

Mission Bay High School.
 Earth Science Sequence.
 Fall 2007

Week /Date	Concept:	STANDARDS	Laboratories/ Activities from Foundation Science: Earth Science.	Lab Activities from Holt: Earth Science
(1) Sept 4-7	<p>Introduction, Syllabus, Citizen Rubrica.</p> <p>Safety Rules, and Safety Test.</p> <p>Metric System.</p> <p>Density as a driven force of Earth processes.</p>	<p>Investigation and Experimentation a-g is covered throughout the year course.</p>	<p>Metric system measurements and conversions.</p> <p>Density Hands on Labs on liquids, solids and gas.</p> <p>Problems on density.</p> <p>Test on density.</p> <p>Models of the Earth.</p>	<p>Metric System, conversions, Density labs.</p> <p>Teacher's Demo: column of solutions with different densities. P.499.</p> <p>Reading Maps.</p>
(2) Sept 10-14	<p>Pre-assessment.</p> <p>Scientific Method.</p> <p>Composition of Earth: matter, atomic structure, bonding, minerals, characteristics and identification of minerals.</p>	<p>Scientific Method.</p> <p>9a, 9b, 9c.</p>	<p>Test Scientific detective work. E.S.1. LE1. p.1-1.</p> <p>Identifying Minerals by their Physical Characteristics. E.S. 2. LE. 4. p. 4-17</p>	<p>Quick lab: Making observations. P. 11</p> <p>Graphic Organizer: Chain of Events Chart.</p> <p>Scientific Method Video-clip</p>

<p>(3) Sept 17-21</p>	<p>Rocks and rock cycle Types of rocks</p>	<p>3b, 3c. 1E, 1d.</p>	<p>Investigating samples of the crust Can Rocks Really have Different Densities? E.S. 2. LE4. p. 4-13. Reading The Past (Rock Cycle). E.S. 2. LE4. p. 4-23.</p>	<p>Quick lab: Crystal Formation. P.130. Interpreting Graphics: The Rock Cycle. P.149 Video-clip.</p>
<p>(4) Sept 24-28</p>	<p>Volcanoes: magma, volcanism, volcanic eruptions, major volcanic zones. Types of volcanoes and prediction of eruption.</p>	<p>3e, 3f.</p>	<p>How Do Scientist Monitor Volcanoes. E.S.1. LE2. p. 2-12. Monitoring Mt. Rainier. E.S.1. LE2. p.2-18. Volcanoes Around The World. E.S.1. LE2. p.2-28.</p>	<p>Quick lab: Changing Melting Point. P.321 Quick lab: Volcanic Cones P.329 Video-clip</p>
<p>(5) Oct 1-5</p>	<p>Earthquakes: How and where Earthquakes occur. Seismic Waves. Earth's interior. Earthquakes and Plate Tectonics. Mercalli/Richter Scale</p>	<p>3d, 3e, 3f. 9d, 9b. IE 1a, 1d,1l.</p>	<p>Studying earthquake Computer Models. Virtual California, TheraShake Model. . E.S.1. LE3. 16. p.3-16. California Earthquake Model. . E.S.1. LE3. p.3-16. Hands on: Studying maps of the Ocean Floor. . E.S.1. LE4. p.4-5. Hands on: How are ocean basins formed by seafloor spreading? E.S.1. LE4. p.4-9</p>	<p>Quick lab: Seismographic Record. P.302 Quick Lab: Earthquake Safe buildings. P. 306 Video-clip</p>

(6) Oct 8-12	<p>Plate Tectonics.</p> <p>Ocean Floor.</p> <p>Types of plate boundaries.</p> <p>California geology.</p>	<p>3a, 3b, 3c, 3d.</p> <p>6c.</p> <p>9a, 9b, 9c.</p> <p>IE 1a, 1d, 1g, 1i, 1k, 1l.</p>	<p>Studying Maps of The Seafloor. E.S.1. LE4. p.4-5.</p> <p>How are Ocean Basins Formed by Seafloor Spreading. E.S.1. LE4. p.4-9.</p> <p>-What is Happening along The san Andreas Fault? . E.S.1. LE3. p.3-10.</p>	<p>Quick Lab: Making Magnets. P.245</p> <p>Quick Lab: Tectonic Plate boundaries. P.253</p> <p>Video-clip</p>
(7) Oct 15-19	<p>Oceans: Oceans of the world.</p> <p>Features of the ocean floor.</p> <p>Surface and Deep Ocean currents.</p>	<p>3a.</p> <p>5^a, 5b, 5c, 5d, 5e, 5f, 5g.</p> <p>7b, 7c, 7d.</p> <p>IE 1a, 1d, 1g, 1m.</p>	<p>Ocean Currents: Hands on Striving Toward Equilibrium. E.S.1. LE6. p.6-5.</p> <p>Hands on: I feel the earth move under my feet-The Coriolis Effect. E.S.1. LE6. p.6-9.</p> <p>Hands On: Gone with the wind-Trade winds. E.S.1. LE6. p.6-11.</p>	<p>Quick Lab: Sonar. P.473</p> <p>Quick Lab: Dissolving Solids. P. 495.</p> <p>Lab: Ocean Water density. P. 514</p>
(8) Oct. 22-26	<p>Unit 3: Atmosphere and Climate: Characteristics of Atmosphere, Pressure, Layers.</p>	<p>4b, 4c, 4d.</p> <p>5a, 5b, 5c.</p> <p>7a, 7c.</p> <p>8a, 8b, 8c.</p>	<p>Activity: Looking at climate Data. E.S.1. LE7. p.7-5.</p> <p>Looking for patterns in a world climate map. E.S.1. LE7. p.7-10.</p>	<p>Quick Lab: light and Latitude. P.559.</p> <p>Internet activity: Global Warming. P 558.</p> <p>Inquiry Lab: Energy Absorption and Reflection. P570.</p>

		IE 1a, 1b, 1g, 1m.		
(9-10) Oct 29- Nov 16.	<p>Learning Experience 7: What Factors influence Climate?</p> <p>Solar Energy and The Atmosphere.</p> <p>Atmospheric Circulation: Coriolis Effect, Global winds,Local winds.</p> <p>Factors that Affect Climate, Climate Zones.</p>	<p>6a, 6b, 6c, 6d.</p> <p>8a, 8b, 8c.</p>	<p>The Green House Effect. E.S.1. LE7. p.7-14.</p> <p>The Albedo Effect. E.S.1. LE7. p.7-17.</p> <p>Interaction Between Ocean and Atmosphere. E.S.1. LE7. p.7-27.</p>	<p>Quick Lab: Dew Point. P.579.</p> <p>Quick Lab: Cloud Formation. P. 584.</p> <p>Video-clip.</p>
(11) Nov 19-23	<p>Climate Change in Earth's History.</p> <p>Global warming.</p>	<p>6a, 6b, 6c, 6d.</p> <p>8a, 8b, 8c.</p>	<p>Investigating How Orbital Changes Affected Past Climate. E.S.1. LE8. p.8-11.</p> <p>Investigating How changing levels of CO2 Affect Global Climate. E.S.1. LE8. p.8-16.</p> <p>Research: Investigating What is Happening Now. E.S.1. LE8. p.8- 21.</p> <p>Bogus or believe it? E.S.1. LE9. p.9-5.</p>	<p>Quick Lab: Hot Stuff. P. 744.</p> <p>Quick Lab: Ellipses. P. 692.</p>

			<p>Taking Stock. LE9. p.9-6.</p> <p>Taking Action. LE9. p.9-9.</p>	
<p>(12-13) Nov 26- Dec7</p>	<p>Solar System Origins: Nebular hypothesis.</p> <p>Formation of planets.</p> <p>Formation of the Solid Earth.</p> <p>Formation of the Earth's Atmosphere and Oceans.</p>	<p>1^a, 1b, 1c, 1d, 1e, 1f, 1g.</p> <p>4d.</p> <p>7b, 7d.</p> <p>8b, 8c.</p> <p>IE 1a, 1d, 1g, 1i, 1k, 1m, 1n.</p>	<p>Finding Earth Address. E.S.2. LE. 1. p.1-2.</p> <p>Simple Bear Necessities. E.S.2. LE. 1. p.1-2.</p> <p>Solar System Census. E.S.2. LE. 2. p.2-6.</p> <p>Model of a Spinning Nebula. E.S.2. LE. 2. p.2-11.</p> <p>Beyond Reasonable Doubt. E.S.2. LE. 2. p.2-12.</p>	<p>Quick Lab: Water Planetesimals. P 687.</p> <p>Making Models Lab: Impact Craters. P. 714.</p>
<p>(14-15) Dec 10-21</p>	<p>Evolution of the Earth Systems: Inner Planets.</p> <p>Outer planets.</p> <p>Earth's moon.</p>	<p>2a, 2b, 2c, 2d, 2e.</p>	<p>Pop Quiz: History. E.S.2. LE. 3. p.3-5.</p> <p>Model Earth. E.S.2. LE. 3. p.3-8.</p> <p>Identifying Similar Physical Processes on Earth and Mars. E.S.2. LE. 3. p.3-15.</p>	<p>Quick lab: Liquid and Solid Cores. P. 722.</p>
<p>(16-17) Jan7-</p>	<p>Earth Resources: Mineral Resources.</p>	<p>9a, 9b, 9c, 9d.</p>	<p>What makes a Mineral Valuable? E.S.2. LE. 5. p.5-4.</p>	<p>Concept mapping: Page C27 #25 Inquiry Lab: Clean Up your Act. P. C28-C-29</p>

18	<p>Energy Resources in Earth's Crust.</p> <p>Seeking Water from Earth.</p>		<p>What are the Mineral Ores? E.S.2. LE. 5. p.5-6.</p> <p>Preparing your Business Plan. E.S.2. LE. 5. p.5-12.</p> <p>Energy Connections. E.S.2. LE. 6. p.6-2.</p> <p>How Do Oil Reservoirs Form? E.S.2. LE. 6. p.6-8.</p> <p>How Much Water Do You Use? E.S.2. LE. 7. p.7-3.</p> <p>Thinking Beyond Bathwater. E.S.2. LE. 7. p.7-4.</p> <p>Freshwater in Earth's Systems. E.S.2. LE. 7. p.7-8.</p> <p>Water Supply Case Studies. E.S.2. LE. 7. p.7-14.</p> <p>Follow The Flow: Researching your Water Supply. E.S.2. LE. 7. p.7-16.</p>	
(18)	A Home away from	Investigation and	Activity: Surveying The Land.	

Jan 21-25	Home: Can Mars Really Be Colonized?	Experimentation.	E.S.2. LE. 8. p.8-4. Final Plans. E.S.2. LE. 8. p.8-9.	
(19) Jan 28-31	END OF SEMESTER Review and Final Test		END OF SEMESTER Review and Final Test.	END OF SEMESTER Review and Final Test.