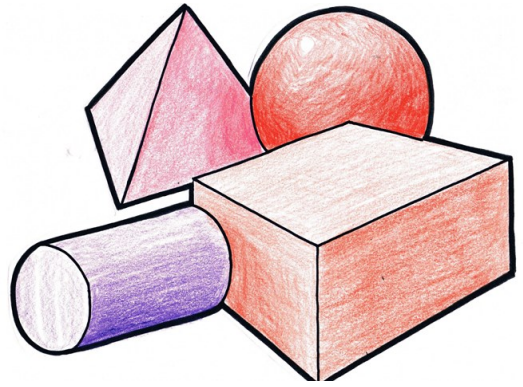
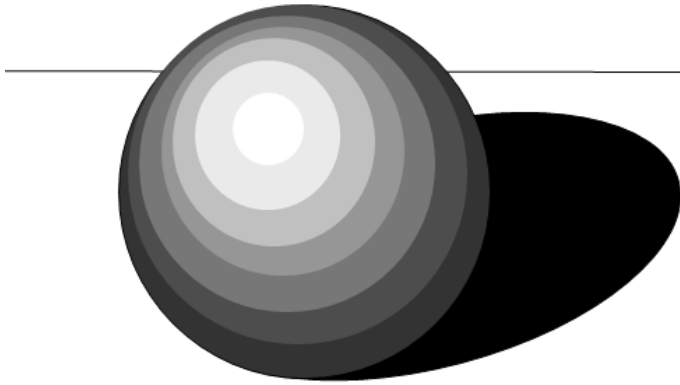


# Shading a Sphere



Internal stand

Box Fold

V Fold

Name: \_\_\_\_\_

## Rules for shading

For each of the images below match the correct keyword to the sentence.



**KEYWORDS** – One direction, white gaps, less pressure, pressure

1. Apply more \_\_\_\_\_ so the colour will show
2. Apply \_\_\_\_\_ to gain an even colour
3. Shade in \_\_\_\_\_ for a neat finish
4. Fill all \_\_\_\_\_ when shading to stop paper from showing

# LEARN SHEET : YR 8 RESISTANT MATERIALS

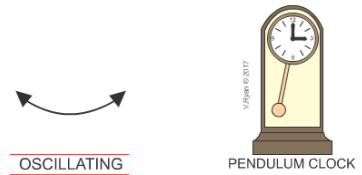
## ROTARY MOTION

This is movement following a circular



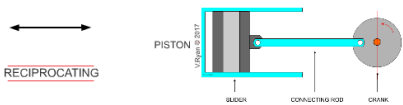
## OSCILLATING MOTION

This is movement following a circular path, around a fixed point. .



## RECIPROCATING MOTION

Reciprocating motion is a repetitive movement left to right OR up and down.

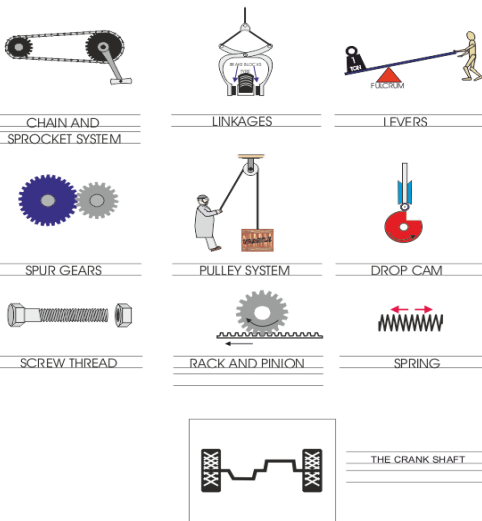


## LINEAR MOTION

Linear motion is movement in a straight line and in one direction.



## TYPES OF MECHANISM



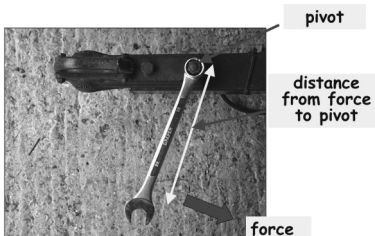
## TOOLS



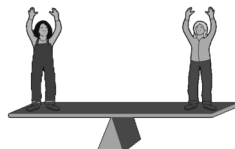
# LEVERS

## TURNING MOMENTS

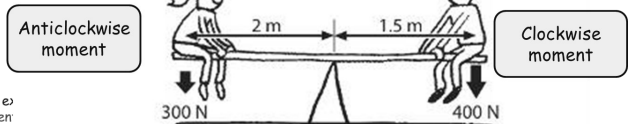
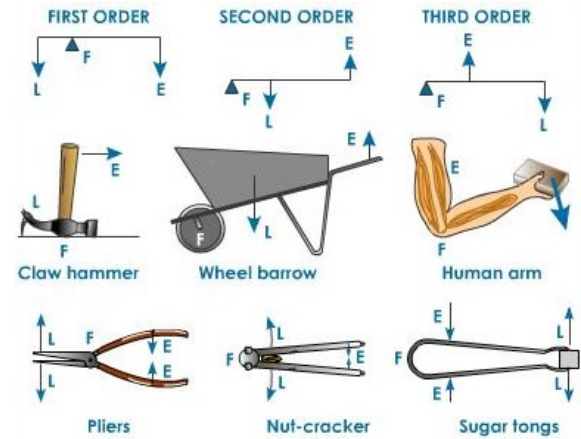
moment = force (N) x distance from pivot (cm or m)



If you increase the distance and apply the same force then the moment increases!



The girl on the left exerts an anti-clockwise moment. The girl on the right exerts a clockwise moment.



When an object is balanced it is in equilibrium

For the seesaw above:

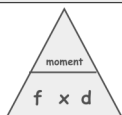
the anticlockwise moment =  $300 \text{ N} \times 2 \text{ m}$   
=  $600 \text{ N m}$

the clockwise moment =  $400 \text{ N} \times 1.5 \text{ m}$   
=  $600 \text{ N m}$

### Moment equation

The moment of a force is given by the equation:

moment = force (N) x distance from pivot (cm or m)



Moments are measured in Newton centimetres (Ncm) or Newton metres (Nm).