



HANDS-ON EXPERIMENTS

ICE FORMATION

Ice Formation

Glaciers are formed when snow falling on a mountain is slowly compacted under the pressure of its own weight.

This isn't the only type of ice formation seen on a glacier though, icicles are often produced by moving meltwater, especially slowly dripping water.

These two types of ice formation produce very different looking ice, in this experiment we'll see why.

1

- 4 x small containers with watertight lids
- a freezer
- water
- cotton wool (or similar)
- aluminium foil



2

INSTRUCTIONS

- Fill all four containers with water and put insulate them all differently.
- **Leave the lid off one and don't insulate it.**
- Leave the lid off another but insulate all the other sides.
- **Put the lids on the other two and insulate them differently.**
- Put all four containers in the freezer and wait for them to ice up. Smaller containers will take less time to freeze!
- **Observe your containers every ten minutes and compare the ice in each one (if possible!). Look out for air bubbles and cracks in them.**

3

FURTHER INVESTIGATION

- Why should you use both aluminium foil and cotton wool for insulation? What would happen if you used only one of them?
- **Icicles form by water dripping.** Could you make your own icicles in a freezer?
- Some people say you should boil water first to make clear ice. Does this work?



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VIDEOS FOR THIS RESOURCE AT:

INTRODUCTION:



Clickable Link:

<https://youtu.be/6yipzVQzXbl>

CONCLUSION:



Clickable Link:

<https://youtu.be/d1ZJ6ep0EEk>

