

Weathering - Physical breakdown of rock into sediments

Physical = It breaks into pieces

- ① Frost Action / Frost Wedging
 - water seeps into cracks
 - water freezes + ice expands
 - crack gets bigger
 - ice melts + process repeats

#1 weathering in NYS

Temp. alternate = freeze, thaw, freeze...

- ② Biological / Root Action
 - plants + animals breakup rock

- ③ Exfoliation - Temp. changes cause rock to expand + contract.
Very Hot + Very Cold

- ④ Abrasion - Wind + Water pick up rocks + rocks rub + bounce against each other

• Dominant in ^{Temperate} wet climates.

chemical - it dissolves in water + changes composition

Hydrolysis

- ① Water dissolves
limestone → caves form

- ② Oxidation Water + Air form rust

- ③ Acid Rain dissolves rock.

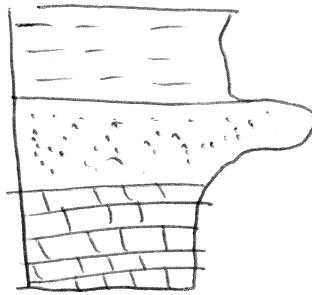
• Dominant in Wet, Warm Tropical Climates

Factors →

What factors affect weathering rates:

① Mineral Composition =

Rocks with calcite dissolve easily: limestone, marble
less resistant, soft

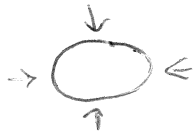


← more resistant, harder

② Climate = Hot, wet, humid climates have more chemical weathering

③ Particle Size / Surface Area

Smaller particles = more surface area = weather fast



Weather faster
more surfaces

HW = Text pgs 152-161 #1-5

Lab - Weathering Rates due Wed.