

Energy / Physics Data Sheet

I belong to _____.

I am your new best friend in Science 10.

You can use me to *help with homework* AND *bring me to tests*. Please *don't loose me*.

Equation or Constant	Symbol	Measured in... Units
Gravity = 9.8	g	m/s ² if measuring velocity or KE
		N/kg if measuring force or PE
Weight W=mg	W or F _g Force of gravity	N Newtons
velocity	v	m/s to convert to km/h x 3.6
PE = mgh	PE	J Joules
KE = ½ mv ²	KE	J
<i>Conservation of Energy:</i> ME = PE + KE Total ME is constant for entire ride.		J
<i>Conservation of Energy:</i> $PE_i + KE_i = PE_f + KE_f$ $mgh_i + \frac{1}{2}mv_i^2 = mgh_f + \frac{1}{2}mv_f^2$ <i>Simplified:</i> PE _i = KE _f <u>OR</u> KE _i = PE _f $mg\Delta h = \frac{1}{2}mv^2$		J
Work = amount of energy in an object	W	J
Power P = W/t (t in s)	P	W Watts