

Subject	Year	Term
Physics	13	2
Topic		
Topic 13 SHM		
Content (Intent)		
Prior Learning (Topic) Topic 5 (waves)		
<p>Conditions for simple harmonic motion Equations of shm: $a = -\omega^2x$, $x = A\cos \omega t$, $v = A\omega \sin \omega t$, $T = \frac{1}{f} = \frac{2\pi}{\omega}$ and $\omega = 2\pi f$.</p>		
<p>Displacement-time and velocity-time graphical variations for an oscillating object Equation for a simple harmonic oscillator $T = 2\pi\sqrt{\frac{m}{k}}$ and a simple pendulum $T = 2\pi\sqrt{\frac{l}{g}}$.</p> <p>Resonance Free and forced oscillations Damping CORE PRACTICAL 16: Determine the value of an unknown mass using the resonant frequencies of the oscillation of known masses.</p>		
How will knowledge and skills be taught? (Implementation)	How will your understanding be assessed & recorded (Impact)	
<p>Use of motion sensor to obtain displacement-time graphs and velocity time graphs. Oscillating mass on a spring and simple pendulum experiments. Demonstration: Barton's pendulums Investigate damped oscillations using a long pendulum with a paper cone around the bob. All students should carry out this experiment.</p>	<p>Homework Booklet 13 marked and written feedback given Test 13 marked, graded and feedback given</p>	
How can parents help at home?		
Check that the homework booklet 13 is completed		
Helpful further reading/discussion		
<p>Reading Advanced Physics for you chapter</p>	<p>Vocabulary Lists <i>See front of homework booklet</i></p>	<p>Careers Links</p>