Waitomo Education

Limestone: How to make Caves and Crystals

L3 Using models to understand how speleothems are formed

Changing landscapes, modelling

This activity takes place after a previous activity in which students investigate the development of caves and karst landscape features by observing limestone reacting with a weak acid. The activity is designed to develop students understanding crystals, minerals and the dissolving process.

L3 Activity and Experiment. Crystal making: Make Your Own Crystal Garden

Explain the processes that take place as limestone is dissolved and transformed into speleothems (stalagmites and stalactites).

Explain and create a saturated solution.

Describe different crystal forms.

Learn about saturated solution and seed crystals

Use this Video as a starter:

http://www.iycr2014.org/participate/crystal-growing-competition

Further Activity ideas with Crystals

Rock Candy crystals, Seed Crystals , Baking Soda Stalactites and Stalagmites, Baking soda crystals, How to Grow a Big Alum Crystal , How to Grow a Borax Crystal Snowflake

L2 Make Your Own Crystals

The central point of Make Your Own Crystals is the big idea that the process of dissolving is reversible. (Use Activity 1: What Dissolves in What? Activity 3: Where Did They Go? Activity 2: Frosty Patterns).

It would be worthwhile for students to create crystals from more than one of the suggested substances and perhaps other substances of their own choice.