

Tear Me Down and Build Me Up: The Story of Weathering, Erosion, and Deposition

Chemical Weathering

_____ is the breaking down of a material such as soil or rock from an outside source like _____ and _____. Water is capable of breaking down materials in two main ways, _____ and _____. _____ weathering is the breaking down of rock, through the process of chemical reactions. Water is made of _____ and _____. Oxygen is an important chemical used in _____, another type of chemical reaction. You see evidence of this whenever you see rust as you can see in these reddish rocks.

Physical Weathering

The other type of weathering, _____ weathering, results from the contact of two materials. Water is trapped in rock but then as it _____ it expands and can crack the rock. Water can wear down rocks also just from constant _____ as it runs over it, constantly as you can see in this waterfall. Look at the smooth surfaces of pebbles. These were once rough surfaced rocks but through _____ weathering, they have worn smooth. It is also important to note, physical weathering doesn't just occur because of water, but also because of _____.

Erosion

After weathering breaks down soils and rock, the smaller pieces like sand, soil, and pieces of rock can be transported to a new location. The moving of material from one location to another is _____.

Deposition

If that same muddy river slows down, changes direction or flows into an obstacle, the material can be _____ in a specific location. This process of _____ is how layers of sediment are built up and land masses are formed.

Underground Weathering

The ground water that is found below our feet is an important _____ that we may not see but we need to protect. As the water moves along and through the ground the chemicals found in the water interact with and _____ the materials found in rock. This _____ weathering can eventually lead to the development of a pocket of space in the bedrock called a _____. These rock formations are more susceptible or at risk to the _____ weathering process and the _____ material.

Sinkholes

Cave formation can also lead to another surface feature that can be found in different locations around the world, _____. One area that sees a large amount of sinkholes is the state of Florida. When a cave develops in the bedrock and the overlying material can no longer support the weight, the cave _____ on itself. This collapsing cave fills with the material above and results in the soil _____. This sinking soil that forms an impression in the ground is referred to as a _____.

Unexpected Weathering Forces

_____ that burrow can make ground conditions more susceptible to chemical and physical _____. Plants such as mosses and liverworts can grow on rock formations. As these types of plants grow they release _____ that weather the rocks and cause indentations and _____. One of the most dramatic forces is the _____ and _____ of water. Small amounts of water find their way into cracks in the rock and when the water freezes it expands and pushes on the rock sometimes with enough force to break the rock in two.

Unexpected Erosion and Deposition

_____ and _____ can also have a large impact on the erosion and deposition of material. Building animals such as _____ can slow moving water and therefore cut down on the amount of _____ and increase the _____ of material. _____ can slow erosion by stabilizing the soils and slowing the movement of water across the ground.