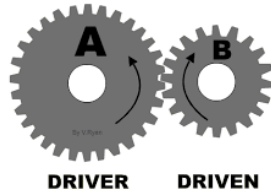
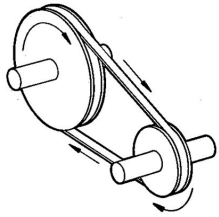


Mechanisms in DT – things that move.

Transferring Motion



Task Label the types of simple mechanism that are used to transfer rotary motion.

Gear train, Chain and sprocket, belt and pulley

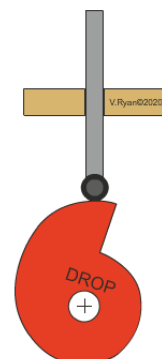
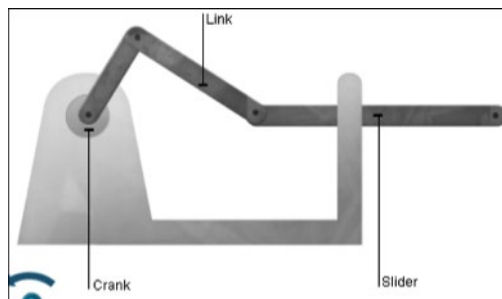
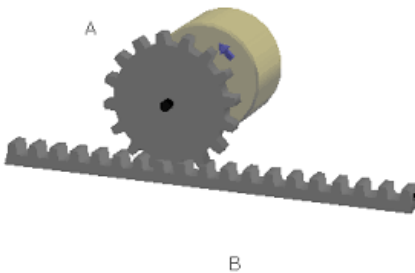
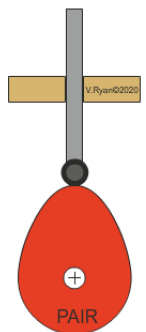
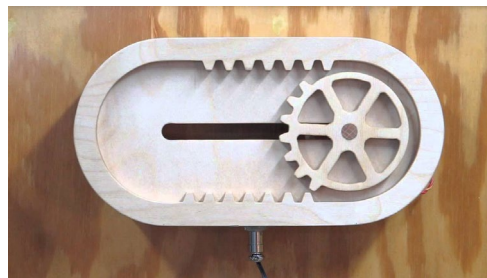
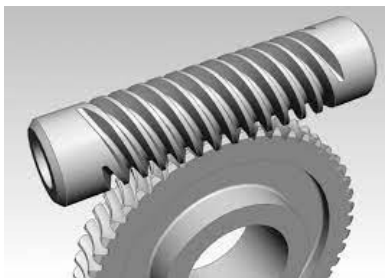
Q - When one gear is bigger than the other or one sprocket is bigger than the other or one pulley is bigger than the other something happens can you explain what?

Find out more about gears here.

<https://technologystudent.com/gears1/gardex1.htm>

Some mechanisms change rotary motion into a different type of motion.

Task use the descriptions to help you label the types of motion involved in each mechanism.



Rotary Motion – movement in a circle

Linear Motion – movement in a straight line, in one direction.

Reciprocating Motion – moving backwards and forwards.

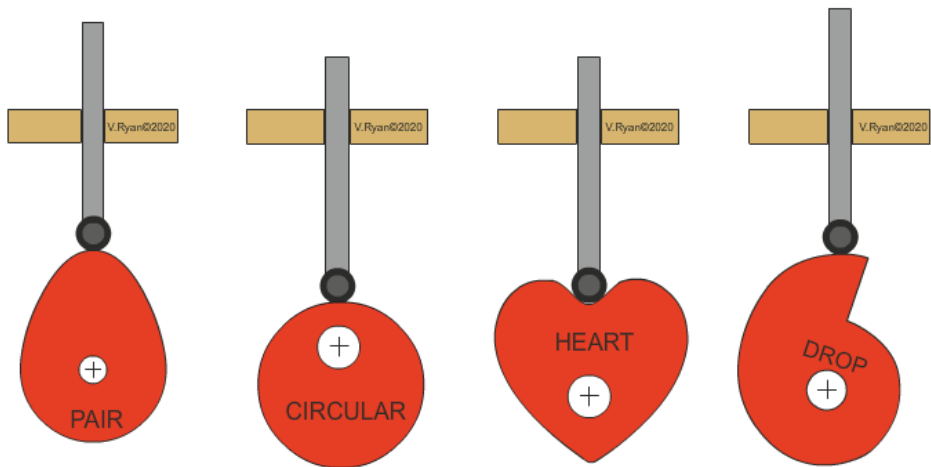
Oscillating Motion – swinging backwards and forwards

Mechanisms in DT – things that move.

CAM PROFILES

Cams can be shaped in any number of ways and this is determined by the way the follower is to move. The shape of the cam is called the PROFILE. Examples of various cam profiles can be seen below.

PEAR	CIRCULAR	HEART	DROP
Pear shaped cams are used on the shafts of cars. The follower remains motionless for about half of the cycle of the cam and during the second half it rises and falls	Circular cams or eccentric cams produce a smooth motion. These cams are used in steam engines.	Heart shaped cams allow the follower to rise and fall with 'uniform' velocity.	What type of movement do you think this cam profile will give ?

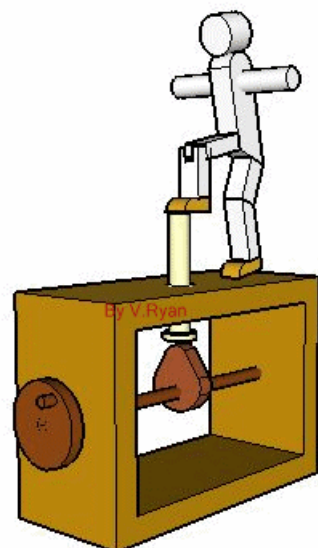


An animation of this can be found here

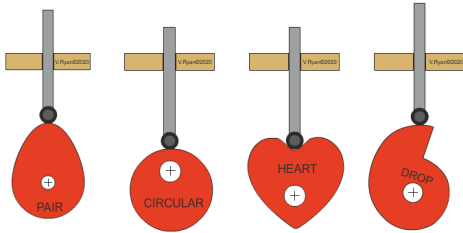
<https://technologystudent.com/cams/cam2.htm>

Below is an example of an automaton that uses a cam for its mechanism.

Task – Can you describe what happens and why if you turn the handle.



Mechanisms in DT – things that move.



Task – Can you design some other tops for an automaton and explain how they work. You can also change or add more cams.

