Grade 11 FCAT Science Reference Sheet

Equations

Acceleration (a)	=	$\frac{\text{change in velocity (m/s)}}{\text{time taken for this change (s)}}$	a	=	$\frac{v_f - v_i}{t_f - t_i}$
Average speed (v)	=	$\frac{\text{distance}}{\text{time}}$	v	=	$\frac{d}{t}$
Density (D)	=	$\frac{\text{mass (g)}}{\text{Volume (cm}^3\text{)}}$	D	=	$\frac{m}{V}$
Percent Efficiency (e)	=	$\frac{\text{Work out (J)}}{\text{Work in (J)}} \times 100$	%e	=	$\frac{W_{out}}{W_{in}} \times 100$
Force (F)	=	mass (kg) × acceleration (m/s^2)	F	=	ma
Frequency (f)	=	$\frac{\text{number of events (waves)}}{\text{time (s)}}$	f	=	$\frac{n \text{ of events}}{t}$
Momentum (p)	=	mass (kg) × velocity (m/s)	p	=	mv
Pressure (P)	=	$\frac{\text{Force (N)}}{\text{area (m}^2\text{)}}$	P	=	$\frac{F}{A}$
Wavelength (λ)	=	$\frac{\text{velocity (m/s)}}{\text{frequency (Hz)}}$	λ	=	$\frac{v}{f}$
Work (W)	=	Force (N) × distance (m)	W	=	Fd

Units of Measure

m = meter
cm = centimeter
g = gram
kg = kilogram
s = second
Hz = hertz (waves per second)
J = joule (newton-meter)
N = newton (kilogram-meter per second squared)

1 Astronomical Unit (AU) = distance between Earth and the Sun (approximately 150 million kilometers)

Periodic Table of the Elements

(based on $^{12}_{6}C = 12.0000$)