

UNIT	SKILLS	TYPE OF ASSESSMENT USED
<u>MECHANICS</u>	1. Kinematics A. Distance and displacement B. the meter C. Velocity and speed D. Acceleration E. Velocity, distance traveled at constant acceleration F. Freely falling objects	<ul style="list-style-type: none"><li>• Multiple choice</li><li>• Lab activities</li><li>• Short answer</li><li>• Graphical manipulation</li><li>• Mathematical interpretation</li></ul>
	2. Statics A. Force B. Vector addition of concurrent forces C. Resolution of forces D. Equilibrium	
	3. Dynamics A. Force, mass and acceleration; gravitational and inertial properties of objects B. Momentum	

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<b><u>MOTION IN A PLANE</u></b>	<ol style="list-style-type: none"><li>1. Two Dimensional Motion and Trajectories<ol style="list-style-type: none"><li>A. A projectile fired horizontally</li><li>B. A projectile fired at an angle</li></ol></li><li>2. Circular Motion<ol style="list-style-type: none"><li>A. Velocity</li><li>B. Force</li></ol></li><li>3. Kepler's Laws of Planetary Motion<ol style="list-style-type: none"><li>A. First law</li><li>B. Second law</li><li>C. Third law</li></ol></li></ol>	<ul style="list-style-type: none"><li>• Multiple choice</li><li>• Lab activities</li><li>• Short answer</li><li>• Graphical manipulation</li><li>• Mathematical interpretation</li><li>• Practical lab assessment</li></ul>
<b><u>ENERGY</u></b>	<ol style="list-style-type: none"><li>1. Work and Energy<ol style="list-style-type: none"><li>A. Work</li><li>B. Power</li><li>C. Energy</li><li>D. Work-energy relationship</li><li>E. Conservation of energy</li></ol></li></ol>	<ul style="list-style-type: none"><li>• Multiple choice</li><li>• Lab activities</li><li>• Short answer</li><li>• Graphical manipulation</li><li>• Mathematical interpretation</li></ul>

UNIT	SKILLS	TYPE OF ASSESSMENT USED
<u>INTERNAL ENERGY</u>	1. Temperature A. Absolute temperature B. Temperature scales	<ul style="list-style-type: none"><li>• Multiple choice</li><li>• Lab activities</li><li>• Short answer</li><li>• Graphical manipulation</li><li>• Mathematical interpretation</li></ul>
	2. Internal Energy & Heat A. Specific heat B. Exchange of internal energy	
	3. Kinetic Theory of Gases A. Pressure B. Gas laws	
	4. Laws of Thermodynamics A. First law B. Second law C. Third law	

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<b><u>WAVE PHENOMENA</u></b>	1. Introduction to Waves A. Transfer of energy B. Pulses and periodic waves C. Types of wave motion	<ul style="list-style-type: none"><li>• Multiple choice</li><li>• Lab activities</li><li>• Short answer</li><li>• Graphical manipulation</li><li>• Mathematical interpretation</li></ul>
	2. Characteristics of Periodic Waves A. Frequency B. Period C. Amplitude D. Phase E. Wavelength F. Speed G. Doppler effect H. Wave fronts	
	3. Periodic Wave Phenomena A. Interference	
	4. Light A. Speed B. Reflection C. Refraction D. Absolute index of refraction E. Wave nature of light F. Electromagnetic spectrum	

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<b><u>MODERN PHYSICS</u></b>	1. Dual Nature of Light A. Wave phenomena B. Particle phenomena	<ul style="list-style-type: none"><li>• Multiple choice</li><li>• Lab activities</li><li>• Short answer</li><li>• Graphical manipulation</li><li>• Mathematical interpretation</li></ul>
	2. The Quantum Theory A. The quantum B. Photon C. Photoelectric equation D. Photon - particle collisions E. Photon momentum F. Matter waves	
	3. Models of the Atom A. The Rutherford model of the atom B. The Bohr model of the hydrogen atom C. Cloud model	

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<u>NUCLEAR ENERGY</u>	1. The Nucleus A. Nucleons B. Atomic number C. Mass number D. Nuclear force E. Atomic mass unit F. Mass-energy relationship G. Nuclear mass and binding energy H. Isotopes I. Nuclides J. Methods of learning about the atom	<ul style="list-style-type: none"><li>• Multiple choice</li><li>• Lab activities</li><li>• Short answer</li><li>• Graphical manipulation</li><li>• Mathematical interpretation</li></ul>
	2. Nuclear Reactions A. Natural radioactivity B. Half-life C. Conservation of mass-energy D. Artificial transmutation E. Nuclear fission F. Fusion reaction	

UNIT	SKILLS	TYPE OF ASSESSMENT USED
<b><u>ELECTRICITY AND MAGNETISM</u></b>	1. Static Electricity A. Micro structure of matter B. Charged objects C. Conservation of charge D. Elementary charges E. Quantity of charge F. Coulomb's law G. Electric fields H. Potential difference	<ul style="list-style-type: none"> <li>• Multiple choice</li> <li>• Lab activities</li> <li>• Short answer</li> <li>• Graphical manipulation</li> <li>• Mathematical interpretation</li> <li>• Computer modeling</li> </ul>
	2. Electric Current A. Conductivity in solids B. conditions necessary for an electric current C. Unit of current D. Resistance of a conductor E. Circuits	
	3. Magnetism A. Magnetic force B. Magnetic field C. Force on a moving charge carrier in a magnetic field	
	4. Electromagnetic Induction --- Electromagnetic radiation	