

<b>Activities Days 3 – 5</b>	
<b>Activity #3</b>	Graphing the Sea Floor
<b>Time</b>	Approximate time to complete this activity: 1 day (class period)
<b>Materials</b>	<ul style="list-style-type: none"> <li>• Computers and internet</li> <li>• Graph paper with some points filled in</li> <li>• Data sheet</li> </ul>
<b>Guiding Questions</b>	
<ul style="list-style-type: none"> <li>▪ How do scientists know about the topography (vocabulary word) of the ocean floor?</li> <li>▪ How does sonar work?</li> <li>▪ What physical features do you think you will recognize that you learned about when studying plate boundaries and volcanoes?</li> </ul>	
<b>Plan</b>	
<ul style="list-style-type: none"> <li>• Plans for part 1 of activity:</li> <li>• Show sonar Gizmo on Smartboard, or have students work in pairs on computers on Gizmo.</li> <li>• Students will graph seafloor on Gizmo. See: <a href="http://www.explorelarning.com/index.cfm?method=cResource.dspDetail&amp;ResourceID=373">http://www.explorelarning.com/index.cfm?method=cResource.dspDetail&amp;ResourceID=373</a> <ul style="list-style-type: none"> <li>• Students will write a reflection in their notebooks on their results.</li> <li>• Guiding Questions to ask during this part of the activity:               <ul style="list-style-type: none"> <li>• How do scientists know about the topography (vocabulary word) of the ocean floor?</li> <li>• How did the sonar work?</li> </ul> </li> <li>• Anticipated Student Responses to guiding questions:               <ul style="list-style-type: none"> <li>○ Scientists use sonar to help them know the topography of the ocean floor.</li> <li>○ Sonar is a sound that reflects off of the ocean floor.</li> </ul> </li> </ul> </li> <li>• Plans for part 2 of activity:           <ul style="list-style-type: none"> <li>• Students will graph Atlantic ocean floor. See <a href="http://www.beaconlearningcenter.com/documents/336_01.pdf">http://www.beaconlearningcenter.com/documents/336_01.pdf</a></li> <li>• Guiding Questions to ask during this part of the activity:               <ul style="list-style-type: none"> <li>○ What characteristics do you see upon graphing the ocean floor?</li> <li>○ Do you recognize any physical features that you learned about when studying plate boundaries and volcanoes?</li> </ul> </li> <li>• Anticipated Student Responses to guiding questions:               <ul style="list-style-type: none"> <li>▪ Discourse – Guide discussion toward the use of sonar and ocean floor features.</li> </ul> </li> </ul> </li> </ul>	
<b>Differentiation</b>	<ul style="list-style-type: none"> <li>• Strategy 1: For the graphing of an accurate model of the ocean floor, have part of the graph filled in.</li> </ul>
<b>ELL Modification</b>	<ul style="list-style-type: none"> <li>• Modification: Pair student with another student with whom he/she can work well.</li> </ul>
<b>Check for Understanding</b>	Check in with students throughout this activity for comfort with the Gizmos activity and graphing the ocean floor. Assist as needed. Collect graph to assess understanding.