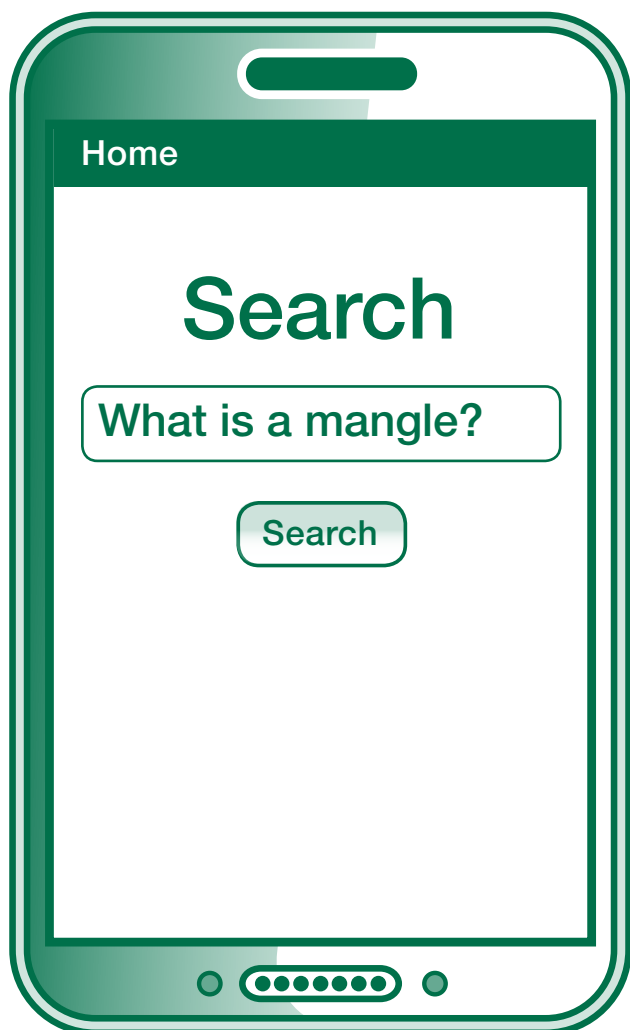




# Spinning solutions



Richie has been to the Startown History Museum with his friends. They visited a display of inventions from the past. Richie's favourite invention was a mangle. "People used mangles to dry out clothes after they had been washed," said Richie. "The museum guide said now washing machines dry out clothes by spinning around really fast. My clothes are still wet when they come out of the washing machine. I think a mangle would be better. Can you help me find out which is best?"

Richie from URENCO ▶

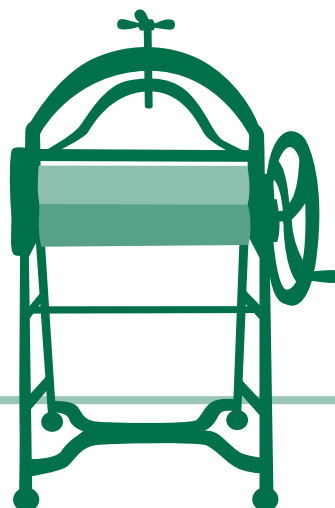


## ★ Your challenge

Help Richie find out the best way to separate water from his clothes. You can make models to help you decide!

### Talk about

- ★ Have you ever washed clothes by hand? How do you get the water out of them?
- ★ How does a mangle work?
- ★ Why does a washing machine drum spin around really fast?



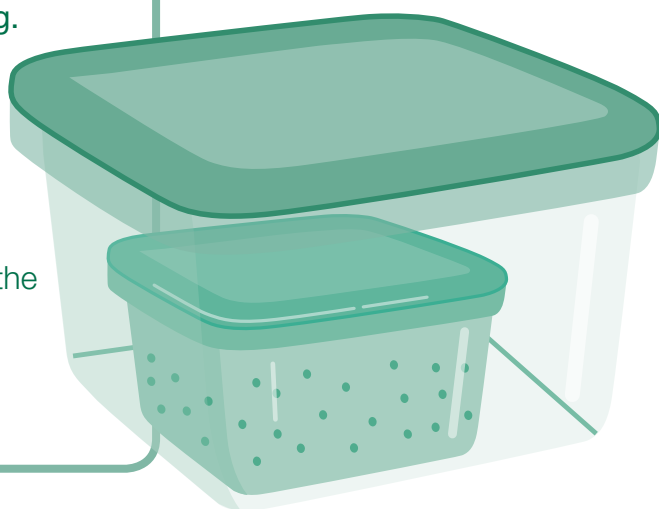
## ★ Here are some ideas to get you started

- ★ Make a model of a washing machine drum by making holes in a tub that has a lid.
- ★ Put this inside a bigger tub with a lid to collect the water.
- ★ You can spin this around at your side in a strong bag. Don't let go as you spin it!
- ★ A rolling pin is a good model of a mangle.
- ★ Roll your fabric on a sloping surface.
- ★ Remember to put something underneath to collect the water!

## Now put your ideas to the test

Water may splash so wear an apron or suitable clothing.

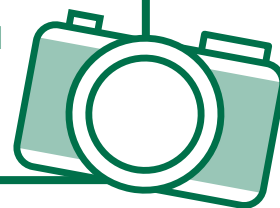
- ★ Soak two pieces of the same fabric in water.
- ★ Separate the water from one piece of fabric using your mangle and the other piece using your washing machine drum.
- ★ Compare the amount of water you can separate from the fabric. Think about how you can make this a fair test.



**Remember – a washing machine can spin around more than 1000 times every minute to separate water from your clothes. How fast can you spin your drum?**

## ★ Sharing your ideas

Take photographs of your investigation and your models. Send your pictures to Richie to help him decide how to dry his clothes.



## Congratulations!

You are a spinning solution finder.

Collect your stickers and get ready for your next challenge.

## ★ Here are some extra things to do

- ★ Find out about other things that can be separated by spinning.
- ★ Find out how separating by spinning can help to generate electricity.
- ★ Find out how separating by spinning can help in medicine.