

Swanmore Science

Physics: Revision List



The chapter headings given below refer to our recommended revision guides. These can be purchased through the Finance Office. More information can be found on our website: <https://swanmore-school.co.uk/equipment/>

Topic	Area	Spec point	Content	Know it? ☺ ☹
PAPER 1				
Energy	P1 Energy (and Energy Resources)	4.1.1.1	Energy stores and systems	
		4.1.1.2	Changes in energy	
		4.1.1.3	Energy changes in systems	
		4.1.1.4	Power	
	P2 Energy Transfers in a System/Heating	4.1.2.1	Energy transfers in a system	
		4.1.2.2	Efficiency	
P3 Energy Resources	4.1.3.0	National and global energy resources		
Electricity	P4 Electrical Circuits	4.2.1.1	Standard circuit diagram symbols	
		4.2.1.2	Electrical charge and current	
		4.2.1.3	Current, resistance and potential difference	
		4.2.1.4	Resistors	
		4.2.2.0	Series and parallel circuits	
	P5 Electricity in the Home	4.2.3.1	Direct and alternating potential difference	
		4.2.3.2	Mains electricity	
		4.2.4.1	Power	
		4.2.4.2	Energy transfers in everyday appliances	
		4.2.4.3	The National Grid	
	P4 Electrical Circuits	4.2.5.1	Static charge	
		4.2.5.2	Electric fields	
Particle Model of Matter	P6 Molecules and Matter	4.3.1.1	Density of materials	
		4.3.1.2	Changes of state	
		4.3.2.1	Internal energy	
		4.3.2.2	Temperature changes in a system and specific heat capacity	
		4.3.2.3	Changes of state and specific latent heat	
		4.3.3.1	Particle motion in gases	
		4.3.3.2	Pressure in gases	
		4.3.3.3	Increasing the pressure of a gas	
Atomic Structure	P7 Radioactivity	4.4.1.1	The structure of an atom	
		4.4.1.2	Mass number, atomic number and isotopes	
		4.4.1.3	The development of the model of the atom	

		4.4.2.1	Radioactive decay and nuclear radiation	
		4.4.2.2	Nuclear equations	
		4.4.2.3	Half-lives and the random nature of radioactive decay	
		4.4.2.4	Radioactive contamination	
		4.4.3.1	Background radiation	
		4.4.3.2	Different half-lives of radioactive isotopes	
		4.4.3.3	Uses of nuclear radiation	
		4.4.4.1	Nuclear fission	
		4.4.4.2	Nuclear fusion	
Required Practicals				
Energy		4.1.1.3	RP1: Specific heat capacity	
Energy		4.1.2.1	RP2: Thermal insulators	
Electricity		4.2.1.3	RP3: Resistance	
Electricity		4.2.1.4	RP4: IV Characteristics	
Particle Model of Matter		4.3.1.1	RP5: Density	