ACTIVITY FIVE: JUST FOR FUN – MAKE A JET-PROPELLED STEAMBOAT AND A WATER-POWERED WHEEL

These two TECHNOLOGY and NATURAL SCIENCES activities highlight water ower as well as the outcome of what occurs when water changes phase. They an be done in the classroom or learners could try them out at home.

1. MAKE A JET-PROPELLED SPEEDBOAT

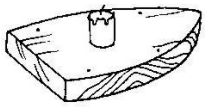
You will need:

- A metal tube or small tin with a tight-fitting lid
- Wood (very light wood is best)
- Stiff wire (a coat-hanger works well)
- Candles and matches
- A nail

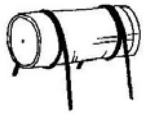
What to do:

1. Make a hole in one end of the metal tube / tin

2. Saw a piece of wood to create the outline of a boat and make a shallow hole near each corner.

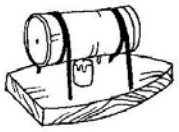


3. Using the wire, make a “cradle” for the tube – see drawing – and wind wire around the tube.



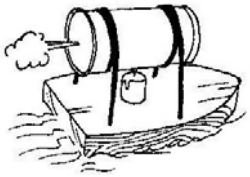
4. Place the feet into the holes in the wood.

5. Half fill the tube with water and replace lid.



6. Place the candle underneath the tube and light it.

7. Place the boat onto water.

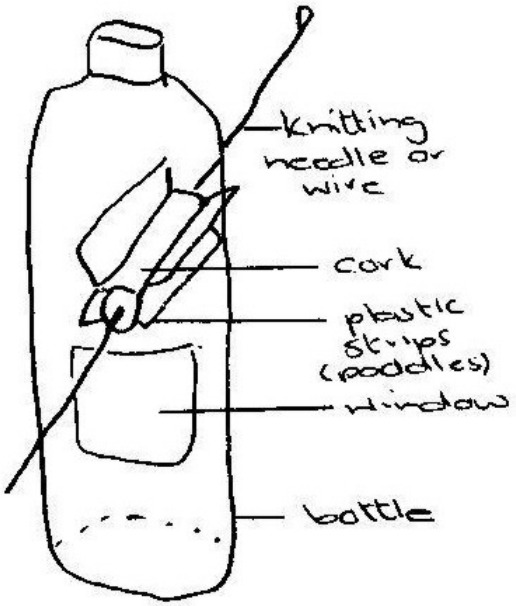


2. MAKE A WATER-POWERED WHEEL

You will need:

- A clear plastic cool-drink bottle
- Three pieces of cork
- Knitting needle

What to do:



1. Cut a window out of one side of a clear plastic cold-drink bottle. Cut the window into four equal strips.

2. Make a hole in a cork by pushing a thin knitting needle down the centre. Remove the needle. Use a sharp knife to cut four slits down the sides of the cork and push a plastic strip into each one.

3. Use the needle to pierce the small holes opposite each other below the window. Push your needle through one hole, then through the waterwheel held inside the bottle and out the hole on the other side. See that the needle spins freely. Push a piece of cork onto each end of the needle to stop it from coming out.

4. Make a hole in the base of the bottle and push it onto a tap. Gently trickle water over your water-wheel to make it turn.

- *Note how fast the water-wheel turns. What happens when you increase the water flow?*

- *See how the outer corks turn as well. This part of the water-wheel would turn a grindstone or motor.*