Wheels and Axles

Key Skills

Design	Make	Evaluate
Recognise that wheels and axles are used in everyday life, not just in cars. Design a vehicle that includes functioning wheels, axles and axle holders.	Use cardboard, plastic and wood to create a fire engine. Make a moving vehicle with working wheels and axles.	Identify and explain vehicle design flaws using the correct vocabulary. Explain what must be changed if there are any operational issues.

Technical Knowledge

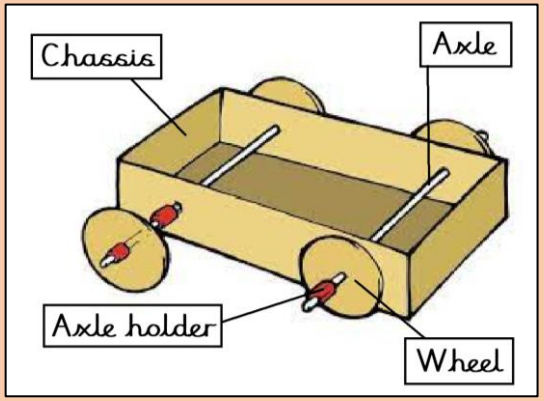
Wheels move because they are attached to an axle.

Identifying what mechanism makes a toy or vehicle roll forwards

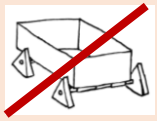
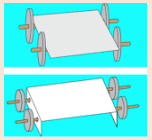
Learning that for a wheel to move it must be attached to an axle

Key Vocabulary

Mechanism	A device that links two or more pieces to create movement
Wheel	A disc- or circle-shaped mechanical device. Its main purpose is to allow things to roll
Axle	A rod that enables a wheel to rotate. The wheel can rotate freely on the axle or be fixed to, and turn with, the axle.
Chassis	The frame or base on which a vehicle is built
Friction	The resistance which is encountered when two things rub together.



For wheels to work, they must be:

Discs or circles 	Attached to an axle 
Balanced 	Loose enough to spin 

Previous Skills

EYFS	I learnt how to safely use scissors, tape and glue.
	I designed and made toys, decorations and products with recycled materials.
	I explored a variety of materials, tools and techniques, experimenting with design, form and function.
Year 1	I learnt what a mechanism is and how some mechanisms work.
	I learnt about different types of sliders
	I designed, built and evaluated my own moving picture using slider mechanisms.

Wheels and axles around us

Vehicles	Ferris wheel	Pizza cutter	Windmill