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WALT understand how volcanoes are formed.

WILF: - Understand what plate tectonics role is in forming volcanoes

- Understand how and why volcanic eruptions happen.

-Understand the structure of a volcano.

- Name and locate some major volcanoes.

What do you remember about plate tectonics from last lesson?

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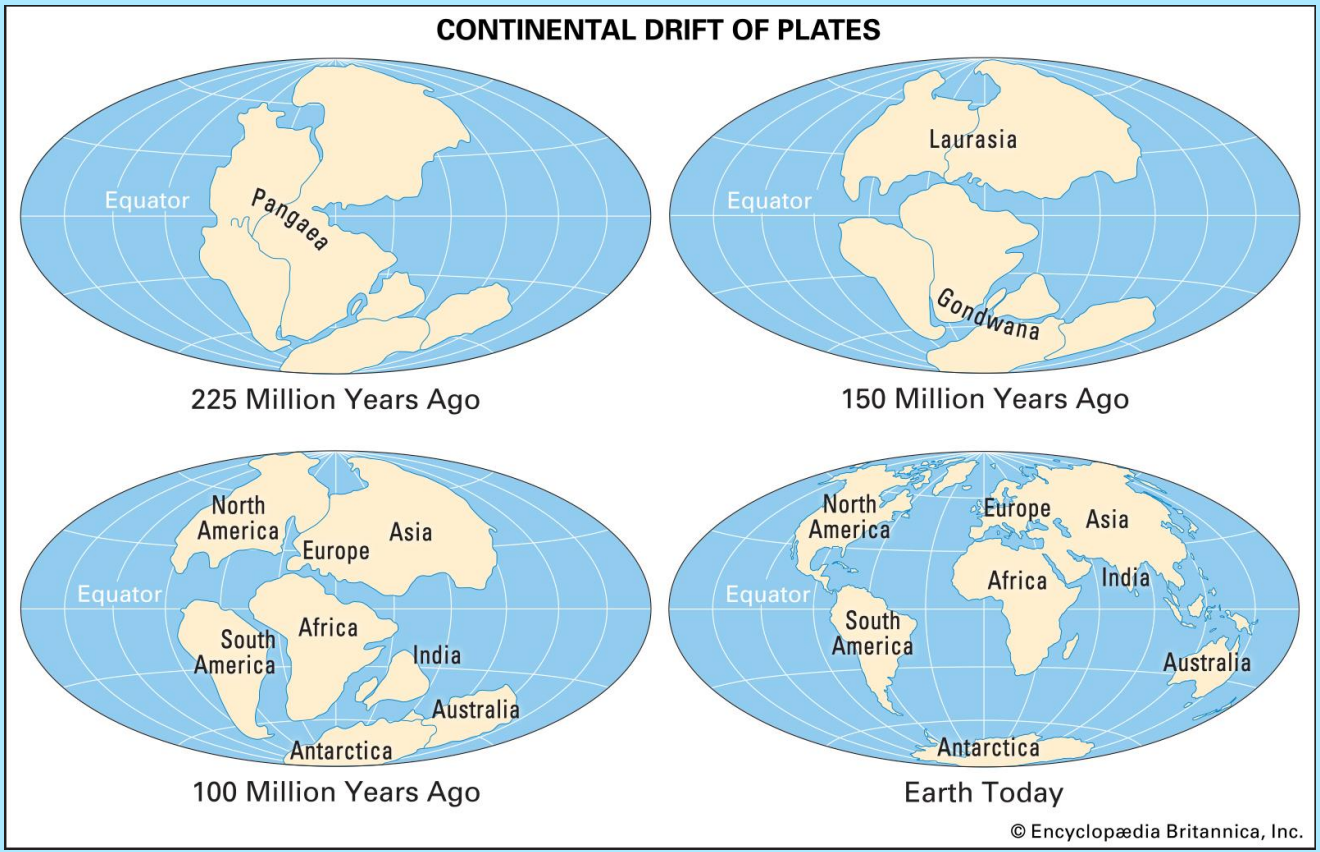
Reminder: the Earth's crust is made up of different plates, which move very slowly over time and sometimes meet.



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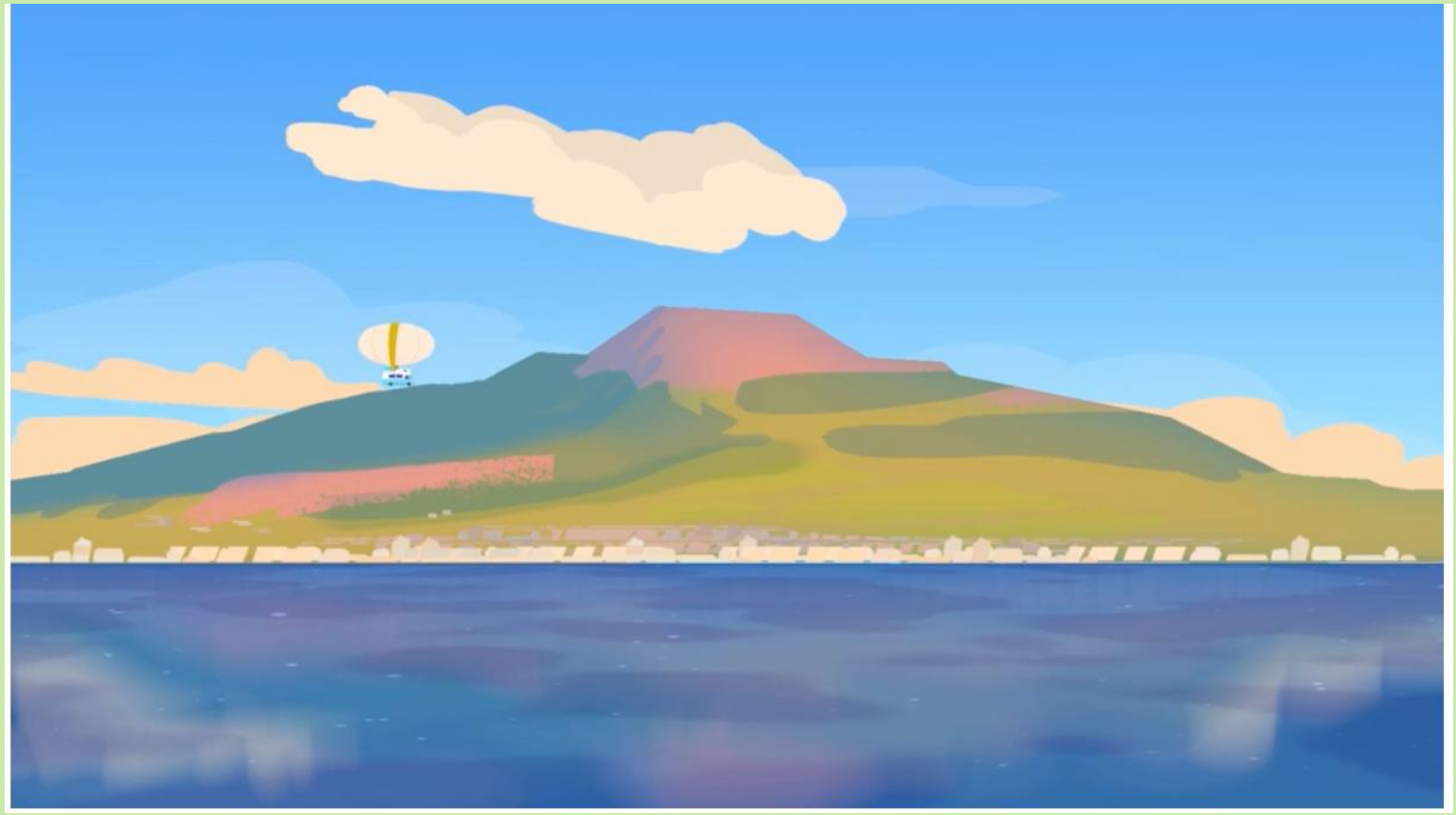
Click on the picture to learn what a Volcano is. Then, come back to the slides to learn about how they are formed.



Volcanoes are formed in the boundaries between the tectonic plates.

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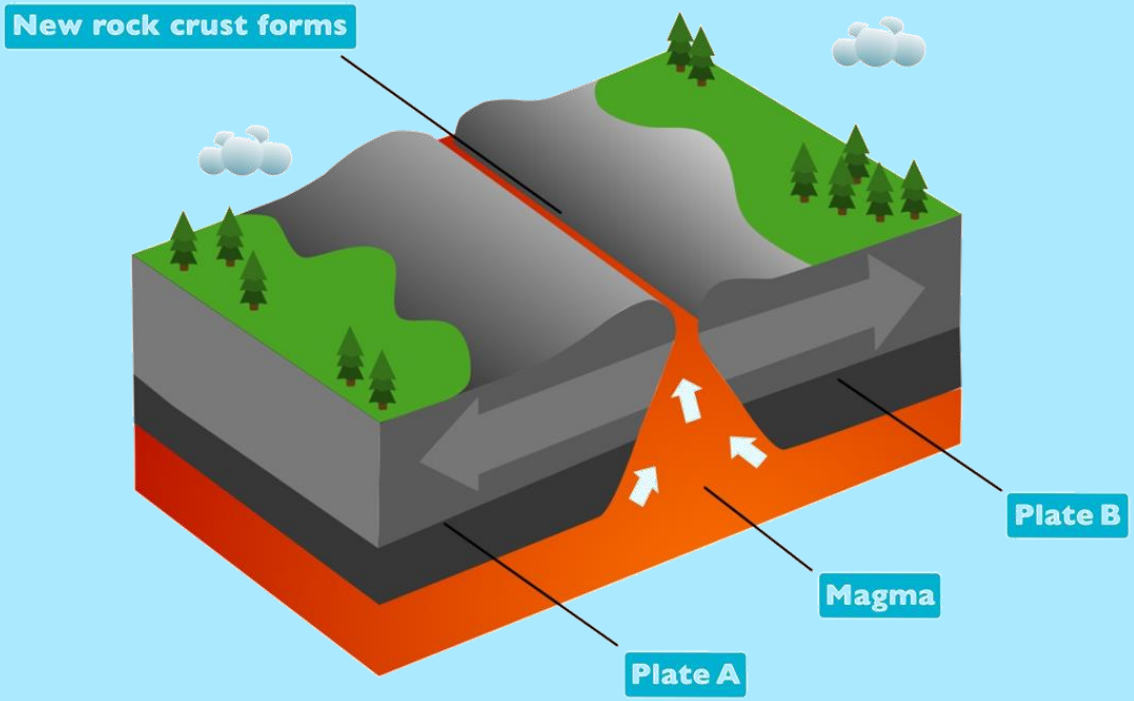
There are **constructive plate boundaries**: here, two plates pull apart, then magma rises and erupts as lava. This hardens to form some new crust – the eruptions that occur here are gentle ones.



Iceland is formed on these. Look at Eyjafjallokull by clicking on it.

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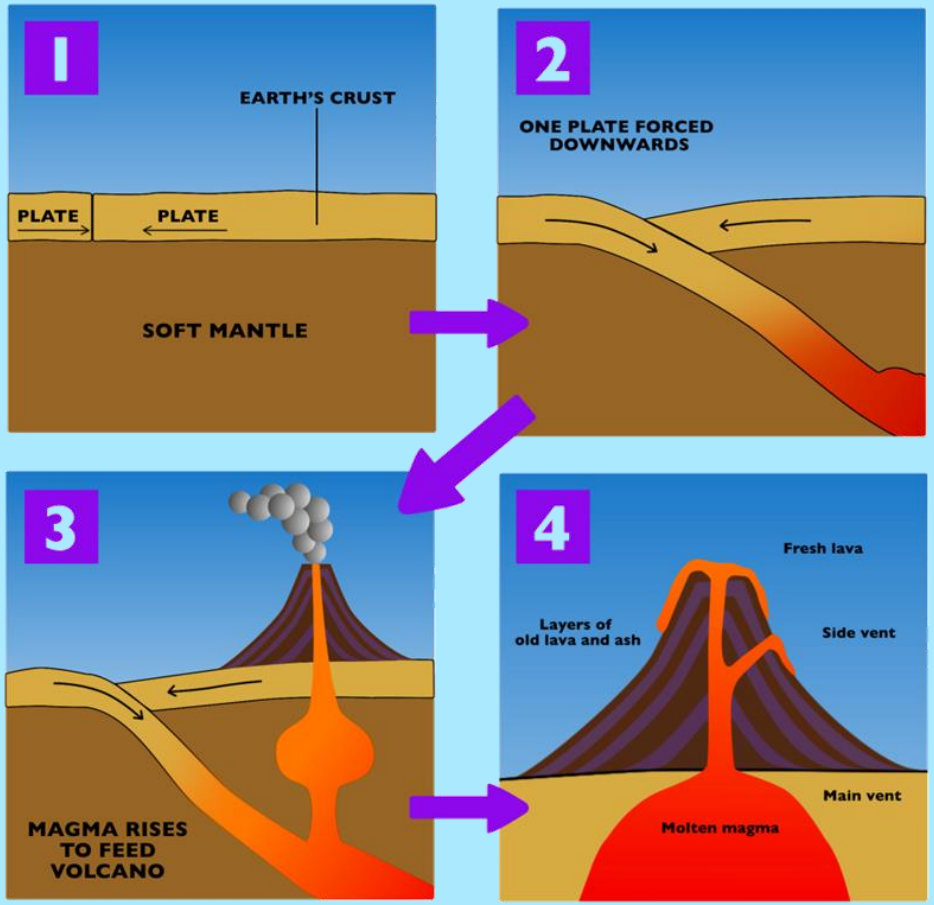
Eyjafjallajökull © Flickr; Bjarki Sigursveinsson

Destructive Plate Boundaries can collide or converge – this is where one plate is pushed under the other and the bottom one melts to magma. This magma then forces its way back to the surface and forms a volcano. This process can also cause earthquakes.



Villarrica, Chile is formed on a destructive plate boundary. Click on the image for a tour.

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Mount Villarrica © Flickr; Gerben van Heijningen

Types of Volcano

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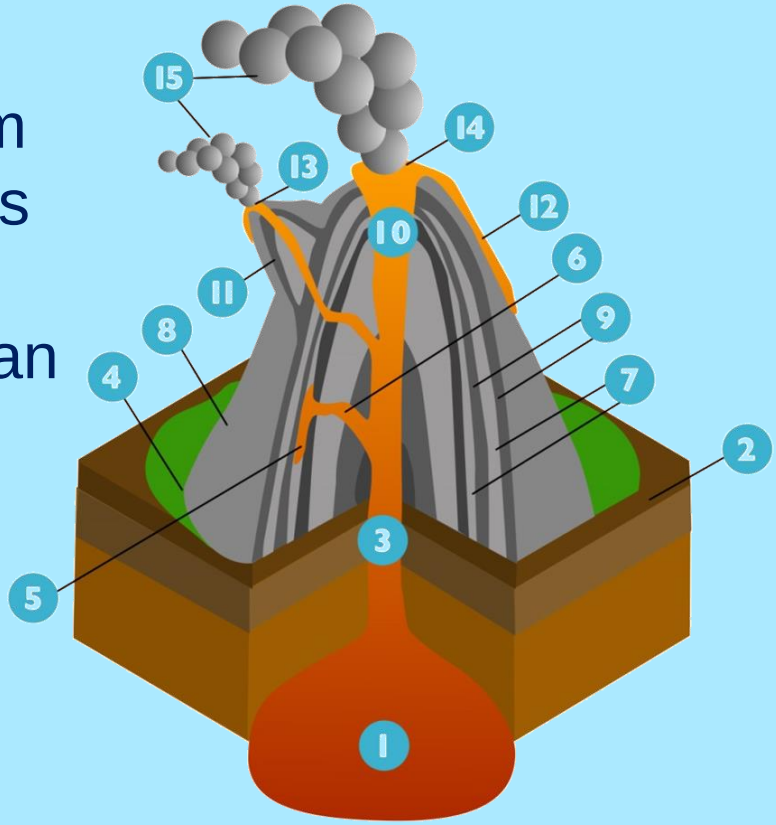
Composite volcanoes are the most common. These are formed by hardened layers of lava and ash from successive eruptions – this is viscous lava (thick) so cools and hardens before going far. These volcanoes can have violent eruptions.
Mount Etna is one of these.



Mount Etna

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Etna 12 may 2011 © Flickr; Helena Eriksson

Shield volcanoes have runnier lava and no 'explosive' eruption. The eruptions cause new layers of rock due to runny lava and make a wide dome with a gentle slope -*Mauna Loa in Hawaii is one of these.*

Today's Activity

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Draw the cross section of a volcano, showing the different parts and explaining what they are. If you prefer, you can make a 3D model of this instead.

Look at 'Week 3. Tuesday .Geography Volcano' to help you.

Then, explain the difference between a volcano and a mountain.

Click on the volcano to see an eruption, if you like.