

# The history of distillation - literacy task

When microbes called yeast feed on sugar one of their waste products is alcohol. This process is called **fermenting**. When a certain amount of alcohol has been made it poisons the yeast and they die. Beer and wine can never be stronger than about 15% alcohol, because the yeast cannot make more alcohol than this before they die.

People wanted alcoholic drinks that were stronger than beer and wine. Distillation is a way of getting the alcohol out of the mixture of alcohol, dead yeast and water.

Alcoholic drinks are usually distilled from a beer (made from a fermented grain like barley, oats or even rice) or from a wine (made from fermented grape juice). Other natural materials like potatoes and even treacle have been fermented and then distilled. If wine is distilled the product will be a brandy. If a beer is distilled the product will be a whisky.

Distillation has been used to separate a pure liquid from a mixture since 800 BC, when it is recorded that an alcoholic drink called Sochou was separated from rice which had been fermented by yeast, in Japan. The first recorded use of distillation to separate an alcoholic drink in Britain was in the sixth century (500 AD) when alcohol was separated from mead, which is made by fermenting honey. The first recorded distillation of whisky in Scotland did not occur until a thousand years later.

For centuries, distillation has also been used to separate oils and perfumes from natural materials. These were then used as medicines and scents, forming the basis of the modern medicine and cosmetic industries.

Just imagine all this time we have been relying on distillation for recreation and beauty!

## Questions

- ① Using your own knowledge, describe how distillation is carried out. Use a diagram to help you.
- ② What was the first alcoholic drink made from?
- ③ How is mead made?
- ④ What are the main materials from which alcoholic drinks can be made?
- ⑤ What is the difference between brandy and whisky?
- ⑥ Why is distillation needed to make strong alcoholic drinks?
- ⑦ What other chemicals have been separated using distillation?