



Warm ice cream anyone?

Do you think that the temperature of food affects how it tastes? Try this experiment to find out!

You will need:

A selection of food

An adult to help warm things up

A fridge/ freezer

An oven/ microwave

How To

- 1) Choose a selection of food that is normally eaten at a certain temperature. For example, you could try soup, ice cream, baked beans, lemonade or pizza.
- 2) Ask an adult to help you warm up a portion of the things you normally eat cold (like ice cream and lemonade) and cool down the things you normally eat hot (like soup and pizza).
- 3) Try the foods, alongside a portion at the normal temperature. Think carefully about the flavours you can taste. Does the hot pizza taste more tomato-y than the cold? Is the warm ice cream sweeter or less sweet than the cold?
- 4) Are there any foods that taste better at the 'wrong' temperature? Or any that are really disgusting? Let me know by email (gs.scienceclub@gmail.com) or on twitter (@GinnyFBSmith). And don't forget you can send me any questions you have too.

The Science

As you saw in the sweet experiment in the video, a lot of what we think of as taste is actually smell. When we eat something, tiny molecules are released from it, and travel into our nose, where we detect them. This, combined with information from our tongue about the basic tastes, gives the flavour of a food. But it is easier for these molecules to escape from the food when it is hot, because heat gives molecules energy. This means hot foods give off more of these smelly molecules, so the smell and taste of foods tends to be stronger when they are warm. To counteract this, food manufacturers make things stronger tasting if they are meant to be eaten cold- so you may have found the warm ice cream, for example, tasted sweeter than the cold.