

Formula Sun - Testing Testing



Task:

To find out how fast your boat is!

Introduction

You are entering the Schools Marine Challenge Formula Sun category. This will culminate in racing your boats against each other in your school to decide which boats will represent you on Race Day, where they will race schools from all over the country.

Research Section

You will need a tank to test the boats.

Consider the size of the boats, cost and where the tank is to be used as this will dictate what sort of specification you come up with.

Industrial sized guttering is perfect for a transportable tank; at 150mm diameter it allows you to easily run a 120mm beam boat.. It is available in 4m lengths with easily fitted ends and joining components to make a longer tank if required. You can also make more than one lane so that your boats can race each other as well as the clock!

Timing

Investigate timing systems from a stop watch to light gates.

Design Section

Design both your test tank and timing system

Manufacturing Section

Build the tank to suit your requirements of length, transportability and venue for events or displays.

Testing the boats;

Time and distance are the critical pieces of information.

Collect data recording changes to set-up and boat design.

Use this information within your design and evaluation sections to influence final designs or proposals for development to improve performance and reliability.

Some of the variables you could try:

Length

Beam width

Hull shape

Hull materials

Number of solar cells

Number of motors

Different connection configurations

Duration of charge of capacitors

Different light conditions

Record your information so that others can use it.

Discuss what the data means.

Draw up an action plan from your findings

Target Areas

KS 3 or 4

Key skills

Working with Number

Skills framework

Communication, Number, IT



**BLIBY
PLASTICS**



products

150mm Industrial Gutter

Products / Guttering / Rainwater G

The 150mm Industrial Gutter is one of commercial properties and any building



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