

**Collaborative Unit Plan  
Forest Lake Elementary Technology Magnet School**

**Content Area: Science - Landforms**

**Grade Level: 5**

**Length of Unit:**

**Standards to be addressed:**

**Standard 5-1: The student will demonstrate an understanding of scientific inquiry, including the foundations of technological design and the processes, skills, and mathematical thinking necessary to conduct a controlled scientific investigation.**

**Indicators**

- 5-1.1 Identify questions suitable for generating a hypothesis.
- 5-1.2 Identify independent (manipulated), dependent (responding), and controlled variables in an experiment.
- 5-1.3 Plan and conduct controlled scientific investigations, manipulating one variable at a time.
- 5-1.4 Use appropriate tools and instruments (including a timing device and a 10x magnifier) safely and accurately when conducting a controlled scientific investigation.
- 5-1.5 Construct a line graph from recorded data with correct placement of independent (manipulated) and dependent (responding) variables.
- 5-1.6 Evaluate results of an investigation to formulate a valid conclusion based on evidence and communicate the findings of the evaluation in oral or written form.
- 5-1.7 Use a simple technological design process to develop a solution or a product, communicating the design by using descriptions, models, and drawings.
- 5-1.8 Use appropriate safety procedures when conducting investigations.

**Standard 5-3: The student will demonstrate an understanding of features, processes, and changes in Earth's land and oceans. (Earth Science)**

**Indicators**

- 5-3.1 Explain how natural processes (including weathering, erosion, deposition, landslides, volcanic eruptions, earthquakes, and floods) affect Earth's oceans and land in constructive and destructive ways.
- 5-3.2 Illustrate the geologic landforms of the ocean floor (including the continental shelf and slope, the mid-ocean ridge, rift zone, trench, and the ocean basin).
- 5-3.3 Compare continental and oceanic landforms.
- 5-3.4 Explain how waves, currents, tides, and storms affect the geologic features of the ocean shore zone (including beaches, barrier islands, estuaries, and inlets).
- 5-3.5 Compare the movement of water by waves, currents, and tides.
- 5-3.6 Explain how human activity (including conservation efforts and pollution) has affected the land and the oceans of Earth.

**Pre-Assessment Methods to be used: (Highlight those that are appropriate)**

<b>Readiness</b>	<b>KWL</b>	<b>Self-Evaluation</b>	<b>Inventories</b>	<b>Learning Profile</b>
<b>Fist to Five</b>	MAP-math	Squaring off	Student interest	Multiple intelligence survey
Graphing	MAP-reading	<b>Thumbs up/down</b>	Interest inventory	<b>Other:</b>
Pre-test	SCRA	Yes/No card		

**Big 6 Format No**

**Essential Question: How do natural processes affect landforms? How do humans affect landforms?**



<b>Focus Questions:</b>	
<b>Being There Experience:</b> Community Walk	
<b>Responsibilities of Classroom teacher:</b> Identify and teach vocabulary - erosion, deposition, weathering, etc. Provide hands-on activities for exploring vocabulary concepts. Target instruction to reach all learners	
<b>Responsibilities of ITS:</b> Create district unit test review on CPS. Identify and list websites and United Streaming related to landforms.	
<a href="#">Earth's Land Theme Unit</a> <a href="#">Earthquake Facts</a> <a href="#">Earthquakes for Kids</a> <a href="#">Earthquakes Topic</a> <a href="#">Earthquakes</a> <a href="#">Exploratorium Faultline, Seismic Science at the Epicenter</a> <a href="#">FEMA For Kids Disaster Connection - Kids to Kids</a> <a href="#">Geo-Mysteries @ The Children's Museum of Indianapolis</a> <a href="#">Geologist</a> <a href="http://www.bedfordk12tn.com-harris-earthquake.htm">http--www.bedfordk12tn.com-harris-earthquake.htm</a> <a href="#">Image Gallery of Landforms</a> <a href="#">Landforms Face of the Earth</a> <a href="#">LANDFORMS</a> <a href="#">Landforms11</a> <a href="#">Observing Different Landforms</a> <a href="#">OLogy</a> <a href="#">quakes</a> <a href="#">Rockhound Home Page</a> <a href="#">Types of Land</a> <a href="#">Understanding Earthquakes Elastic Rebound Animation</a> <a href="#">Understanding Earthquakes</a> <a href="#">WebQuest</a>	United Streaming: See School shared folder on United Streaming.
<b>Responsibilities of LMS:</b> Identify and list books related to study of landforms. Secure NASA SciFiles Unit - "The Case of the Disappearing Dirt"	
Resource Speakers: Clemson Extension NASA Video Conference on Landforms from Space Jan. 29-Feb 2	Field Studies (in and out of school) Clemson Extension Center Activities
<b>Literary Correlations:</b> ( See attached bibliography)	
<b>Strategies used within the unit:</b> (Put topics by strategies used.)	



Acceleration	Independent	Learning contracts	Multiple intelligences	Student choice	Varied materials
Anchor activities	Jigsaw	Learning stations	Orbital studies	Taped material	Varied tasks
Compacting	Large group	Literature circles	Small group	Tiered lesson	Visual organizers
Webquests	Others: SmartBoard activities				
<b>Technology Components</b>					
SmartBoard activities					
Webquests					
PowerPoint presentations					
United Streaming					
BrainPop					
<b>Project:</b>					
PowerPoint or SmartBoard presentations					
Writing a letter to editor of newspaper					
<b>Final assessments used:</b>					
Chapter tests	Exit cards	Portfolio review	Rotation	Talking topics	Wraparounds
Conversation circles	Performance tasks	Reflection gallery	Rubrics	Unit test	Other: CPS review
<b>Integration into other subject areas:</b>					
ELA - Correlated stories " Oceans" and "Seeing Earth From Space"					
Letter to editor					
Social Studies - Weekly Reader on natural disasters and space					
Math - Graphing and word problems					
<b>Evaluation of collaborative efforts:</b>					
How well were the standards met?					
What impact did information literacy have on this unit or lesson?					
How well did the library resource collection support the objectives of this unit?					
Scale: 5=Excellent 4=above average 3=average 2=below average 1=poor					
Suggestions for improvement:					
Materials or technology needed to repeat lesson:					

