

Sequencing – 2

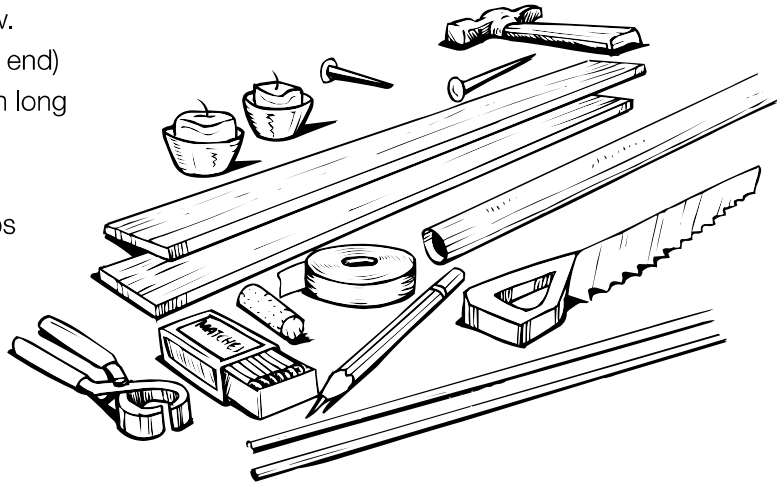
Read the procedure.

Make a rocket boat!

Follow these directions to make a steam-powered 'rocket boat'.

1. Collect the materials listed below.

- metal tube (with one open end)
- 2 pieces of stiff wire 60 cm long
- thin wood (such as balsa)
- cork
- 2 tea candles in metal cups
- hammer
- 2 nails
- pliers
- saw
- matches
- pencil and tape



2. Push the cork into the open end of the metal tube. Check the cork fits very tightly in the tube. Poke a hole through the cork using the nail. Ask an adult to help you.
3. Wrap a length of wire around one end of the metal tube about 3 cm from the end. Twist the wire tightly with the pliers so it won't slide. Repeat with the other wire at the other end of the tube.
4. Sketch a boat shape on the wood with one square end and one triangle-shaped end for the bow of the boat. The boat should be a slightly longer than the metal tube. Ask an adult to help you cut out the boat shape using the saw.
5. Carefully hammer two nails into each end of the boat. The nails will act like rudders and will help to stabilise the rocket boat.
6. Loop tape so it is double-sided and use it to attach each candle to the boat so they are 5 cm from each end of the boat.
7. Mount the tube above the candles by wrapping the wire around and under the boat. Use the pliers to twist the ends underneath the boat neatly. Check the tube is directly above both candles. (When the candles are lit, they will heat the water in the tube.)
8. Remove the cork from the metal tube and carefully fill it with hot water so it is three-quarters full. Replace the cork tightly. Check that the water can drip out the hole in the cork by tipping it slightly. (Be careful! The water is hot!)
9. Fill a large sink (or bath) with water. Place the boat in the water and ask an adult to light the candles.
10. Wait a little while and then watch the rocket boat go!