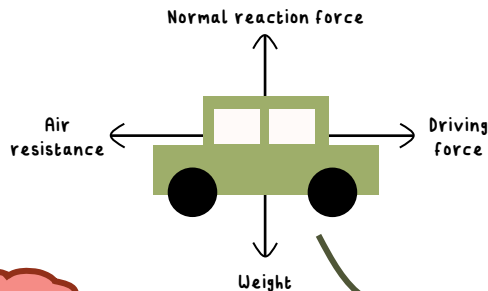


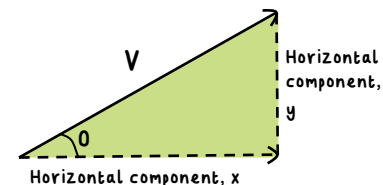
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Free Body Diagrams



Resolving Vectors



Diagrams

9.2: FORCES AND THEIR EFFECTS

Lever

Different lengths between the pivot increases force

Force multipliers

Gears

Combine different sizes to alter force and speed

Moments

The turning effect of a force

Perpendicular distance between line of action of force and pivot

Measured in Nm

Moment of a Force = Force x Distance

Principle of moments

The sum of clockwise moments must equal the sum of anticlockwise moments for any object in equilibrium

Total Clockwise Moment = Total Anticlockwise Moment

KEY
'Higher tier only' written in green.
'Physics only' written in clouds.

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