



# DT: Cam Toys

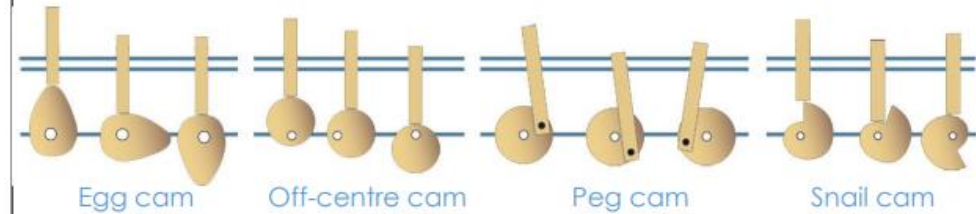


## General Knowledge

	Key Vocabulary
<b>Rotary motion</b>	movement that goes round.
<b>Oscillating motion</b>	moving to and fro around a pivot point, as in a lever.
<b>Reciprocating motion</b>	backwards and forwards movement in a straight line, as in a slider.
<b>Cam</b>	a mechanism that changes one sort of movement to another. Cams can be an off-centre wheel or a specially shaped wheel.
<b>Follower</b>	the device that follows the movement of the cam: a lever or a slider.
<b>Lever</b>	a piece of rigid material that moves to and fro around a pivot point creating oscillating motion.
<b>Slider</b>	a piece of rigid material that moves backwards and forwards in a straight line creating reciprocating motion.
<b>Spacer</b>	a piece of material used to create extra space to allow moving parts to move freely.
<b>Guide</b>	a piece of material used to guide the movement of another.

A CAM changes the input motion, which is usually rotary motion (a rotating motion), to a reciprocating motion of the follower. They are found in many machines and toys

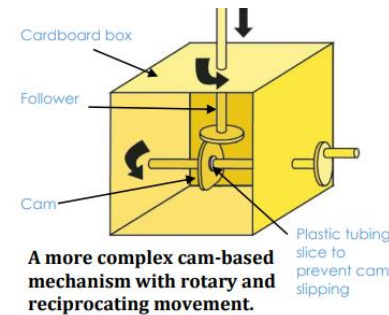
### Types of cams



Above are some different examples of cam mechanisms. Each one causes a cam toy to move in a different way.

### Common Faults

CAM mechanisms work well if they are made accurately. However, any inaccuracy in making the device can lead to the mechanism 'jamming' when the profile rotates. Also, inaccurate making can lead to the movement of the follower being less than smooth when the profile rotates.



### How a cam mechanism works

Many mechanical toys have a moving mechanism in them called a cam. These help make various parts work. A cam mechanism is a linkage system which has a follower to convert a rotary movement (moving round and round) to linear movement (moving up and down). As the cam is rotated by the dowelling, the follower is lifted up and down because of the shape of the cam

### Types of movement

