

Topic: Weathering, Erosion, and Deposition

Aim: What are the different types of weathering?

Weathering - the breakdown of rocks and minerals into smaller pieces
weathering, along with biological activity (living things),
leads to the formation of sediments and eventually **soil**

1. Physical Weathering

Rock is broken into smaller pieces with
NO change in its chemical composition

a. ABRASION –

a wearing, grinding, or rubbing away of
rock material by friction

b. FROST ACTION (ice wedging) -

water repeatedly seeps into cracks,
freezes, expands, and eventually
splits the rock
(causes pothole formation in NY)

c. ROOT ACTION -

plant's roots grow into cracks and break
apart rock

2. Chemical Weathering

Rock is broken down by chemical reactions
with air and water resulting in a
change in chemical composition.

a. OXIDATION –

oxygen chemically unites with iron
and water to form iron oxide (rust)

b. CARBONATION -

CO₂ dissolved in H₂O makes carbonic
acid which dissolves calcite-rich rocks.
(limestone cave and sinkhole formation)

c. ACTION OF ACIDS

(acid rain, organic acids)