

Year 13

Timing	Unit Title	Key Question	Knowledge		Assessing understanding
			Teacher 1	Teacher 2	
Autumn	Further Mechanics and Astrophysics Kinetic Theory Fields Electric Fields	What are the definitions? What is the key theory? Can I apply the theory in order to solve problems?	<ul style="list-style-type: none"> ● Simple Harmonic Motion ● Pendulum ● Mass spring system ● Resonance and Stationary Waves ● RP7 Pendulum and Mass Spring System ● Gravitational Fields ● Newton's Law of Gravity ● Gravitational Field strength ● Gravitational Potential ● Planetary Fields + Satellites ● Coulomb's Law ● Electric Field Patterns ● Electric Field Strength: ● Electric Potential ● Point sources vs. Plates ● Capacitance 	<ul style="list-style-type: none"> ● RP8: Boyle's and Charles' Laws ● Derivation of the ideal gas Equation ● Temperature Kinetic Energy relationship ● Optical Telescopes ● Single dish radio telescopes ● Large diameter telescopes and resolution ● Comparison of Eye and CCD ● Luminosity, Magnitude and apparent Magnitude ● Classification by Magnitude ● Black Body Radiation, Wien's Law, Stefan's Law ● Classifications by Temperature. ● Stellar Spectral Classes 	How understanding is assessed Students will be assessed on their ability to: <ul style="list-style-type: none"> ● recall the knowledge covered ● explain the Physical processes covered ● interpret graphical and experimental data ● plan and describe valid experiments ● evaluate experimental procedures and results. Skills <ul style="list-style-type: none"> ● Description ● Explanation ● Evaluation ● Comparison ● Planning and carrying out investigations ● Manipulating Mathematical Formulae Assessment point information Based on: <ul style="list-style-type: none"> ● Home works during the term ● Test on Astrophysics ● Test on Further Mechanics

				<ul style="list-style-type: none"> ● Decay modes and Decay Series ● Nuclear Radius ● Electron Diffraction ● Nuclear Density ● Binding Energy per nucleon ● Fission + Calculations 	<ul style="list-style-type: none"> ● Test on Capacitance and electric fields tbc
Summer	Nuclear Physics	<p>What are the definitions?</p> <p>What is the key theory?</p> <p>Can I apply the theory in order to solve problems?</p>	Revision	<ul style="list-style-type: none"> ● Fission Power Station ● Fusion ● Safety in Power Stations ● Nuclear Waste Disposal 	<p>How understanding is assessed Students will be assessed on their ability to:</p> <ul style="list-style-type: none"> ● recall the knowledge covered ● explain the Physical processes covered ● interpret graphical and experimental data ● plan and describe valid experiments ● evaluate experimental procedures and results. <p>Skills</p> <ul style="list-style-type: none"> ● Description ● Explanation ● Evaluation ● Comparison ● Planning and carrying out investigations ● Manipulating Mathematical Formulae <p>Assessment point information Based on:</p> <ul style="list-style-type: none"> ● Possible mini mock ● A Level Exams