



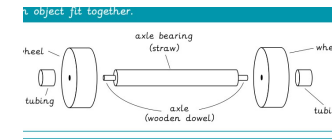
Year 4 - Mechanical Systems - Mechanical Cars - Term 2

Key Vocabulary

Mechanism	Moving parts that work together.
Mechanical system	More than one mechanism working together.
Wheel	A round part that rolls.
Axle	A rod that helps wheels turn.
Bearing	A support that lets an axle turn smoothly.
Chassis	The frame of a vehicle.
Prototype	A model made to test a design.
Exploded diagram	A drawing showing how parts fit together.
Durable	Strong enough to last through use.

Wheel mechanism

A car rolls when a wheel-and-axle mechanism turns inside an axle bearing.



Exploded diagrams show how parts assemble.

Explore a prototype

Build small models to test a design idea before making the final product.



Prototype one mechanism: an inclined plane (ramp) is used to make the car roll.

A ramp can make the car roll.

Ways to propel a car

A rubber band can be used to launch a car or wound around an axle to turn it.



Prototype two mechanism: a rubber band is used to slingshot the car forwards.



Prototype three mechanism: a rubber band is wound around the back axle and unwinds to make the car move.

Test which mechanism makes the car move.

To know statements

To build a simple prototype car chassis.

To build a prototype of a sustainable slingshot car chassis.

To build a prototype of a durable slingshot car chassis.

To design a mechanised toy car.

To make a mechanical toy car from a kit.

What can you remember from previous units?

What is the job of an axle holder?

How could you test a mechanism before making it?

Anything else you have learnt?

What have you enjoyed?