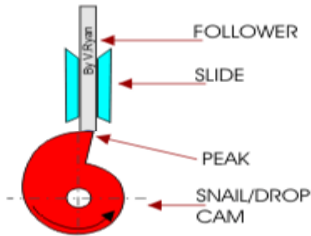


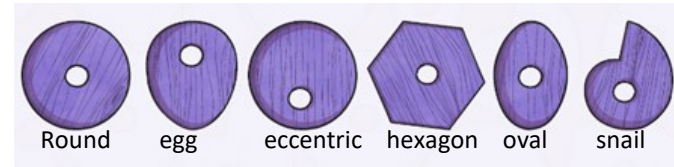


### What is a CAM mechanism?

A cam is a wheel (in various shapes) attached to a shaft.



Cams come in various shapes, these are called cam profiles:



The shape of the cam controls the movement of the follower. If the pivot point is not central, the movement will be greater. The peak is the part of the cam that is the furthest from the pivot point, creating a larger movement. The snail causes a sudden drop as the follower falls from the peak to a part of the cam that is close to the pivot point.

### Making your CAMS card:

**1: Making the hole:** Make a hole safely by placing the card on top of a ball of blu tack and then using a sharp pencil, push a hole through both the card and the blu tack. Make sure the hole is not too low down!

**2: attaching your CAMS:** Push the shaft through the hole and attach one round cam on the front of the card, and the cam profile of your choice on the inside. Check they both spin when you rotate them!

**3: Secure your slide:** Tape your slide to the inside of your card - make sure there is enough room for the whole cam to rotate, the peak should not clash with the slide!

**4: Inserting your slide:** Put the follower into the slide, make sure it's the right length to reach your CAM and also move your character up and down!



### Key Vocabulary

Vocabulary	Definition
Drop	When the follower falls, this can be sudden or gradual depending on which shape cam is used.
Mechanism	Parts that work together in a machine.
Rotate	To turn on or around a fixed point.
Component	A part of something.
Pivot point	A point around which something can rotate or turn. The fulcrum, the hole in the cam where the shaft is attached.

### Games

We Are Engineers: Cams Easter Card - Key Vocabulary - Find the match ([wordwall.net](http://wordwall.net))