An Earth Shattering Experience

Limestone caves are hollowed out by slightly acid rainwater that, over thousands of years, has gradually dissolved the soft rock.

What to do: Place the piece of chalk in the jar with the vinegar for 5 minutes.

What happens: The chalk dissolves in the vinegar.

Why: School chalk is a form of limestone, or calcium carbonate. It is made up of small bits of sea shells and the mineral calcite and is similar to the soft rock caves of limestone. These caves have been formed when the rock has been dissolved by the acids in rainwater, similar to the chalk that is dissolved by the vinegar, which is acetic acid.

England's famed White Cliffs of Dover are made of great sheets of chalk, a form of calcium carbonate.

YOU NEED

• piece of chalk
• one half cup white vinegar
• small jar

365 Simple Science Experiments
Churchill, Loeschnig, Mandell, 1997