Yr13 Physics – Unit 6.1

	Sequence		
TOPIC (S) **Periodic Motion**	1. Circular Motion 2. Simple Harmonic Motion	3. Pendulums and springs 4. Required practical 7	5. Forced vibrations and resonance
Knowledge & Skills development	- Using radians to measure angles - Use of equations to describe circular motion - Describing the forces involved in circular motion including vertical circles - Define simple harmonic motion - Use equations to describe simple harmonic motion		- Explain the motion of springs and pendulums in terms of their displacement, velocity, acceleration, kinetic and potential energy and represent these as graphs - Resonance and the effects of damping on the sharpness of resonance. - Examples of these effects in mechanical systems and situations involving stationary waves.
Assessment / Feedback Opportunities	Exam questions – teacher assessed	Exam questions – self assessed	Extended writing task – teacher assessed Deep marking of required practical in lab books Topic assessment
Cultural Capital	•		
SMSC / Promoting British Values (Democracy, Liberty, Rule of Law, Tolerance & Respect)	•		
Reading opportunities	• Recommended Read: Resonance: Applications In Physical Science by Michael Mark Woolfson (Author)		
Key Vocabulary	Independent Variable, Dependent Variable, Control Variables, Method, Conclusion, Precaution, Evaluation, Reliable, Precision, Valid, Anomaly, Describe, Explain, Compare, Analyse, Calculate, Suggest, Absolute, Uncertainty, Error Radian, Centripetal, Acceleration, Velocity, Speed, Harmonic, Displacement, Vibration, Resonance, Oscillation		
Digital Literacy	The use of excel to plot graphs and analyse data MSOffice365 apps including SharePoint		
Cross-Curricular Links	Numeracy/Maths – averages (means), reading scales, graph plotting, lines of best fit, using and rearranging equations, using scientific calculators		
Careers	Engineers, Mechanical physicists, Architecture		