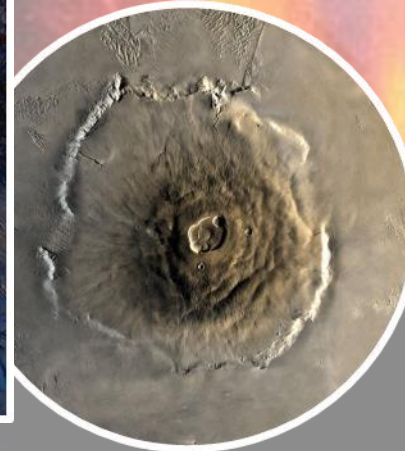


VOLCANOES



VOLCANOES!

By now - if you have done last week's work and read the daily read - you should have a great understanding of what a volcano is.

Watch this mesmerising clip

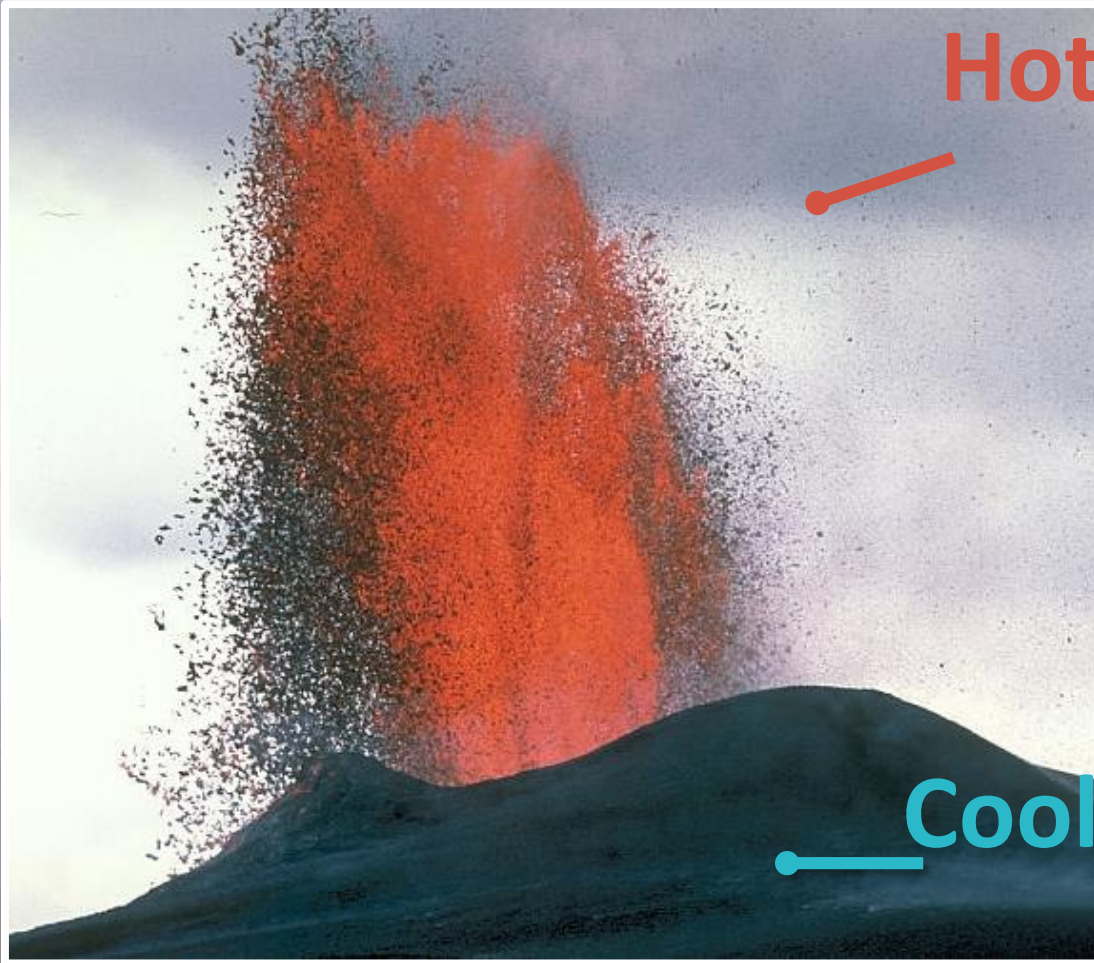
<https://www.youtube.com/watch?v=xExdEXOaA9A>



- What was happening in the video?
- What was all of that red stuff?
- Was it solid or liquid?
- What temperature do you think it might have been?
- Where was it coming from?
- What will happen to the red material?
- Why do you think it was red/orangey in colour?
- Why do you think it sometimes exploded and sometimes flowed along the ground?



WHAT IS A VOLCANO?



Hot rock

Cool rock

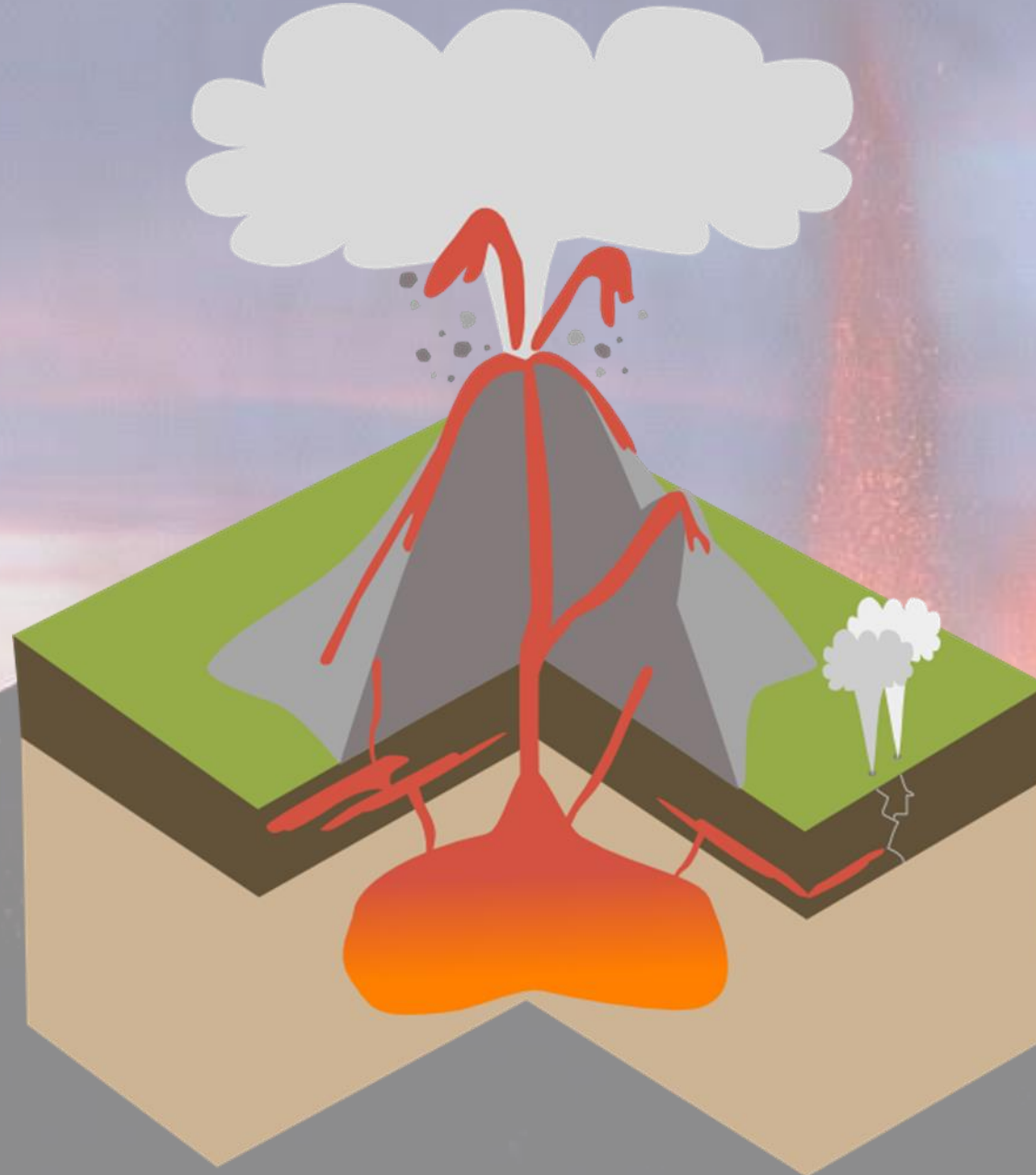
Active

Dormant

Extinct



Can you match the statement to the diagram?



Main vent

Conduit

Volcanic bombs

Sills

Secondary vent

Lava

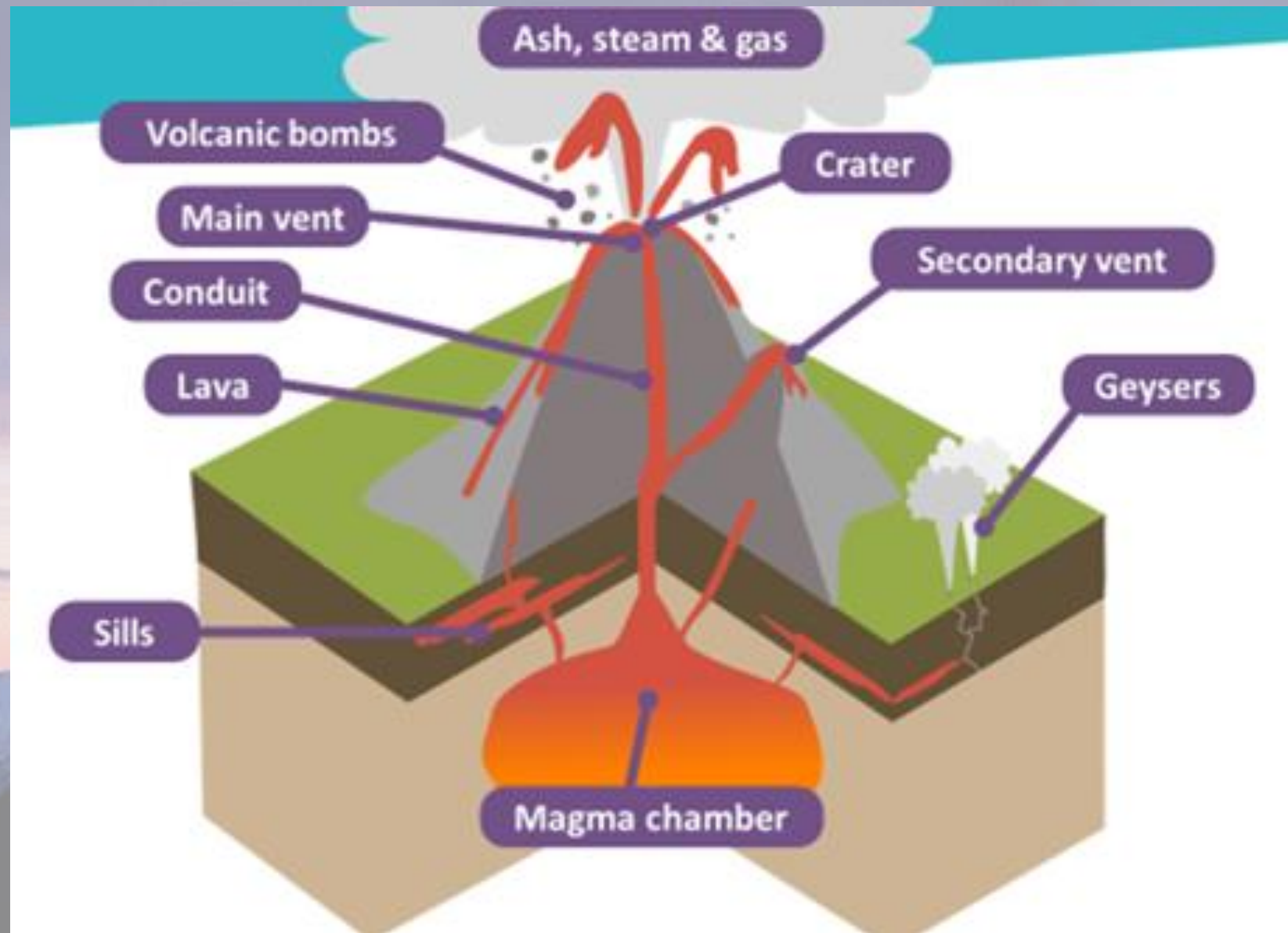
Geysers

Crater

Magma chamber

Ash, steam & gas





DIFFERENT TYPES OF ERUPTION

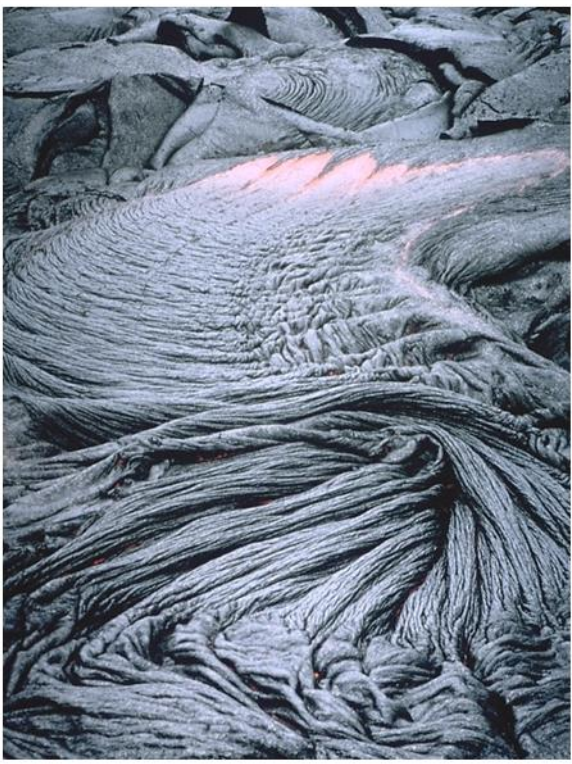


Not all eruptions are the same



TYPES OF LAVA

Not all lava is the same

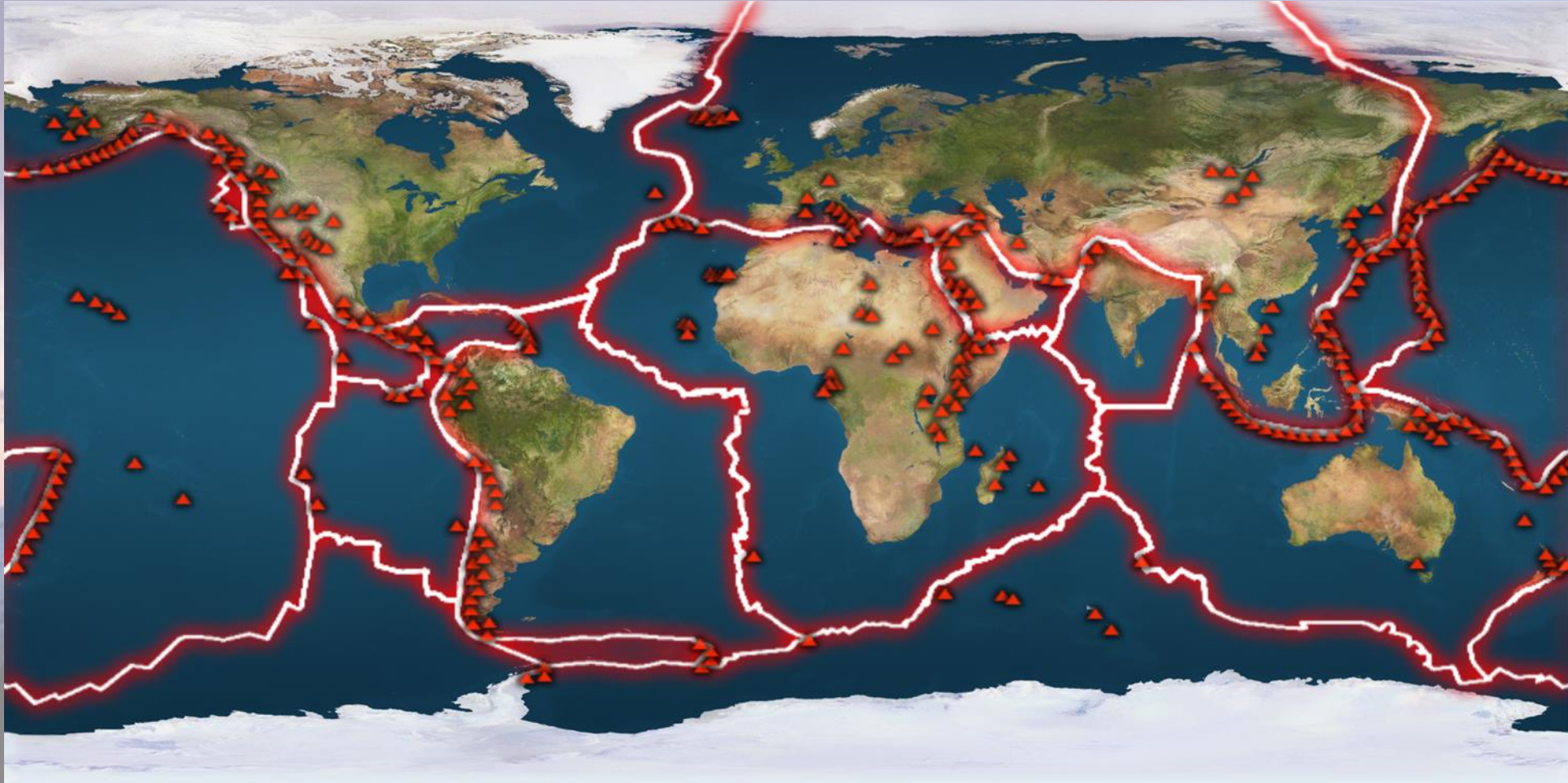


Watch these two clips
One from Hawaii - Kilauea
<https://www.youtube.com/watch?v=HzwuTBx93uA>
And one from Iceland - Eyjafjallajökull
<https://www.youtube.com/watch?v=ZXTMqccwExY>
to show the different types of lava

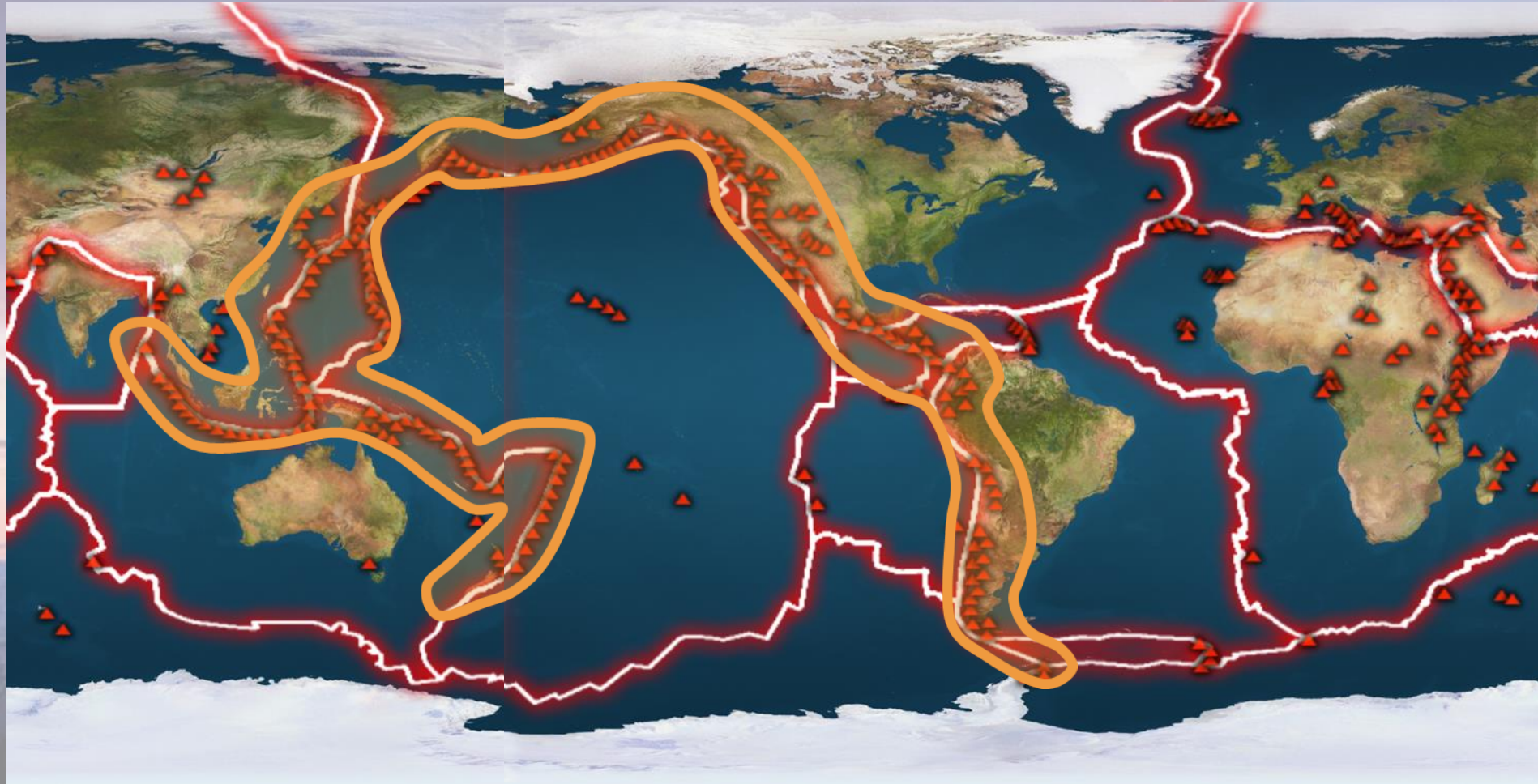


WHERE DO VOLCANOES FORM?

What is this map showing and what do you notice?



PACIFIC RING OF FIRE



Look at the density of volcanoes in this particular region.
No wonder it is called the "ring of fire"

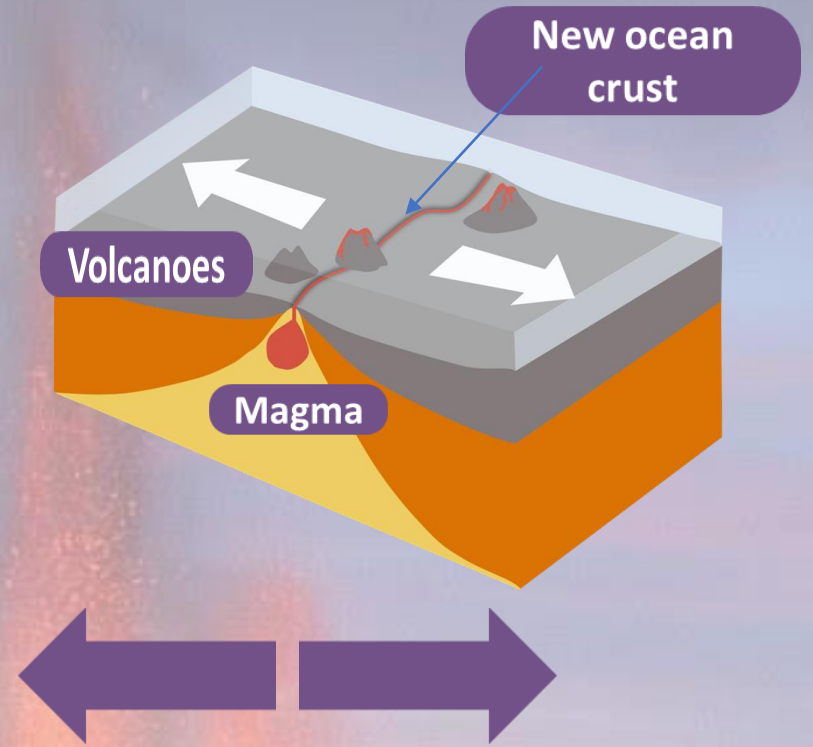
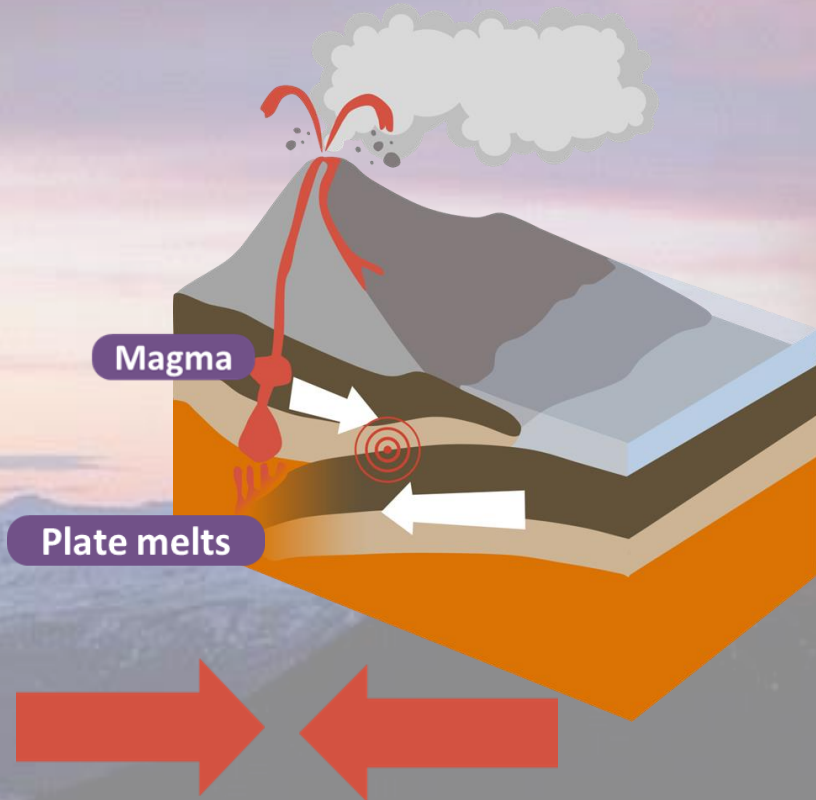


How do volcanoes form?

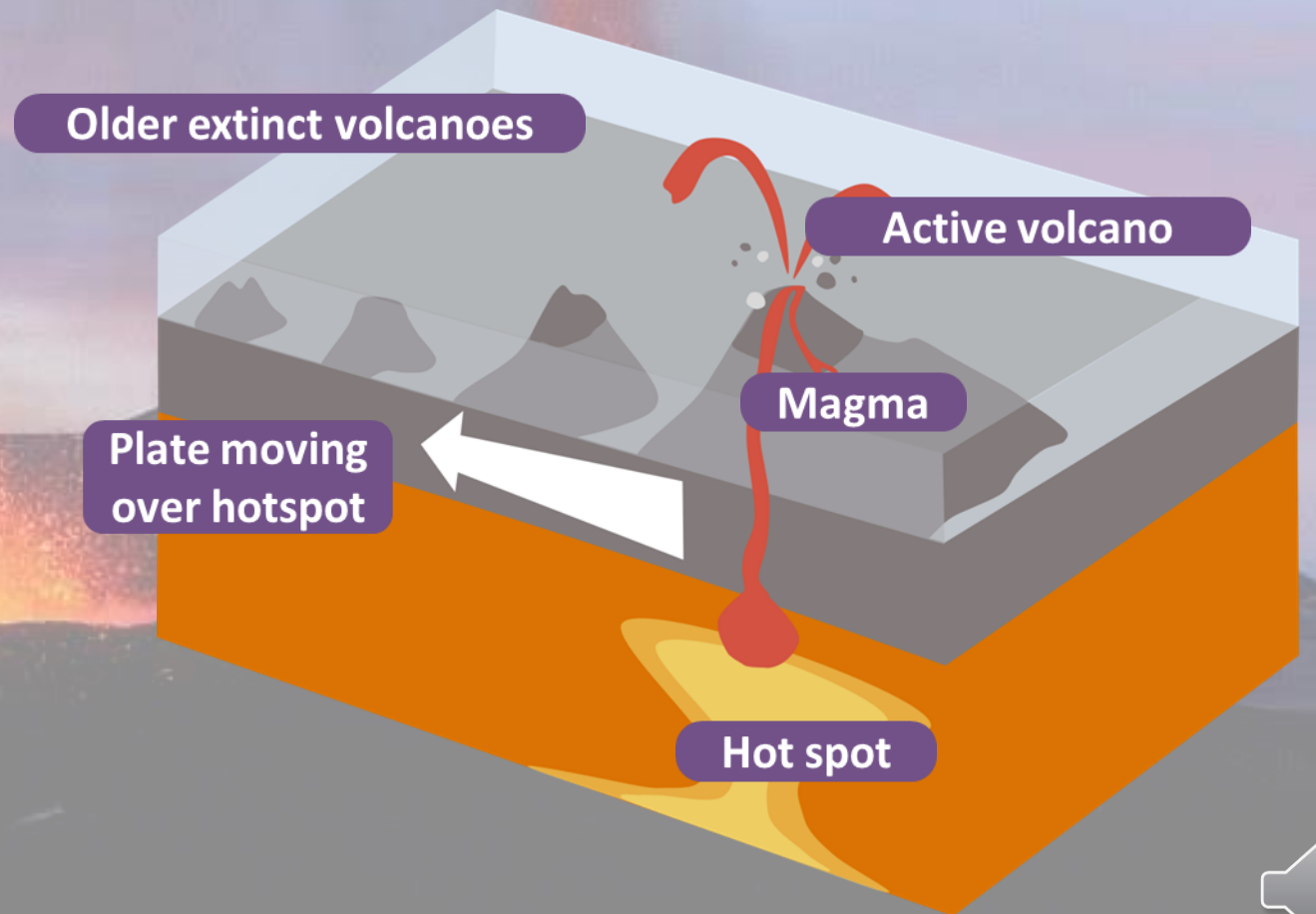
A) Constructive boundary (where plates move **away** from each other)

or

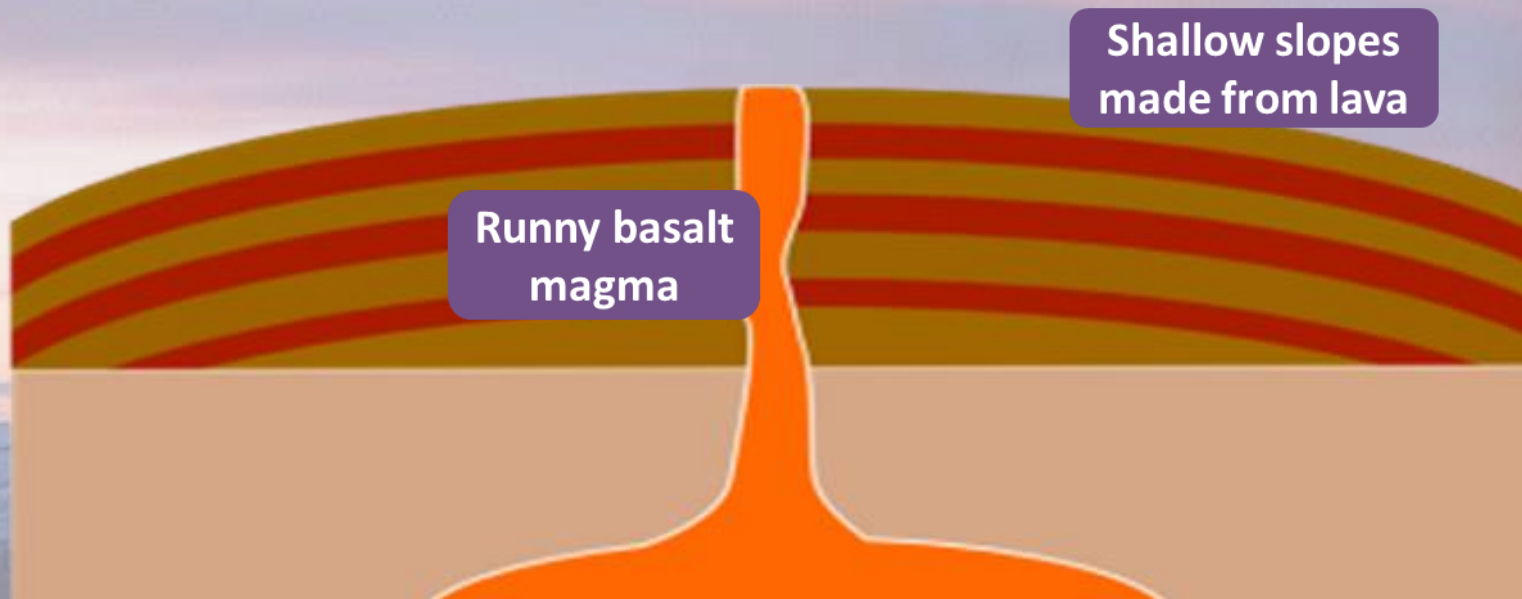
B) Destructive boundary where plates move **towards** each other



HOW DO VOLCANOES FORM? HOT SPOTS



TYPES OF VOLCANOES: SHIELD VOLCANOES



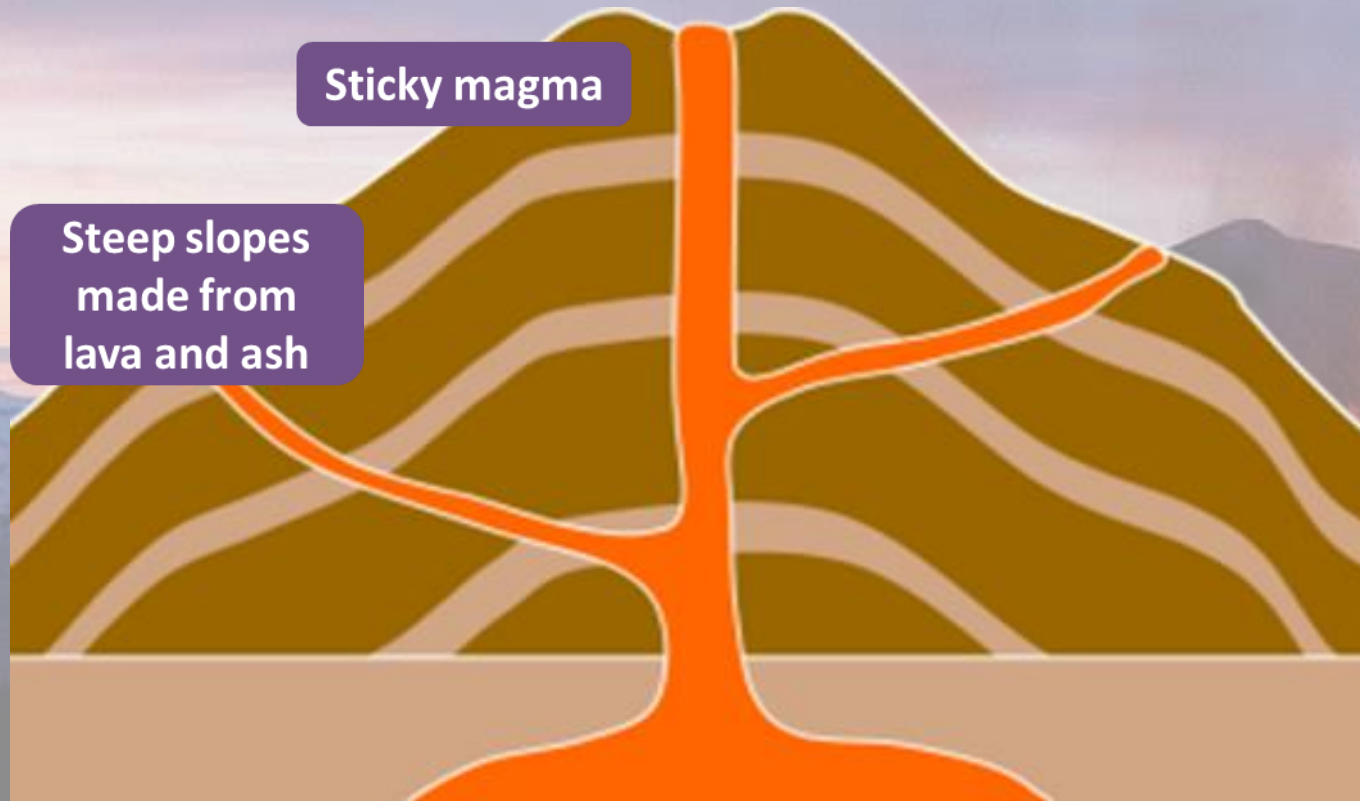
Kilauea lava lake, Hawaii



TYPES OF VOLCANOES: COMPOSITE VOLCANOES



Mount Fuji, Japan



Now you are a volcano expert - show your learning by:

- a) Drawing an annotated diagram showing an **explosive** volcano
(Remember you will need to know *why* it is an explosive and not an effusive eruption and show that bit in your diagram)
- b) Explain why the Ring of Fire is given that name. Answer *geographically* - tell me why there are many Volcanoes there.
- c) On the map can you identify other areas of volcanic activity. Can you match them up with the Earth's plates?

Extension - can you now describe an effusive volcano eruption?

Where are the majority of explosive eruptions (which plates/continents)

Where are the majority of effusive eruptions? Why do you think they occur there?