



# Saint Elizabeth's Knowledge Mat

**Year:** 5

**Subject:** D&T

**Topic:** Moving Toys – Autumn Term

**Focus:** Cam Mechanisms

## 1. What I Know Already

How to create models with moving parts (Year 1)

How wheels, axles and chassis' work (Year 2)

The five different types of bridge and how their structure affects their stability (Year 3)

How to produce step by step plans to guide the making of a product (Year 4)

## 2. Key Concepts

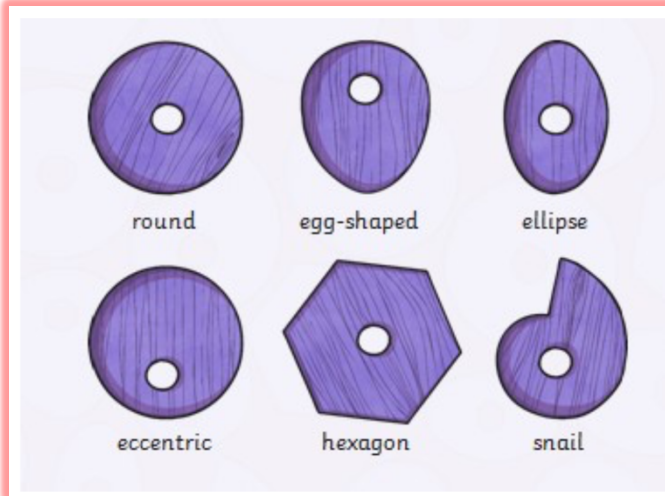
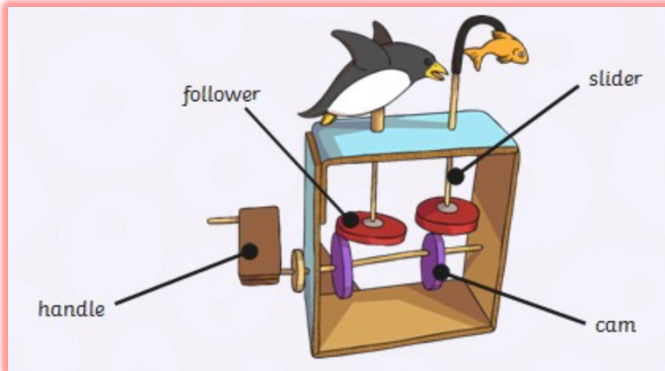
A cam mechanism is made of up of three components: a **cam**, **slider** and **follower**.

The mechanism **causes components to move**. Cams can be made from metal, plastic or wood.

A cam mechanism is made up of a **cam**, **follower**, **axle**, **slider** and **handle**.

Cams come in different shapes which **create different motions**.

Cam mechanisms create **linear and rotary movements**.



## 3. Key Vocabulary

|                 |   |
|-----------------|---|
| Mechanism       | An assembly of moving parts which perform a complete functional motion.             |
| Cam             | A slide or roller attached to a rotating shaft to give a particular type of motion. |
| Slider          | Part of the cam mechanism which is attached to the follower.                        |
| Follower        | Mechanism in contact with the cam.  |
| Linear Movement | Moving in a straight line, up or down.  |
| Rotary Movement | Turning around in a circle, like a wheel turning.                                   |
| Axle            | A rod or spindle through the cam.   |
| Reinforcement   | The act of strengthening a structure.   |