

StudyON VCE Unit 3 Physics - Menu Hierarchy	Concept No.	SEE MORE	DO MORE	Timeline
Unit 3				
Area of study 1 - Motion in one and two dimensions				
Topic 1 - Newton's laws of motion				
1. Newton's first law	ph3-001	med-0035		
2. Newton's second law	ph3-002	med-0036		
3. Newton's third law	ph3-003	med-0037		
4. Application - forces on a moving bicycle on level ground	ph3-004	med-0038		
5. Application - equations of motion	ph3-005			
Topic 2 - Projectile Motion				
1. Analysis of vertical motion	ph3-006			
2. Horizontal and vertical components	ph3-007	med-0121		
Topic 3 - Circular motion				
1. Object moving in a horizontal plane	ph3-008	med-0041		
		med-0101		
2. Motion in a vertical plane	ph3-009	med-0042		
Topic 4 - Momentum				
1. Momentum and impulse	ph3-010	med-0043		
2. Net impulse and change in momentum	ph3-011	med-0044		
3. Law of conservation of momentum	ph3-012	med-0045		
		med-0095		
4. Collision between two objects	ph3-013	med-0122	int-0059	
Topic 5 - Work and energy				
1. When work is done	ph3-014	med-0123	int-0060	
2. Work and the force-distance graph	ph3-015			
3. Kinetic and gravitational potential energy	ph3-016			
4. Gravitational potential energy	ph3-017			
5. Elastic potential energy	ph3-018			
6. Law of conservation of energy	ph3-019			
7. Law of conservation of energy	PH3-020	med-0046		
Topic 6 - Collisions				
1. Inelastic collisions	ph3-021			
2. Elastic collisions	ph3-022			
Topic 7 - Gravity and satellites				
1. Newton's law of universal gravitation	ph3-023			
2. Gravitational field of strength	ph3-024	med-0047		
3. Satellites and gravitational force	ph3-025			
4. Satellite equations of motion	ph3-026		Int-0062	
5. Gravitational potential energy	ph3-027	med-0048		
6. Apparent weightlessness	ph3-028			

StudyON VCE Unit 3 Physics - Menu Hierarchy		Concept No.	SEE MORE		DO MORE	Timeline
Unit	3					
Area of study	2 - Electronics and photonics					
Topic	1 - Electronics					
	1. Circuit analysis	ph3-029	med-0050			
	2. Electric power	ph3-030	med-0051			
	3. Voltage dividers	ph3-031			int-0063	
Topic	2 - Electronic devices					
	1. Diodes	ph3-032	med-0052			
	2. Thermistors	ph3-033				
Topic	3 - Voltage amplifiers					
	1. Voltage gain	ph3-034				
	2. Voltage (transfer) characteristic of a non-inverting amplifier	ph3-035				
	3. Voltage (transfer) characteristic of an inverting amplifier	ph3-036			int-0064	
	4. Clipping	ph3-037			int-0065	
Topic	4 - Photonics					
	1. Photonics	ph3-038				
	2. Photonic transducers	ph3-039				
	3. Light-dependent resistor (LDR)	ph3-040	med-0055			
	4. Photodiode	ph3-041	med-0056			
	5. Light emitting diode (LED)	ph3-042				
Topic	5 - Communication					
	1. Modulation and demodulation	ph3-043	med-0057			
	2. A photonic communication system	ph3-044				

StudyON VCE Unit 4 Physics - Menu Hierarchy		Concept No.	SEE MORE		DO MORE	Timeline
Unit	4					
Area of study	1 - Electric power					
Topic number and name	1 - Magnetic fields					
	1. Fields of bar magnets	PH4-001				
	2. Magnetic field of a current	PH4-002				
	3. Magnetic fields of loops and solenoids	PH4-003	med-0195			
Topic number and name	2 - Magnetic force on currents					
	1. Magnetic force on a current	PH4-004			int-0115	
	2. Simple DC electric motor	PH4-005			Int-0754	
	3. The function of a commutator	PH4-006				
Topic number and name	3 - Electromagnetic induction					
	1. Magnetic flux	PH4-007	med-0196			
	2. Faraday's Law	PH4-008			int-0116	
	3. Induced emf from a flux-time graph	PH4-009				
	4. Lenz's Law	PH4-010	eles -0026		int-0050	
	5. Principles of an electricity generator	PH4-011				
	6. The alternator - an AC generator	PH4-012			int-0117	
	7. The DC generator	PH4-013				
Topic number and name	4 - Describing AC electricity					
	1. Characteristics of the AC waveform	PH4-014	med-0197			
	2. RMS values and AC power	PH4-015				
Topic number and name	5 - Distributing electrical power					
	1. Transformers - how they work	PH4-016				
	2. Transformers - voltage and turns ratios	PH4-017			int-0118	
	3. Ideal transformers and electric power	PH4-018	med-0198			
	5. Transmission lines and power loss	PH4-019			int-0119	
	6. Transformers and reducing power loss in electricity distribution	PH4-020				

StudyON VCE Unit 4 Physics - Menu Hierarchy		Concept No.	SEE MORE		DO MORE	Timeline
Unit	4					
Area of study	2 - Interactions of light and matter					
Topic number and name	1 - Wave-like nature of light					
	1. Young's double slit experiment - results and wave model explanation	PH4-021				
	2. Young's double slit experiment - general behaviour	PH4-022	eles-0027		int-0051	
	3. Diffraction of light	PH4-023			int-0120	
Topic number and name	2 - Particle-like nature of light					
	1. Electron-volt unit of energy	PH4-024				
	2. Photoelectric effect	PH4-025			int-0121	
	3. Photocurrent and light intensity	PH4-026	med-0422			
	4. Photocurrent and frequency of light	PH4-027				
	5. Failure of the wave model	PH4-028				
	6. A photon model of light	PH4-029				
	7. Photon model explanation of the photoelectric effect	PH4-030				
	8. Graphs of E_k max versus frequency	PH4-031	med-0421			
Topic number and name	3 Wave-like nature of light					
	1. De Broglie's matter wave postulate	PH4-032	med-0199			
	2. Diffraction of electrons	PH4-033				
	3. Wavelength and momentum for photons and matter particles	PH4-034	med-0423			
Topic number and name	4 - Atomic spectra and structure					
	1. Emission spectra	PH4-035				
	2. Absorption spectra	PH4-036	med-0341			
	3. Quantised energy level model of the atom (1)	PH4-037				
	4. Quantised energy level model of the atom (2)	PH4-038			int-0755	
	5. Absorption spectra explained	PH4-039				
	6. Emission spectra explained	PH4-040			int-0122	
	7. Electron standing waves and atomic stability	PH4-041				