- 1. Water  $H_2O$  comes in contact with the ground.
- 2. As the water travels though the ground it joins with carbon dioxide  $CO_2$  within the soil and forms carbonic acid  $H_2CO_3$

$$H_2O + CO_2 \rightarrow H_2CO_3$$

- The carbonic acid travels though the ground until it comes into contact with Limestone. Limestone is also known as calcium carbonate CaCO<sub>3</sub>
- The carbonic acid dissolves the calcium carbonate. As more and more of the calcium carbonate is eaten away over time a hole begins to form. As time passes, the hole gets larger and larger. It develops into a cave.
- If carbonic acid with dissolved calcium carbonate travels downwards through the rock and encounters an air-filled cave, it drips from the ceiling of the cave and can leave behind mineral deposits (calcium carbonate). The mineral deposits are cave formations including stalactites and stalagmites.

$$H_2CO_3 + CaCO_3 \rightarrow H_2O + CO_2 + CaCO_3$$









