

Year Group 4
Autumn

Knowledge Organiser: Design & Technology

Theme: Rise of the Robots



Strands:

Mechanical Systems: Cams

What have I learnt already?

In Year 1, you learnt that wheel & axle mechanisms enable things to move more easily.

In Year 2, you learnt the difference between a lever and a slider mechanism and the type of movement each produces.

In Year 3, you learnt how lever & linkage mechanisms can change the direction of movement.

Key knowledge that will be learnt

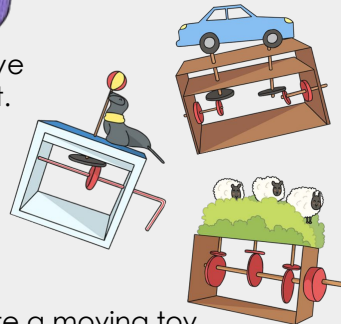
That cam mechanisms work within a mechanical system to produce different types of movement and change the direction of movement.



That mechanical systems have an input process & an output.

We will work with a visiting expert to build a machine that includes a cam mechanism.

To design, make and evaluate a moving toy.



Key Vocabulary:

cam	a shaped wheel on an axle (cam shaft) that changes one type of movement to another
follower	Follows the outline shape of the cam
mechanical system	A set of connected parts that create an outcome
linear motion	Movement in a straight line
rotary motion	Movement that goes round
input	What you have to do to start the machine
output	The movement produced in the follower