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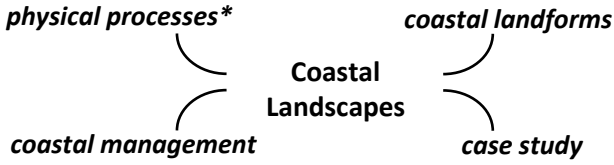
# Coastal Landscapes

## Weathering and Mass Movement

quiz



### The Big Picture



### Key Terms

-  **Chemical weathering** – The break down of rock due to chemical changes.
-  **Landslide** – Rapid mass movement of surface material down a slope.
-  **Mass movement** – The downhill movement of material under gravity.
-  **Mechanical weathering** – The breakdown of rock without chemical changes.
-  **Rockfall** – Fragments of rock break away from the cliff face.
-  **Slumping** – Cliffs slide down a curved slip plane.
-  **Weathering** – The breakdown of rock in situ.

### Weathering

Weathering is the process of breaking up or dissolving rocks in situ. It is the physical and chemical breakdown of rocks and minerals at or near the Earth's surface.

### Types of Weathering

#### Chemical Weathering

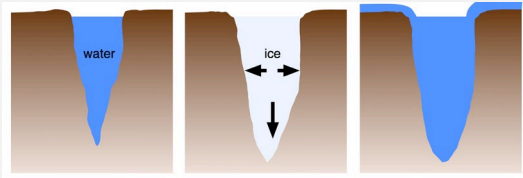
**Carbonation** – Carbon dioxide, dissolved in rainwater forms a weak carbonic acid. This reacts with calcium carbonate (limestone and chalk) which forms calcium bicarbonate.

**Hydrolysis** – Acidic rainwater reacts with minerals in granite, causing it to crumble.

**Oxidation** – Oxygen dissolved in water reacts with iron-rich minerals causing rocks to crumble.

#### Mechanical Weathering

##### Freeze-thaw



**Salt weathering** – crystals of salt grow in cracks and expand causing rock fragments to flake away.

### Mass Movement

