



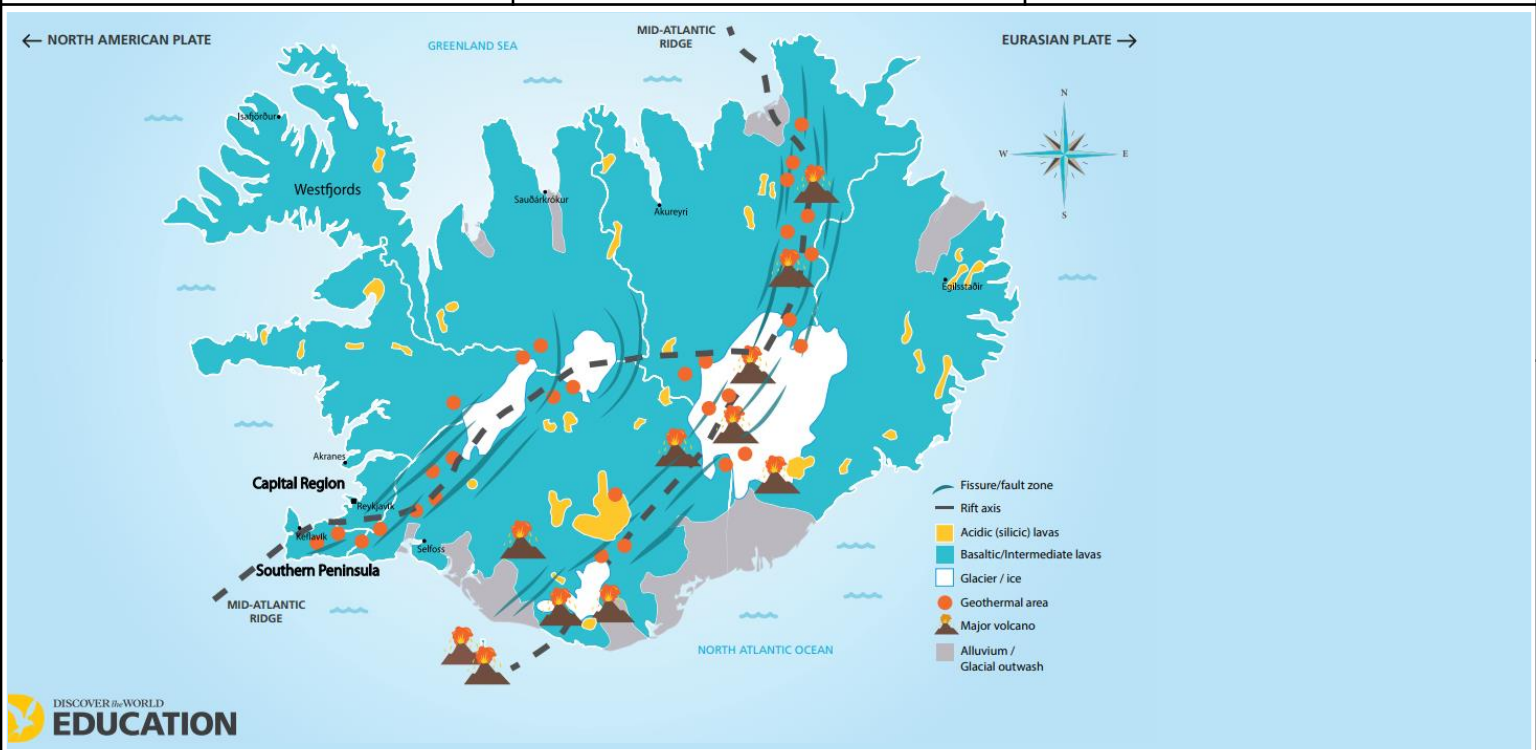
OVER TO YOU! ACTIVITIES

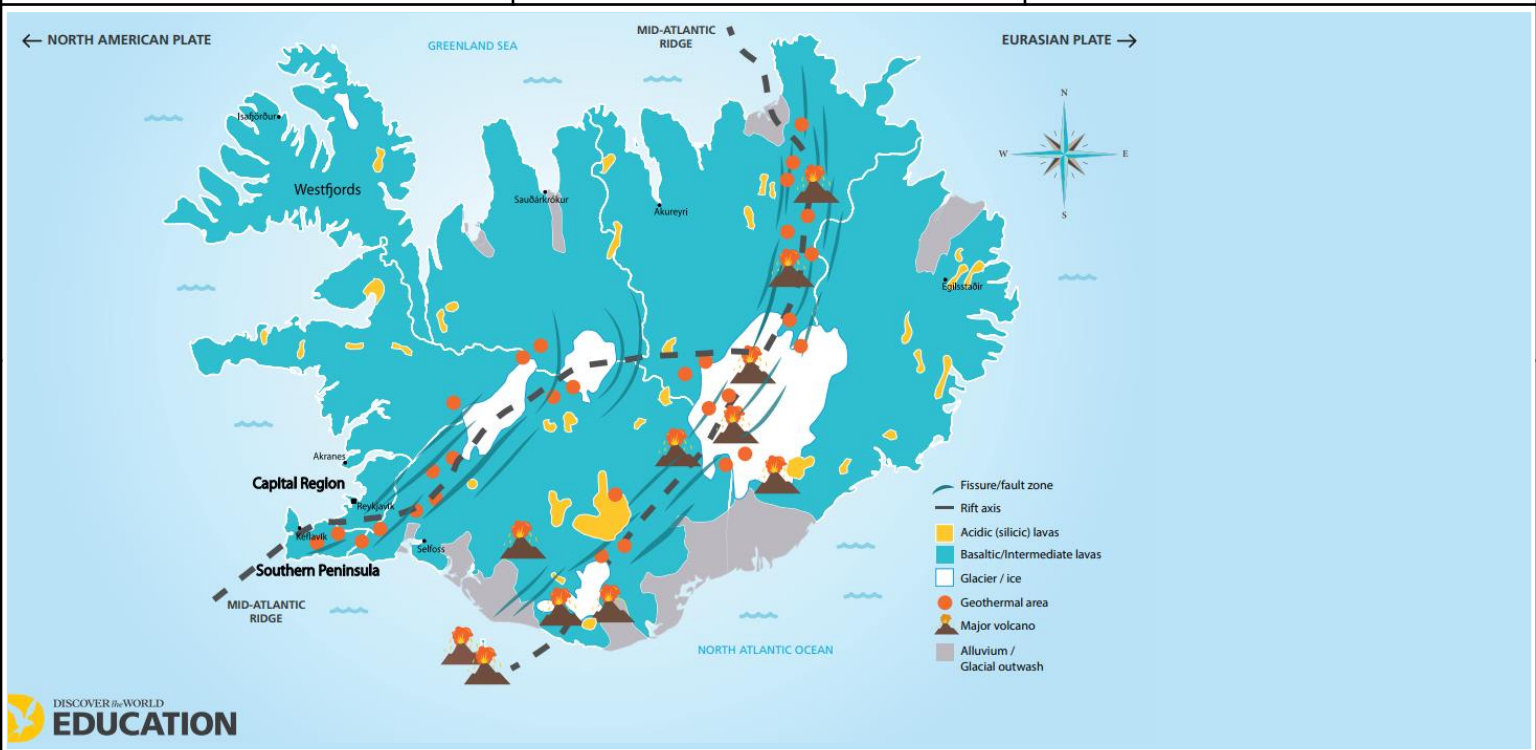
ACTIVITIES

1. Describe the location of Surtsey
2. Draw a diagram to explain how tectonic plate movement created the island
3. Write definitions for these key words:

tectonic plate *tuff cone* *scoria* *basaltic* *effusive*
hydrovolcanic *phreatomagmatic* *Surtseyan eruption*

4. Create your own timeline of events to describe the development of the volcano using the information
5. Draw an annotated sketch of a Surtseyan eruption
6. Suggest three ways that the eruption was important
7. Explain why the island has been protected
8. Suggest how and why this eruption has left a legacy

<p>1: Define 'volcanic hazard'.</p>	<p>2: Identify the name of the case study example.</p>	<p>3: Date the start of the eruption.</p>	<p>4: Describe the location of Iceland.</p>	<p>5: Suggest one of the first signs that an eruption was taking place here.</p>
<p>14: Explain why the island is a UNESCO protected site.</p>	 <p>The map illustrates Iceland's location at the Mid-Atlantic Ridge, where the North American Plate and the Eurasian Plate meet. Key geographical features include the Greenland Sea to the north and the North Atlantic Ocean to the south. Major volcanic zones are marked, including the Westfords, Saubarnökur, and the Capital Region. A legend identifies symbols for fissure/fault zones, rift axes, acidic (silicic) lavas, basaltic/intermediate lavas, glaciers/ice, geothermal areas, major volcanoes, and alluvium/glacial outwash. The logo 'DISCOVER the WORLD EDUCATION' is visible in the bottom left corner.</p>			<p>6: Identify two primary impacts of the eruption.</p>
<p>13: Outline three ways the eruption has left a legacy.</p>				<p>7: Name one secondary volcanic hazard.</p>
<p>12: Select the correct term for a tectonic plate that separates from another tectonic plate:</p> <ul style="list-style-type: none"> a) Divergent b) Convergent c) Continental d) Transform 	<p>11: Infer how this eruption was different to a usual basalt eruption.</p>	<p>10: Outline what is meant by 'Surtseyan eruption'.</p>	<p>9: Describe what caused the eruption.</p>	<p>8: State how long the eruption lasted.</p>

<p>1: Define 'hazard'. <i>e.g. A hazard is a threat or risk of something that can cause harm, e.g. a volcanic eruption</i></p>	<p>2: Identify the name of the case study example. <i>Surtsey eruption, Iceland</i></p>	<p>3: Date the start of the eruption. <i>e.g. 14th November 1963</i></p>	<p>4: Describe the location of Iceland. <i>e.g. Iceland is in northwest Europe, it is found in the Atlantic Ocean along the Mid-Atlantic Ridge, it straddles two tectonic plates, it is northwest of the UK</i></p>	<p>5: Suggest one of the first signs that an eruption was taking place here. <i>e.g. small seismic tremors felt on the mainland in Reykjavik, sulphur smell in Vik, warmer sea temperatures, etc.</i></p>
<p>14: Explain why the island is a UNESCO protected site. <i>e.g. the land is fragile and has been protected from human interference so that scientists have a unique study area for understanding evolution of land, soil, plant and animal succession, etc.</i></p>	 <p>The map illustrates Iceland's location at the Mid-Atlantic Ridge, where the North American Plate and the Eurasian Plate diverge. Key features include the Greenland Sea to the north and the North Atlantic Ocean to the south. Major volcanic zones are marked with orange circles, and rift axes are shown as dashed lines. The map also identifies the Capital Region, Southern Peninsula, and various geographical features like Westfjords, Akranes, and Seltis. A legend in the bottom right corner defines symbols for fissure/fault zones, rift axes, acidic and basaltic lavas, glaciers/ice, geothermal areas, major volcanoes, and alluvium/glacial outwash. The logo 'DISCOVER the WORLD EDUCATION' is visible in the bottom left corner.</p>			<p>6: Identify two primary impacts of the eruption. <i>e.g. ash column, steam cloud, tephra, lava flows, explosive fragments of scoria, etc.</i></p>
<p>13: Outline three ways the eruption has left a legacy. <i>e.g. more research and scientific advances in the new field of volcanology, increased and improved seismic monitoring network in Iceland, greater global awareness, scientific advances in biology and ecology studying the new land</i></p>				<p>7: Name one secondary volcanic hazard. <i>e.g. risk of landslips on unstable ground, further secondary eruptions elsewhere, etc.</i></p>
<p>12: Select the correct term for a tectonic plate that separates from another tectonic plate:</p> <p>a) Divergent b) Convergent c) Continental d) Transform</p>	<p>11: Infer how this eruption was different to a usual basalt eruption. <i>e.g. basaltic eruptions are normally effusive and gentle, not explosive</i></p>	<p>10: Outline what is meant by 'Surtseyan eruption'. <i>e.g. an eruption that has hot magma interacting with cold shallow sea water or lake water, to create explosive eruptions</i></p>	<p>9: Describe what caused the eruption. <i>e.g. The Eurasian and North American tectonic plates diverge from one another, separating at the Mid Atlantic Ridge due to slab pull and ridge push, which allows magma to the surface</i></p>	<p>8: State how long the eruption lasted. <i>e.g. 3.5 years</i></p>