A Level Physics Online

OCR Physics Specification A - H156/H556

Module 2: Foundations of Physics

You should be able to demonstrate and show your understanding of:	Progress and understanding:			
	1	2	3	4
2.1 Physical Quantities and Units				
Physical quantities have a numerical value and a unit.				
Making estimates of physical quantities listed in this specification.				
Système internationale (S.I.) base quantities and their units – mass (kg), length (m), time (s), current (A), temperature (K), amount of substance (mol).				
Derived units of S.I. base units.				
Units listed in this specification.				
Checking the homogeneity of physical equations using S.I. base units.				
Prefixes and their symbols to indicate decimal submultiples or multiples of units – pico (p), nano (n), micro (μ), milli (m), centi (c), deci (d), kilo (k), mega (M), giga (G), tera (T).				
The conventions used for labelling graph axes and table columns.				
2.2 Making Measurements and Analysing Data				
Systematic errors (including zero errors) and random errors in measurements.				
Precision and accuracy.				
Absolute and percentage uncertainties when data are combined by addition, subtraction, multiplication, division and raising to powers.				
Graphical treatment of errors and uncertainties; line of best fit; worst line; absolute and percentage uncertainties; percentage difference.				
2.3 Nature of Quantities				
Scalar and vector quantities including examples of each.				

You should be able to demonstrate and show your understanding of:	Progress and understanding:			
	1	2	3	4
Vector addition and subtraction.				
Vector triangles to determine the resultant of any two coplanar vectors by calculation or by scale drawing.				
Resolving a vector into two perpendicular components; $F_x = F \cos \theta$ $F_Y = F \sin \theta$				