

Help with the 'Relationships sheet' – National 5 Physics

Understanding quantities, symbols and units

Symbol	Quantity	Unit	
a	acceleration	ms^{-2}	metres per second per second
A	activity	Bq	becquerels
A	area	m^2	metres squared
c	specific heat capacity	$\text{J kg}^{-1} \text{ }^\circ\text{C}^{-1}$	joules per kilogram per degree Celsius
d	distance (or displacement)	m	metres
D	absorbed dose	Gy	grays
E	energy	J	joules
E_h	heat energy	J	joules
E_k	kinetic energy	J	joules
E_p	potential energy	J	joules
E_w	work done	J	joules
f	frequency	Hz	hertz
F	force	N	newtons
g	gravitational field strength	N kg^{-1}	newtons per kilogram
h	height	m	metres
H	equivalent dose	Sv	sieverts
\dot{H}	equivalent dose rate	Sv s^{-1} etc...	(many possible units)
I	current	A	amps
l	specific latent heat	J kg^{-1}	joules per kilogram
m	mass	kg	kilograms
N	Number of radioactive nuclei decaying		(no units)
p	pressure	Pa	pascals
P	power	W	watts
Q	charge	C	coulombs
R	resistance	Ω	ohms
R_T	total resistance	Ω	ohms

s	distance (or displacement)	m	metres
t	time	s	seconds
T	period	s	seconds
T	temperature	K	kelvin
ΔT	change in temperature	°C	degrees Celsius
u	initial velocity	ms ⁻¹	metres per second
v	velocity (or final velocity)	ms ⁻¹	metres per second
\bar{v}	average velocity	ms ⁻¹	metres per second
V	volume	m ³	metres cubed
V	voltage	V	volts
V_s	supply voltage	V	volts
W	weight	N	newtons
λ	wavelength	m	metres
ω_R	radiation weighting factor		(no units)