

# Knowledge Organiser – Moving Toys

## Important Information

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.

History of pop up toys and jack in the boxes. Pop up toys and Jack in the boxes were thoroughly used between 1935-1955. These toys are still made today; they are quite different and more carefully designed. The toys chosen were used for entertainment during the world war two period to keep children calm.

## Key Vocabulary

|                 |  |
|-----------------|--|
| Mechanism       | A system of parts working together in a machine.   |
| Linkage system  | A group of parts connected to make something work. |
| Convert         | Change the form of something.                      |
| Rotary movement | Turning around in a circle.                        |
| Linear movement | Going up and down.                                 |
| Dowelling       | Cylindrical rods.                                  |
| Pulleys         | A wheel with a grooved rim around it.              |
| Lever           | A rigid bar resting on a pivot.                    |

## DESIGN TECHNOLOGY MOVING TOYS

How does my figure move?

How many different parts does it have?

What is linear motion?

We will be researching and investigating moving toys.

Why do we need cams mechanisms?

Does the shape of the cam make a difference to the motion?

We will also be learning how to make a moving toy using a cam mechanism for ourselves.

How does circular motion change to linear?

