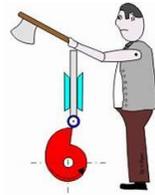


# Year 5 Merlins

DT

Autumn 2

## Cams Toys



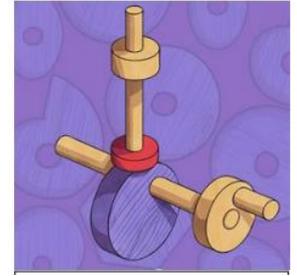
### What is a 'Cam mechanism'?

A cam mechanism is made up of three components:

- a cam
- a slider
- a follower

The mechanism causes components to move.

Cams can be made from metal, plastic or wood.



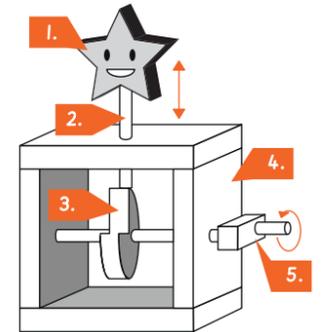
### Key Vocabulary

### Definition

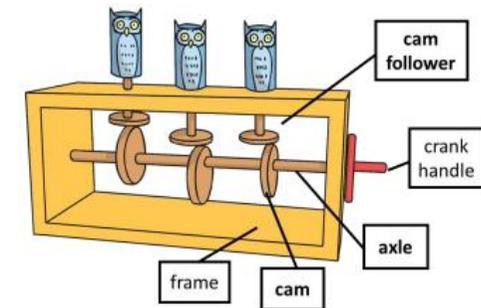
axle	In an Automata, the axle rotates, turning the cam with it. It is attached to the handle.
cam	A cam is a rotating or sliding piece in a mechanism. It changes rotary motion to linear motion.
camshaft	A rod which turns the rotary motion of the cam into linear motion.
component	One of several parts of which something is made.
dowel	Wood in the shape of a cylinder. They come in all different sizes and thickness.
finish	To complete your product with a high-quality appearance.
follower	Touches the cam and follows the shape, moving up and down.
frame	The rectangular structure which holds the Automata together.
function	How an object or product operates or works.
mechanism	A system of parts which work together in a machine.
pivot	The central point or pin on which a mechanism turns.
slider	The part of a cams toy which allows the follower to glide smoothly.

### Cam Toy components

1. Toy profile
2. Follower and slider
3. Cam and camshaft
4. Frame
5. Axle

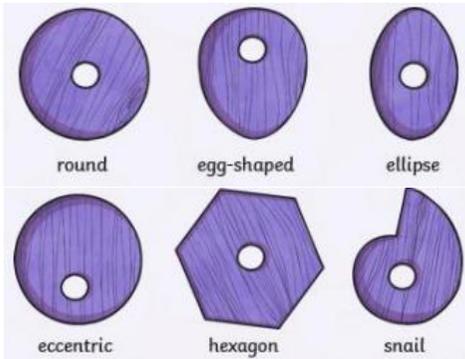


### Annotated drawing of a cam toy



### Cam Shapes

Different types of cams can create different movements. Changing the shape of your cam will alter the movement of your toy profile.



Round	Snail	Ellipse
No movement	Drop and climb	Steady up and down

### Linear and Rotary motion

#### Linear motion:

Movement in a straight line, e.g., left and right, or up and down.

#### Rotary motion:

Movement in a circular motion, either clockwise or anticlockwise.

