Design Technology

Aim : To create a paper or card boat which can successfully float whilst carrying weight.

Brief

This week we are asking you to make a boat out of paper or card.

We would like your boat to be able to float and carry as much weight as possible. You will have to think carefully about a range of different factors and use your engineering skills to create a successful outcome.

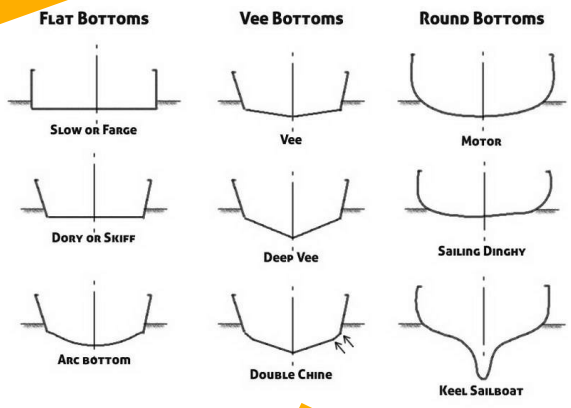
Learning Objectives

1) **Understand how and why some things float and others don't.**
2) **Test concepts and ideas using card/ paper boats.**
3) **Use maths to calculate how much weight your boat can hold.**
4) **Evaluate success and suggest potential modifications.**

Tasks

1) **Read the task carefully and watch the videos listed below.**
2) **Make your boat out of paper/card**
3) **Test your boat by floating it then adding weight. How much weight will it hold?**
4) **Photograph your project and record how much weight it held.**
5) **Email your work to your teacher**

Shape



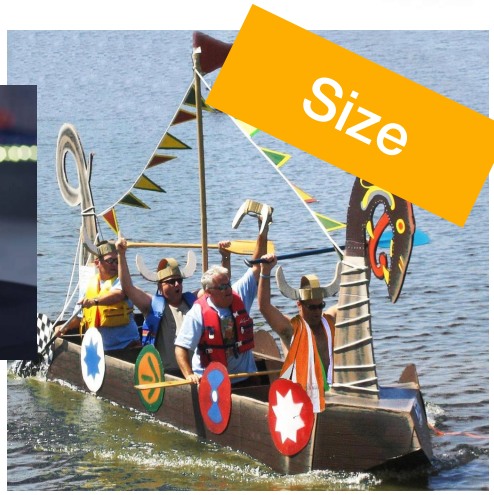
Before ybu start to make your boat watch these videos.

How boats float
https://youtu.be/06TFRgPlmxU

Introduction to challenge
https://youtu.be/NE3WuNsJwnA

How?

Size



I am not suggesting you make it this big but look at Bristol's Cardboard Boat Race on YouTube for inspiration.

Rules

- Your boat must be made from paper or card
- You can reinforce it in whatever way you like.
- You can seal the joints using tape.
- It can be any size you like!
- You can decorate to give it extra appeal.
- Your boat must be able to hold some weight

Key words:
Density, upthrust, weight, Archimedes principle, displacement, buoyant, evaluate, design