

# Weathering and Erosion

## Q-Learn Week 3 – Lesson 1

	<p><b>Definition:</b> The movement of weathered rock and soil from one place to another by agents such as:</p> <ul style="list-style-type: none"><li>• Ice (glaciers)</li><li>• Gravity</li></ul> <p>Erosion typically follows _____ and reshapes landscapes over time</p>
	<p><b>Definition:</b> Weathering caused by living organisms, which can involve both physical and chemical processes.</p> <p><b>Examples:</b></p> <ul style="list-style-type: none"><li>• Tree roots growing into cracks and _____ rocks (_____)</li><li>• Lichens producing acids that chemically break down rock (_____)</li></ul>
	<p><b>Definition:</b> This is the process that breaks down rocks and minerals at or near the Earth's surface through _____, _____, or _____ means.</p> <p>It does not involve the _____ of materials—just the breakdown.</p>
	<p><b>Definition:</b> The breakdown of rocks through chemical reactions that change the minerals within the rock.</p> <p><b>Common processes include:</b></p> <ul style="list-style-type: none"><li>• Oxidation (rusting)</li><li>• Hydrolysis (reaction with water)</li><li>• Carbonation (reaction with carbonic acid)</li></ul>
	<p><b>Definition:</b> The breaking down of rocks into smaller pieces without changing their chemical composition, usually caused by physical forces like:</p> <ul style="list-style-type: none"><li>• Temperature changes (freeze-thaw cycles)</li><li>• Abrasion</li><li>• Pressure release</li><li>• Salt crystal growth</li></ul> <p>It includes mechanical effects such as _____, _____, _____, and _____.</p>

What are the 5 types of erosion?

- moving rocks
- cutting back cliffs
- carving a valley
- topsoil

Weathering and erosion are natural processes that break down rock at or near Earth's surface. Weathering slowly breaks down or changes rock at its source. It removes away a rock, such as a cliff or a hill. Erosion, on the other hand, involves the transportation of rock away from its original location. The movement of the broken rock can change the shape of the land over which it travels. When the broken rock is finally deposited in a new location, a new landform, such as a sand dune, may form. Together, weathering and erosion contribute to the shaping down and building up of landforms on Earth's surface over time.

[\*From the Weathering and Erosion Worksheet\*](#)

What causes weathered rocks to fall from cliffs, or roll down mountain sides?

What can carry large amounts of weathered materials?

What is the scientific term for the dropping of weathered materials?

What type of rocks are easily eroded by wind-blown sand?

What type of erosion played a part in creating "Wave Rock" in Western Australia?

Put the five stages of weathering into the correct order.

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Would gravel, topsoil or sand be carried the furthest by a stream?

What most likely eroded London Bridge in Australia?

Cars and factories, add carbon dioxide and other pollutants into the air. These pollutants are responsible for what type of weathering?

Carbon dioxide pollution is more likely to lead to the erosion of which of these rocks, granite and limestone?

Carbon dioxide in the atmosphere forms what type of acid?

