



## WATER ROCKETS

### LEVEL OF DIFFICULTY



### OUTLINE OF ACTIVITY

Club members can build a simple rocket which is propelled if the pressure builds up when water is pumped into a plastic bottle. The rockets need to be launched in a suitable open area such as the school field.

### EQUIPMENT

Quantities are based on a **make and take** approach to produce 20 copper plating experiments.

- plastic bottles x 20
- correx
- glue guns x 2
- corks with holes x 20
- bicycle pump with needle adaptor x 1
- craft knives x 5
- safety rulers x 10
- hand drill x 1

### SCIENCE CONTEXT

**Forces**, when objects are pushed or pulled, an opposing pull or push can be felt.

### SCIENTIFIC EXPLANATION

Newton's Third Law of Motion states that for every action there is an opposite reaction. This is why guns recoil when fired. The force that propels the bullet forward is equal by magnitude but opposite in direction to the force of the gun. Therefore the buggy moves in the opposite direction to the air being passed out of the balloon.