



THE LAB

Eight pages of things to make and do



Make space food

Whip up these out-of-this-world snacks to give yourself a taste of what it's like to be an astronaut.

What you need

- Fruit (we used apples, bananas and strawberries)
- Chopping board
- Knife
- Baking tray
- Greaseproof paper

Instructions

- 1** Preheat your oven to its lowest temperature – ideally around 70°C. Then select a range of ripe (or even slightly overripe) fruits. Rinse the fruit and ask a grown-up to help you carefully cut them into 0.5cm slices.
- 2** Arrange the fruit in single layers on baking trays lined with greaseproof paper. Make sure none of the slices are touching.
- 3** Put the fruit in the oven and cook for six hours, turning the slices over every two hours. To speed up the process, you can use a slightly higher temperature, but this might change the final texture. The fruit is ready when it feels leathery but is still bendable. Leave to cool before eating.



How does it work?

Astronauts on the International Space Station mostly eat dehydrated and freeze-dried foods (food that have had the water removed). The snacks you have made are dehydrated by slow heating. Freeze-drying involves cooking a meal then quickly freezing it, before sucking out all the water in a vacuum chamber. Removing water makes food lighter and allows it to last longer – bacteria and mould that make food go bad can't grow without water. The lack of moisture also slows the natural processes that ripen fruit and turn them mushy and brown. Drying food changes its taste and texture. In space, astronauts have trouble tasting their food, so to get the full experience, pinch your nose as you eat.

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