

## Building a Machine – Introduction.

The challenge is to build a machine that can move through water. This challenge could be extended for older children by asking them to adapt the machine, so that it could also travel on land.

At the early stages, children would find out which objects could float. They could make a very simple boat from some of these objects – e.g. margarine tubs, polystyrene trays etc.

They could carry out simple experiments to discover which materials were best, which floated for the longest time, and which shapes were best.

In the middle stages, children could build machines from junk material or from lego. They could find different ways of powering their machines – elastic bands, balloons or batteries.

They could measure how far each machine travelled on two or three tries and record their results on a spreadsheet. This would enable them to produce a graph of their findings.

At the upper stages, children could attempt to convert the machine for land travel. They could compare how well it travelled on land to how well it travelled in water.