



## Rock cycle

1. Magma and lava are **molten** (melted, very hot liquid) rock.
2. **Magma** is molten rock underground.
3. **Lava** is molten rock above ground.
4. When molten rock cools it solidifies to form igneous rocks.
5. Igneous rocks formed from magma underground are **intrusive** rocks.
6. Intrusive rocks cool slowly and have large crystals.
7. Igneous rocks formed from lava above ground are extrusive rocks. E.g., granite.
8. **Extrusive** rocks cool quickly and have small crystals. E.g., obsidian.
9. Rocks can be broken down into small pieces by **weathering**.
10. Weathering can be physical e.g., water getting into cracks and expanding when it freezes, forcing the crack wider.
11. Weathering can be chemical e.g., acid rain reacting with the rock to make salts.
12. Weathering can be biological e.g., tree roots forcing cracks wider.
13. **Erosion** is the movement of pieces of rock away from where they started.
14. Erosion can involve the wind, flowing water or ice, and gravity.
15. When pieces of rock sink to the bottom of lakes or seas they form layers of sediment. This is **sedimentation**.
16. Layers of sediment build up in layers and the bottom layer becomes compressed.
17. Dissolved minerals fill any spaces and bind rock particles together; this is **cementation**.
18. Sedimentation, compression, and cementation form sedimentary rocks. E.g., chalk or sandstone.
19. If rocks are pushed deep underground, they experience tremendous heat and pressure.
20. Heat and pressure change the structure of igneous and sedimentary rocks to form metamorphic rocks. E.g., marble formed from chalk.
21. The formation of rocks is related to each other in the rock cycle.

## Water cycle

22. Water constantly evaporates from land surface, rivers, and the sea.
23. Sublimation is solid turning into a gas.
24. Water sublimates from ice and snow.
25. As water vapour rises it condenses into droplets.
26. Clouds are formed from **condensed** water droplets.
27. The droplets in clouds often freeze.
28. When droplets in clouds are heavy, they fall back to earth as **precipitation**.
29. Precipitation is hail, rain, sleet, and snow.
30. Water that falls over the sea goes back into the sea.
31. Water that falls over land goes into rivers or groundwater and makes its way back to the sea.
32. This cycle is called the water cycle.
33. The water cycle provides fresh water for animals and plants on land.
34. Plants take water from the ground and move it to their leaves where it evaporates into the atmosphere; this is **transpiration**.
35. Animals and plants produce water through **respiration**.
36. Animals **excrete** water in urine, faeces, and sweat.
37. Animals and plants decay when they die, which releases water.

