

All physical quantities, with their units and symbols.

Force, F, Newton, N

Mass, M, Kilograms, kg

Acceleration, a, Meters per second Squared, M/s^2

Displacement, S, Meters, m

Initial Velocity, U, meters per second, m/s

Final Velocity, V, meters per second, m/s

Time, t, Seconds, s

Heat, Q, Joules, J

Specific Heat Capacity, C, Joules per kg centigrade, $J/Kg\ C^\circ$

Temperature, T, Centigrade, C°

Potential Energy, PE/U, Joules, J

Kinetic Energy, KE, Joules, J

Energy, E, Joules, J

Work Done, W, Joules, J

Momentum, p, Kilogram meter per second, $Kg/ m/s$

Moment, M, Newton Seconds, Ns

Power, P, Watts, W

Efficiency, n, Ratio (no unit)

Weight, w, Newton, N

Latent Heat, L, Joules per kg, J/kg

Speed, S, Kilometers per hour, km/h

Distance, d, kilometres, km

Density, D, Kilograms per meter cubed, kg/m^3

All formulas

Force = Acceleration • Mass (kg)

Weight = Mass • gravitational acceleration (Newtons)

Moment = force • perpendicular distance from the pivot

Newtons second law = $F=ma$

Kinetic energy: $\frac{1}{2} \times mv^2$ (Joules)

Work done = energy transferred

Work Done= Force x Distance (Joules)

Power = energy transferred/time (Watts)

Efficiency = useful energy output/total energy input

Gravitational potential energy = mgh (mass•gravitational acceleration • height)

Heat=Mass• Specific Heat Capacity• Δ Temperature

Momentum= Mass • Velocity

Energy Transferred =Power • Time

Spring Force= -spring constant • spring stretch

All the suvat equations.

$$v = u + at \quad v^2 = u^2 + 2as \quad s = ut + \frac{1}{2}at^2 \quad s = vt - \frac{1}{2}at^2$$

Density= Mass÷Volume

Efficiency=Useful Energy Output ÷Total Energy Input•100

Acceleration= Final Velocity- Initial Velocity÷Time

Total Internal energy of a System= Kinetic Energy+Potential Energy

Latent Heat=Heat absorbed or released/Mass

Distance=Velocity²/Constant

Force=Change in momentum/Time

Centripetal Force=Mass•Velocity²/radius

Year 11

All Physical Quantities with units, symbols.

Frequency, F, Hertz, Hz

Wavelength, Lambda, Meters, m

Speed, v, Meters per second, m/s

Time period, T, Seconds, s

Formulas

Frequency=Speed/Wavelength