



Science Department

KNOWLEDGE & VOCABULARY ORGANISER

Physics - Springs and Forces



Keyword

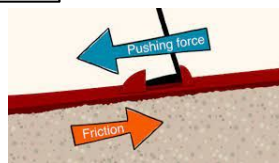
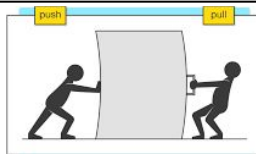
Definition

Deformation	When we apply a force to an object to change its shape.
Elastic	Materials that return to their original shape.
Inelastic	Will change shape permanently.
Weight	The effect of gravity on mass.
Extension	The distance which a material stretches by.
Balanced	Forces are equal
Unbalanced	The forces are NOT equal
Energy	The Ability to do things
Friction	A force that tries to stop things moving

Push and Pull Forces

-A force is a push or a pull that acts on an object due to the interaction with another object.

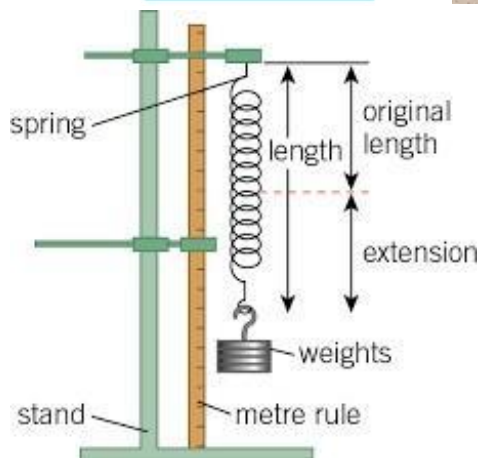
-Force is measured in newtons (N)



Contact and Non-Contact forces

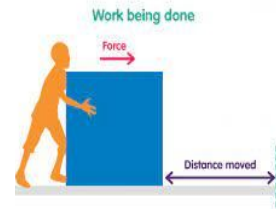
Contact forces act between two objects that are physically touching. Some example of contact forces are friction, air resistance and tension.

Non-contact forces act between two objects that are not physically touching. Example of non-contact forces are gravity, magnetic, and electromagnetic.



Work done and Energy changes

When a force causes an object to move, **work** is being done. Work is a measure of the energy transferred when a force acts over a distance. This is often when a force moves an object, but work is also done when a force compresses or extends a spring or other flexible object. Work and energy are both measured in **joules (J)**.



Mass vs Weight

Mass never changes - it is amount of stuff

Weight changes - if gravity changes - weight needs gravity