



HANDS-ON EXPERIMENTS

CHOCOLATE
ROCK CYCLE



Mountains are huge! Have you ever wondered what they are made of and how they got there? Here we investigate the rock cycle; formation (squashing and / or heating small particles to form a big rock), weathering (breaking down rock) and erosion (moving broken down particles which will once again form new rock). This cycle happens over and over again. Three different types of rock are formed in three different ways. This activity demonstrates the three rock cycle stages, but replaces rock with chocolate!

Procedure

You will need a small block of white and dark chocolate, access to beakers of warm water and hot water, foil, foil cake case, and a plastic knife.

- Melt the white and dark chocolate in a foil cake case floating on the hot water.
- Cool your chocolate 'magma' to form your starting chocolate 'rock'.
- 'Weather' your rocks by scraping the surface with a plastic knife.
- Gather your scrapings together in a small piece of foil and squash the pieces together to form one type of rock.
- Put some of this new rock, along with some unused scrapings and some chunks of original rock into a foil cake case and melt this on the warm water until it has started to soften, then remove the cake case from the water and allow this new rock to cool.
- Put some of the first squashed rock and the second melted rock into a foil cake case and float this on the very hot water using tongs. When the chocolate has turned into a liquid, remove the cake case and allow it to cool to form your final rock type.

Investigation

- Do the white and dark chocolate melt at the same time, or at different times? Why do you think this is?
- Which of the three types of weathering did you subject your rock to?
- Which type of rock did you form by squashing the scrapings together?
- Which type of rock did you form by melting in the warm water and cooling?
- Which type of rock did you form by high heat and cooling?
- For each rock type, research the name of a real rock of this type and describe how and where it may have been formed.

VIDEOS FOR THIS RESOURCE AT:

INTRODUCTION:



Clickable Link:

https://youtu.be/qm_OcwnOJKg

CONCLUSION:



Clickable Link:

<https://youtu.be/LMF4bKx1tjl>

