

# Bellerive FCJ Catholic College



Department: Physics

Year Group: 12

**Bold indicates building on previous knowledge**

Term	Learning Focus	Key Knowledge and Skills	Assessment	Challenge and Enrichment
1	Particles and Radiation	Develop and understanding of: Matter and radiation, Quarks and lepton, and Quantum phenomena.	End of unit assessment	Booklets with additional questions, textbook with additional questions
	Mechanics	Develop an understanding of Forces and equilibrium, and forces and motion. Including the acceleration due to freefall practical.	End of unit assessment	
	Waves and optics	Develop and understanding of wave properties, progressive waves and standing waves. Including the completion of the standing wave practical, Develop an understanding of optics including reflection, refraction, diffraction and interference. Including completion of the young's slit interference practical.	End of unit assessment	
2	Electricity	Develop understanding of electric circuits and complete the resistivity practical. Develop understanding of EMF, potential dividers and complete the EMF and internal resistance practical.	End of unit assessment	Booklets with additional questions, textbook with additional questions
	Mechanics	Develop understanding of Newtons laws and force and momentum.	End of unit assessment	
	Materials	Develop understanding of the properties of materials including Youngs modulus. Complete the Youngs modulus required practical	End of unit assessment	

3	Further mechanics	<p>Develop understanding of motion in a circle and the Simple harmonic motion. Complete Simple harmonic motion required practical</p> <p>Develop understanding of thermodynamic and the ideal gas law. Complete ideal gas law required practical</p>	End of unit assessment	Booklets with additional questions, textbook with additional questions