



HANDS-ON EXPERIMENTS

ICE CAVES

Ice Caves

Ice Caves and Ice Lakes form when the melting snow on a glacier starts to melt its way through to the inside of the glacier itself.

The more water that flows through, the bigger the caves get.

If there is no release for them at the other end, the resulting lake could burst out causing flooding in the valley below.

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INSTRUCTIONS

- Take your Silicone Loaf Tin and fill it with water, then place securely in freezer overnight. If you plan on having big groups or running this many times you can make 1 a night and store in the freezer;
- **Next, take your newly made glacier from the freezer and place it in a melting tray or in an unused sink;**
- Arrange your clamp stand and water bottle above your glacier and unscrew the cap just enough for a drip every 10 seconds;
- **Over the hour, calculate the rate of drips and then once the hour is up, push the straw in to the melt water and measure the length of the system.**

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Silicone Loaf Tin or Similar
Water
Gloves to Handle Ice
Freezer
Clamp Stand
Water Bottle
Straw
Kettle (Optional)



2

FURTHER INVESTIGATION

- Try boiling the water twice in the kettle, allowing to cool in between boiling. Then use the cooled water to make the glacier. It should be clearer. Why?
- Try varying the rate of drips and rate of melt. Does this form a bigger or smaller cave system?
- Try varying the temperature of the water dripping on to the glacier, what temperature water gives the biggest Ice Cave system?



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VIDEOS FOR THIS RESOURCE AT:

INTRODUCTION:



Clickable Link:

<https://youtu.be/F3ehs0GcmzA>

CONCLUSION:



Clickable Link:

<https://youtu.be/7KQC-qWLZIM>

