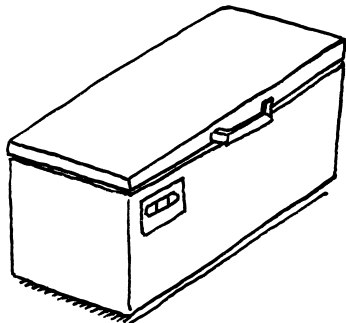
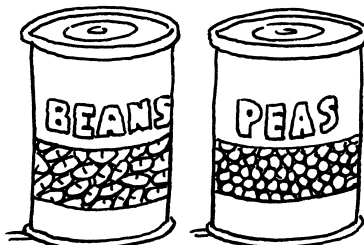


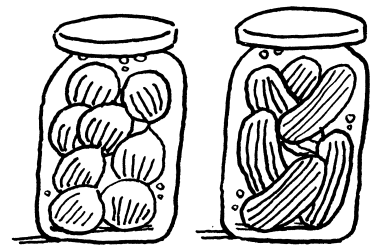
We can stop some microbes making food go off in a variety of ways. Some are shown here.



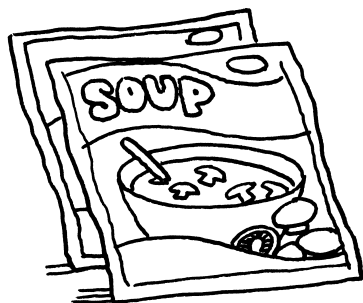
Freezing food stops microbes growing but it does not kill them.



Before being put into cans, the food is heated to 120°C. This kills the microbes. The cans are sealed so that no more microbes can get in.



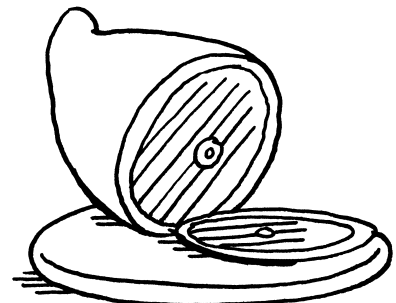
Vinegar is used to pickle some foods. The vinegar makes the pH too low (too acid) for the microbes to survive.



Some foods are dried. This stops microbes getting the moisture they need to grow but it does not kill them.



Milk is heated to 70°C for 15 seconds which kills most of the bacteria. This is called **pasteurisation**.



Some foods have lots of salt added to them. This kills the microbes. In the past, salt was so important for this that Roman soldiers were given some of their wages in salt! The word 'salary' comes from the Latin word for salt – 'sal'.



- 1 a Which ways of stopping food going off involve killing bacteria?  
b For each of these ways, name one food that is treated in this way.
- 2 Peas can be canned or frozen. Which of these will contain living bacteria?
- 3 a What is pasteurisation?  
b Pasteurised milk still goes off after a while. Why do you think this is?
- 4 Why do you think salt was so important for Roman soldiers?
- 5 Why are the bacteria killed off in a jar of pickled onions?
- 6 What conditions (e.g. temperature) do microbes like?



**literacy, knowledge**