhreg.org/registration.php?cid=13708>

This week our 8th grade students completed their entire Prentice Hall Cells & Heredity textbook!

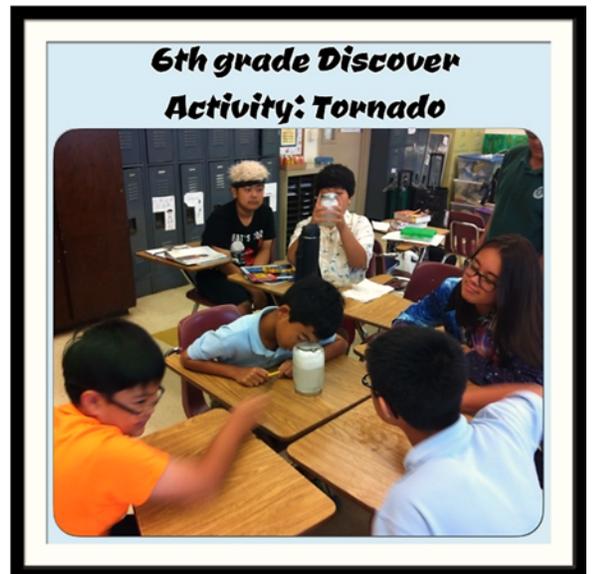
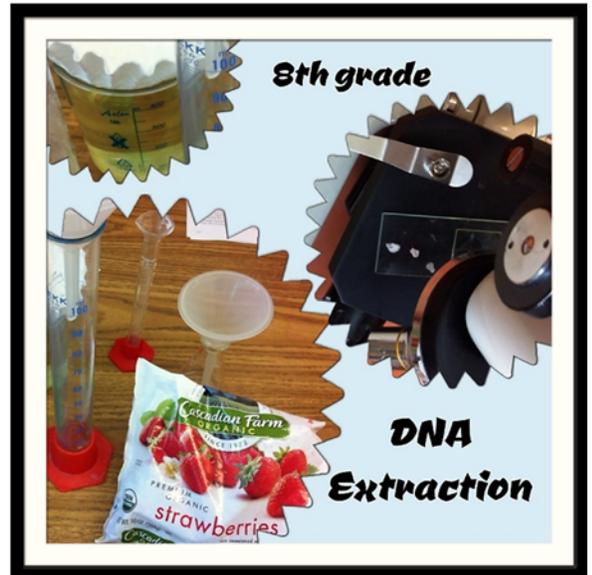
They completed Discover Activity to analyze fossils. After these lessons, students should be able to describe how most fossils form, explain how a scientist determines a fossil's age, describe how scientists classify organisms and place them on branching trees. During our lab, students extracted DNA from strawberries, the long thick fibers of DNA store the information for the functioning of the chemistry of life. Students observed first hand that DNA is in the food they eat. Students learned the simple method to extract DNA, why each step is necessary due to the complex organization of DNA in cells, and why it is important for scientists to extract DNA from organisms.

This week our 7th grade students began their study of Chemical Reactions and learned about Matter and its Changes. We took a neighborhood walk to look for evidence of a chemical reaction caused by humans. They realized that chemical reactions occur all around them and observed different types of chemical reactions. After these lessons, students should be able to define and compare elements, compare chemical changes to physical changes, explain how chemical bonds are changed during chemical reactions, and identify chemical reactions.

This week, our 6th graders began their Weather Patterns chapter and learned about Air Masses, Fronts, and Storms. Students developed a hypothesis of how fluids of different densities behave, and what would happen if a mass of cold air ran into a mass of warm air. During our second discovery activity students observed how they could make a tornado, using a jar, water, dish detergent, and a penny. Students should be able to list main kinds of storms and explain how they form, describe measures they can take to ensure safety in a storm, identify the major types of air masses in North America, name the main types of fronts, and define cyclones and anticyclones.

After these lessons, students should be able to identify the major types of air masses that affect the weather in North America, name the main types of fronts, define cyclones and anticyclones,

All God's Blessings,
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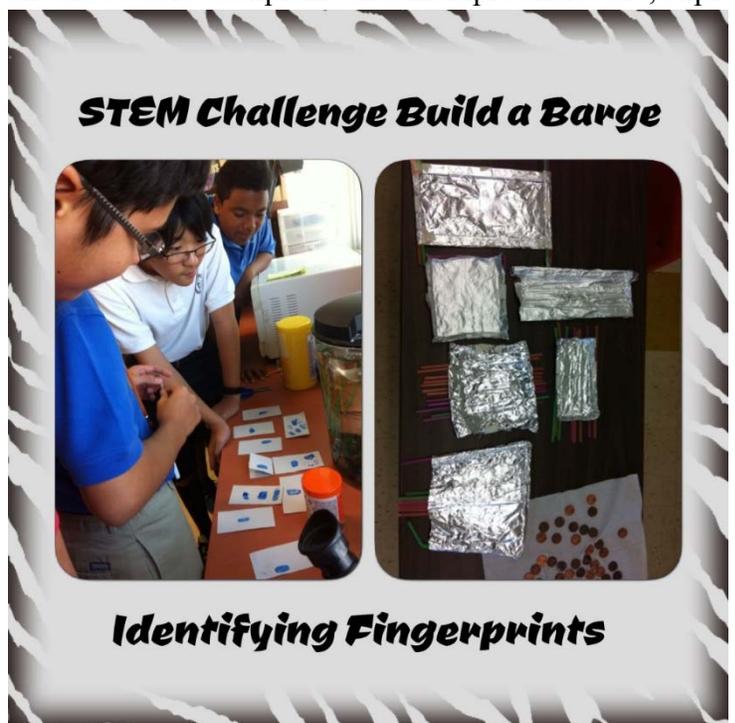
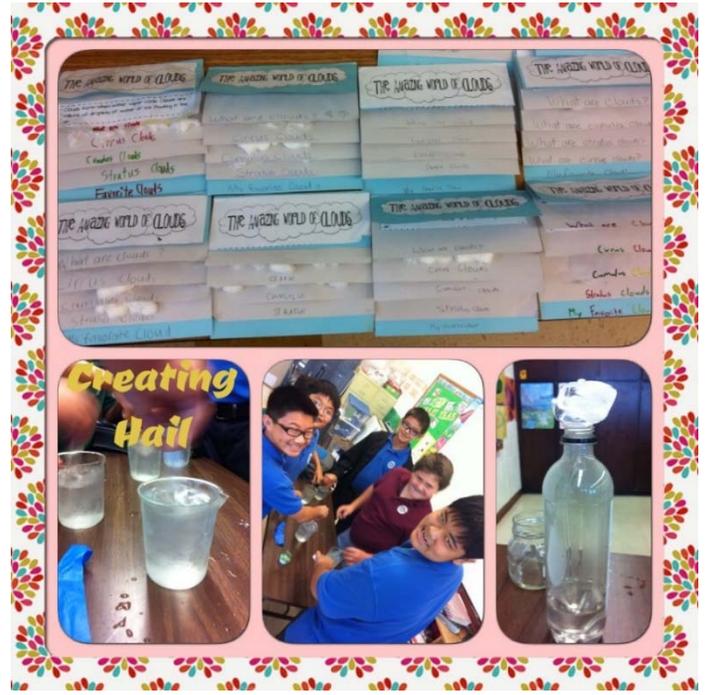
March 4, 2016, Middle School Science News
Our Savior Lutheran School, 'Aiea, O'ahu, Hawai'i

Our 6th grade students completed *Weather Factors*. They learned about water in the atmosphere and precipitation. During our *How does fog form?* activity students developed a hypothesis that fog will form in the bottle when it contains hot water but not when it contains cold water. Students created a craft "The Amazing World of Clouds". During our *How can you make hail?* activity students placed 15 g of salt into a beaker, added water, stirred the solution until most of the salt is dissolved, filled the beaker with ice and stirred the mixture for six minutes, the yielded result was not as expected, so we will redo this activity for the expected outcome. After these lessons, students should be able describe how humidity is measured, explain the main types of clouds and how they are formed, and measure main precipitate types.

Our 7th grade students completed their entire Electricity and Magnetism text book! This week, the students learned about electronic communication, computers, and the information superhighway. 7th graders created a physical board game about electronics based on true/false questions. They used 25 note cards, background construction sheet, with optional colored markers and game pieces. They completed the Chapter 4 Electronics test.

Our 8th grade students learned about human inheritance, human genetic disorders, and advances in genetics. Students measured and recorded each other's heights then created a bar graph showing the number of students at each height, plotted the heights on the horizontal axis and the number of students on the vertical axis to study *Human Inheritance*. Students inferred that heights in humans is controlled by more than one gene because of the graph of students' heights has more bars than the two bar graph Mendel would have drawn. Students discovered the differences between chromosomes in a cell of a person with Down syndrome. During our Advances in Genetics Discover Activity, half the class observed why fingerprints are a useful tool for identifying people using their own fingerprints. Half of the class had a creative STEM challenge to design and build a device that will float as many pennies as possible using the exact amount of supplies. After completing these lessons, students should be able to explain what multiple alleles are, explain why some human traits show a large variety of phenotypes, explain how environmental factors can alter the effects of a gene, explain what determines sex and why some sex-linked traits are more common in males than in females, describe hoe geneticists use pedigrees, describe the causes and symptoms of four human genetic disorders, and describe three ways in which people have developed organisms with desired traits.

All God's Blessings,
Mrs. Bracy
6th-8th Grade Science Teacher
Our Savior Lutheran School, 'Aiea, O'ahu, Hawai'i



February 26, 2016, Middle School Science News Our Savior Lutheran School, 'Aiea, O'ahu, Hawai'i

Aloha 6th-8th grade families!

Our 6th-8th grade students had a great time visiting the NOAA Headquarters for the Pacific (National Oceanic and Atmospheric Administration) this past Tuesday. There is an opportunity for students to monitor humpback whales from the shores of O'ahu. The count is held the last Saturday of February, and March. For more information and to register please visit: <http://hawaiihumpbackwhale.noaa.gov/involved/ocwelcome.html>



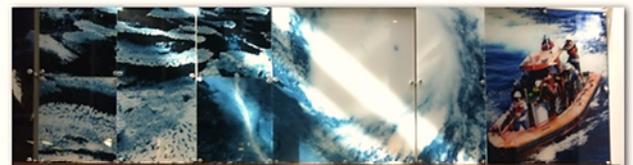
This week our 8th grade students continued their study of genetics, the science of heredity. Students learned about The DNA connection and human inheritance. During our Discover Activity, students cracked the code using Morse code. After these lessons, students should be able to explain the term "genetic code", describe the process by which a cell produces proteins, describe how different mutation types affect an organism. Students reviewed chapter 3 content and began their study of modern genetics. During our Discover Activity, students inferred how tall is tall, using a metric ruler and graph paper they measured each other's heights and created a bar graph showing the number of students at

each height. Students inferred that height in humans is controlled by more than one gene because the graph of students' heights has more bars than the two-bar graph Mendel would have drawn. After these lessons, students should be able to explain what multiple alleles are, explain why some human traits show a large variety of phenotypes, explain what determines sex and why some sex-linked traits are more common in males than in females.

This week our 7th grade students learned about electronics, electronic signals and semiconductors and electronic communication. Students transmitted information using Morse code and our classroom lights. Students were paired off into two teams and used the Morse code. Using dots and dashes to convey information, they deciphered the other teams' words.

This week our 6th grade students continued to learn about weather factors, winds, and water in the Atmosphere. During our Discover Activity students discovered which way does the wind turn. After completing these lessons, students should be able to explain what causes winds, distinguish between local and global winds, identify where the major global belts are located, describe how clouds are formed and the three types of clouds.

All God's Blessings,
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**February 12, 2016, Middle School Science News
Our Savior Lutheran School, 'Aiea, O'ahu, Hawai'i**

Aloha 6th-8th grade families!

If there are any parents who would like to visit the class and speak with our students about any STEM related subject, I'd be very happy to have you!

Please email me at dbracy@osls-hawaii.org

This week our 6th grade students learned about the layers of the atmosphere, energy in the atmosphere, and heat transfer. In our layers of the atmosphere discover activity, students predicted if air was in a jar sealed off by a plastic bag, jar, and rubber bands. For better comprehension of the layers of our atmosphere, students created a craft to assist them in their understanding. In our energy in the atmosphere discover activity, students measured if a plastic bag trapped heat using two thermometers, zip lock bags, timer, shaded area and exposed sunny area. In our heat transfer activity students inferred what happened when air is heated using a large plastic bag, masking tape and hair dryer (the air in the bag was warmer and less dense than the air around it, so it floated upward). After completing these lessons, students should be able to state in what form energy travels from the sun to Earth, describe the characteristics of the main layers of the atmosphere, describe how temperature is measured, and name three ways heat is transferred.

This week our 8th grade students began their study of genetics, the science of heredity. Students learned about Mendel's Work, Probability and Genetics, and The Cell and Inheritance. This week our students conducted the following discover activities: to infer what does the father look like? To predict what's the chance? And to infer which chromosome is which? The Skills Lab was to take a class survey and explore how greatly traits can vary in a group of classmates. After completing these lessons, students should be able to describe Mendel's genetics experiment, identify the factors that control the inheritance of traits in organisms, explain how geneticists use symbols to represent alleles, state how geneticists use Punnett squares, describe the role of chromosomes in inheritance, identify and describe the events that occur during meiosis.

This week our 7th grade students continued their study of electricity and magnetism at work. Students learned about electricity, magnetism, motion, generating electric current, using electric power, and batteries. Student's reviewed and completed their Chapter 3 assessment.

Blessings,
Mrs. Bracy



February 12, 2016, Middle School Science News
Our Savior Lutheran School, 'Aiea, O'ahu, Hawai'i

Aloha 6th-8th grade families.

I hope you have a wonderful St. Valentine's weekend, full of love and happiness!

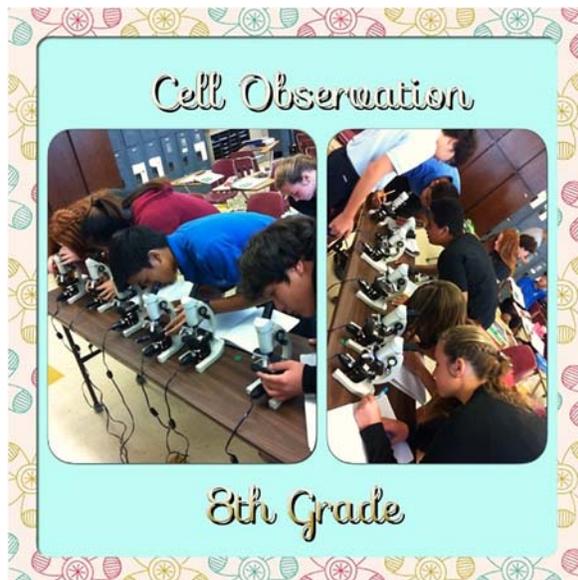
Our 6th grade students began their Atmosphere unit by learning about the air around them, air quality, air pressure, and layers of the atmosphere. During our Discover Activities, students inferred how long the candles will burn and observed what's on the jar. During our Air Pressure Discover Activity, students drew conclusions on whether air has mass using a balance and balloons: outcome was the balloon had greater mass after it was inflated. During our Layers of the Atmosphere Discover Activity, students predicted Is Air There? using materials of rubber bands, plastics bags, and wide mouth glass jars. After completing these lessons, students should be able to state how the atmosphere is important to living things, identify the gases that are present in Earth's atmosphere, name the main sources of air pollution, explain how increasing altitude affects air pressure and density, and lastly describe the characteristics of the main layers of the atmosphere.

Our 7th grade students are continuing their unit on Electric Charges and Current. This week our students learned about series and parallel circuits, electrical safety, electricity, magnetism, and motion. The 7th grade students played a review game and completed Chapter 2 test. During our Electric Charge and Static Electricity Discover Activity, students inferred if they could move a can without touching it using an empty aluminum can and "charged" balloon. Students are also completing the snap circuit projects at their own individual pace.

Our 8th grade students studied the Cell Processes and Energy. They learned about photosynthesis, respiration, cell division, and cancer. During our Respiration Discovery Activity, students observed what a product of respiration is using two test tubes, warm water, 5 ml sugar and yeast. Using their microscopes, students observed six prepared cells and one slide created by the students to view live yeast in action. The 8th grade students created a DNA double helix model using paint, brushes, marshmallows (to represent adenine, thymine, guanine, and cytosine), toothpicks, and a cardboard base. After completing these lessons, students should be able to describe the process of photosynthesis, explain how the sun supplies all living things with the energy they need, describe the events that occur during respiration and the relationship between respiration and photosynthesis, list the events that take place during the three stages of the cell cycle, describe the structure of DNA and how DNA replication occurs, and lastly state the relationship between cancer and the cell cycle.

After completing these lessons, students should be able to describe the process of photosynthesis, explain how the sun supplies all living things with the energy they need, describe the events that occur during respiration and the relationship between respiration and photosynthesis, list the events that take place during the three stages of the cell cycle, describe the structure of DNA and how DNA replication occurs, and lastly state the relationship between cancer and the cell cycle.

Blessings,
Mrs. Bracy,
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February 5, 2016, Middle School Science News
Our Savior Lutheran School, 'Aiea, O'ahu, Hawai'i

Aloha 6th-8th Grade Families,

This week our 6th grade students completed their study of rocks. They learned about classifying rocks, Igneous rocks, sedimentary rocks, rocks from reefs, metamorphic rocks, and the rock cycle. Students were given various rocks to observe and classify. After these lessons students should be able to list the characteristics used to identify rocks, identify & describe the three major groups of rocks, describe how sedimentary rocks form, describe the formation of coral reefs organic limestone deposits on land, describe the conditions under which metamorphic rocks form, and lastly explain the role played by plate tectonics.



This week our 7th grade students began their study of magnetism and electromagnetism. Students learned about the nature of magnetism, magnetic earth, electric current and magnetic fields, and electromagnets. During their discovery activity, students were given a miniature compass, iron fillings, and various bar and horse shoe magnets to experiment with. Our 7th grade students are independently completing their snap circuit projects, which are self-paced. Thank you PTF for providing us with the funds to purchase these!



This week our 8th grade students are learning about cell structure and function, discovering cells, looking inside cells, chemical compounds in cells, and the cell in its environment. In our try this activity, students discovered one role that enzymes play in their body by using their taste bud and chewing a saltine cracker for a timed period. Students enjoyed making and eating an animal edible cell using cherry Jello® and various shaped candy to represent cell parts. After completing these lessons, students should be able to identify the role of the cell membrane and nucleus of the cell, describe the functions performed by other organelles in the cell, compare bacterial cells with plant and animal cells, and describe the role of specialized cells in many celled organisms.

Happy St. Valentine's Week!

Love,
Mrs. Bracy

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January 25, 2016, Middle School Science News
Our Savior Lutheran School, 'Aiea, O'ahu, Hawai'i

Aloha 6th-8th grade families!

This week our 6th-8th grade students welcomed Mr. Bracy to our class as he spoke to the students about electronics, electricity, and magnetism. Students then built an electromagnet using copper coil, electric tape, iron nail, sand paper, paper clips, and a 9 volt battery. Thank you Mr. Bracy for taking a few hours from work to come visit us. If there are any parents who would like to visit the class and/or speak with our students about any STEAM related subject, I'd be very happy to have you!

Please email me at dbracy@osls-hawaii.org

Our 7th and 8th graders are completing their Monitoring and Mentoring manuals. Students are studying energy, energy consumption, its economic and environmental effects, and conservation and efficiency through a series of monitoring energy use. This week, our students completed Energy Systems & Sources, Home Energy Use Surveys with their families to understand the energy sources they use at home, how they use energy at home, as well as how they waste and save energy. Students drew diagrams of their kitchens and classrooms, using symbols to indicate energy - related structures and devices. Students read electric and natural gas meters and calculated the cost of energy used based on the meter readings. During our Light Level Investigation, students were able to determine the light levels of various spaces using a light meter. Using the Flicker Checker, students determined the type of lighting (magnetic or electronic ballast) in different areas of our school. During our Electric Nameplates Investigation 1, students interpreted the energy information on the nameplates of two classroom electrical items (laptop & microscope) and determined the amount the electricity consumed by those appliances over time. During the Energy Guide labels activity, students read and compared labels and developed awareness of life cycle cost analysis.

Our 6th grade students began Chapter 5 Rocks and learned about classifying rocks and igneous rocks. Students learned about the characteristics used to identify rocks, identified, and described the three major groups of rocks. During our hands on activity, students observed 15 varied igneous rock samples and described the properties of each. After completing these lessons, students should be able to identify the characteristics used to classify igneous rocks.

There is an opportunity for students to monitor humpback whales from the shores of O'ahu. The count is held the last Saturday of January, February, and March. For more information: <http://hawaiihumpbackwhale.noaa.gov/involved/ocwelcome.html>

Blessings,

Mrs. Bracy dbracy@osls-hawaii.org



January 22, 2016, Middle School Science News
Our Savior Lutheran School, 'Aiea, O'ahu, Hawai'i

Aloha 6th-8th grade families!

This week our 6th-8th grade students were given a classroom survey that allowed me to know what they enjoy or would change about science class. As a result, the majority of students want more labs and I will happily grant them their request, as often as it presents itself within the unit we are studying.

There is an opportunity for students to monitor humpback whales from the shores of O'ahu. The count is held the last Saturday of January, February, and March. For more information and to register please visit:

<http://hawaiihumpbackwhale.noaa.gov/involved/ocwelcome.html>

Our 7th and 8th graders toured the HECO Wai'au Power Plant yesterday. We thank HECO technical specialists for allowing us to tour the power plant and the parent drivers, Mr. Shiraishi and Mr. Johnson. Using our Monitoring and Mentoring manuals, students were introduced to the concepts of energy, energy consumption, its economic and environmental effects, and conservation and efficiency through a series of monitoring energy use. This week, our students completed the construction of Eco Lanterns which were tested in a darkened room (library).



Our 6th grade students learned about mineral resources and had a volcano eruption! In our science activity, students demonstrated how rust damages objects that contain iron.

Students were given 14 nails and coated some of them with petroleum jelly while others were left uncoated. The nails were placed in two separate containers mixed with water and vinegar (the vinegar speeds up the rusting process). The nails were left overnight, the uncoated nails showed signs of rusting, while the coated nails did not. During our Rock Discover Activity; students experimented with crystal creator dolomite rock, tumbled quartz to create electric sparks, pumice floating rock, lastly lodestone magnetic rock. The students reviewed for and completed a test on Chapter 4 Minerals. After completing these lessons, students should be able to describe how minerals are used, list three types of mines, and explain how ores are processed to obtain metals.

God's Blessings,

Mrs. Bracy, 6th-8th Grade Science Teacher
Our Savior Lutheran School (808) 488-0000
'Aiea, O'ahu, Hawai'i

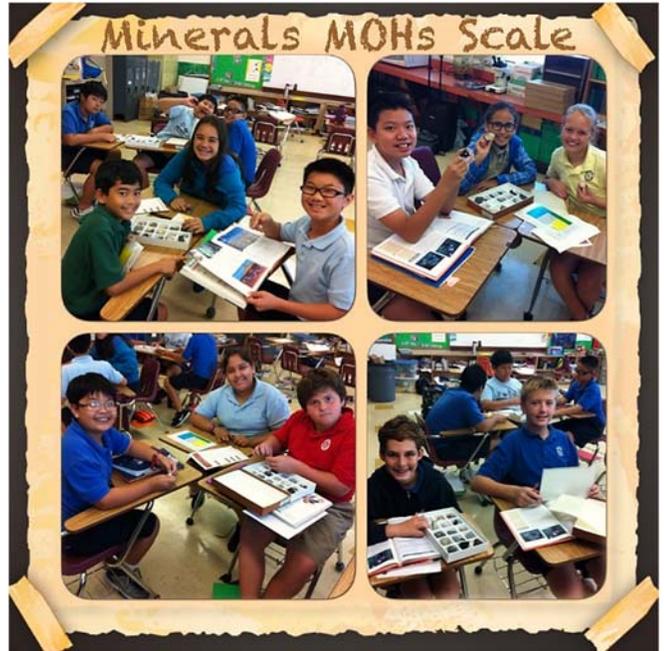


January 15, 2016, Middle School Science News
Our Savior Lutheran School, 'Aiea, O'ahu, Hawai'i

Aloha 6th-8th Grade Families!

Thank you for supporting 2016 OSLS Science Fair. I apologize for the late ending. The students showed their preparation at our science fair. I was pleased to listen to our students explain their science fair experiment and express their enthusiasm for their project. Congratulations to Serah M., Katelyn H., and Tristan who were selected to represent OSLS at the HAIS District Science Fair Saturday, February 6.

This week, our 6th grade students began their study of minerals and the minerals' properties and how minerals form. Students used their fingernail, nail, and penny to scratch 15 common Igneous Rocks to determine the hardness using Mohs' scale. They used streak plates made of glass, slate, and unglazed tile to test the color of a mineral's powder and a magnet to test for magnetism in a mineral. Students observed the igneous rocks textures, mineral content, and origin. Students handled samples of coal and learned how coal is not a mineral because it is made of the remains of ancient plants. Students were also examined pyrite "fool's gold" which appears similar to real gold. After completing these lessons, students can identify the characteristics and properties of minerals, explain how to identify them, and describe the minerals' formation process.



In order to prepare for our field trip to Hawaiian Power Plant this upcoming Thursday, both 7th and 8th grade students are learning about solar cells. Our students teamed up to construct Eco-Lanterns and learn how solar LED light works.

Our 7th grade completed their *Sound and Light* textbook and completed and reviewed their Light chapter test. They received their new textbook from Prentice Hall Science Explorer: Electricity and Magnetism. We learned about Dr. Ellen Ochoa who is an Electrical Engineer in outer space and works for NASA. Students reflected in their science journals how persistence and determination are important qualities for scientists to have.

Our 8th grade students completed their *Bacteria to Plants* textbook and completed their chapter test. They received their new textbooks from Prentice Hall *Science Explorer: Cells and Heredity*. Covering our *Nature of Science: Unlocking the Secrets of Cells* section, we learned about Dr. Villa-Komaroff's work in the use of genetic engineering to produce human proteins, such as insulin. Students wrote their reflections in their science journals while describing character traits they thought would help a scientist be successful.



Hope you have a wonderful three day weekend!
All God's Blessings,
Mrs. Bracy, 6th – 8th Grade School Science & STEM
Our Savior Lutheran School
98-1098 Moanalua Rd.
Aiea, HI. 96701
(808) 488-0000

January 9, 2016, Middle School Science News Our Savior Lutheran School, 'Aiea, O'ahu, Hawai'i

Aloha 6th-8th Grade Families!

Help monitor humpback whales from the shores of O'ahu. The count is held the last Saturday of January, February, and March. For information and to register you can visit:

<http://hawaiihumpbackwhale.noaa.gov/involved/ocwelcome.html>

This week our 8th grade students studied the plant kingdom, photosynthesis and light, the characteristics of seed plants, and plant responses and growth. Students dissected various leaves, stems, and seeds; corn kernels, beans, papaya, peanuts, etc., outside. They named the parts of a seed, identified the function of each part of the seed, described how seeds disperse and germinate, and identified leaf, stem, and root functions.

Students observed the various leaves' colors, textures, sizes, and shapes.

Later, students inferred whether plants responded to touch, they were given two plants and touched a leaf section for 3 minutes to observe if the stimuli produced a plant response. Students can identify the characteristics that all plants share, name all the things that plants need to live successfully, and describe the plant life cycle.

This week, our 7th grade students saw the light. They experienced reflection, mirrors, refraction, and lenses. Students observed a pencil in a container filled with water, and using the idea of refraction, explained why the pencil appeared as it did. They were given a lens and classified whether it was concave or convex lens and the major

differences between the two. In our Discover Activity: How does your reflection wink? Students were given a pair of hand mirrors to observe how their first and second reflection compared. During our color lesson, students were given different colored lenses to observe how objects appear in filtered in different colors of yellow, red, blue, and green. During our *Try This Activity*, students stared at a flag for 60 seconds without blinking and then stared on a section of white paper to view the complementary colors of that flag. Our class discussed the human eye, nearsightedness (concave lens), and farsightedness (convex lens). Students can now identify the factors that determine the color of an object, explain refraction, describe what happens when light strikes opaque, translucent, and transparent objects, and identify types of vision problems and kinds of lenses that can be used to correct the problems,

This week our 6th grade students reviewed major concepts learned from last quarter. They also took an assessment that enabled me to check their understanding on Earth and space sciences. The students were shown previous science fair boards and discussed layout and organization of each submission. Our 6th graders were read a story written by a child in Vesuvius, 79 A.D., afterwards we constructed a volcano experiment that will erupt Monday. I look forward to reviewing everyone's science fair submissions Monday and Tuesday.

All God's Blessings,

Mrs. Bracy 6th-8th Grade Science Teacher (808) 488-0000

Our Savior Lutheran School, 98-1098 Moanalua Rd. Aiea, HI. 96701

P.S. Our 6th-8th graders will take a bus to NOAA 9 a.m. - 12:30 p.m. Tuesday, February 23rd.

Students will bring lunches and eat at Ford Island. Chaperones are welcome.



**December 23, 2015, Middle School Science News
Our Savior Lutheran School, 'Aiea, O'ahu, Hawai'i**

Aloha 6th-8th grade families!

Due to holiday and Spelling Bee events, this has been a rather short week in academics for us.

I dearly hope you all enjoy a wonderful Christmas vacation!
God's Blessings, Mrs. Bracy

Our 8th grade students were introduced to plants this week. They learned about the plant kingdom, photosynthesis, and light. Students created an edible plant cell model using lime jello to represent cell membrane and varied candies to represent nucleus, cytoplasm, chloroplast, cell wall, and vacuole. In our Building Inquiry Skills Activity; students observed four slides under their microscope of a leaf epidermis, dicot stem, monocot stem, and scale hairs. After completing these lessons, students should be able to identify the characteristics that all plants share, name all the things plants need to live successfully, describe the plant life cycle, and describe the overall process of photosynthesis. As a follow-up lab activity, students documented their individual mushroom samples for possible growth spores that began the prior week. We also followed up on *You and Your Environment: An Explosion of Life Real-World Lab* and documented if the amount of fertilizer affected algae growth.

Our 7th grade students continued their studies on the electromagnetic spectrum. They learned about waves of the electromagnetic spectrum, producing visible light, and food irradiation. During our *Science and Society* section, we discussed the issues surrounding food irradiation and list reasons for and against this issue. Students were encouraged to look through their kitchen cabinets to find irradiated items and most were imported produce. Students identified fluorescent light bulbs used in our classroom, observed a series of incandescent bulbs, and discussed the uses of other common types of lighting. After these lessons students should be able to compare different types of electromagnetic waves, describe how the spectrum is arranged, and identify and compare different types of light bulbs.

Our 7th grade STEM Challenge was to design and construct a device that will not break an egg when it is dropped from a designated height. Students were supplied with exact construction materials, the device was no more than 1 foot-square and built within our time limit. Their egg faced three dangers; poor aim, impact, and bounce. Results: We congratulate the 3 out of 5 teams that safely landed an unharmed egg!

Our 6th grade students completed their volcano presentations this week and their Chapter 3 Volcano test. We reviewed important volcano concepts and vocabulary through our lyrical earth science song.

Please continue to check your **Science Fair** progress during your break.



Diana Bracy

6th-8th Grade Science Teacher, Our Savior Lutheran School, 98-1098 Moanalua Rd. Aiea, HI. 96701

(808) 488-0000 dbracy@osls-hawaii.org

December 12, 2015, Middle School Science News

Our Savior Lutheran School, 'Aiea, O'ahu, Hawai'i

Our 8th grade students are finishing their studies on Protists and Fungi. During our Real-World Lab, students learned how living things are interconnected with their surroundings. The students' lab focused on the problem: how does the amount of fertilizer affect algae growth? By controlling three variables, predicting and drawing conclusions, they investigated how one change in a freshwater environment can effect everything that lives in that environment. During our Science and Society section students discussed problems associated with eutrophication in Weiss Lake and identified pros and cons of different plans and implementations. After our study of fungi students should be able to name the characteristics that all fungi share, describe how fungi obtain food & reproduce, and list the roles fungi play in our world.



Our 7th grade students completed their unit on sound and took their chapter test. Our students began their studies on The Electromagnetic Spectrum. We learned about the nature of electromagnetic waves and their spectrum. After completing these lessons, students should be able to describe an electromagnetic wave and its properties, list and compare different types of electromagnetic waves, describe how the electromagnetic spectrum is arranged, lastly names uses for waves of the electromagnetic spectrum.



Our 6th graders were blessed to receive Pacific Aviation Museum instructors and their varied aviation stations on Tuesday. Our students continued their study of volcanoes, volcanic activity, landforms, and volcanoes in the solar system. After these lessons students should be able to identify landforms that lava creates on Earth's surface, describe the volcanic activity found on the surfaces of Jupiter and Neptune's moons, explain how magma's hardening beneath the surface creates landforms, and explain how volcanoes on Mars and Venus compare to Earth's volcanoes.

This week our 6th graders finished their Volcano research project and presented it to the 3rd grade classroom. We enjoyed the varied materials, posters, experiments, skits, and PPT presentations. Well done! We will complete the remainder of presentations on Monday, Dec. 14th.



Blessings,

Your Joyful Science Teacher, Mrs. Bracy

**Pacific Air Museum Newton's 3rd Law of Motion and the Bernoulli Principle Presentation to:
Our Savior Lutheran School 6th Grade Science Class
10:00 a.m. – 12:00 noon, Tuesday, December 8, 2015**

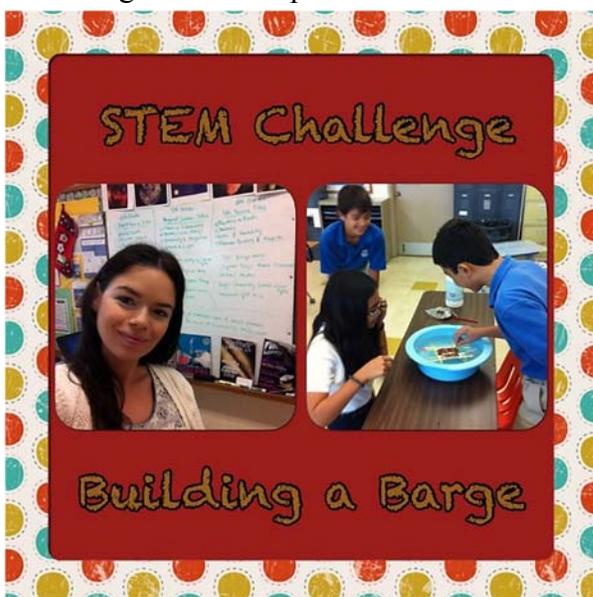


December 2, 2015, Middle School Science News

Aloha,

Our 8th grade students are continuing their study of Viruses, Bacteria, and Your Health. During our Building Inquiry Skills Lab, students observed and identified three main bacterial shapes using their microscopes and the four slides provided. Students compared their sketches and classified the bacteria as either bacilli, cocci, or spirilla. After completing these lessons, students should be able to describe how infectious diseases spread from person to person and describe some ways in which infectious diseases can be treated or prevented. Students began their study of Protists and Fungi. Our students walked to the nearby stream to collect water for our Protist Discover Lab to discover what lives in a drop of water? Students used a dropper to place a drop of stream water onto a microscope slide and discussed their observations of organisms. At home, students were asked to look through their home cabinets to find products made from algae, example ice-cream, hair conditioners, toothpaste, etc. After completing these lessons, students should be able to describe the characteristics of animal-like, fungus-like, and plant-like protists, describe how red tides occur and why they are dangerous, explain how the rapid growth of algae affects a pond or lake.

Our 7th grade students began their study of Sound and learned about the nature and properties of sound, combing sound waves, and how you hear sound. After these lessons, students should be able to explain the relationship between frequency and pitch, describe the apparent change in frequency observed in the Doppler effect, identify timbre and tone and state the difference between noise and music, describe what happens when two or more sound waves interact, and identify causes of hearing loss and ways that hearing loss can be prevented.



Their STEM challenge was to design and build a barge device that will float as many pennies as possible. I provided the exact quantity and time for usage of construction materials for each group. After testing each barge in the test tank, team Boyz won by floating 38 pennies before it was submersed in water.

Our 6th grade class began their studies of volcanoes and research project. We completed our studies of plate tectonics and volcanic activity. During our Discovery Activity: students observed and described the differences of Pumice and Obsidian rocks produced by lava. During our Gases in Magma Lab, students modeled the gas bubbles in a volcanic eruption using plastic containers, raisins, vinegar, and baking soda. After completing these lessons, students should be able to identify where Earth's volcanic regions are found, describe what happens when volcano erupts, and explain how the two types of volcanic eruptions differ.

In our 6th grade research project, students were given the opportunity to work independently or with a partner to choose a specific volcanic region and particular volcano to research. This authentic performance assessment requires approximately two to three weeks to complete. After choosing their volcano, students research information on that topic and take relevant, well-organized notes. Students then create a storyboard showing each step in the presentation, including the media materials that will be used. Posters, slides, and models would then be prepared and refined. Based on their research, the student(s) will prepare, rehearse and give a multimedia speech about the volcanic region for presentation to the visiting class. Each student would be assessed individually in the actual performance of the acquired knowledge.



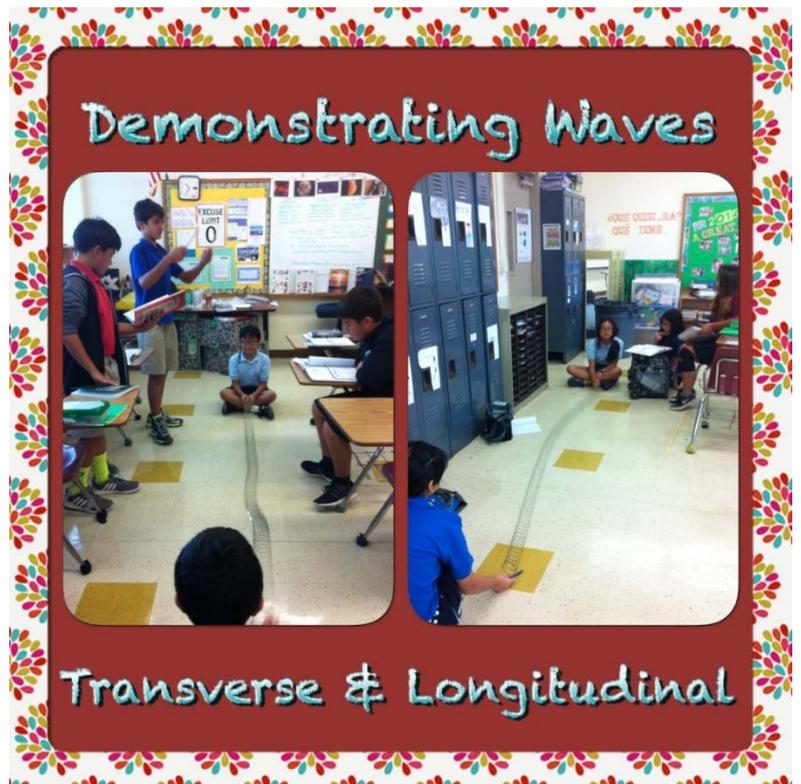
Wishing everyone a very blessed Thanksgiving Holiday,
Mrs. Bracy

November 20, 2015, Middle School Science News
Our Savior Lutheran School, Aiea, O'ahu, Hawai'i

Aloha,

The week our 6th grade students learned about Earth's crust in motion and modeled the stresses that create faults using putty. After completing these lessons, students should be able to describe how stress affect rock, explain why faults form and describe how movement along faults changes Earth's surface. During our first discover activity, students experimented with a spring coil to learn how seismic waves travel through earth and described the two types of wave (P, S) motion. In our second discovery activity, students created a square frame with and without a horizontal brace to experiment if bracing can prevent building collapse. After our sections on Measuring Earthquakes and Hazards/Safety, students should be able to describe how the energy of an earthquake travels through Earth, name scales used to measure the strength of an earthquake, and explain what can be done to reduce earthquake hazards.

Our 7th grade students are studying characteristics of waves. During our first discovery activity, students filled a large glass bowl with 2 cm of water, inserted a floating object, created patterns waves make, and sketched a diagram. During our skills lab, students replicated transverse and longitudinal waves while observing some



properties of waves. After completing these lessons, students should be able to define waves and identify what causes them, identify and compare the three main types of waves.

Our 8th grade students are studying viruses and bacteria. We reviewed taxonomy through our real world lab of living mysteries by discovering how some familiar mammals are classified. Students observed and identified characteristics of mammals and classified organism into one of five mammalian orders using taxonomic key. After these lessons our students should be able to describe a basic structure of a virus and give reasons why viruses are considered to be nonliving. During our discover activity, our students demonstrated how the number of bacteria can increase rapidly in a short period of time.

Hope you have a wonderful weekend; UH Physics/Astronomy open house is this Saturday Nov.21st and our OSLS open house is this Sunday! Hope to see you there.

God's Blessings,
Diana Bracy, 6th-8th Grade Science Teacher
Our Savior Lutheran School
98-1098 Moanalua Rd.
Aiea, HI. 96701



Middle School Science News November 13, 2015

Our Savior Lutheran School

‘Aiea, O’ahu, Hawai’i:

We celebrated our Chapter 1 completion with a STEM enrichment activity. Our middle school students were challenged to design and build the tallest freestanding structure possible. Congratulations, 8th grade team one for the tallest tower and 7th grade team green for the most creative design.

In 6th grade our students completed their study of Plate Tectonics and chapter 1 test. We learned about The Theory of Plate Tectonics and recreated Pangaea. After completing the lesson, students should be able to describe the three types of plate boundaries and explain the theory of plate tectonics.

Our 7th grade students continued their study and prepared/took their test on Time, Position, Motion, Distance, and Speed using FOSS Force and Motion Resource book.

Our 8th grade students finished their study and chapter 1 test on Living Things. They learned about the origin of life, classifying organisms, and the six kingdoms. Please continue to guide your child in the completion your Science Fair assignments.

Blessings,
Mrs. Bracy
6th-8th Grade Science Teacher
Our Savior Lutheran School
98-1098 Moanalua Rd.
Aiea, HI. 96701
(808) 488-0000



**Middle School Science News, November 6, 2015
Our Savior Lutheran School, 'Aiea, Hawaii'**

Science News:

In 6th grade our students continued their study of Plate Tectonics. We learned about Drifting Continents and Sea Floor Spreading. During our Skills Lab: students made a model of the sea-floor spreading, observed how their materials rises/sinks and inferred how sea-floor spreading adds new crust. After completing these lessons, students should be able to describe continental drift, explain why Alfred Wegener's theory was rejected by most scientists of his day, and describe the process of sea-floor spreading.



This week our 7th grade students continued their study of Time, Position, Motion, Distance, and Speed using FOSS Force and Motion Resource book. They learned about The Last Great Race on Earth: Iditarod, Boston Treasure Hunt, and Fast and Faster Roller Coasting, Aristotle, Galileo, and Newton; while calculating speed and velocity.

This week our 8th grade students continued their study of Living Things, while learning about the Origin of Life, Classifying Organisms, and the Six Kingdoms. After completing these lessons, students should be able to explain why scientists organize living things into groups, explain the relationship between classification and evolution, describe early classification systems, name the seven levels of classification used by scientists, lastly name and describe the six kingdoms into which all organisms are grouped.

Diana Bracy
6th-8th Grade Science Teacher
Our Savior Lutheran School
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(808) 488-0000

Middle School Science News, October 30, 2015
Our Savior Lutheran School, 'Aiea, Hawai'i

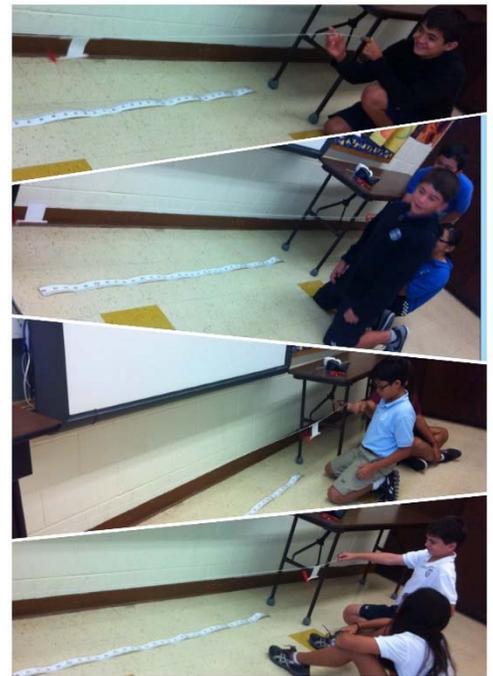
In 6th grade our students began Chapter 1 Plate Tectonics. We learned about Earth's interior, convection currents, and the mantle.

They integrated physics with activity on Earth's Magnetic Field using different shaped magnets, iron fillings, paper plate, and compass. After completing these lessons, students should be able to describe what geologists do, list the characteristics of Earth's crust, mantle, and core, explain how heat is transferred, and identify what causes convection currents.

This week our 7th grade students were introduced to Time, Position, Motion, Distance, and Speed. They were placed into four groups to conduct Fly Air Trolley experiments using the FOSS Force and Motion Enrichment Course. They made their trolley's move, observed/described the motion, and collected data.

This week our 8th grade students began Chapter 1 Living Things and were introduced to the characteristics of all living things. We discussed the experiments of Redi and Pasteur. The students observed slides under a microscope of various insect parts, especially slides of Fruit/house flies. After completing this lesson, students should be able to identify what all living things need to survive and describe both Redi and Pasteur's experiments.

Thank you,
Diana Bracy
6th-8th Grade Science Teacher
Our Savior Lutheran School
98-1098 Moanalua Rd.
Aiea, HI. 96701
(808) 488-0000



**Middle School Science News October 27, 2015, Our Savior Lutheran School, Aiea, O'ahu,
Hawai'i**

Congratulations to our winners for The Inventive Engineer Contest!

Our Mentor, Mr. Blackman, wanted all the students to know their efforts were appreciated and noted. Practicing and sharing their team and individual presentation skills will serve them well. He thanks them for sharing the verbal showcasing while he joined in our class.

Judging was done by members of Hawaii's oldest professional society (founded 1902), the Engineers and Architects of Hawaii.

A member of the Hawaii Art Museum joined us as well.

**Hawaii Cyberspace Academy
Inventive Engineer Poster Contest
Award Recognition October 2015**

“1st Place”

Finn Egan, grade 8

Habitational Space Station

“Convincing artistic boldness”

Katelyn Hume, grade 6

Katelyn's Krazy Martian Habitat

-

“Budding Architects”

Hope Markille, and Paige Fahnri, grade 8

Martian Living Quarter

Diana Bracy
6th-8th Grade Science Teacher
Our Savior Lutheran School

**Middle School Science News:
September 28, 2015, Our Savior Lutheran School, 'Aiea, Hawai'i**

Our mentor and guest this week is Blackman, Director of Hawaii Cyberspace. Mr. Blackman is a MIT alum member of the MIT Club of Hawaii. He initiated (endorsed by the Engineers and Architects of Hawaii (EAH) society) and created the event "Inventive Engineer Contest" in Hawaii's observance of Engineers Week. The contest (which our grade students will take part in) challenges students to combine STEM and Art in an effective communication of invention. The [3rd Annual Inventive Engineer Poster Contest](#) is based on Technology, Engineering, Math, and Art (STEAM). The Contest encourages student awareness of their "process of thinking" habits. It disciplines student presentation skills: Employ proper units of measure; Communicate ideas with annotated sketches; Employ good titles and narratives; Add style and persuasive artistic skills to showcase creative ideas to the world.

This week our students were assigned to draft a sketch drawing inspired by the designs of Frank L. Wright of a model; either a Martian Habitat or Space Station. We are spending one-two class periods constructing 3D models of their architecture draft. Once their 3D models are completed, they will draw it on the poster paper. On the next class meeting, they are encouraged to construct words reflecting their design and vision for the future (narrative entry). Students will share their inspiration "process of thinking" and receive constructive feedback and/or suggestions to alter the final design by Mr. Blackman (if necessary) before I mail out all their projects. Students will have completed constructing the draft, 3D model, and final poster by Friday, for submission at the Inventive Engineer Poster Contest.

Your Devoted Science Teacher,
Mrs. Diana Bracy
6th-8th Grade Science Teacher
Our Savior Lutheran School
98-1098 Moanalua Rd.
Aiea, HI. 96701
(808) 488-0000



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September 22, 2015

We completed **Stars, Galaxies, and the Universe**, Chapter 3, and the remaining sections 3-4 Star Systems/Galaxies and 3-5 History of the Universe. We reviewed Chapter 3 Test in a game format. Thursday, students presented their final "**Astronomy Presentation**" to a live audience who evaluated their speeches.

Our ongoing Constellation project;

1st part: Students located a constellation in their backyard using their starwheel, sketched it, and researched its history.

2nd part: Located interesting star systems/galaxies and explained to their family what they knew about them & Milky Way. 3rd part: Drew a new picture for the star pattern in their constellation, gave it a name, and wrote a story about it.

In our Discover Lab:

we demonstrated how the universe expands. After completing these lessons, students are able to describe a star system, describe the three types of galaxies, and explain the theories on the universe.

Blessings,

Mrs. Diana Bracy

6th-8th Grade Science Teacher

Our Savior Lutheran School

98-1098 Moanalua Rd.

Aiea, HI. 96701

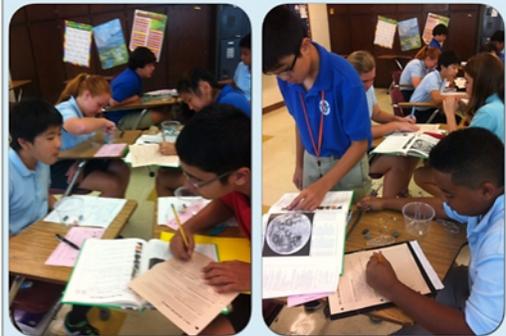
(808) 488-0000

Moon Rock Survey



Identifying Moon Rock Samples

Mission: Survey & Collect



Lunar Landing Site



**Middle School Science News:
August 31, 2015, Our Savior Lutheran School, 'Aiea, Hawai'i**

Aloha,

Our 6-8th grade students just completed their first three units of study and chapter. Our Full Option Science Survey Planetary Science enrichment activities were to Map the Moon and Organizing Lunar Craters. Students were asked to write in the features on a blank moon, while locating the nine craters and seven marias.

During the follow-up enrichment lab, students were paired in teams to survey and collect rocks from the Moon. They chose their Lunar landing site and collected a sample of rocks from their survey site using one canister for Moon rocks, pair of forceps, hand lens, and data chart. Our Moon Mission was a success! Please see pictures of Foss Planetary Science Moon activity attached.

Blessings,
Diana Bracy dbracy@osls-hawaii.org

