

Forces - Contact Forces KEY LEARNING

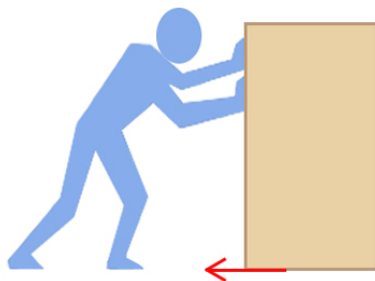
A contact force has direct contact with an object.

A contact force is defined as the force between two objects that are in physical contact. For example, kicking a soccer ball is a contact force since physical contact is between the foot and the ball.

Contact Forces

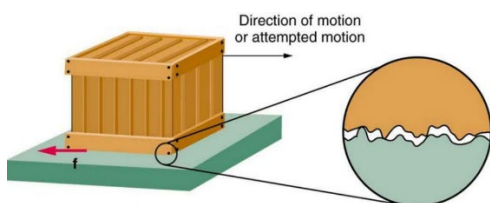
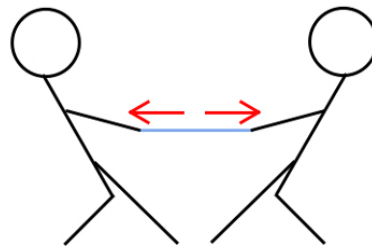
Friction Force

A man pushing a box



Tension Force

Two men pulling a rope



When two surfaces move past one another we get friction. Friction is greater if:

- Surfaces are rough.
- Objects are heavy.

Force is measured in Newtons (N).

Measuring Forces



What do we call this piece of equipment?

A newton meter

What is it used for?

Measuring forces in newtons

Forces - Pressure KEY LEARNING

A tractor has big tyres to stop it sinking in mud.

The weight (force) of the tractor is spread out over the big area of the tyres. This means the tractor exerts a small pressure on the ground and is less likely to sink.



Keywords

Pressure: The number of Newtons per area (cm^3 or m^3). It's why we leave footprints!

Atmospheric pressure: The pressure caused by the weight of the air above a surface.

$$\text{Pressure} = \text{Force} \div \text{Area}$$

Key Learning Questions	Year 8 Forces
What do we call the force where two objects touch?	Contact (force)
What unit (a single letter) is force measured in?	N
What do we call the force between two rubbing surfaces?	Friction
What do we call a force distributed over an area?	Pressure
Bigger tyres stop a tractor sinking in mud. How?	Bigger area/ Lower pressure