

Scope and Sequence  
 Science - 8th Grade STREAM

Unit : Scientific Method

<b>Terms to Know:</b>	<b><i>Scientific Method, Research, Hypothesis, Data, Analysis, Observation, Conclusion, Inference, Metric System, Graduated Cylinder, Beaker, Mass, Volume, Density, Meter, Liter, Gram, SI Unit, Absolute Zero, Kelvin</i></b>
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<b>IEP Student Terms to Know:</b>	<b><i>Scientific Method, Research, Hypothesis, Data, Conclusion, Inference, Metric System, Beaker, Mass, Volume, Meter, Liter, Gram, Kelvin</i></b>
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***STUDENTS MUST KNOW HOW TO CORRECTLY SPELL AS WELL AS THE DEFINITION OF EACH OF THE "Terms to Know" EVERY WEEK!***

<b>Timeline:</b>	<b>Day "A"</b>	<b>Day "B"</b>	<b>Day "C"</b>	<b>Day "D"</b>	<b>Day "E"</b>
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1st Week	Journal; complete in Google Docs, send to your teacher - 10 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	Journal; complete in Google Docs, send to your teacher - 10 min
	<i>"Today's Scientist at Work", Dr. Benjamin Carson</i> - Read aloud and discuss: how can Dr. Carson be an inspiration to young people? When did he realize that he was intelligent? Who specifically is mentioned as believing in his abilities? Teacher to search for key information from the text to help build content skill understanding - 10 min	<i>"Scientific Thinking Handbook", Predicting and Hypothesizing, Page R3</i> - Read aloud and discuss: what is the difference between a hypothesis and a prediction? Students in pairs, teacher to assign a topic (What liquid makes plants grow best?) and students will create a hypothesis and predictions about that topic; as a class, review responses and why - 20 min	Watch "Inference and Observation" on YouTube (4:36 min) and discuss: what is the difference between observations and inferences? Teacher to create a mock-experiment about a fake "Crime Science" and students to discuss potential observations and inferences from them; what may be seen that would lead to specific false conclusions? - 20 min	<i>"Scientific Thinking Handbook", Identifying Cause and Effect, Page R5</i> - Read aloud and discuss: how does Cause and Effect relate to hypothesis? How about Inferences? Teacher to review content understanding to create questions based upon the reading for review of material - 15 min	<i>"Scientific Thinking Handbook", Identifying Cause and Effect, Pages R28-29</i> - Read aloud and discuss: why should you keep a journal (data log) when you conduct experiments? Why should you display data on a graph? How does this video recommend that you create your graphs? - 10 min
	<i>"Scientific Thinking Handbook", Making Observations, Page R2</i> - Read aloud and discuss: what is the difference between quantitative observations and qualitative observations? Using Table 1, explain the differences; teacher to create examples and students will analyze which category they fit into - 10 min	Students in pairs, answer and discuss: Using Google Docs, answer and submit to your teacher the following - Review "More About Hypothesis" on page R3; students will respond via Google Docs why each of those three statements must be valid when conducting the experiment that they just discussed previously (liquid for plant growth); after students submit, teacher to discuss responses aloud - 10 min	<i>"Scientific Thinking Handbook", Identifying Cause and Effect, Pages R28-29</i> - Read aloud and discuss: why should you conduct research about your topic BEFORE you begin an experiment? Review the example experiment on pages R28-R29 and discuss hypotheses and inferences from it - 15 min	Teacher to create a mini-lab with stations; using "Scientific Thinking Handbook", pages R12-R19 as a guide, students will review the different equipment and gather measurements; they will create a data log in a journal of the measurements of the various	

	Watch "Scientific Method explained using Monty Python's "We Found A Witch"" on YouTube (5:14 min) and discuss: how does this video use the Scientific Method to prove something? Where in the video is the science flawed? Why is it important to test things three times? How precisely was the testing in the video flawed? - 10 min	"Scientific Thinking Handbook", <i>Inferring</i> , Page R4 - Read aloud and discuss: what are inferences? Why are they both helpful and harmful for experiments? What are observations? Teacher to use the previous mock-experiment and discuss possible observations and inferences - 15 min	Teacher-provided worksheet about five potential experiments or situations; students in pairs, reply in Google Docs to the scenarios by making hypothesis, predictions, and inferences about them; submit to your teacher, then review responses as a class - 20 min	Teacher to show lab equipment and discuss its use; teacher to review how to measure using beakers, scales, balances, and cylinders; students volunteer to assist in gathering data - 10 min	measurements of the various beakers, test tubes, weights of items on a scale, weights of items on a balance, etc. Teacher to collect data logs as students will graph this data later in this unit - 25 min	
Daily Journal or Bell Work:	Write everything that you know about the Scientific Method	Define a hypothesis in your own terms	What are "observations" during a science experiment? How are they different than a final review?	What is an Inference? How are they helpful and harmful to science experiments?	In a science experiment, what is a data log and why is it important?	
Daily Homework:	Written Response: How can the Scientific Method relate to everyday and real-life scenarios? Provide an example and use the steps to outline your thoughts (one paragraph or a list)	Written Response: How is a hypothesis different than a prediction? How much analyzing is done when making a hypothesis? Why is that? (one paragraph)	Written Response: Why are observations an important part of your science experiment? How can they be misleading? (one paragraph)	Written Response: Why is conducting research on your topic best to do before making a hypothesis? What would happen if you were uninformed about a general topic? (one paragraph)	Written Response: Why is keeping a data log important during an experiment? Why should experiments be done several times in order to ensure accuracy? How do data logs support accuracy? (one paragraph)	
Timeline:	Day "A"	Day "B"	Day "C"	Day "D"	Day "E"	
2nd Week	Journal; complete in Google Docs, send to your teacher - 10 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 15 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	Journal; complete in Google Docs, send to your teacher - 10 min	
	Watch "Basic Chemistry Lab Equipment" on YouTube (14:41 min) and discuss: relate to your book and the previous lab, how did you do in using them? What inferences did you create when you used the materials? Did you use anything incorrectly? - 20 min	(Part I of III) Using Google Sheets, students will enter their data from their experiment last week into the columns to begin creating graphs; students will save their graphs and data, then submit it to their teacher when complete - 15 min	(Part II of III) Using Google Sheets, students will enter their data from their experiment last week into the columns to begin creating graphs; students will save their graphs and data, then submit it to their teacher when complete - 15 min	(Part III of III) Using Google Sheets, students will enter their data from their experiment last week into the columns to begin creating graphs; students will save their graphs and data, then submit it to their teacher when complete - 15 min	(Part III of III) Using Google Sheets, students will enter their data from their experiment last week into the columns to begin creating graphs; students will save their graphs and data, then submit it to their teacher when complete - 15 min	Watch "Metric Conversion Trick!! Part 1" on YouTube (6:27 min) and discuss: How is this video helpful? What tips are beneficial from it? Is the mnemonic easy to remember? - 10 min
	"Scientific Thinking Handbook", <i>Making Data Tables and</i>					Teacher to create more conversion examples to review with the class; use the mnemonic to help solve - 10 min

	<p>Making Data Tables and Graphs, Pages R23-R27 - Read aloud and discuss: what is a data table? How does the data table help you to create graphs? Review the different axis and titles for each, how does math relate to these? - 15 min</p>	<p>Teacher to create a lab using Spring Scales and balances; students to weigh various items using the equipment and enter the data into their logs - 25 min</p>	<p>Teacher to conduct a new lab using graduated cylinders, beakers, rulers, and scales; students to go to stations to correctly take measurements; turn in lab and data when complete - 25 min</p>	<p>"Scientific Thinking Handbook", <i>The Metric System and SI Units</i>, Pages R20-R21 - Read aloud and discuss: what are the SI Units for measuring the basic properties? What are the prefixes for the base units? What mnemonics can you think of to remember them in order? teacher to practice converting from one unit to another - 25 min</p>	<p>Students in pairs, answer and solve: teacher to create mini-lab of measuring items using beakers and spring scales; convert answers to different requested units per teacher discretion - 20 min</p>
Daily Journal or Bell Work:	<p>Why is it important to follow each step of the Scientific Method in order and correctly when conducting an experiment?</p>	<p>Write step-by-step how to use a graduated cylinder to take a measurement. Write at least five steps.</p>	<p>Which type of graph is easier for you to read, a pie graph or a bar graph? Why is that?</p>	<p>What is the metric system and why is it important in science?</p>	<p>What are SI Units and why are they important in all experiments?</p>
Daily Homework:	<p>Written Response: What did you do correctly in your previous use of the lab equipment? What did you do incorrectly? What can you do better? (one paragraph)</p>	<p>Written Response: Explain step-by-step how to take measurements from a spring scale and a graduated cylinder (min. five steps per tool)</p>	<p>Written Response: What are three benefits of a pie(circle) graph? What are three benefits of a bar graph?</p>	<p>Teacher-created worksheet about converting SI Units from one unit to another (twenty problems)</p>	<p>Teacher-created worksheet about converting SI Units from one unit to another (twenty problems)</p>
Timeline:	Day "A"	Day "B"	Day "C"	Day "D"	Day "E"
3rd Week	<p>Journal; complete in Google Docs, send to your teacher - 10 min</p>	<p>Bell Work; complete in Google Docs, send to your teacher - 5 min</p>	<p>Bell Work; complete in Google Docs, send to your teacher - 5 min</p>	<p>Bell Work; complete in Google Docs, send to your teacher - 5 min</p>	<p>Test on "Terms to Know" from Week One, Scientific Method, Metric System, and Lab Equipment - 30 min</p>
	<p>Watch "What is Absolute Zero Temperature" on YouTube (2:27 min) and discuss: what is Absolute Zero? What is Kelvin? Review "Scientific Thinking Handbook", <i>The Metric System and SI Units</i>, Page R21 about Temperature Conversions - 15 min</p>	<p>Teacher to review SI Units and conversions; students to seek help as needed - 15 min</p>	<p>Teacher to introduce density and how to calculate for it (<math>D=m/v</math>); teacher to display density using a graduated cylinder and a gram weight; demonstrate how to calculate - 15 min</p>	<p>Students in pairs, answer and share: students will create a Concept Map linking together the concepts that have been discussed this unit; use all of the terms from the "Terms to Know" from Week One plus five add-on terms; one map per pair, share with the class when requested - 20 min</p>	

	Students in pairs, answer and solve: teacher to create several problems converting K' to C', C' to K', F' to C', and F' to K'; complete and discuss answers to review accuracy - 20 min	Teacher to create lab using meter sticks to measure distance of items/objects; teacher to request conversions of measurements into other SI Units as part of the lab - 25 min	Teacher-created lab calculating density and multiple problems using the formula of how to calculate it - 20 min	Using Google Docs, students will define each of the "Terms to Know" from Week One and submit them to their teacher - 20 min	Teacher to explain that all students will conduct a Science Fair experiment this year. Students will participate in a Science Fair, it is required, and that we will push to send everyone to the NEOSF in the Winter; review link to the NEOSF website (www.neosef.org) - 10 min
Daily Journal or Bell Work:	Teacher-created SI Unit conversions (four problems)	Teacher-created SI Unit conversions (three problems)	What is density? Try to define it in your own terms	Teacher-created density problems to solve (three problems)	None
Daily Homework:	Teacher-created worksheet about converting K, F, and C to one another (twenty problems)	Teacher-created worksheet converting Kelvin and other SI Units (twenty-five problems)	Teacher-created worksheet converting density (twenty-five problems)	Study for your Test on the Scientific Method; Review Vocabulary Terms	None

Unit : Volcanoes (Google Slides presentation affiliated with this unit)

<b>Project:</b>	<i>Students will be assigned one volcano from the list below. Students will conduct research on this volcano and will create a 10-slide presentation in Google Slides about the volcano that you researched. Students may present it to the class for extra credit (therefore, the presentation is optional). Students must conduct research on and provide in their 15-slide presentation the following features of the volcano: it's height in feet, what country it is located in, a photo of the volcano, a location on a map of the volcano, when it last erupted, what damage occurred during its last eruption, what is the nearest city to the volcano, at least one previous eruption that was note-worthy, what it is named after (or what its name means, if applicable), what type of volcano it is, and if it has a crater or caldera.</i>				
<b>Project Options:</b>	<i>Mt. Vesuvius, Mt. Saint Helens, Krakatoa, Mt. Etna, Kilauea, Mauna Loa, Mt. Pinatubo, Mt. Fuji, Mt. Tambora, Popocatepetl, Mt. Pelee, Yellowstone Caldera, Mt. Merapi, Cotopaxi, Mt. Rainer, Stromboli, Paricutin, Hekla, Soufriere Hills, Poas Volcano, Santa Maria, Mt. Kilimanjaro, Mt. Redoubt, Mt. Erebus, Mt. Shasta</i>				
<b>Vocabulary Terms:</b>	<i>Volcanology, Volcano, Volcanologist, Magma Chamber, Magma, Lava, Intrusive, Extrusive, Molds, Casts, Hot Spot, Eruption, Crater, Vent, Caldera, Cone, Sill, Dike, Pahoehoe, Aa, Block, Composite, Shield, Pyroclastic Flow</i>				
<b>IEP Student Vocabulary Terms:</b>	<i>Volcano, Magma Chamber, Magma, Lava, Intrusive, Extrusive, Molds, Casts, Hot Spot, Eruption, Crater, Vent, Caldera, Cone, Sill, Dike, Composite, Shield</i>				
<b>STUDENTS MUST KNOW HOW TO CORRECTLY SPELL AS WELL AS THE DEFINITION OF EACH OF THE "Terms to Know" EVERY WEEK!</b>					
<b>Timeline:</b>	Day "A"	Day "B"	Day "C"	Day "D"	Day "E"
	Journal; complete in Google Docs, send to your teacher - 10 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	Journal; complete in Google Docs, send to your teacher - 10 min

4th Week	Teacher to review prior knowledge of volcanoes and their features; teacher to provide "Terms to Know" and discuss them - 20 min	Teacher to review the differences between the three major types of volcanoes; teacher to illustrate them and label pressure locations - 20 min	Watch "Supervolcanoes 101   National Geographic" on YouTube (3:41 min) and discuss supervolcanoes, their locations, and what makes them "super"; what happens when they erupt? - 10 min	<i>ML Science, The Changing Earth, Pages 77-79</i> - Read aloud and discuss how mountains form; where are the Rocky Mts and Appalachians Mts? How did they form? How are they effected by the Mantle? - 20 min	<i>ML Science, The Changing Earth, Pages 78-84</i> - Read aloud and discuss plate boundaries; How did the Himalayas form? What other mountain ranges can you find that most likely formed from similar processes? - 25 min
	Watch "Volcano types: Cinder cone, composite, shield and lava domes explained - TomoNews" on YouTube (5:33 min) and discuss: how does each volcano differ from the next? How does pressure play a role in eruptions? - 10 min	Students to create a Venn Diagram comparing and contrasting two of the three types of volcanoes; review with class - 15 min	Teacher to discuss features of volcanoes and name the parts of it; how does each part form? Teacher to specifically label a dike, sill, caldera, vent, crater, magma chamber, hot spot, and magma/lava - 25 min	Teacher to reference the Ring of Fire and the Mid-Atlantic Ridge; use Google images to show locations that surround it; how are hot spots related to this region? Why do earthquakes happen frequently here? - 15 min	Teacher to use Google images to find examples of plate boundaries; students to view examples along the Ring of Fire to locate divergent boundaries in the Andes Mts and Rocky Mts; How did the Caribbean and South Pacific Islands form? How did Hawaii form? Essentially how does a hot spot create a volcano? How does a plate boundary relate to this process? - 15 min
	Teacher to show images of supervolcanoes (Yellowstone, specifically) and discuss the dangers of them - 10 min	Teacher to assign project and discuss the features of the project - 15 min	Teacher to review the four major layers of the Earth; How thick is the crust of the Earth? How does the Mantle work to bring very hot, pressurized magma to the surface? - 10 min	Teacher to provide information about several important volcanoes to know (Mt. Vesuvius, Mt. Krakatoa) - 10 min	
Daily Journal or Bell Work:	Create a list of all prior knowledge of volcanoes that you have	What are the our major parts of the inside of the Earth?	Name the three types of volcanos	How do mountains forming relate to volcanos? What processes are similar?	Do all volcanos have to be mountains? Do all mountains have to be volcanos?
Daily Homework:	None	Work on your volcano project	Work on your volcano project	Work on your volcano project	<i>ML Science, The Changing Earth, Page 84</i> - Answer #'s 1-6 in complete sentences; due tomorrow!
Timeline:	Day "A"	Day "B"	Day "C"	Day "D"	Day "E"
	Journal; complete in Google Docs, send to your teacher - 10 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	Journal; complete in Google Docs, send to your teacher - 10 min

5th Week	Teacher to review plate boundaries and how volcanos relate to them; Review parts of the volcano - 10 min	(Part II of II) Illustrate, color, and label one of the three types of volcanos; Include the parts of a volcano (at least eight features) - 20 min	Review the Ring of Fire and introduce the Mid-Atlantic Ridge; how are the two similar yet different? - 15 min	In-class workday for Volcano project - 45 min	Teacher to review terms and their relation to each other; how does each volcano type have these types (or do they)? What are direct and indirect relationships? How does pressure, eruption type, and magma flow relate to each other? - 15 min
	<i>ML Science, The Changing Earth, Page 85</i> - Read aloud and discuss the mountains in the range; how do the mountains in Asia relate to the mountains in North America? How do you think this information relates to itself? Complete #'s 1-3 and "Challenge" in class - 15 min	<i>ML Science, The Changing Earth, Pages 86-89</i> - Read aloud and discuss how lava/magma varies; what is pyroclastic flow? Discuss how Mt. Vesuvius destroyed Pompeii and Herculanium; show images of Pompeii - 20 min	<i>ML Science, The Changing Earth, Pages 90-93</i> - Read aloud and discuss the three types of volcanos per the images in the book; how does each compare and contrast? What are examples of each? Discuss Mauna Loa and Mauna Loihi; how did Hawaii form from hot spots? Teacher to use Google Images to show photos of Hawaii and Mauna Loa; explain that it has erupted since 1979 due to low magma flow - 25 min		<i>ML Science, The Changing Earth, Pages 96-98</i> - Read aloud and discuss the aftermath of volcano eruptions; Google images of Mt. Pinatubo in 1991 to show the ash, soot, and mudflow atop the city and surrounding areas - 25 min
	(Part I of II) Illustrate, color, and label one of the three types of volcanos; Include the parts of a volcano (at least eight features) - 20 min	Discussion: What are molds and casts in a medical sense? How could that same principle apply to volcanos? Via Google Images, show images of casts and molds of people at Pompeii - 15 min			
Daily Journal or Bell Work:	How did the Caribbean Islands form? Explain your answer	Where is the Ring of Fire? Name five countries that it touches	Mt. Vesuvius is near Naples, a major Italian city; how do you think they are working to prevent disaster?	How are the forming of Iceland and Japan similar yet different?	Google using your Chromebook "1902 Saint Pierre Volcano"... what happened here?
Daily Homework:	Written Response: Explain why some islands were formed by volcanos or hot spots and others were part of continental drift; how does each relate to the mantle? (one paragraph)	Written Response: Based upon the Ring of Fire, explain how the Philippines and New Zealand formed; why are there so many islands in the Philippines but only a few in New Zealand?	<i>ML Science, The Changing Earth, Page 93</i> - Answer #'s 1-6 in complete sentences; due tomorrow!	Written Response: Explain how the forming of Iceland and other islands in the Atlantic Ocean are different than New Zealand's forming; how are they similar to Hawaii's forming? (one paragraph)	Written Response: Think back to the 1902 eruption at Saint Pierre; what parts of the eruption were present? Using the terms in your book, how did the people specifically die in this eruption? (one paragraph)
Timeline:	Day "A"	Day "B"	Day "C"	Day "D"	Day "E"
	Journal; complete in Google Docs, send to your teacher - 10 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	

6th Week	<i>ML Science, The Changing Earth, Page 99</i> - Students in pairs, complete the Mini-lab together and answer all questions as indicated via Google Docs; submit to your teacher when complete - 25 min	<i>ML Science, The Changing Earth, Page 103</i> - Read aloud and discuss monitoring the geysers and hot springs at Yellowstone; answer #'s 1-2 via Google Docs and submit to your teacher - 20 min	(Part II of II) <i>ML Science, The Changing Earth, Page 105</i> - Complete "Chapter Three Review" if it was not completed in the prior lesson - 15 min	Review study guide for Test tomorrow on volcanos and "Terms to Know" - 20 min	Test on Volcanos and "Terms to Know" - 30 min
	<i>ML Science, The Changing Earth, Page 99-102</i> - Read aloud and discuss how volcanic gases can be just as bad as the molten rock; How do volcanic eruptions cause weather changes? - 20 min	(Part I of II) <i>ML Science, The Changing Earth, Page 105</i> - Students in pairs, complete each question via Venn Diagrams for #'s 1-3 and #'s 4-16 by indicating the letter and in complete sentences via Google Docs; submit to your teacher when complete - 25 min	In-class time to work on your Google Slides project; it is due in three days! - 35 min		
	Daily Journal or Bell Work:	How can erupting volcanos effect the weather?	What is a geyser? What are hot springs?	<i>ML Science, The Changing Earth, Page 106</i> - Complete #'s 17-18 via Google Docs	Write down three things that you have questions about for your test tomorrow!
Daily Homework:	<i>ML Science, The Changing Earth, Page 102</i> - Answer #'s 1-6 in complete sentences; due tomorrow!	<i>Written Response:</i> Why is it important to monitor geysers? What can they tell you about volcanic activity?	Work on your volcano project	Study for Test tomorrow on Volcanoes; Review all Vocabulary Terms	Complete Google Slides Project; it is due tomorrow!

Unit : Plate Tectonics (Research Project with this unit)

<b>Project Essay Breakdown:</b>	<b><i>Students will research one of the following dinosaurs from the list below and write an essay in Google Docs. The essay must be a minimum of one-page in length, 12-font, Times New Roman, double-spaced, and include the following components. Students will research about their dinosaur and make the required connections to the content from this unit: What was the maximum height of this dinosaur? Was it an herbivore, carnivore, or omnivore? Was it more-often a predator or prey of other animals? What Period of the Mesozoic Era did it live in? Where on Earth today have fossils of your dinosaur been found? How does the finding of your dinosaur's fossils support the Theory of Continental Drift? How does the finding of your dinosaur's fossils support the Theory of Pangaea? What type of plate boundary exists on the plates where your dinosaur's fossils were found? Describe what your dinosaur looked like. Include a photo of your dinosaur (not hand-drawn, from online is permissible). Lastly, include one interesting fact about your dinosaur that may be distinct to it.</i></b>
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<b>Project Themes:</b>	<i>Tyrannosaurus Rex, Triceratops, Stegosaurus, Apatosaurus (Brontosaurus), Velociraptor, Spinosaurus, Diplodocus, Allosaurus, Ankylosaurus, Iguanodon, Pachycephalosaurus, Parasaurolophus, Styracosaurus, Troodon, Gallimimus, Stygimoloch, Protoceratops, Deinonychus, Suchomimus, Brachiosaurus, Baryonyx, Dilophosaurus, Titanosaur</i>
<b>Vocabulary Terms:</b>	<i>Inner Core, Outer Core, Mantle, Crust, Lithosphere, Asthenosphere, Tectonic Plate, Continental Drift, Pangaea, Mid-Ocean Ridge, Convection, Convection Current, Theory of Plate Tectonics, Divergent, Convergent, Transform, Rift Valley, Magnetic Reversal, Hot Spot, Subduction, Fossil, Extinct, Dinosaur</i>
<b>IEP Student Vocabulary Terms:</b>	<i>Inner Core, Outer Core, Mantle, Crust, Tectonic Plate, Continental Drift, Pangaea, Mid-Ocean Ridge, Convection Current, Theory of Plate Tectonics, Divergent, Convergent, Transform, Rift Valley, Hot Spot, Subduction, Fossil, Extinct, Dinosaur</i>

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Timeline:	Day "A"	Day "B"	Day "C"	Day "D"	Day "E"
	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min
	<i>ML Science, The Changing Earth, Pages 9-11</i> - Students to read aloud and use a "Description Wheel" to outline the layers of the Earth; students should have six spokes on their wheel with statements about each of the six layers - 20 min	(Part II of II) Complete your illustration, coloring, and labeling of the six layers of the Earth including descriptions of the layers, size, and temperature; due in class - 10 min	Teacher to review the layers of the Earth; students in pairs, create a T-chart with pros (left) and cons (right) of what would happen if the Earth was NOT broken up into plates; share and discuss your thoughts - 15 min	Watch "The Whole Saga of the Supercontinents" on YouTube (9:18 min) and discuss how the continents have changed; Why was Alfred Wegener laughed at for his theory? Why was the middle of Pangaea nearly uninhabitable? What was early life like? How did fossils support the Theory of Continental Drift? What will happen in the future based upon moving continents? - 15 min	<i>ML Science, The Changing Earth, Page 19</i> - Students in pairs, using the map of the plates on this page and the Internet list ten plates on the Earth's surface and the areas directly above them on the Earth's crust; share your findings as a class - 15 min
7th Week	Watch "Layers of the Earth based on chemical composition and physical properties" on YouTube (3:55 min) and discuss the different layers except the Mesosphere; how are the asthenosphere and lithosphere described? Why do you think some areas of the crust are thicker than others? Describe both parts of the core - 10 min	<i>ML Science, The Changing Earth, Pages 12-13</i> - Students to read aloud and discuss tectonic plates; using a "Description Wheel", students will outline four characteristics of tectonic plates; share and discuss as a class - 15 min	<i>ML Science, The Changing Earth, Pages 14-16</i> - Students to read aloud and discuss the theory of continental drift; how do fossils, climate, and geology all provide evidence of this? Students in pairs, create a table outlining the evidence for continental drift in three columns (titled "Fossils", "Climate", and "Geology"); share and discuss your tables as a class - 25 min	<i>ML Science, The Changing Earth, Pages 16-19</i> - Students to read aloud about Seafloor Spreading; how did this concept prove Alfred Wegener's theory? What is convection? What is subduction? Why does the oceanic crust move below the continental crust? What would happen if they did the opposite? Review and discuss the processes - 20 min	<i>ML Science, The Changing Earth, Pages 20-21</i> - As a class, Teacher will demonstrate the lab using sponges, candles, and other materials; students will work together as a class using the Scientific Method to Predict, Hypothesize, Analyze, Observe, and Conclude; discuss how

	(Part I of II) Illustrate, color, and label the six different layers of the Earth including the temperature, size in miles or km, and a brief description; include Ocean crust and Continental crust in your descriptions - 20 min	<i>ML Science, The Changing Earth, Pages 9 &amp; 12</i> - Teacher will demonstrate the mini-lab on page 9 and students will interact; students in pairs, complete mini-lab on page 12 in pairs and discuss; review responses as a class - 20 min	Students to go to the following website " <a href="http://www.geo.cornell.edu/hawaii/220/PRI/continental_puzzle.html">www.geo.cornell.edu/hawaii/220/PRI/continental_puzzle.html</a> " and try to place the continents together to fit as a puzzle; use the circle like a wheel to rotate them; click "Pangaea On" to see where the continents should go, then retry - 10 min	Teacher to introduce Dinosaur & Pangaea Project; students to have in-class time to begin researching and select their dinosaur; Teacher to lead the selection process - 15 min	and conclude; discuss how convection and subduction appear to work based upon this lab - 35 min
Daily Journal or Bell Work:	What are the six layers of the Earth? What are the two relatively unknown layers located between the upper two layers?	Describe the lithosphere and asthenosphere	Provide a quick description of each layer of the Earth	Provide three evidences of Continental Drift and how they each prove the theory	The Earth's crust has been compared to an apple or a hard-boiled egg; explain how each of these comparisons is accurate
Daily Homework:	Do you think that humans could travel to the mantle or the core of the Earth? Why or why not? Give an "8th Grade answer", not a general response	<i>ML Science, The Changing Earth, Page 13</i> - Complete #'s 1-6 in complete sentences or as requested; due tomorrow!	Imagine if Pangaea never broke up, how would our world be different right now? Think of three reasons	Imagine Pangaea coming together as described in the video; what are three things that you think would be noticeably different than they are currently?	<i>ML Science, The Changing Earth, Page 19</i> - Complete #'s 1-6 in complete sentences or as requested; due tomorrow!
Timeline:	Day "A"	Day "B"	Day "C"	Day "D"	Day "E"
	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min
	Teacher to review how fossils, geology, and climate are all evidence of continental drift; review Pangaea - 10 min	<i>ML Science, The Changing Earth, Page 23</i> - Teacher to review seafloor spreading; use Google Images for photos of the Mid-Atlantic Ridge and other ocean ridges to provide visuals; discuss how the oldest rock is further away and the newest rock is closest to the ridge - 10 min	Students to illustrate, color, and label a divergent boundary either on land or under the ocean; students to include what could happen at this boundary under the ocean or when the on land rift valley reaches below sea level; make sure to include accurate and clear descriptions - 25 min	<i>ML Science, The Changing Earth, "Math in Science", Page 29</i> - Students to read aloud; as a class being lead by the Teacher solve the distance that plates move each year in #'s 1-3; complete "Challenge" independently and discuss responses together - 15 min	<i>ML Science, The Changing Earth, "Standardized Test Practice", Page 41</i> - Students to discuss the image together and what it appears to display; answer #'s 1-9 as a class; students in pairs, complete #'s 10-11 together and submit responses via Google Docs to your Teacher - 20 min

8th Week	<p><i>ML Science, The Changing Earth, Page 18</i> - As a class review convection currents and how they occur within the Earth; students in pairs, use a "Cause and Effect" graphic organizer to outline how materials inside the Earth effect those on the crust; share your diagrams with the class - 20 min</p>	<p><i>ML Science, The Changing Earth, Pages 22-25</i> - Teacher to lead students in outlining these pages using the traditional model of outlining found in MS Word with numbers &amp; letters; students to assist in providing headings, topics, and facts; complete as a class - 20 min</p>	<p>Students to share illustrations; Teacher to review illustrations and how rift valleys form at Divergent Plate Boundaries; explain what happens both ON LAND and BELOW THE OCEAN at these boundaries - 10 min</p>	In-class time to work on your Dinosaur Project - 35 min	In-class time to work on your Dinosaur Project - 30 min
	<p><i>ML Science, The Changing Earth, Pages 22-25</i> - Students to read aloud and discuss how plate boundaries display convection currents; what are rift valleys? Teacher to demonstrate the mini-lab on page 22 by unrolling a large cylinder to display a layer of "rock" pushing outwards; where is the rift valley and Mid-Ocean Ridge in this model? Review the three types of plate boundaries with this model - 20 min</p>	<p><i>ML Science, The Changing Earth, Pages 26-28</i> - Students to read aloud as a class; continue the outline from the previous pages with this reading; Teacher to lead students in obtaining information and facts; students to provide insight and thoughts as to important materials; include hot spots, rift valleys, types of boundaries, and how islands like Hawaii formed - 20 min</p>	<p><i>ML Science, The Changing Earth, Page 25</i> - Students in groups of 3 or 4, complete the mini-lab together using the magnet to simulate seafloor spreading and how each new layer has their charges reversed from the previous layer; Teacher to assist and demonstrate as needed; answer questions via Google Docs and share with your Teacher - 20 min</p>		
Daily Journal or Bell Work:	Describe continental drift based upon Mid-Ocean Ridges	What is seafloor spreading? Include Rift Valley and Mid-Ocean Ridge in your answer	Explain how rift valleys form either under the ocean or on land	What is a divergent boundary? What can form at these boundaries?	Identify what forms at each of the three types of plate boundaries
Daily Homework:	How do you think Alfred Wegener felt about his theory of continental drift after many scientists in his day laughed at his idea? Why do you think that?	Explain how Hawaii formed; use the terms hot spot, plate, and convection currents	<i>ML Science, The Changing Earth, Page 28</i> - Complete #'s 1-6 in complete sentences or as requested; due tomorrow!	<i>ML Science, The Changing Earth, Chapter One Review, Page 40</i> - Complete #'s 19-25 in complete sentences or as requested; due tomorrow!	<i>ML Science, The Changing Earth, Chapter One Review, Page 40</i> - Complete #'s 26-31 in the table as requested; due tomorrow!
Timeline:	Day "A"	Day "B"	Day "C"	Day "D"	Day "E"
	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	

	<i>ML Science, The Changing Earth, Pages 27-28</i> - Review hot spots and how they form mountains in the middle of plates; using Hawaii as an example, students will approach the Clever Board to illustrate how this occurs; Teacher to reference the super-volcano located in Idaho, USA; what could happen if this super-volcano erupts? - 15 min	<i>ML Science, The Changing Earth, Page 31-33</i> - Teacher to review seafloor spreading and how plates move; what happens when two continental plates collide? What happens when subduction occurs under an ocean? Relate back to Hawaii and the super-volcano under Idaho - 10 min	<i>ML Science, The Changing Earth, "Math in Science", Page 29</i> - Students to read aloud; as a class review the "Observations" and "Conclusions"; discuss "Evaluate Each Conclusion" as a class; complete "Challenge" independently and discuss responses together - 15 min	<i>ML Science, The Changing Earth, Chapter One Review, Page 40</i> - Review plate tectonics and continental drift together; discuss Pangaea and how it may reform; using your knowledge of plate boundaries, complete # 33 privately; discuss your thoughts and illustrations as a class; illustrations should be colored and labeled - 30 min	Test on Plate Tectonics and Continental Drift - 25 min
9th Week	Watch "Experts Discuss Warning Signs of Eruption of Super Volcano at Yellowstone National Park" on YouTube (4:14 min) and discuss the concern and reality of this volcano erupting - 10 min	<i>ML Science, The Changing Earth, Pages 34-36</i> - Students read aloud and discuss plate boundary types & names; refer to map on page 35 for review - 15 min			In-class Spelling Bee on the "Terms to Know from Week Seven"; winning students receive extra credit on their test today - 15 min
	<i>ML Science, The Changing Earth, Pages 30-33</i> - Students read aloud and discuss how seafloor spreading works to push continents away from each other; Why would we expect mountains and trenches along continent borders? Where is the deepest trench in the world? Why does this location make sense? - 20 min	<i>ML Science, The Changing Earth, Page 35</i> - Teacher to select eight different locations by name along plate boundaries on Earth; students to find those locations using Google, an atlas, or this map; what plate boundary occurs at this location? What formation would you expect to find here? Why is that? - 20 min	In-class time to work on your Dinosaur Project - 35 min	Play "Kahoot!" to review for the test tomorrow on Plate Tectonics and Continental Drift; approved examples to study include "Plate Tectonics & Plate Boundaries, 20 questions, 30 seconds" and "Plate Tectonics Plate Tectonics!, 31 questions, 20 or 30 seconds" - 20 min	In-class time to work on your Dinosaur Project - 15 min
Daily Journal or Bell Work:	<i>ML Science, The Changing Earth, Chapter One Review, Page 39</i> - Complete #'s 7-9; discuss as a class	<i>ML Science, The Changing Earth, Chapter One Review, Page 39</i> - Complete #'s 10-12; discuss as a class	<i>ML Science, The Changing Earth, Chapter One Review, Page 39</i> - Complete #'s 13-15; discuss as a class	<i>ML Science, The Changing Earth, Chapter One Review, Page 40</i> - Complete # 32; discuss as a class	None
Daily Homework:	Work on project; it is due in five days!	<i>ML Science, The Changing Earth, Page 36</i> - Complete #'s 1-6 in complete sentences or as requested; due tomorrow!	<i>ML Science, The Changing Earth, Chapter One Review, Page 39</i> - Complete #'s 16-18 in complete sentences as requested; due tomorrow!	Study for Test tomorrow on Plate Tectonics & Continental Drift; Review all "Terms to Know" including their correct spelling	Complete Dinosaur Project; it is due tomorrow!

Unit : Earthquakes (Powtoons presentation accompanying this unit)

<b>Project Theme:</b>	<i>Students will research one of the following earthquakes from history. They will create a "Powtoon" presentation (www.powtoon.com) which they will email the link to their teacher when completed (or by the due date, whichever is sooner). That presentation will utilize the free features of Powtoon to make it creative. Students will answer the following questions in their presentation: Where was the epicenter of the earthquake? What country and city did it take place in? Where in the earth was the focus of the earthquake? What was the rating of this earthquake on the Richter Scale? How as a seismograph used to detect this earthquake? Was the earthquake located on the Ring of Fire, the Mid-Atlantic Ridge, or somewhere else? What type of fault line did the earthquake occur upon? Was a tsunami caused by this earthquake? If yes, what damage did it cause? Were seismologists predicting it beforehand, or was it a surprise to people? How much damage was caused? Did people die during this earthquake, and if so approximately how many people died? Include a photo of the location site or damage as well.</i>				
<b>Themes to Chose From:</b>	<i>1906 San Francisco, 2004 Indian Ocean (with Tsunami), 1964 Alaska, 1755 Lisbon, 2010 Haiti, 1976 Tangshan, 2010 Baja California, 1700 Cascadia, 1946 Aleutian Islands, 2010 Chile, 1985 Mexico City, 2008 Sichuan, 1138 Aleppo, 2008 Sichuan China</i>				
<b>Vocabulary Terms:</b>	<i>Fault, Stress, Earthquake, Seismic Wave, Primary Wave, Secondary Wave, Surface Wave, Focus, Epicenter, Seismograph, Richter Scale, Magnitude, Aftershock, Liquefaction, Tsunami, Seismology,</i>				
<b>IEP Student Vocabulary Terms:</b>	<i>Fault, Stress, Earthquake, Seismic Wave, Focus, Epicenter, Seismograph, Aftershock, Liquefaction, Tsunami,</i>				
<b><i>STUDENTS MUST KNOW HOW TO CORRECTLY SPELL AS WELL AS THE DEFINITION OF EACH OF THE "Terms to Know" EVERY WEEK!</i></b>					
<b>Timeline:</b>	Day "A"	Day "B"	Day "C"	Day "D"	Day "E"
	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min
	<i>ML Science, The Changing Earth, Pages 45-47 - Students to read aloud and discuss where earthquakes occur based upon the map on page 46; why don't earthquakes occur in the asthenosphere? Use a "Word Wheel" to outline the terms Fault, Stress, and Earthquake, share with the class - 20 min</i>	<i>ML Science, The Changing Earth, Pages 47-49 - Students to read aloud and discuss how plate tectonics and earthquakes are similar; how are the three earthquake faults and plate boundaries are the same; Teacher to Google Images of earthquake faults to display - 20 min</i>	<i>Illustrate, color, and label the three earthquake faults; use arrows to indicate the motion of the plates; include a one sentence description for EACH TYPE discussing how they are similar to plate tectonics - 30 min</i>	<i>ML Science, The Changing Earth, Pages 51-54 (stop at "Primary Waves") - Students to read aloud about the parts of an earthquake and waves; how do waves actually cause the damage in an earthquake? Why are areas closest to the epicenter damaged the most? - 20 min</i>	<i>ML Science, The Changing Earth, Pages 54-55 - Students to read aloud about the types of earthquake waves; what does each wave specifically do? The outer core creates a "Shadow Zone" where Secondar waves do not pass through, why do you think that is so? - 15 min</i>

10th Week	<i>ML Science, The Changing Earth, Page 45</i> - Teacher to demonstrate the mini-lab on this page; students to create a list of items that would not react the same and discuss; how can these items be used to safeguard against earthquakes? - 10 min	Students in pairs, use a Venn Diagram to compare and contrast plate boundaries and earthquake faults in three specific ways for each section (nine total statements); share thoughts with the class - 20 min	<i>ML Science, The Changing Earth, "Extreme Science", Page 50</i> - Read aloud and discuss the severe nature of earthquakes; what is Magnitude? As a class, answer "Explore #1-2" together and discuss - 10 min	<i>ML Science, The Changing Earth, Page 51</i> - Teacher to demonstrate the mini-lab on page 51; students to answer the questions in Google Docs and submit to the Teacher; discuss together as a class - 15 min	Write a poem or haiku about being in an earthquake; poems should be at least four lines and should follow an ABAB or ABCB pentameter; share with the class - 20 min
	<i>ML Science, The Changing Earth, Pages 35 &amp; 46</i> - Students in pairs, using both maps make at least five comparisons between plate borders and earthquakes; share your lists with the class and discuss - 20 min	Using the Yellowstone Super Volcano as an example, what could be happening at the earthquake faults in that area that would lead to the massive volcano? Review other massive earthquakes from the list provided for the project; how are their plate boundaries similar? - 10 min	Introduce Earthquake Powtoons Project; introduce students to the website "Powtoons" ( <a href="http://www.powtoons.com">www.powtoons.com</a> ); provide the topics and requirements to students; allow in-class time to work on research - 10 min	Watch "Earthquakes 101   National Geographic" on YouTube (5:02 min) and discuss how tsunamis are formed; why do you think the Pacific Ocean has so many earthquakes? What is the Ring of Fire? - 10 min	In-class time to work on your Earthquake Powtoons Essay - 20 min
Daily Journal or Bell Work:	<i>ML Science, The Changing Earth, Pages 42-43</i> - Review the photo; write down what you believe happened that created the ripples in the Earth	Discuss how plate tectonics and earthquake faults are similar	List the three earthquake faults and three plate boundaries; which ones are similar? How so?	Why do you think we do NOT have many earthquakes in Ohio?	Define focus and epicenter; which do you think is more dangerous? Why?
Daily Homework:	Based upon our work today in class, what are three ways that you think that earthquakes may be relate to plate tectonics?	<i>ML Science, The Changing Earth, Pages 35 &amp; 46</i> - What type of earthquake fault would you expect in the following places: Japan, California, Indonesia, Greece, Chile, and Iceland? Why?	<i>ML Science, The Changing Earth, Page 49</i> - Complete #'s 1-6 in complete sentences or as requested; due tomorrow!	Work on your Powtoons Earthquake Project! ( <a href="http://www.powtoons.com">www.powtoons.com</a> )	Work on your Powtoons Earthquake Project! ( <a href="http://www.powtoons.com">www.powtoons.com</a> )
Timeline:	Day "A"	Day "B"	Day "C"	Day "D"	Day "E"
	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min

11th Week	<p><i>ML Science, The Changing Earth, Pages 56-58</i> - Students read aloud and discuss seismographs and how to measure earthquakes; teacher to Google Image Zhang Heng and the first seismograph; students to discuss why they think this tool was effective - 15 min</p>	<p><i>ML Science, The Changing Earth, "Chapter One Review", Page 72</i> - Students in groups of 3 or 4, using Google Docs complete #'s 17-22 together; submit answers to Teacher when complete; review as a class and discuss - 25 min</p>	<p>As a class, use a "Triad Venn Diagram" (meaning one with three circles) to compare &amp; contrast plate tectonics, volcanos, and earthquakes; what do all three have in common? What is specific to only two of the three? Review as a class - 20 min</p>	<p><i>ML Science, The Changing Earth, Page 60</i> - Teacher to demonstrate the mini-lab for the class; students to respond to the questions together; review the terms "magnitude, Richter Scale, aftershock" and "liquefaction" together as a class - 10 min</p>	<p><i>ML Science, The Changing Earth, Page 64</i> - Teacher to review the "Earthquake Risk" diagram on this page; why do you think that we have a lower risk for earthquakes? What could be happening underground in certain areas of the USA that create alternating risks (such as upstate New York, southeast Missouri, or in South Carolina)? - 15 min</p>
	<p>Students to go to the following website "<a href="http://www.usgs.gov/media/images/triangulation-locate-earthquake">www.usgs.gov/media/images/triangulation-locate-earthquake</a>" and review how to find the epicenter of an earthquake; Teacher to relate this diagram back to the information provided in the textbook - 10 min</p>	<p><i>ML Science, The Changing Earth, "Math in Science", Page 59</i> - Read aloud and discuss as a class, compare the magnitudes of #'s 1-3 and how they relate; as a class, solve "Challenge" together - 15 min</p>	<p>Watch "Largest Earthquakes in World History - Map Timelapse" on YouTube (8:08 min) and discuss how frequent earthquakes happen in specific areas; create a list of ways and discuss how people may adapt to living in these areas - 15 min</p>	<p><i>ML Science, The Changing Earth, Pages 62-65</i> - Using your note cards from the prior lesson, continue to read aloud and create note cards about the topics in the reading; write a question on one side with the answer on the backside - 20 min</p>	<p><i>ML Science, The Changing Earth, Pages 66-67</i> - Using the notecards from the previous lessons, continue reading aloud and creating notecards to help you study for the test on this unit; discuss cards that are made as you proceed together - 15 min</p>
	<p>Students in pairs, Teacher to randomly select three cities from the USA; students to draw three circles using a compass or other tracing tool to overlap as representing seismographs in three cities; students will test where the epicenter of the mock earthquakes are; repeat several times - 20 min</p>	<p>Teacher to review seismographs and how to locate an epicenter using three stations; review "Terms to Know" covered thus far; illustrate and label the layers of the Earth with four layers and how an earthquake occurs - 10 min</p>	<p><i>ML Science, The Changing Earth, Pages 60-62 (stop at "Damage from Tsunamis")</i> - Students read aloud and use notecards (3" x 5" or 4" x 6") to write important notes and a question about them from the reading as they proceed; use these notecards to study for the test - 15 min</p>	<p>In-class time to work on your Earthquake Powtoons Essay - 20 min</p>	<p>Students to go to the following website "<a href="http://www.bigrentz.com/blog/earthquake-proof-buildings">www.bigrentz.com/blog/earthquake-proof-buildings</a>" and read how buildings are created to be earthquake proof; what is done to help stabilize them and safeguard people? Review and discuss as a class - 20 min</p>
Daily Journal or Bell Work:	<p>How do you think that volcanos and earthquakes are related? Provide examples</p>	<p>What is a seismograph? How is it used to locate earthquakes?</p>	<p>Define any three terms from your Vocabulary list for this unit</p>	<p>What is an aftershock? Which of the three earthquake waves do you think it is?</p>	<p>Which states have the highest risk of earthquakes? Where are they located?</p>
Daily Homework:	<p>Work on your Powtoons Earthquake Project! (<a href="http://www.powtoons.com">www.powtoons.com</a>)</p>	<p><i>ML Science, The Changing Earth, Page 58</i> - Complete #'s 1-6 in complete sentences or as requested; due tomorrow!</p>	<p>Work on your Powtoons Earthquake Project! (<a href="http://www.powtoons.com">www.powtoons.com</a>)</p>	<p>Work on your Powtoons Earthquake Project! (<a href="http://www.powtoons.com">www.powtoons.com</a>)</p>	<p><i>ML Science, The Changing Earth, Page 67</i> - Complete #'s 1-6 in complete sentences or as requested; due tomorrow!</p>

Timeline:	Day "A"	Day "B"	Day "C"	Day "D"	Day "E"
12th Week	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	Test on Earthquakes and associated terminology with them - 25 min
	<i>ML Science, The Changing Earth, "Standardized Test Practice", Page 73</i> - As a class complete #'s 1-8 together and discuss; students in pairs, complete "Extended Response, #'s 9-10" together and submit responses to Teacher via Google Docs; share and discuss as a class when complete - 25 min	<i>ML Science, The Changing Earth, "Chapter One Review", Page 72</i> - Students in groups of 3 or 4, using Google Docs complete #'s 23-27 together; submit answers to Teacher when complete; review as a class and discuss - 25 min	Students in pairs, using a "Sequence" graphic organizer list the steps in order for an earthquake as it occurs; begin with pressure in the mantle and end with the actual earthquake; include vocabulary terms to express your knowledge; share with the class and discuss - 20 min	<i>ML Science, The Changing Earth, "Reviewing Vocabulary", Page 71</i> - Students in groups of 3 or 4, as a class complete "concept maps" for #1 and review the terminology associated with it; in groups complete "concept maps" for #'s 2-4 and share them with the class; discuss thoughts together - 25 min	
	<i>ML Science, The Changing Earth, Pages 45-58</i> - As a class review previous content from this section and utilize note cards to outline important facts from this unit to study; write a question on one fact on one side of the card and the answer on the other side of that card; use these cards to study for the test - 25 min	Students in pairs, use your note cards on this unit to quiz eachother on topics from this unit 10 min	Students in pairs, use your note cards on this unit to quiz eachother on topics from this unit 10 min	Play "Kahoot!" to review for earthquakes test tomorrow; approved examples include "Earthquakes, 30 questions, 20 seconds" and "Earthquakes, 19 questions, 20 seconds"; review and discuss as needed - 25 min	In-class Spelling Bee on the "Terms to Know from Week Ten"; winning students receive extra credit on their test today - 15 min
In-class time to work on your Earthquake Powtoons Essay - 15 min		In-class time to work on your Earthquake Powtoons Essay - 25 min	In-class time to work on your Earthquake Powtoon Presentation - 15 min		
Daily Journal or Bell Work:	What are three things that are done to earthquake proof a building?	Describe two methods used to make buildings stronger	Define any three terms from your Vocabulary list for this unit that you haven't already define previously for bellwork	Define any three terms from your Vocabulary list for this unit that you haven't already define previously for bellwork	None
Daily Homework:	<i>ML Science, The Changing Earth, "Chapter Two Review", Page 71</i> - Complete #'s 5-13; due tomorrow!	<i>ML Science, The Changing Earth, "Chapter Two Review", Page 71</i> - Complete #'s 14-16 in complete sentences; due tomorrow!	<i>ML Science, The Changing Earth, "Chapter Two Review", Page 72</i> - Complete #'s 28-29 in complete sentences; due tomorrow!	Study for Test tomorrow on Earthquakes; Review the spelling of all Vocabulary Terms	Complete Earthquake Powtoon Presentation; it is due tomorrow!

Unit : Astronomy (Research Project: planets and other celestial bodies)

<b>Project Theme:</b>	<i>Students will use Google Slides to create a minimum 10-slide presentation about a celestial body in our solar system. Students will choose one option from the list provided and are to work individually. Students are to answer the following questions and include the following requirements in their presentation: How many Astronomical Units away from the sun is your object? Approximately how large (in miles) is your object? What is it mostly made out of? Does your object support life to live on it? Does your object have water or ice on it? How many moons does your object have? According to mythology, what is your object named after? How many planets away from the sun is your object? How many days does it take for your object to revolve around the sun? How does days (or hours) does it take for your object to rotate completely one time on its axis? Include a photo of your object. List three important or interesting features of your object that are not already including as a requirement of this project.</i>				
<b>Project Options:</b>	<i>Mercury, Venus, Earth, Mars, Ceres, Jupiter, Saturn, Uranus, Neptune, Pluto, Eris, Makemake, Haumea</i>				
<b>Terms to Know:</b>	<i>Astronomy, Astrology, Planet, Star, Solar System, H-R Diagram, Luminosity, Dwarf Planet, Constellation, Galaxy, Eclipse, Astronocial Unit, Nova, Supernova, Big Bang Theory, Universe, Intelligent Design, Moon, Satellite, Kuiper Belt, Rotation, Revolution, Asteroid Belt, Comet, Parralax, Leo, Ursa Major, Ursa Minor, Draco, Pegasus, Orion, Polaris, Andromeda</i>				
<b>IEP Student Terms to Know:</b>	<i>Astronomy, Planet, Star, Solar System, Dwarf Planet, Constellation, Galaxy, Eclipse, Nova, Big Bang Theory, Universe, Moon, Satellite, Rotation, Revolution, Asteroid Belt, Comet, Leo, Ursa Major, Ursa Minor, Draco, Orion, Polaris,</i>				
<b>STUDENTS MUST KNOW HOW TO CORRECTLY SPELL AS WELL AS THE DEFINITION OF EACH OF THE "Terms to Know" EVERY WEEK!</b>					
<b>Timeline:</b>	Day "A"	Day "B"	Day "C"	Day "D"	Day "E"
	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min
13th Week	<i>ML Science, Space Science, Pages 2-3 - Read aloud and discuss the photo; teacher to show images of the Barringer Crater in Arizona on Google; how large was the object that created this crater? What would happen if that same object hit a major city, such as New York or Chicago, today? - 15 min</i>	<i>Mini-lab: MS Science, Space Science, Page 5 - Review and complete the mini-lab about space objects compared to potatoes; how are potatoes similar to space objects? Illustrate the flat map (like how we have Mercator Maps of Earth) of your potato; Try your best to accurately place objects in the correct location; create names for your craters and volcanoes - 25 min</i>	<i>MS Science, Space Science, Pages 9-11 - Read aloud and discuss: what patterns do we see in the universe? How does the moon orbit Earth? What is a solar system? What is a galaxy? How are Earth, the Solar System, the Milky Way, and the Universe all related? What are other parts of each that you may know? Review the images on page 11, how are they similar and different? - 20 min</i>	<i>MS Science, Space Science, Page 9, Explore Distance mini-lab - Students to complete each section of the lab and answer the questions accordingly - 25 min</i>	<i>Teacher to download a star wheel (there are several free ones online) and provide to students; students in pairs, complete mini-lab on page 13 together with one paper per group; answer all questions; if you cannot download a starwheel for any reason, use a website that references changing constellations over the seasons - 20 min</i>

15th WEEK	<p><i>ML Science, Space Science, Pages 4-5</i> - Read aloud and discuss the risk of asteroids hitting the Earth; Teacher to Google images of impact craters on Earth and other planets in our solar system - 20 min</p>	<p>Teacher to visit "<a href="https://solarsystem.nasa.gov/asteroids-comets-and-meteors/overview/">https://solarsystem.nasa.gov/asteroids-comets-and-meteors/overview/</a>" and show images of asteroids and meteors; how do they resemble your space object and map? How are they different? - 15 min</p>	<p>Teacher to go to "classzone.com" and locate this book; locate the simulation "Levels of the Universe" and display the difference between the Earth, Solar System, and other areas of the galaxy/universe; discuss aloud the relationship of each to one another - 15 min</p>	<p><i>MS Science, Space Science, Pages 12-14</i> - Read aloud and discuss; Use a Concept Map to link important information together; What are constellations; How do they relate to orbit? What are many constellations named after? - 15 min</p>	<p>Using Chromebooks, students will locate a constellation that is seen in their night sky currently; students will use computer paper and a ruler (or straight edge) to line up the stars approximately correct and illustrate it; students should use the Internet to Google the constellation and locate the names of each star in the constellation; students to correct label their constellation and provide it's name; students should also research what the story of their constellation is and write a sentence or two about that story - 25 min</p>
	<p><i>ML Science, Space Science, Unit Projects, Page 5</i> - Discuss "Map a Space Object", students will complete this mini-lab next class - 10 min</p>		<p>Students in pairs, using a Main Idea Web students should write the main idea of the section at this point and four supporting statements of that idea - 15 min</p>	<p>Teacher to go to "classzone.com" and locate this book; locate the visualization "Night Sky Throughout the Year"; find today's date and observe how the constellations has changed from a few months ago and how it will change a few months from now - 10 min</p>	
Daily Journal or Bell Work:	<p>What do you know about "outer space"? Write at least one paragraph</p>	<p>Presume an asteroid is headed towards Cleveland; how may we appropriately respond? Come up with three ideas</p>	<p>What are some things that you can see in the night sky? Create a list of at least five items.</p>	<p>Using Google Docs, define Universe, Milky Way, Solar System, and orbit; submit to your teacher</p>	<p>What is a constellation? Name any constellations that you know currently</p>
Daily Homework:	<p>Written Response: How do you think the world would respond to a meteor or asteroid like the one in Arizona hitting New York? (one paragraph)</p>	<p>Written Response: Why do you think asteroids look the way that they do? What factors may contribute to their appearance? (one paragraph)</p>	<p>Written Response: What is the relationship between the solar system and the Milky Way?</p>	<p>Written Response: What causes constellations to change positions during the night? Explain your answer (one paragraph)</p>	<p><i>MS Science, Space Science, 1.1 Review, #'s 1-6, page 14</i> - Complete each question in complete sentences; due tomorrow!</p>
Timeline:	Day "A"	Day "B"	Day "C"	Day "D"	Day "E"
	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min

14th Week	<p><i>MS Science, Space Science, "Seasonal Star Maps", R54-R58</i> - Read the following section and view each of the maps on these pages; How do these maps relate to the constellation mini-lab that you conducted in the previous lesson? Can you find the constellation that you explored and illustrated? - 10 min</p>	<p>Teacher to visit "classzone.com" and locate this book; locate the visualization "Virtual Flight Through the Solar System"; what is the solar system mostly made up of? How close are the planets to each other? What happens to the planets as you travel farther out? - 10 min</p>	<p>Teacher to go to "www.nasa.gov/mission_pages/station/main/index.html" and find "Space Station Tour" on the left scroll down bar; watch a tour of the ISS on YouTube and discuss the living and testing quarters; what are some things that you see in the video that are abnormal? - 15 min</p>	<p><i>MS Science, Space Science, Pages 31-34</i> - Read aloud and discuss; Use a frame game diagram to record important information as you read; what is an impact crater? How do they form? What have scientists learned about Earth's past from studying bodies in space? What can impacts on other planets tell us about them? - 20 min</p>	<p><i>MS Science, Space Science, Pages 15-19</i> - Read aloud; use a Venn Diagram as you read to compare/contrast types of telescopes; what are radio telescopes? What is the function of the dish in a radio telescope? How is visible light different from other forms of electromagnetic radiation? What is the color spectrum in order? Why is the sky on Earth blue? - 25 min</p>
	<p><i>MS Science, Space Science, Pages 22-25</i> - Read aloud and discuss: Use a Reading Wheel to help record important information as you read; What are satellites? What are satellites of Earth? What is Earth a satellite of? What are the ISS or other space stations? - 15 min</p>	<p><i>MS Science, Space Science, Pages 26-29</i> - Read aloud and discuss: what is the main difference between a flyby craft verses an orbiter? What are landers? What is a probe? What planet in our solar system currently has two rovers on it? - 20 min</p>	<p><i>MS Science, Space Science, Page 25</i> - Students in pairs, conduct the Mini-Lab and answer all questions; one paper per group - 15 min</p>	<p><i>MS Science, Space Science, Page 33</i> - Students in groups of 3 or 4, conduct the Mini-Lab on page 33 about impact craters and how weather effects them; create predictions before checking them next class - 25 min</p>	<p>Teacher to go to "www.spacetelescope.org/images/" and explore images taken by the Hubble Space telescope; why are these images more clear and colored than those taken from Earth? What prohibits good vision of outer space on Earth? - 15 min</p>
	<p><i>MS Science, Space Science, Page 22</i> - students in pairs, complete the Mini-Lab together and answer all questions; turn in both drawings and responses to your teacher together - 15 min</p>	<p>Students in pairs, create a Concept Map of what you have read so far; have at least twelve bubbles, one map per group; share with the class - 15 min</p>	<p>Introduce Google Slides project and review the requirements; students may begin conducting research if time permits - 20 min</p>		<p>Students in pairs, compare and contrast a reflecting telescope verses a refracting telescope; what are the benefits of each? What are disadvantages to each? Discuss with the class - 15 min</p>
Daily Journal or Bell Work:	<p>How does the orbit and rotation of Earth appear to make things move in the night sky? What are the items that actually move? What are the items that don't move but appear to move?</p>	<p>What are five objects that are satellites of the Sun?</p>	<p>What are some reasons why researchers may want to conduct certain experiments in space rather than on Earth?</p>	<p>List three things from last class about being on the ISS or another space craft</p>	<p>What are telescopes? What types of telescopes are there?</p>

Daily Homework:	Complete the Mini-Lab again at home with a different object; how do the results compare to the practice done at school? Bring your two drawings and written thoughts to school tomorrow!	Written Response: Would you rather orbit a new planet and observe it from the atmosphere or land on it in an orbiter? Why? Provide at least two reasons for your response (one paragraph)	<i>MS Science, Space Science, 1.3 Review, #'s 1-6, page 29</i> - Complete each question in complete sentences; due tomorrow!	<i>MS Science, Space Science, 1.4 Review, #'s 1-6, page 34</i> - Complete each question in complete sentences; due tomorrow!	<i>MS Science, Space Science, 1.2 Review, #'s 1-6, page 19</i> - Complete each question in complete sentences; due tomorrow!
Timeline:	Day "A"	Day "B"	Day "C"	Day "D"	Day "E"
15th Week	<i>MS Science, Space Science, Page 37</i> - Students in pairs, complete #'s 1-21 together via Google Docs and submit to your teacher; one page per student - 25 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min
		<i>MS Science, Space Science, Pages 115-119</i> - Read aloud and discuss: what are the different parts of the Sun? what are solar prominences and sun spots? - 25 min	(Part II of II) Illustrate, color, and correctly label our Sun as depicted on Page 117; include the six layers of the Sun as well as a prominence, sun spot, and solar wind - 20 min	Students in pairs, using a description wheel (page 114) list six facts about stars or our Sun; one page per group; share with the class - 15 min	Teacher to review the H-R Diagram, specifically luminosity and temperature; what are Main Sequence stars? What are the brightest stars found? What about the dimmest? What type of star is our Sun? - 15 min
	In-class workday for Google Slides project - 25 min	(Part I of II) Illustrate, color, and correctly label our Sun as depicted on Page 117; include the six layers of the Sun as well as a prominence, sun spot, and solar wind - 20 min	<i>MS Science, Space Science, Pages 125-128</i> - Read aloud and discuss: Create a chart to record important information as you read: what is the "Life of a Star"? What is a supergiant? What is a Red Giant? What is a black hole? - 25 min	Teacher to visit <a href="http://www.enchantedlearning.com/subjects/astromy/stars/lifecycle/">"www.enchantedlearning.com/subjects/astromy/stars/lifecycle/"</a> and review the life cycle of Supergiants, Red Giants, Main Sequence, and Dwarf stars; what will eventually happen to our Sun? - 15 min	
Daily Journal or Bell Work:	None	<i>MS Science, Space Science, Page 39</i> - Complete #'s 1-5	What are the six parts of a star?	How does a star's temperature effect its appearance?	What is parallax? Provide an example to show your understanding.
Daily Homework:	<i>MS Science, Space Science, Page 38</i> - Complete #'s 25 and 27 in complete sentences for tomorrow!	<i>MS Science, Space Science, Page 38</i> - Complete #'s 29 and 30 in complete sentences for tomorrow!	<i>MS Science, Space Science, 4.1 Review, #'s 1-6, page 119</i> - Complete each question in complete sentences; due tomorrow!	<i>MS Science, Space Science, 4.2 Review, #'s 1-6, page 128</i> - Complete each question in complete sentences; due tomorrow!	Illustrate, color, and label the H-R Diagram as indicated on page 129 for tomorrow!
Timeline:	Day "A"	Day "B"	Day "C"	Day "D"	Day "E"

16th Week	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	
	<i>MS Science, Space Science, Pages 130-133</i> - Use a Concept Map to record important information as you read; Read aloud and discuss: What are the different shapes of galaxies? What are two ways that they differ from each other? What is a Quasar? - 25 min	Students in pairs, using Chromebooks go to " <a href="http://cas.sdss.org/dr4/en/pr oj/basic/galaxies/">http://cas.sdss.org/dr4/en/pr oj/basic/galaxies/</a> " and complete the activity on identifying galaxies; complete all questions and answer questions on a separate piece of paper - 20 min	<i>MS Science, Space Science, Pages 135-139</i> - Read aloud and discuss: What is the Doppler Effect? What is the Big Bang Theory? What direction are most of the other galaxies moving? How does this movement display our location in the universe? - 25 min	<i>MS Science, Space Science, Page 138</i> - Students in pairs, complete Mini-Lab and answer all questions; one paper per student; discuss how this example resembled the expansion of the universe - 20 min	<i>MS Science, Space Science, page 141</i> - Using Google Docs, students will answer #'s 9-20 privately and share their results with their teacher - 20 min	In-class time to work on your Google Slides project - 20 min
	<i>MS Science, Space Science, Page 131</i> - Students in pairs, complete Mini-Lab of classifying galaxies; one paper per group - 15 min	In-class time to work on Google Slides Project - 30 min	Teacher to relate the Theory of the Big Bang to Intelligent Design (Creation by God); how are the two similar? Is it possible that God intended things to go according to the Big Bang? What evidence is there of God starting the Big Bang? How does the early universe match the Big Bang Theory? - 20 min	Teacher to go to " <a href="https://apod.nasa.gov/apod/colliding_galaxies.html">https://apod.nasa.gov/apod/colliding_galaxies.html</a> " to display and discuss images of galaxies colliding; click on individual images for more information - 15 min	<i>MS Science, Space Science, Page 141</i> - Students in pairs, using a concept map link together all of the choices in #'s 1-8 to show how they relate to each other - 15 min	
	Daily Journal or Bell Work:	Draw a rough sketch of the H-R Diagram including labels	Use a description wheel to provide information about the three types of galaxies	<i>MS Science, Space Science, Page 134</i> - Read individually and answer #'s 1 & 2; submit to your teacher		
Daily Homework:	Written Response: Explain why we can't see all of the Milky Way from Earth?	<i>MS Science, Space Science, 4.3 Review, #'s 1-6, page 133</i> - Complete each question in complete sentences; due tomorrow!	Work on Google Slides project	<i>MS Science, Space Science, 4.4 Review, #'s 1-6, page 139</i> - Complete each question in complete sentences; due tomorrow!	Work on Google Slides project	
Timeline:	Day "A"	Day "B"	Day "C"	Day "D"	Day "E"	
	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	

17th Week	<p><i>MS Science, Space Science, Page 142</i> - Teacher-led discussion: review and answer #'s 21-33 together as a class; address any incorrect information and knowledge - 25 min</p>	<p><i>MS Science, Space Science, Page 44</i> - Students in pairs, complete the Mini-Lab and answer questions on page 44 together; one person to work while the other guides them; one paper per student - 20 min</p>	<p>Watch "Endless Day &amp; Endless Night" on YouTube (2:48 min) and discuss: what is causing the North Pole and South Pole to have periods of only day or only night? What do you think it is like to live here? - 10 min</p>	<p><i>MS Science, Space Science, Pages 55-57</i> - Read aloud and discuss: what are Moon rocks made up of? Compare and contrast the Earth and the Moon; how did the Moon most-likely form? - 20 min</p>	<p>Illustrate, color, and label the Eight Phases of the Moon; specifically include in your illustration the Moon in relationship to the Earth and Sun - 25 min</p>
	<p><i>MS Science, Space Science, Pages 43-45</i> - Read aloud and discuss: Use a Concept Map to link important information to each other as you read; what is orbit? How does gravity work? Complete the "Explore Time Zones" min-lab together on page 43; What is the difference between rotation and revolution? - 20 min</p>	<p>Watch "Why Do We Have Different Seasons?   California Academy of Sciences" on YouTube (3:16) and discuss: does the Earth revolve around the Sun in a circle (no)? What is the orbit route properly called (ellipse)? What causes the four seasons on Earth? 10 min</p>	<p><i>MS Science, Space Science, Pages 52-54</i> - Read aloud and discuss: what does the Moon look like? What is the Moon? What is maria? What is a satellite? What are the dark areas of the Moon? Why do you only see one side of the Moon? - 20 min</p>	<p>Watch "NASA   Tour of the Moon" on YouTube (4:39 min) and discuss: what evidence is there that humans were on the Moon? Why caused most of the features on the Moon? Why are there areas of the Moon that have never seen sunlight? - 10 min</p>	
	<p>MS Science, Space Science, Pages 46-49 - Read aloud and discuss: Use a frame game diagram to note important information while you read; what causes day and night? What does Earth do as it revolves around the Sun? Why are seasons different in the Northern and Southern Hemispheres? - 20 min</p>	<p><i>MS Science, Space Science, Page 52</i> - Students in pairs to complete Mini-Lab about the Moon revolving around Earth; Watch "Watch Neil Armstrong's first steps on the moon" on YouTube (3:52) and discuss: what does Neil Armstrong describe the surface of the Moon to feel like? - 20 min</p>	<p><i>MS Science, Space Science, Pages 59-62</i> - Read aloud and discuss: Use a frame game diagram to note important information while you read: what creates the phases of the Moon? What is an eclipse? How does "waxing" and "waning" apply to the phases of the Moon? - 20 min</p>	<p>In-class time to work on your Google Slides project - 20 min</p>	
Daily Journal or Bell Work:	<p>Sketch the three types of galaxies</p>	<p>What is the difference between rotation and revolution?</p>	<p>What causes the four seasons on Earth? Explain your answer.</p>	<p>What are your thoughts about the Moon landing video from last class?</p>	<p>What are the eight phases of the Moon?</p>
Daily Homework:	<p><i>MS Science, Space Science, Page 143</i> - Use the chart to answer #'s 1-6; due tomorrow!</p>	<p><i>MS Science, Space Science, 2.1 Review, #'s 1-6, page 49</i> - Complete each question in complete sentences; due tomorrow!</p>	<p>Written Response: How did the lunar maria form? List the steps.</p>	<p><i>MS Science, Space Science, 2.2 Review, #'s 1-6, page 57</i> - Complete each question in complete sentences; due tomorrow!</p>	<p>Work on your Google Slides Project!</p>
Timeline:	Day "A"	Day "B"	Day "C"	Day "D"	Day "E"
	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	Bell Work; complete in Google Docs, send to your teacher - 5 min	

18th Week	<p><i>MS Science, Space Science, Pages 63-66</i> - Read aloud and discuss; use a Main Idea Web to record important information while you read; what is an eclipse? Where is the umbra and penumbra? What is a lunar eclipse verses a solar eclipse? - 25 min</p>	<p>Watch "Normandy, France: Mont St-Miche" on YouTube (4:07 min) and discuss: how do the tides protect but hinder this city? What may life be like there? What may be difficult for people there? Would you like to visit there? Why or why not? - 10 min</p>	<p>Watch "3 moons and a planet that could have alien life   James Green" on YouTube (10:39 min) and discuss: what are the three things needed for life to exist? Where do scientists think life exists off of Earth? Why do they believe this? - 15 min</p>	<p>Watch "Phases of the Moon: Astronomy and Space for Kids - FreeSchool" on YouTube (5:41 min) and discuss the eight phases and how they appear to us - 10 min</p>	<p>Test on Astronomy and associated terminology with this unit - 25 min</p>
	<p>Watch "How Do Tides Work?" on YouTube (3:38 min) and discuss: what creates the high tide? What creates low tide? What three factors effects the tides? Which one effects it most? - 10 min</p>	<p><i>MS Science, Space Science, Page 69</i> - Using Google Docs, students will answer #'s 7-18 and submit to their teacher - 15 min</p>	<p><i>MS Science, Space Science, Page 71</i> - Using Google Docs, students will individually answer #'s 1-9 and submit to their teacher - 15 min</p>	<p>Review study guide on Astronomy - 25 min</p>	<p>In-class Spelling Bee on the "Terms to Know from Week Thirteen"; winning students receive extra credit on their test today - 15 min</p>
	<p>In-class workday for Google Slides project - 20 min</p>	<p>In-class workday for Google Slides project - 20 min</p>	<p>In-class workday for Google Slides project - 20 min</p>	<p>In-class workday for Google Slides project - 20 min</p>	<p>In-class time to work on your Astronomy Google Slides Presentation - 15 min</p>
Daily Journal or Bell Work:	<p><i>MS Science, Space Science, Page 61</i> - Reread this page &amp; diagram; why are only some areas of the Moon visible to us throughout the month?</p>	<p>Why does a cycle of tides take about 24 hours? Explain your answer.</p>	<p>Sketch a lunar eclipse; label the Sun, Earth, Moon, Umbra, and penumbra</p>	<p>Is it possible for life to exist on other planets or moons? Why or why not?</p>	<p>None</p>
Daily Homework:	<p><i>MS Science, Space Science, 2.3 Review, #'s 1-6, page 66</i> - Complete each question in complete sentences; due tomorrow!</p>	<p><i>MS Science, Space Science, Page 70</i> - Students will complete #'s 25, 26, 27, 28, 29, and 30; due tomorrow!</p>	<p>Work on Google Slides project!</p>	<p>Study for Test tomorrow on Astronomy; Review all Vocabulary Terms</p>	<p>Complete Google Slides Presentation; it is due tomorrow!</p>