

# Construct a water moving machine

## Things you will need

- Plastic piping 60 centimetres in length
- 2 small hand pumps
- 2 ice-cream containers
- 1 litre of water
- Insulating tape
- Recording sheets
- Other materials as needed: extra ice-cream containers, tissue boxes or bricks, for raising the height of the second container.



## Background

Did you know, the downward flow of water is assisted by the force of gravity? However, the flow of water in the pipeline from Mundaring Weir to Mt Charlotte Reservoir in Kalgoorlie is an uphill journey.

## Experiment

In groups of three, create a system that will enable water to move in an uphill direction.

Your system must use pumps and be designed to transfer 600 millilitres of water from one container to a second container positioned 300 millimetres higher than the first.

1. Brainstorm ideas with your group before you build the pumping system. Record your ideas right.
2. Build your initial designs.
3. Record your observations.
4. Make modifications to your design.
5. Present a sketch of your final design. Include any modifications you trialled.

## Our group's design ideas

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....