

Week	2018/19			
1	03/09/2018	P1 Motion	Lesson SP1a: Vectors and scalars	
			Lesson SP1b: Distance/time graphs and speed *	Use a ramp with a small slope and a dynamics trolley to demonstrate the difference between instantaneous speed and average speed.
			Lesson SP1c: Acceleration *	Suggested practical:
3	17/09/2018		Lesson SP1c: Acceleration	Investigate the acceleration, g , in free fall and the magnitudes of everyday accelerations.
			Lesson SP1d: Velocity/time graphs *	
			Lesson SP1d: Velocity/time graphs *	
			Revision	
5	01/10/2018		End of unit test	
			Review	
		P2 Forces and motion	Lesson SP2a: Resultant forces	Demonstrate that horizontal and vertical forces on an object can be discussed independently of each other.
			Lesson SP2b: Newton's First law	Use an air track to demonstrate the effects of friction on moving objects
7	15/10/2018		Lesson SP2c: Mass and weight *	Suggested practical: Investigate the relationship between mass and weight.
			Lesson SP2d: Newton's Second Law	
			Lesson SP2d: Newton's Second Law	Core Practical: Investigate the relationship between force, mass and acceleration by varying the masses added to trolleys.
oct half term			Lesson SP2e: Newton's Third Law	Show that however many force meters you connect using string, the force registered is always the same.
			Lesson SP2e: Newton's Third Law	
9	05/11/2018		Lesson SP2f: Momentum	Suggested practical: Investigate conservation of momentum during collisions
			Lesson SP2f: Momentum	Suggested practical: Investigate inelastic collisions with the two objects remaining together after the collision and also 'near' elastic collisions.
			Lesson SP2g: Stopping distances	
			Lesson SP2h: Braking distance and energy	
11	19/11/2018		Lesson SP2h: Braking distance and energy	
				3 LESSONS RSE DROP DOWN W/C 26/11/18
			Lesson SP2i: Crash hazards	Suggested practical: Investigate how crumple zones can be used to reduce the forces in collisions.
			Revision	
			End of unit test	
13	03/12/2018		Review	
		P3 Conservation of energy	Lesson SP3a: Energy stores and transfers	Suggested practical: Investigate conservation of energy.
			Lesson SP3b: Energy efficiency	
			Lesson SP3c: Keeping warm	Demonstrations of energy transfer processes.
15	17/12/2018		Lesson SP3c: Keeping warm	
			Lesson SP3d: Stored energies	
xmas			Lesson SP3d: Stored energies	
			Lesson SP3e: Non-renewable resources	
17	14/01/2019		Lesson SP3f: Renewable resources	
			Revision	
		P4 Waves	End of unit test	
			Review	
19	28/01/2019		Lesson SP4a: Describing waves	Use a ripple tank to illustrate plane waves, and calculate frequency and wavelength
			Lesson SP4b: Wave velocity	
			Lesson SP4b: Wave velocity	Core Practical: Investigate the suitability of equipment to measure the speed, frequency and wavelength of a wave in a solid and a fluid
			Lesson SP4c: Refraction	Suggested practical: Investigate models to show refraction, such as toy cars travelling into a region of sand.
21	11/02/2019		Lesson SP4c: Refraction	Core practical: Investigate refraction in rectangular glass blocks in terms of the interaction of electromagnetic waves with matter

			Lesson SP4d: Describe the effects of a) reflection b) refraction c) transmission d) absorption of waves at material interfaces	Suggested practical: Investigate refraction in rectangular glass blocks.
feb half term			Lesson SP4e - Ears and Hearing Lesson SP4f: ultrasound Lesson SP4g: Infrasonic	
	23	04/03/2019	Revision End of unit test Review	
	25	18/03/2019	Lesson SP5a: Explain, with the aid of ray diagrams, reflection, refraction and total internal reflection (TIR), Lesson SP5b: Colour Lesson SP5c: Converging and diverging lens Lesson SP5c: Converging and diverging lens Lesson SP5d: Electromagnetic waves Lesson SP5d: Electromagnetic waves	Suggested practical: Construct devices using two converging lenses of differing focal lengths.
	27	01/04/2019	Lesson SP5e: The electromagnetic spectrum	Suggested practical: Investigate the areas beyond the visible spectrum, such as the work of Herschel and Ritter in discovering IR and UV respectively.
Easter			Lesson SP5e: The electromagnetic spectrum Lesson SP5f: Using the long wavelengths	Suggested practical: Construct a simple spectrometer, from a CD or DVD, and use it to analyse common light sources.
	29	29/04/2019	Lesson SP5g: Radiation Lesson SP5g: Radiation Lesson SP5h: Using the short wavelengths Lesson SP5i: EM radiation dangers	Core practical: Investigate how the nature of a surface affects the amount of thermal energy radiated or absorbed
	31	13/05/2019	Revision End of unit test Review	
may half term			Revision Revision Revision Revision	
	33	03/06/2019	END OF YEAR ASSESSMENT	
	35	17/06/2019	P6 Radioactivity Lesson SP6a: Atomic models Lesson SP6b: Inside atoms Lesson SP6c: Electrons and orbits Lesson SP6c: Electrons and orbits Lesson SP6d: Background radiation Lesson SP6e: Types of radiation Lesson SP6f: Radioactive decay Lesson SP6f: Radioactive decay Lesson SP6g: Half-life Lesson SP6g: Half-life	Suggested practical: Investigate models which simulate radioactive decay.
	37	01/07/2019		
	39	15/07/2019		