



ICE AGE PONDS

MAKE YOUR OWN KETTLE HOLES



Herefordshire's Ice Age ponds, often referred to as kettle-hole ponds, were created around 20,000 years ago during the last Ice Age, when woolly mammoths were still roaming the area. Herefordshire's Ice Age Ponds are particularly special, as they can hold an undisturbed record of our climate and wildlife since the time when the glaciers retreated. Kettle Hole Ponds mainly form in the retreat phase when the ice in glaciers stops moving forward and can be buried by gravels, sands and muds reworked by streams and mudflows on the glacier surface. Upstanding areas underlain by clean ice turn into deep depressions as the ice melts, and which can become ponds.

Have a go at making your own 'Kettle Holes' by following the instructions below!

What you will need:

> Tray/bowl/container that is deeper than the ice cubes

> Ice Cubes

> Flour



1) Put some ice cubes in your tray. They can be any shape or size, just make sure the container is deeper than the ice cubes so there is space for the flour on top of them.

2) Carefully fill the whole tray with flour. Any flour will do! Make sure it fills the container all the way to the edges.



4) Place your tray somewhere warm. The ice cubes will slowly melt and if you keep checking your container you will begin to see small holes forming. This picture is after 15 minutes.



This picture is after 30 minutes of the ice cubes melting.

You should be able to see little holes in the flour where the ice cubes melt, these are the Kettle Holes.



The ice cubes are blocks of ice that have been left behind by a glacier as it melts. The flour is the material that is carried by a glacier – this is usually a mixture of sand, pebbles and clay. Even when a glacier is melting and retreating, it is still moving huge amounts of this material to its front. Because the ice is buried in permafrost it melts slowly (although the glacier is melting, it is still very cold). As it melts it leaves behind a hole, these slowly get deeper and deeper as the ice melts. These are called kettle holes, and if they fill with water, could become Ice Age Ponds.