



THE LAB

Lots of things to make and do

Cool down with a slushie.

Make a summer slushie

This no-freeze recipe will keep you cool on a warm summer's day.

What you need

- 200ml fruit juice (any kind you like)
- Ice cubes
- 6tbsp salt
- Small ziplock bag
- Sticky tape
- Large ziplock bag
- Tall glass

Instructions

- 1** Pour the fruit juice into the small ziplock bag and seal shut. You could cover the seal in sticky tape to make sure none of the liquid escapes.
- 2** Add the ice and salt into the larger bag – not too much as you will need to fit the smaller bag into it.
- 3** Pop the small bag into the larger one on top of the ice and salt. Seal the larger bag shut.
- 4** Shake the bag for 5-10 minutes, until the juice starts to freeze and thicken. Check to see if it has reached a nice slushie consistency.
- 5** Once you're happy, take the small bag out of the larger one. Before you open it, rinse the small bag under the tap – you don't want any salt in your slushie.
- 6** Pour your summer slushie into a cool glass and enjoy.



DID YOU KNOW?
The name slushie comes from the Norwegian word for sloppy.

How does it work?

The ice cubes around your mixture cool it down, but adding salt is the real trick. This is because salt lowers the temperature at which water freezes – a process called freezing-point depression. Pure water freezes at 0°C, but when salt is added the freezing point is lowered by a few degrees, so the ice starts to melt. This is why the sea stays liquid at temperatures below 0°C, and salt is used in the winter to keep pavements and roads ice-free. As the ice melts in the bag, it takes heat from the fruit juice, making ice crystals form and turning the drink into slush. The more salt that you add to the ice, the lower the freezing point gets, and the quicker your juice freezes.

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