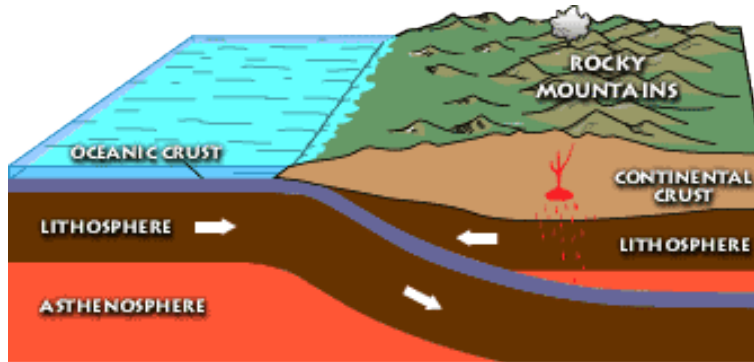
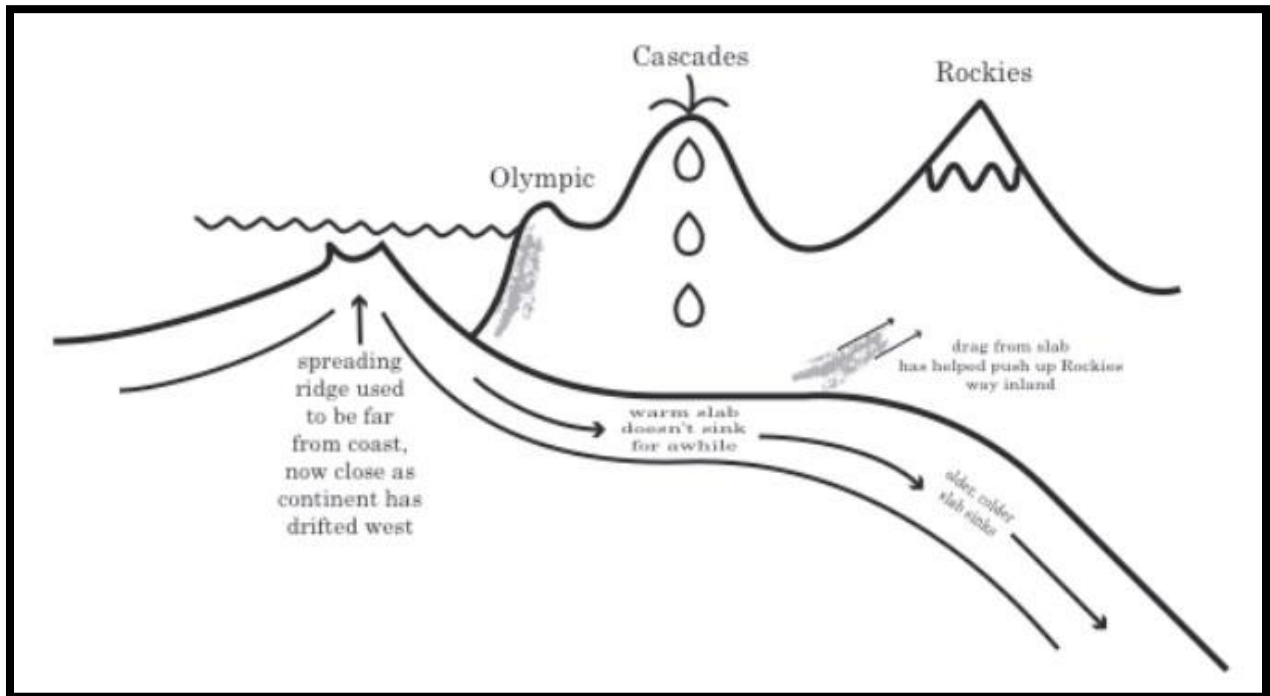


ROCKY MOUNTAINS

The Rocky Mountains were formed as the Pacific plate subducted under the North American plate. The Pacific plate subduction caused pressure felt throughout the North American plate. It was being compressed by its own movement, and the Pacific plate. Over millions of years the pressure built up. It was released as rock strata cracked and moved on top of each other. As they pushed against each other, they pushed up and up.



This sketch shows the plate tectonic setting during the growth of the Rocky Mountains (Laramide orogeny). The angle of the subducting plate is significantly flatter, moving the focus of melting and mountain building much farther inland than is normally expected.



The Rocky Mountains are surprisingly far from the coast for mountains linked to a subduction zone. The diagram shows the most-likely explanation, which is that the subducted slab did not sink as rapidly as normal for a while, and friction along its upper surface rumpled the overlying rocks of North America to raise the Rockies.



Ypsilon Mountain is in the Rocky Mountain National Park in Colorado. The rocks on this mountain were split by frost wedging.

Rocky Mountain National Park occupies only a small part of the 200 mile long Front Range of the Rocky Mountains, but the Park's mountaintops show the effects of ancient erosion and many of the valleys illustrate classic features of glaciation.

The Rockies are a masterpiece of erosion. When forces below the surface began to push them high in air, their granite cores were covered thousands of feet deep with the sediments of the great sea of whose bottom once they were a part. The higher they rose the more insistently frosts and rains concentrated upon their uplifting summits; in time all sedimentary rocks were washed away, and the granite beneath exposed.

The snowpack in the Rocky Mountains has been gradually thinning over much of the past century, and a new study attributes much of that to global warming.

Serious problems have arisen as a result of timber harvesting, grazing, oil exploration, mining, and reservoir operations in the Rockies. Logging and oil exploration have been responsible for accelerated slope erosion, both from the operations themselves and from the access roads built to reach them. Erosion has stripped away the often thin soil cover and caused serious silting of streams. Trace quantities of harmful metals have been released into streams and groundwater from mining operations, particularly from the leaching of mill tailings.

Increasing emphasis has been given to the scientific side of the story--from an explanation of Rocky Mountain geology and the development of aquifers, to detailing how the thousands of small abandoned mines contaminate water sources by leaching heavy metals into the rivers and streams.

A vast majority of the world's oil shale reserves can be found in the Rocky Mountain states of Colorado, Utah and Wyoming. Oil shale extraction is not only extremely cost, but it has also been shown to have significant environmental effects on local water and air quality, wildlife habitat, and energy use.

Air pollution, primarily from the combustion of fossil fuels in the Denver–Boulder–Fort Collins metropolitan corridor, may dramatically harm montane forests in the mountains of Colorado.

All rivers in the Rocky Mountain region have been altered by reservoirs or other water projects (transbasin canals, irrigation ditches, and small water impoundments

Rocky Mountains range starts from northwest of Canada to the south in New Mexico. It is over 3,000 miles long and has varying widths between 70 to 300 miles wide. The highest mountain on the American side is Mount Elbert in Colorado at 14,440 feet or 4,401 m while the highest mountain on the Canadian side is Mount Robson in British Columbia at 12,972 feet or 3,954 m.

After the last great ice age, the Rocky Mountains first became home to a few indigenous people like Apache, Bannock, Blackfoot, Cheyenne, Crow Nation, Flatheads, Sioux, Ute, Kutenai (Ktunaxa in Canada), Sekani, and many others.

