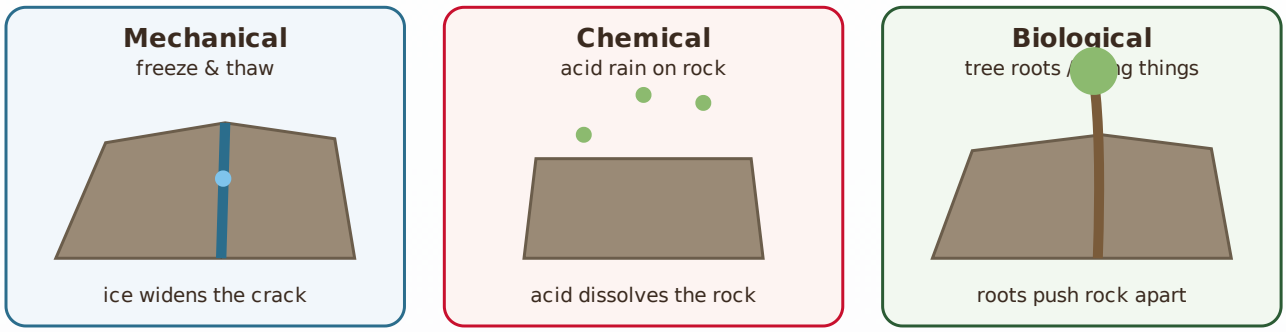
Weathering Detectives

Three types of weathering

Earth's surface is always changing — usually so slowly we cannot see it. **Weathering** is when rock is broken down into smaller pieces *where it is*. There are three types.



The three types of weathering: mechanical (ice widening a crack), chemical (acid dissolving rock) and biological (roots pushing rock apart).

Weathering breaks rock down where it is. **Erosion** (next lesson) is when the broken pieces are *moved away*. Don't mix them up!

Spot the weathering

Q1. Match each type of weathering to its description.

Type	Description
Mechanical	
Chemical	
Biological	

Descriptions: a chemical reaction breaks the rock (like acid rain) • living things break the rock (like tree roots or mining) • the rock is physically broken without changing what it is (like freeze and thaw)

Q2. Classify each example as **M**echanical, **C**hemical or **B**iological weathering.

Example	M, C or B
Water freezes in a crack and splits the rock	
Tree roots crack a footpath	
Acid rain slowly eats away a limestone statue	
Rocks tumble in a river and get smaller and rounder	
People dig a mine into a hillside	

Q3. On your schoolground hunt, you found an example of weathering. Draw it and explain which type it is and why.

Q4. Weathering usually happens very slowly. About how long can it take to wear down a large rock or mountain? Why is this hard to notice?

In the story *The Rainbow Serpent*, the land is shaped as Goorialla travels — making rivers, hills and mountains. Aboriginal peoples have watched and understood the changing land, and cared for Country, for tens of thousands of years.