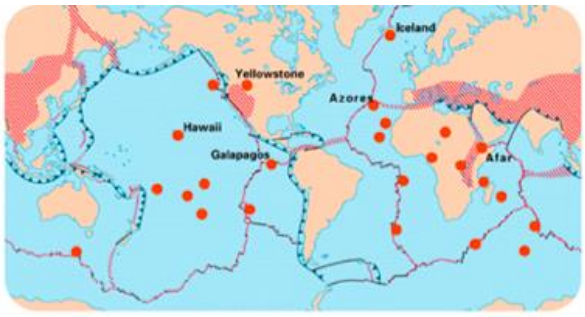
Volcanoes at Hotspots

Intraplate Volcanoes

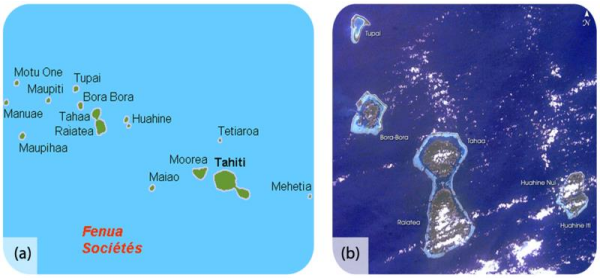
- Volcanoes can be found in the middle of a tectonic plate above rising **mantle plumes**, or, hotspots.
- There are about 50 hotspots on Earth. Most of them are in the oceans, because volcanoes are better at penetrating oceanic crust.
- Chains of volcanoes can form when the tectonic plate moves. After a volcano erupts, the plate moves and the original volcano cools down. The moved plate will create a new volcano above its hotspot.
- Hotspots can also created shield volcanoes in the ocean, which are built almost entirely of fluid lava flows.
- Volcanoes under continents are infrequent but massive, since it takes more heat for the volcano to penetrate the continental crust.

Study Tip

Be able to explain why regions that usually have lots of earthquakes are also prone to volcanic activity.



Map of some of Earth's hotspots



Volcanic chains

Concept Check

- How do intraplate volcanoes form?
- What is the difference between intraplate volcanoes formed on oceanic plates and on continental plates?
- How are chains of volcanoes formed?