

# Forces

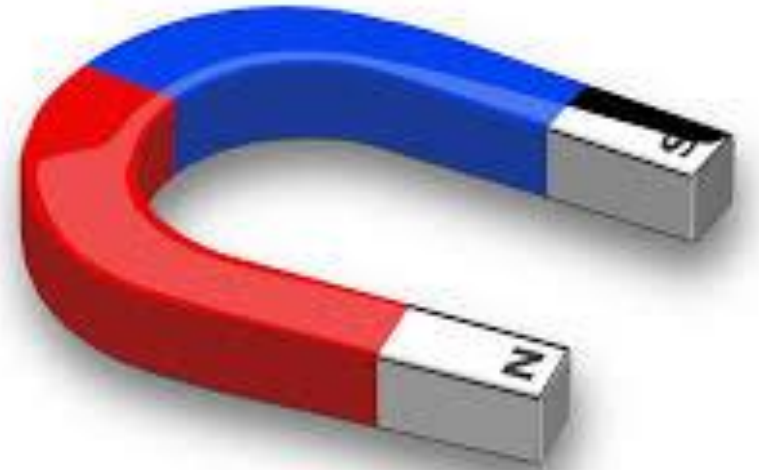
## Physics

Year-7

Cambridge Secondary-1

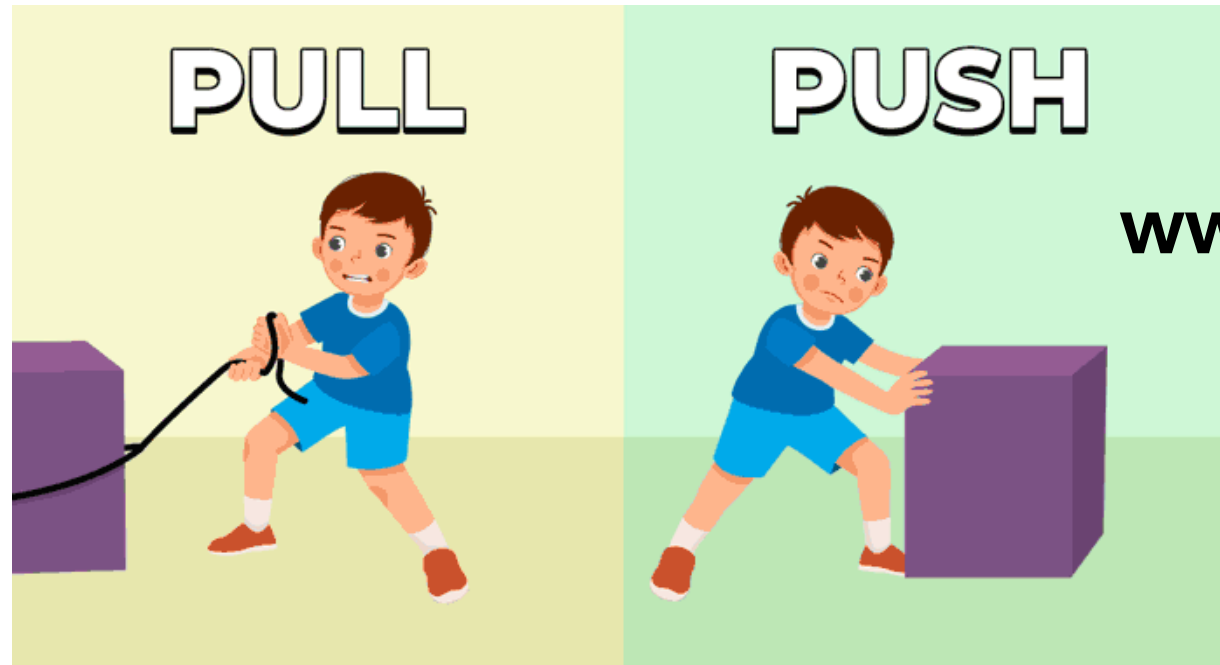
Part-1

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# What is a force?

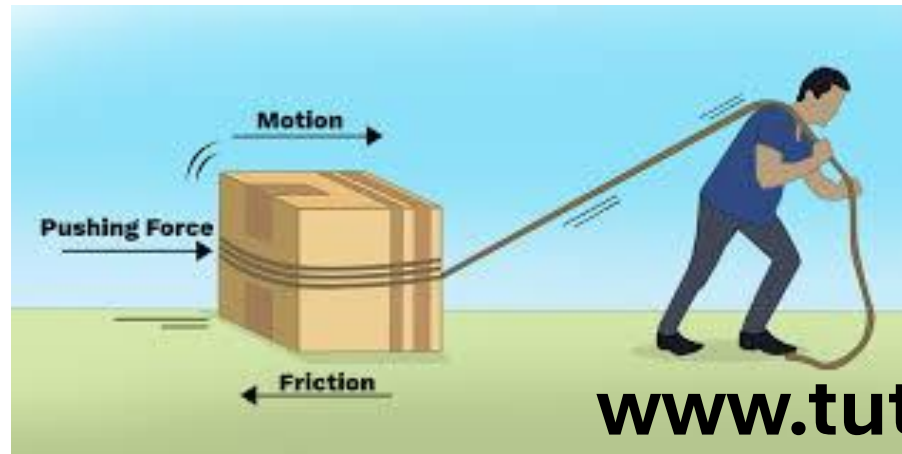
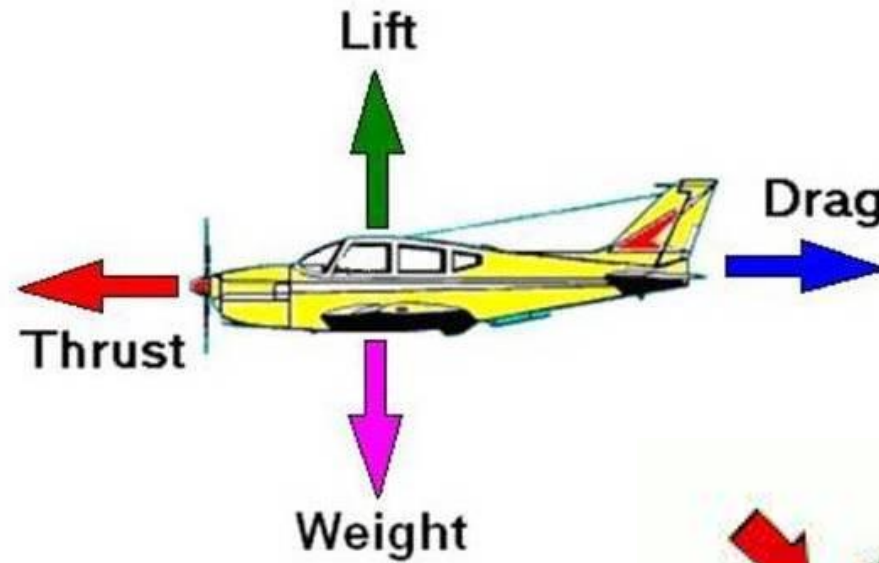
- A force is a push or a pull that can change the shape of an object, or change the way that it moves.



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# Types of forces

- Gravitational force (weight)
- Electrostatic force
- Magnetic force
- Friction
- Drag (Air resistance, Water resistance)
- Upthrust
- Thrust
- Tension





**Push**



**Pull**



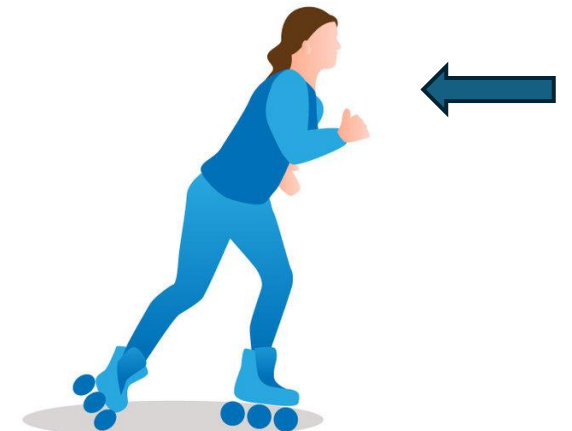
**Magnetism**



**Gravitational force**

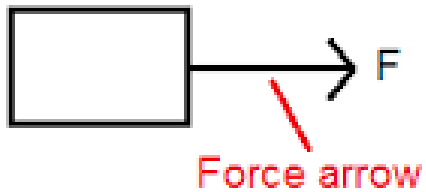
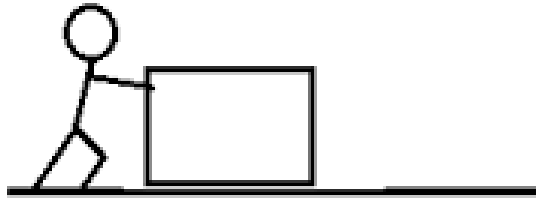


**Friction**

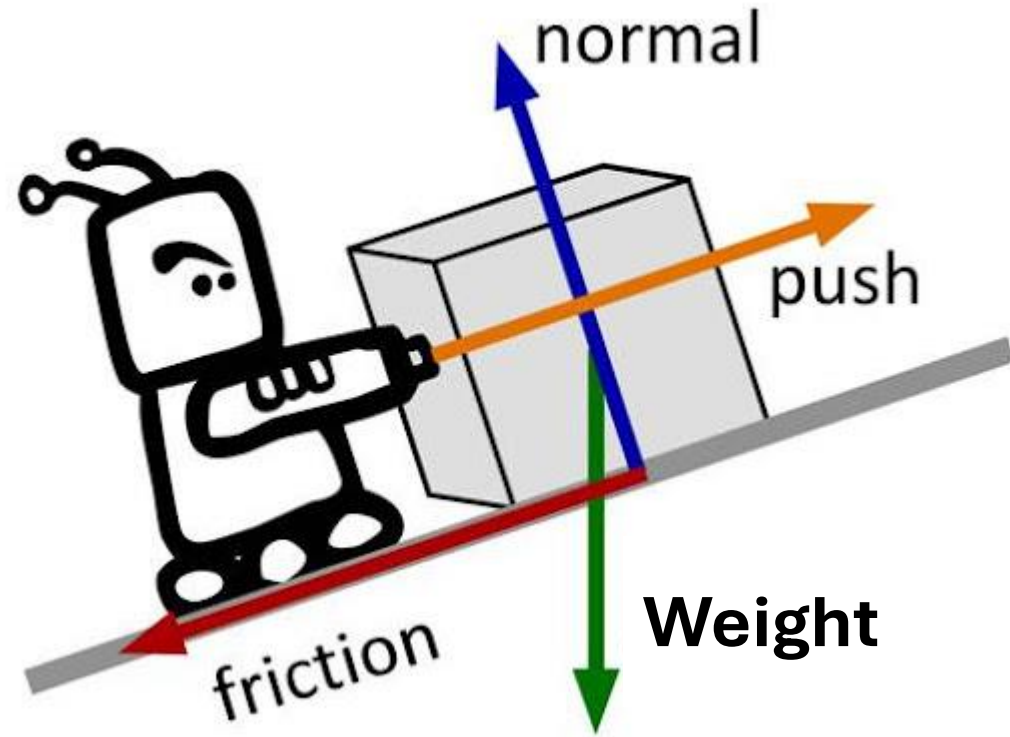


**Drag**

# Force arrows



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- The length of the arrow shows the size of the force.
- The direction of the arrow shows the direction of the force.

# Newton

- The size of a force is measured by the unit called newton(N).



In physics, force is measured in newtons, named after Sir Isaac Newton, who formulated the laws of motion and universal gravitation.



# Measuring forces

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A device for measuring force is called a forcemeter, such as a spring balance.