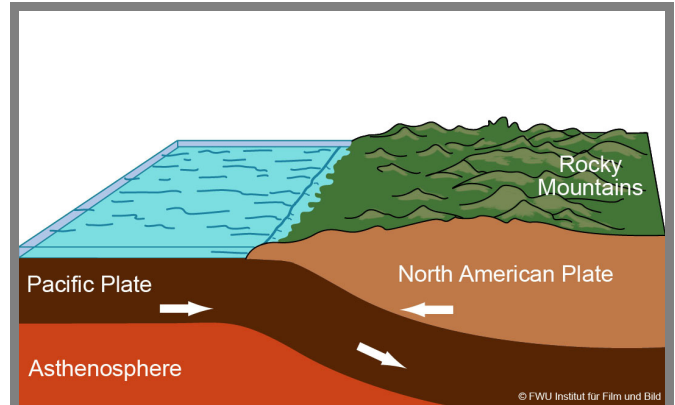


Name: Klasse:

Rocky Mountains – Solution



The Rocky Mountains developed 70 to 40 million years ago. The Pacific plate pushed under the North American Plate, causing the mountains to rise. The Rocky Mountains formed relatively far away from the coast. According to geologists this happened because the Pacific Plate only gradually submerges under the Nord American one (shallow subduction zone). Some mountains reach up to 4000 meters, but after long periods of erosion the Rocky Mountains are on average only 2000 to 3000 meters high.

1. State why the Rocky Mountains heavily influence the climate of the Eastern Plains.

The Rocky Mountains serve as a climatic divide, catching precipitation in the westerlies. The plains in the east lie in the mountains rain shadow, resulting in dryness.

2. What information does the film “USA: From the Rocky Mountains to the Pacific Ocean” give about the vegetation in the Rocky Mountains? How does it differ from the vegetation in the Appalachians? What are reasons for the differences?

Mainly conifers like pines, firs and larches grow in the Rocky Mountains. The Appalachians however are dominated by deciduous trees.

Reasons for the differences are greater heights and lesser precipitation in the Rocky Mountains.

Name: Klasse: 

Old Faithful

The Rocky Mountains are a major tourist region. Some areas are turned into National Parks to preserve the natural landscape. One special attraction is the **Yellowstone National Park**.

It is one of the most important geothermal area on Earth. A wonderland of spouting geysers, colourful sinter terraces, steaming fumaroles, bubbling mud pools and hot springs. Almost the entire park is one gigantic volcanic crater. It developed about 650,000 years ago and originates in a local volcanic "Hot Spot" in the Earth's mantle.

Magma constantly presses upward and the North American Tectonic Plate slowly moves over the Hot Spot from northeast to southwest.

This explains why the volcanic activity shifted over time to the northeast. The geothermal occurrences are proof of the still ongoing volcanic activities in this region.

3 a) Explain where the name Yellowstone National Park comes from.

The park is named after the Yellowstone River, a major river in the park. The river was given its name because of the surrounding rocks, which have been colored yellow by sulphur.

b) One of the biggest attractions in the park is Old Faithful. Explain what there is to see.

In regular intervals boiling water shoots over 50 meter high into the air.

c) The magma chamber beneath the National Park is also responsible for the creation of the „Craters of the Moon“. Briefly describe the region.

It is a barren, volcanic landscape with craters and lava fields and hardly any vegetation, reminiscent of a moon landscape. Hence the name.