# Measuring the flow rate of a stream

**Rivers and streams sometimes move very fast. Have you ever wondered how we can measure this?**

This activity is intended to be carried out with only simple tools! We find that any activity is best done alongside regular testing using one of our testkits, to help form a larger picture of your waterways.

## Why measure flow rate?

- *Flow rate* is a measurement of how quickly a stream or river moves.
- A body of water that flows quickly will have different characteristics than a still one, like a pond.
- Fast flowing water can transfer nutrients and pollutants downstream to new places.

## For this experiment you will need:

- Paper and pencil
- A timer, phone or watch
- A tool for measuring distance (a tape measure/reel works best!)
- A safe, buoyant object like an apple or orange
- A body of water to run your test!

## What you will do:

- Find a body of water such as a stream or river
- Measure out a distance of a few metres on the shore next to the water.
- Mark off the start and end of your distance with sticks so you can see them!
- Drop your fruit upstream at the start of your measurement, and time how long it takes for it to reach the end of your measurement, in seconds.
- Stretch task: find out how many centimetres per second your object travels.

## Post-activity reflection:

Consider where your water flows *from*, and where it flows *to*.

1. what can happen when water flows from one place to another?
2. Find a map of a stream, river or lake in your community. Can you find out which way they flow, and what other waterways they are connected to?

**Tip:** The best way to get an accurate measurement is to do multiple tests. Sometimes one test wil go wrong because weeds will get in the way, or maybe you forgot to start the timer right away. The more you do the experiment, the more accurate you will be!