**INSTRUCTION SHEET NO. 2**

**Build a Car Bodyshell**

**Step 1** - Cut out along the solid black lines of the sample bodyshell template provided and fold inwards along the dotted lines. Now fold the template around your chassis and glue the tabs in place to form a simple bodyshell. Don't forget to add the underside of the nose cone. Alternatively, you could design your own bodyshell by carefully measuring your chassis and creating a net on squared paper.

**Step 2** - You can decorate this template or use it to help you make a template of your own. You can use any method you like to make your bodyshell look more attractive. If you want to use a computer drawing programme, your teacher can give you a template to work on. Use your knowledge of aerodynamics and air resistance to design a car shape which will make your chassis more streamlined.

If you want to decorate your bodyshell, it is best to do this before you cut it out.

**Step 3** - Your car is now ready to race. Have a look at the finish line carefully to see which car crosses first.

**Step 4** - Now that you've raced your car, you might want to think about how to make improvements to the design of the bodyshell to make your car faster? You will need to consider the shape and weight of the car and how these can affect its speed.

**How well did your car perform?**

**Things to think about...**

Which car is the fastest? Why do you think that it was the fastest?

What forces are acting on the cars when they race?
Cut along the **Black** lines.

Fold inwards along the **Dotted** lines.

Note: Remember to print or photocopy at 100% scale.