

DT-Term 4

Key vocabulary

Mechanism
Wheel
Axis
Axle
Holder
Friction
Dowel
Chassis
Design
Make
Evaluate

Wheels and axles-

Mechanisms are the parts that make something work.

-Mechanisms are all around us! Most objects that help us in our lives are made up of different mechanisms. Wheels and Axles are mechanisms that help things to move.

-Wheels are circular objects that roll on the ground, helping vehicles and other objects to easily move.

-Axles are rods that help wheels to rotate. The wheel can either rotate freely on the axle, or be attached to (and turn with) the axle.

Making-

Wheels could be made from wood, card, MDF, plastic, cotton reels, or foam-covered reels.

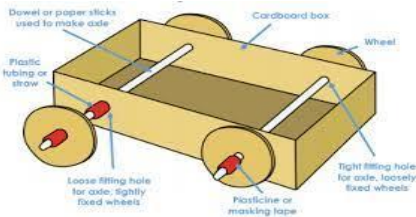
Axles could be made from dowels or paper sticks.

Free Axles - Fixed Wheels -The axles move with the wheels. Loose-fitting axle holder, tightly fixed wheels.

Fixed Axles - Free Wheels -The axles will remain fixed to the chassis. The wheels move alone. Tight-fitting axle-holder, loose fitting wheels.

Designing- You need to think about who your product is for-

what is its purpose and who is going to use it?



Evaluating-

How well does your mechanism work? Does it move smoothly?

Does it meet its purpose? Who would use your mechanism?

What would they like about it? What else could you do to improve your mechanism?

What you already know-

You can draw simple designs of your product.

You can use the internet to research ideas.

You can say what you like/don't like about your design and if it meets the criteria.

You can use simple mechanisms in your product.

What you will be able to do by the end of the unit-

You will be able to create a car that moves.

You will be able to create a drawing of your ideas and templates for your design.

You will be able to use IT to explore ideas.

You will be able to say how well your product met the design criteria and how it could be improved.

You will be able to select appropriate materials to use and join them together.