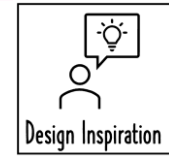
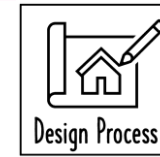
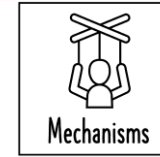


# WEAVING CONCEPTS



What should I already know:

Year 1:

- I should be able to use my own ideas to make something.
- I should know how to join materials together.

Year 2:

- I should be able to use my own ideas to make something and describe how it works.
- I should be able to make a simple plan before making.
- I should be able to make a product which moves.
- I should be able to choose appropriate resources and tools.

Key Vocabulary	
Axle	A piece of metal or wood joining two wheels together.
Chassis	The main frame of a wheeled vehicle.
Wheel	A circular object that revolves around an axle in order to move (forwards or backwards).
Mechanism	A number of parts working together to create movement.
Join	To link two or more things together.
Measure	To take/ make an exact length of something.
Pivot	A central point that something moves around.
Lever	A bar that is attached to a pivot that is used to move a load.
Fixed axle	The axle is attached to the chassis, the wheels are free.
Free axle	The axle is not attached to the chassis, the wheels are fixed.

## Examples

Here are some objects that use mechanisms with wheels and axles:



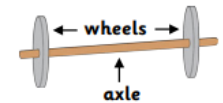
Wheelchair

Toy tractor

## Technical Knowledge

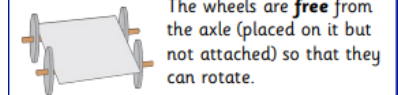
A **mechanism** is something that creates movement.

**Wheels and axles** are parts of mechanisms that can help vehicles to move.



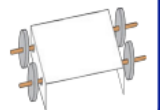
Axles need to be attached to a **chassis**.

Here, the axles are **fixed** underneath the chassis. The axles cannot turn round.



Here, the axles are **free** from the chassis.

The axles are put through holes in the chassis so that they can turn around. The wheels are **fixed** to the axle so they turn when it does.



What will I learn?

- I will learn what wheels, axles and chassis are.
- I will learn that there are two different ways of attaching wheels to axles.
- I will experiment with different ways of combining materials to create a range of parts for a fire engine.
- I will design and make a fire engine which includes wheels, axles and chassis.
- I will learn how to follow my design.