

# Make the best conkers

Use science to dominate every conker game this autumn.

**WARNING!**  
Ask for a grown-up's help with the oven and to make a hole in the conkers. Be sure to follow social-distancing rules while playing, and be aware that bits of conker can fly off in different directions during the game.



Fancy becoming a conkers champion?

## What you need

- Conkers
- 150ml vinegar
- A jug
- A baking tray
- Greaseproof paper
- A corkscrew, hammer and nail, hand drill or strong metal skewer
- String

## How does it work?

Conkers are the nut of the horse chestnut tree (though don't eat them!). People have been playing the game of conkers for many years – the first recorded game dates back to 1848. Competitors have perfected different methods of strengthening their conkers, using sneaky science to overcome their opponents. One tried-and-tested technique is vinegar and heat. Soaking conkers in vinegar for a short time helps in two ways – the vinegar removes some of the moisture from the softer inside part of the nut, while also hardening the shell. Briefly heating the conker in an oven also drives out moisture but without making it brittle (easily smashed), or shrinking and cracking the inside of the nut. There's another, perhaps better, way to strengthen your conkers – but you'll need to be patient. Leaving a conker to dry for a year or two is a surefire way of improving your chances of winning.



**1** It's time to go exploring. Ask a grown-up to head out with you and help collect some fallen conkers. You will find them on the ground inside their tough, spiky green shells.



**2** Once you've picked some good ones, bring them home and remove them from their shells. Pour the vinegar into the jug and dunk your conkers, leaving them to soak for at least two minutes.



**3** Preheat the oven to 250°C. Take the conkers out of the vinegar and spread them out on a baking tray covered in greaseproof paper. Once the oven is heated, roast them for no more than 90 seconds.



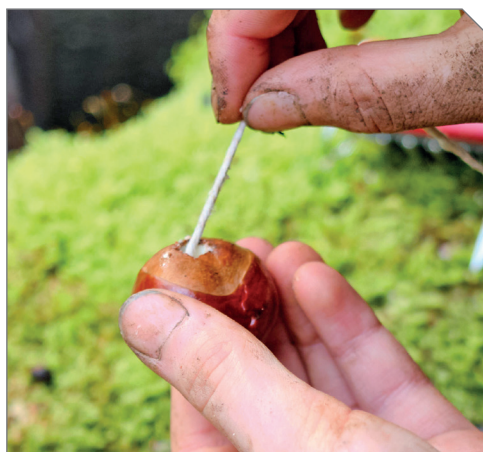
### How to play conkers

The game is played with two people, each with one conker on a string.

**1** One player loops the string tightly around his or her hand, and holds their conker out at arm's length.

**2** The other player then takes a swing at the dangling conker with their own. Take aim by pulling the string tightly back before releasing. For extra power, swing the arm forward as you bring the conker down.

**3** Players take turns. The first person to break their opponent's conker wins.



**4** Take the tray out of the oven and leave the conkers to cool. Ask a grown-up to make a hole through the centre of each conker using a corkscrew, hammer and nail, hand drill or metal skewer.



**5** Thread a piece of string (around 30cm long) through a conker and tie a knot at the base. The knot should be big enough to stop the string slipping through the hole. Thread each conker onto a string.



**6** Now, it's time to play conkers. Follow the rules above and see if you can defeat your opponents. If you like, you can experiment with different soaking and baking times. Which work better?