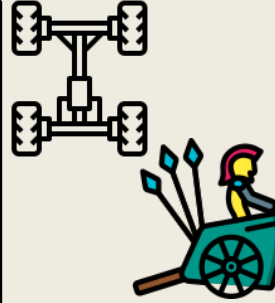


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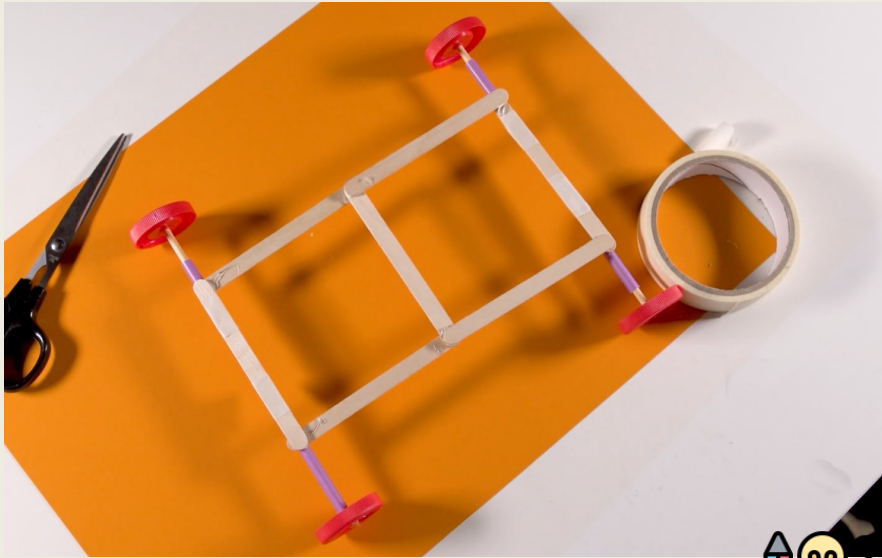
Mechanical Systems – Slingshot Chariots



Our topic this term, is Mechanical Systems. We will be creating a slingshot mechanism out of paper clips, lollipop sticks and rubber bands and designing our chariots chassis for a strong, durable and aesthetic creation!

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).

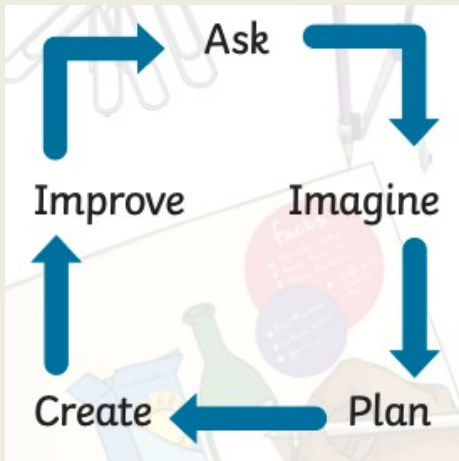
We will be exploring Roman chariot designs and tweaking them slightly. Ours will have 4 wheels and 2 axels but will have the same designs and colours as the Roman's actually used!



This is the chassis and mechanism that we will be making. They will be glued together using a hot glue gun and we will use masking tape to attach the elastic band to the lollipop stick. There is a paper clip attached to the chassis which allows us to fire the chariot using kinetic energy.



THE DESIGN PROCESS



We will be making our creations in groups and will follow this design process thoroughly. It is vital we plan and discuss our ideas before we create – we will always improve on them later!

Which vehicle has the least air resistance?



What features do a chariot have to have?

