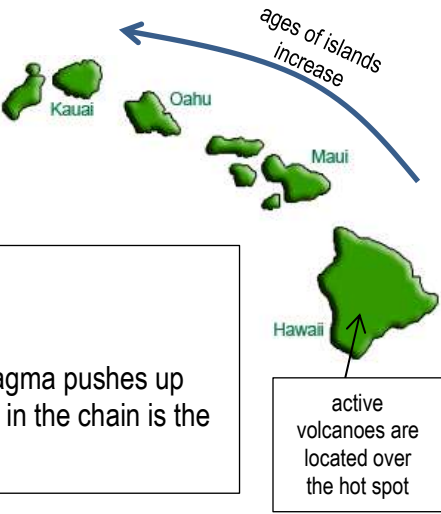



# PLATE TECTONICS : Connection to Environmental Science?

<p>1. What events occur at or near plate boundaries?</p>	<p>a. <u>earthquakes</u></p> <p>b. <u>volcanic activity</u></p> <p>c. <u>mountain building events</u></p> <p>d. <u>tsunamis</u> - when seismic activity (such as an earthquake) occurs, energy is transferred to the water above creating a large sea wave</p> <p><b>Ecological Impacts:</b> flooding can lead to :</p> <p>a. loss of coastal habitats</p> <p>b. drowning of terrestrial species</p> <p>c. saltwater intrusion into surface and groundwater sources</p>
<p>2. What occurs at mantle hot spots?</p>	<div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 5px; margin-right: 20px;"> <ul style="list-style-type: none"> <li>- places in Earth's surface that magma rises up from the mantle</li> <li>- as the crust moves over a hot spot, magma pushes up to form volcanoes - the active volcano in the chain is the one directly over the hot spot</li> </ul> </div> <div style="text-align: center;">  </div> <div style="margin-left: 20px;">  </div> </div>
<p>3. How does the theory of plate tectonics fit into environmental science?</p>	<p>a. <b>primary succession</b> – “bare rock beginnings” of a new terrestrial environment. Lichens and mosses chemical breakdown rock into soil allowing plants to grow. Decomposition of plants leads to thicker soil to support grasses → shrubs → trees</p> <p>b. <b>biological evolution and speciation</b> – when the positions of continents / elevations change, the climate changes / geographical isolation occurs - leads to new forms of life</p> <p>c. plate boundaries and hot spots are prime locations for <b>geothermal energy sources</b></p>