

Name _____

Periods _____

Date _____



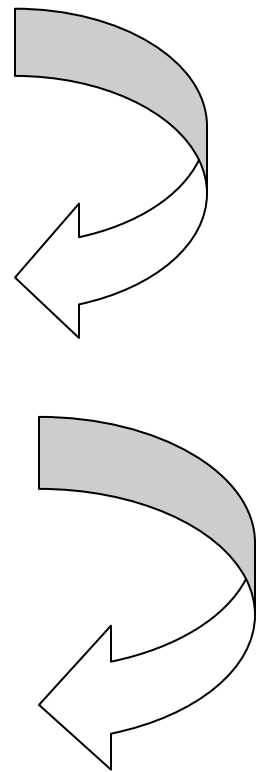
Hot Spots: hot places deep within Earth's mantle, volcanoes that form in the middle of tectonic plates

How do hot spots work????

Step 1:
Plate passes over
hot spot and
volcano forms

Step 2:
When plate moves, old
volcano becomes
dormant. New volcano
forms over hot spot
and is active.

Step 3:
Plate keeps moving
and process
repeats.



Hawaiian Islands notes

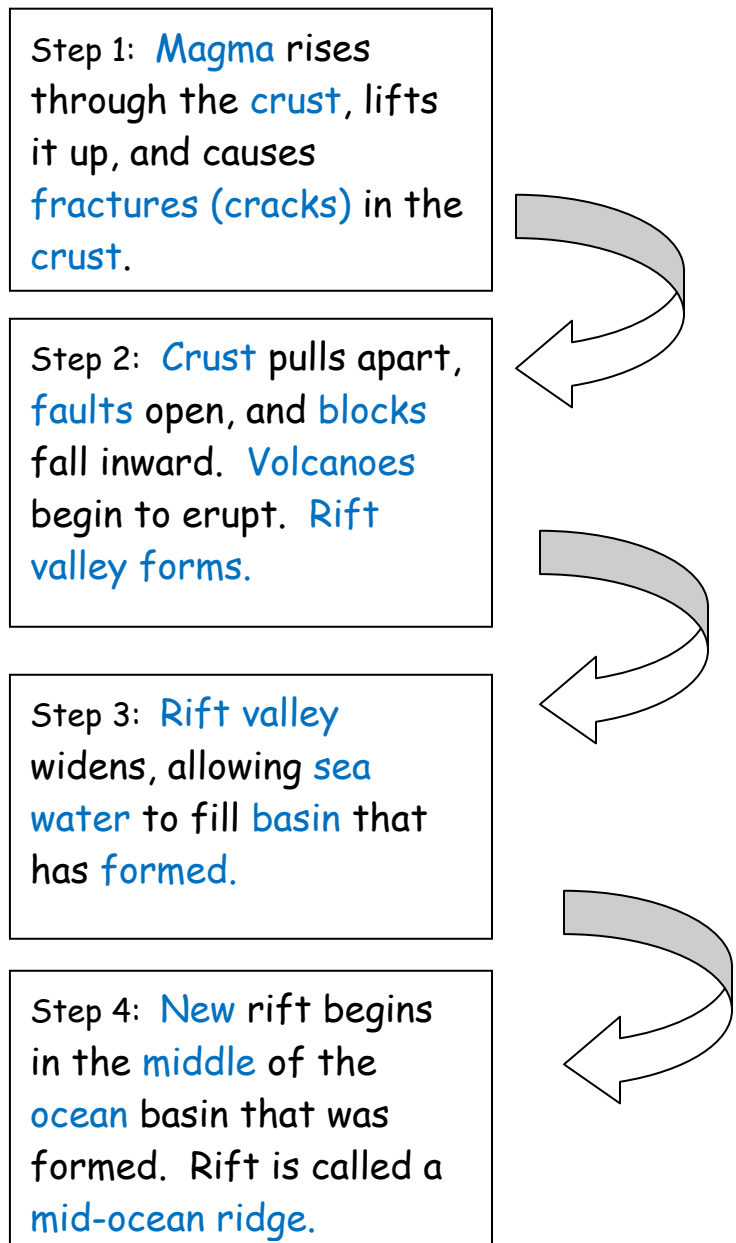
1. Most of Earth's volcanoes are formed along convergent and divergent plate boundaries. However, volcanoes can also form in the middle of a tectonic plate. If it does this, it is called a hot spot.

2. The chain of volcanic Hawaiian Islands are made up of 80 large volcanoes called Hawaii Ridge-Emperor Seamount Chain. This chain formed over millions of years ago.

3. A **seamount** is a volcanic peak that rises at least 3300 feet above the ocean floor. The oldest one in the chain is **74** million years old. Older seamounts have been **eroded** by wind and waves.
 4. **Loihi** is the name of the most recent seamount that has formed. Scientists think that is only a few **hundreds** years old. It will not surface above the water for another **50,000** years.
 5. The **Hawaiian hot spots** currently feeds the volcanoes Mauna Loa and Kilauea on the island of Hawaii.
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Rifting: process that occurs at **divergent plate boundaries**

How does rifting work???



The Great Rift Valley of Africa

1. **Rifting** is a process that occurs at divergent plate boundaries. As two plates **separate**, magma in the asthenosphere oozes upward to fill the newly formed gap.
2. Over the past 25 to 35 **millions** years, continental rifting has been pulling eastern **Africa** apart. Where this is happening is called the **Great Rift Valley**. This is where humans encountered their first **volcanoes**. The place where the three rifts meet is called the **Afar Triangle**.
3. Some of the oldest **human** remains were found in this area. Some of the world's oldest volcanoes are found here including **Mt. Kenya** and **Mt. Kilimanjaro**. It also contains some of Earth's deepest **lakes**.

