

Year 4 - Mechanical Systems - Slingshot Car - Term 2

Key Vocabulary

Aesthetic	How an object or product looks.
Air resistance	The level of drag on an object as it is forced through the air.
Chassis	The body of a car.
Design	To make, draw or write plans for something.
Design criteria	A set of rules to help designers focus their ideas and test the success of them.
Function	The purpose of an object (for example a chair needs to hold a person when sitting down); or how the product works (for example a torch needs to provide light in a dark space).
Graphics	Images which are designed to explain or advertise something.
Kinetic energy	The energy that causes an object to move.
Mechanism	The parts of an object that move together as part of a machine.
Net	A flat 2D shape, that can become a 3D shape once assembled.
Structure	Something that has been made and put together and can usually stand on its own (eg a building, a bridge, a chair).

Did you know?



Which vehicle has the least air resistance?



Front view



Bird's-eye view



Side view



To know statements



I know how to produce an accurate, functioning car chassis

I know how to design a shape that is suitable for the project and making some attempt to reduce air resistance through the design of the shape

I know how to produce panels that will fit the chassis and can be assembled effectively using the tabs they have designed

I know how to construct the car bodies effectively and can conduct the trial accurately and drawing conclusions and improvements from the results

What can you remember from previous units?

What are levers, linkages and pivots?

Anything else you have learnt? What have you enjoyed?