KS3 Geography: Explain this...

Erosion

Erosion is when land is worn away by another material. It's a natural process that's been going on for millions of years and it continues to shape our planet's landscape today.

Water is the Earth's main natural eroding force. The same seemingly harmless liquid we drink, has the power to sculpt the land around us.

There are four main types of water erosion:

- *Hydraulic action* - when the power of the water causes the material to break apart.
- *Abrasion* - when stones, pebbles and other sediment grind along the material in a sandpapering effect.
- *Attrition* - when rocks that are carried in the water, knock against each other and break apart to become smaller and more rounded.
- And *solution* - when the water dissolves certain types of rocks, for example, limestone.

The speed with which erosion wears away the land depends on the force of the water and the durability of the material that's being worn away.

In rivers, strong, fast currents erode the riverbank and riverbed as the water moves along. River erosion like this often creates a V-shaped valley and features like meanders and oxbow lakes. Even a gentle, slow flow will have an impact over time.

Frozen water does the same thing, but at a much slower pace. This is called *glacial* erosion. As glaciers move down mountains and hills, they wear away the land, a bit like sandpaper. Glaciers leave behind distinctive U-shaped valleys.

The sea is another powerful eroding force, crashing into the coastline and wearing it away over time. For example, the hydraulic action of the sea can create a crack in a cliff wall, which will eventually turn into a cave, this will eventually become an arch, then a stack and finally, a stump, which simply erodes away to nothing.

Coastal erosion creates stunning coastlines, but it can also lead to changes to the shoreline and to the loss of homes.

In 2013, three houses in the seaside village of Hemsby in Norfolk literally fell into the sea during storms that caused dramatic erosion to a cliff side, already severely eroded. By 2018, five more houses were so close to the edge, that they had to be demolished before they fell into the sea below.

Many experts believe that climate change and melting ice is adding to a rise in sea levels as well as increased storms. These two factors are accelerating the rate of coastal erosion in the United Kingdom and across the globe.