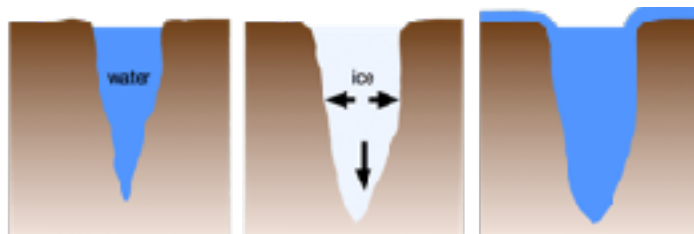




# Memory Geogger

What is weathering?

Identify the type of weathering shown below.



Fill in the gaps to explain each type of mechanical weathering.

**Freeze-** \_\_\_\_\_  
 \_\_\_\_\_ enters the rock and  
 \_\_\_\_\_. The ice expands by  
 around \_\_\_\_\_%. This causes  
 pressure on the rock until it \_\_\_\_\_.

**Salt weathering**  
 \_\_\_\_\_ spray from the sea gets into  
 a \_\_\_\_\_ in a rock. It may evaporate  
 and \_\_\_\_\_, putting pressure  
 on the surrounding rock and  
 weakening the structure.

Match the type of chemical weathering to its definition.

- |             |   |
|-------------|---|
| Carbonation | is when rocks are broken down by oxygen and water.  |
| Hydrolysis  | slightly acidic (carbonic) rain or sea water comes into contact with sedimentary rock, such as limestone or chalk, and causes it to dissolve. |
| Oxidation   | is when acidic rainwater breaks down the rock, causing it to rot.   |

Mechanical or chemical weathering? Look at the characteristics below and identify whether they are features of mechanical or chemical weathering.

The breakdown of rock through changing its chemical composition.	The breakdown of rock without changing its chemical composition.	Oxygen and water break down rocks.
Salt crystallises and puts pressure on surrounding rock and causes it to break away.	Acidic water comes into contact with sedimentary rock causing it to dissolve.	Water enters a crack, freezes, expands by 9% and causes it to crack.



# Memory Geogger

## What is weathering?

Weathering is the break down of rock in situ by the action of rainwater, extremes of temperature, and biological activity.

## Identify the type of weathering shown below.

Freeze-thaw weathering (a form of mechanical weathering).

Fill in the gaps to explain each type of mechanical weathering.

### Freeze-thaw

Water enters the rock and freezes. The ice expands by around 9% (+/- 1). This causes pressure on the rock until it cracks/shatters.

### Salt weathering

Salt spray from the sea gets into a crack in a rock. It may evaporate and crystallise, putting pressure on the surrounding rock and weakening the structure.

Match the type of chemical weathering to its definition.

Carbonation	is when rocks are broken down by oxygen and water.
Hydrolysis	slightly acidic (carbonic) rain or sea water comes into contact with sedimentary rock, such as limestone or chalk, and causes it to dissolve.
Oxidation	is when acidic rainwater breaks down the rock, causing it to rot.

Mechanical or chemical weathering? Look at the characteristics below and identify whether they are features of mechanical or chemical weathering.

The breakdown of rock through changing its chemical composition. (chemical)	The breakdown of rock without changing its chemical composition. (mechanical)	Oxygen and water break down rocks. (chemical)
Salt crystallises and puts pressure on surrounding rock and causes it to break away. (mechanical)	Acidic water comes into contact with sedimentary rock causing it to dissolve. (chemical)	Water enters a crack, freezes, expands by 9% and causes it to crack. (mechanical)