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Plateaus and Erosional Mountains

By Patti Hutchison

As you drive across the United States, you see many beautiful landscapes. Ocean shorelines give way to uplifted regions near the east and west coasts. Here, mountains have been formed by tectonic forces below earth's surface. But mountains are not the only formations that have been made this way. Plateaus are formed by uplifting also.

Plateaus are large areas of flat rock. They rise high above sea level. Large areas of the world are covered with plateaus. They are often found near folded mountain ranges. But they are not formed by faulting and folding the way that mountains are formed.

Plateaus are formed by tectonic forces, however. Horizontal forces push against large areas of rock. The stress causes them to uplift. Because there is no faulting or folding, these raised layers remain flat.

There are two major plateau regions in the United States. One is the Appalachian Plateau in the eastern United States. This region lies west of the Appalachian Mountains. It stretches from New York to Tennessee. This plateau was formed millions of years ago.

The other major plateau region is the Colorado Plateau in the western United States. It is located west of the Rocky Mountains. These high, flat rocks can be found in New Mexico, Colorado, Utah, and Arizona. It is much younger than the Appalachian Plateau.

Stress is not the only way plateaus are formed. They can also be formed by lava. As it flows out of cracks in the surface, lava spreads out. It forms great sheets that sometimes fill in valleys. It cools and forms hardened rock. Over time, these sheets can build up to form a plateau.

The Columbia Plateau is an example of a lava plateau. This plateau region is found in Oregon, Washington, and Idaho. It covers an area of over two hundred fifty thousand square kilometers. It is two kilometers thick in some places.

Erosion by wind and water can take a toll on a plateau region. Large rivers carve their ways through the high flat rocks to form canyons. The Grand Canyon in the Colorado Plateau is an example of this type of action.

Erosion of a plateau can also form mountains. Erosional mountains form as wind or water wears down weak spots in the plateau. The uplifted rocks are carved like statues to form steep or gently sloping hills. Material is worn away, leaving the stronger underlying rock of the mountain.

We can be thankful that tectonic forces exist. Uplifting has created many plateaus and mountainous regions. They make beautiful scenery as you drive across the country.

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Questions

_____ 1. Large areas of high, flat rock that rise high above sea level are called:

A. plateaus
B. mountains
C. plains

2. Name two ways plateaus are formed.

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Name _____

_____ 3. The Appalachian Plateau was formed:

A. millions of years ago
B. after the Colorado Plateau
C. during the Ice Age

4. How large is the Columbia Plateau?

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_____ 5. Plateaus can be eroded by:

A. wind
B. water
C. both a and b

_____ 6. Mountains can be formed when a plateau erodes.

A. false
B. true

Explain how a plateau region can be formed by lava.

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Name _____

Find information about a plateau region on another continent. Write a paragraph about it.

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