Ken Stimpson GCSE Physical Education – Movement Analysis

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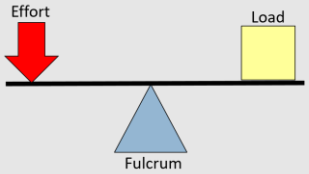
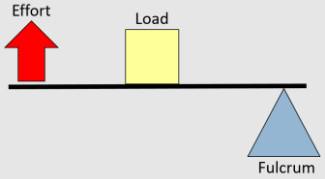
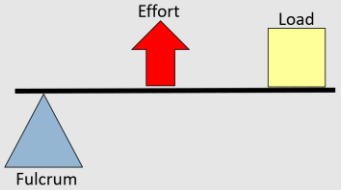
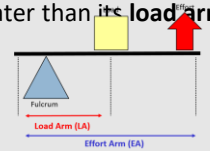
Levers – a rigid bar that moves around a pivot point with force applied to it.

Fulcrum (F)	Effort (E)	Load (L)
A fixed pivot point 	The source of energy that will be applied 	The weight/resistance to be moved 

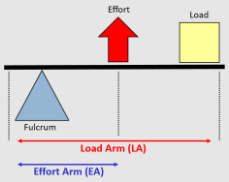
Classes of lever	Drawing	Example
First class lever:		
Second class lever:		
Third class lever:		

Mechanical advantage –
MA = Load / Effort
This is were a lever's **effort arm** is greater than its **load arm**.

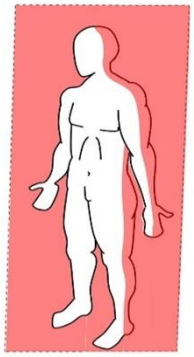
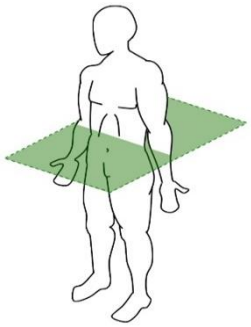
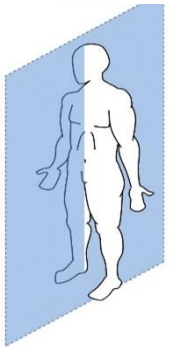


Large loads can be moved with limited effort.

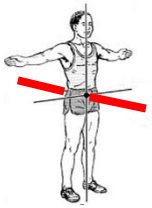
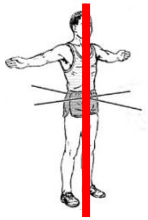
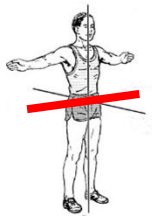
Mechanical disadvantage
This is were a lever's **load arm** is longer than its **effort arm**.



Planes – imagery lines that divide the body into two.

Frontal plane	Transverse plane	Sagittal plane
A vertical plane but this divides the body into **front** and **back e.g. jumping jacks** 	A horizontal plane that divides the body into **upper** and **lower** halves e.g. bowling in cricket 	A vertical plane that divides the body into **right** and **left** sides e.g. kicking, running 

Axes – imagery lines that the whole body turns around.

Frontal axis	Longitudinal axis	Transverse axis
Runs through the body horizontally from the back to front.  Example: Cartwheel 	Runs through the body vertically from the top to bottom.  Example: Full twist 	Runs through the body horizontally from the left to right.  Example: Somersault 

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Term	Definition/notes/concept

Keywords: