

Kerboodle units	Energy	Combined	
		Foundation	Higher
P1, P2, P3	1.1.1 Energy stores and systems		
	1.1.2 Changes in energy		
	1.1.3 Energy changes in systems		
	1.1.4 Power		
	1.2.1 Energy transfers in a system		
	1.2.2 Efficiency		
	1.3 National and global energy resources		
P4, P5	Electricity		
	2.1.1 Standard circuit diagram symbols		
	2.1.2 Electrical charge and current		
	2.1.3 Current, resistance and potential difference		
	2.1.4 Resistors		
	2.2 Series and parallel circuits		
	2.3.1 Direct and alternating potential difference		
	2.3.2 Mains electricity		
	2.4.1 Power		
	2.4.2 Energy transfers in everyday appliances		
	2.4.3 The National Grid		
	XX Static charge PHYS		
	XX Electric Fields PHYS		
P6	Particle Model of Matter		
	3.1.1 Density of materials		
	3.1.2 Changes of state		
	3.2.1 Internal energy		
	3.2.2 Temperature changes in a system and specific heat capacity		
	3.2.3 Changes of heat and specific latent heat		
	3.3.1 Particle motion in gases		
	XX Pressure in gases PHYS		
XX Increasing the pressure of a gas PHYS (HT only)			
P7	Atomic Structure		
	4.1.1 The structure of an atom		
	4.1.2 Mass number, atomic number and isotopes		
	4.1.3 The development of the model of the atom (common content with chemistry)		
	4.2.1 Radioactive decay and nuclear radiation		
	4.2.2 Nuclear equations		
	4.2.3 Half-lives and the random nature of radioactive decay		
	4.2.4 Radioactive contamination		
	XX Background radiation PHYS		
	XX Different half-lives of radioactive isotopes PHYS		
	XX Uses of nuclear radiation PHYS		
	XX Nuclear fission PHYS		
XX Nuclear fusion PHYS			
P8, P9, P10, P11	Forces		
	5.1.1 Scalar and vector quantities		
	5.1.2 Contact and non-contact forces		
	5.1.3 Gravity		
	5.1.4 Resultant forces		
	5.2 Work done and energy transfer		
	5.3 Forces and elasticity		
	XX Moments, levers and gears PHYS		
	XX.1.1 Pressure in a fluid 1 PHYS		
	XX Pressure in a fluid 2 PHYS (HT only)		
	XX Atmospheric pressure PHYS		
	5.4.1 Describing motion along a line		
	5.4.1.1 Distance and displacement		
	5.4.1.2 Speed		
	5.4.1.3 Velocity		
	5.4.1.4 The distance–time relationship		
	5.4.1.5 Acceleration		
	5.4.2 Forces, accelerations and Newton's Laws of motion		
	5.4.2.1 Newton's First Law		
	5.4.2.2 Newton's Second Law		
	5.4.2.3 Newton's Third Law		
	5.4.3 Forces and braking		
	5.4.3.1 Stopping distance		
	5.4.3.2 Reaction time		
	5.4.3.3 Factors affecting braking distance 1		
	5.4.3.4 Factors affecting braking distance 2		
	5.5.1 Momentum is a property of moving objects (HT only)		
	5.5.2 Conservation of momentum (HT only)		
	XX Changes in momentum PHYS (HT only)		

P12, P13,P14	Waves			
	6.1.1 Transverse and longitudinal waves			
	6.1.2 Properties of waves			
	XX Reflection of waves PHYS			
	XX Sound waves PHYS (HT only)			
	XX Waves for detection and exploration PHYS (HT only)			
	6.2.1 Types of electromagnetic waves			
	6.2.2 Properties of electromagnetic waves 1			
	6.2.3 Properties of electromagnetic waves 2			
	6.2.4 Uses and applications of electromagnetic waves			
	XX Lenses PHYS			
	XX Visible light PHYS			
	XX Black body radiation PHYS			
	XX Perfect black bodies radiation PHYS			
P15	Magnetism and Electromagnetism			
	7.1.1 Poles of a magnet			
	7.1.2 Magnetic fields			
	7.2.1 Electromagnetism			
	7.2.2 Fleming's left-hand rule (HT only)			
	7.2.3 Electric motors (HT only)			
	XX Induced potential PHYS (HT only)			
	XX Uses of the generator effect PHYS (HT only)			
	XX Microphones PHYS (HT only)			
	XX Transformers PHYS (HT only)			
P16	Space Physics			
	XX Our solar system PHYS			
	XX The life cycle of a star PHYS			
	XX Orbital motion, natural and artificial satellites PHYS			
	XX Red-shift PHYS			

Green	Green
Green	Green
Green	Green
Grey	Green
Grey	Green
Green	Red
Green	Red
Green	Red
Green	Red
Green	Red
Green	Red
Red	Red
Red	Red
	Red
	Red
Grey	
Grey	
Grey	
Grey	
Grey	
Green	Green
Green	Green
Green	Green
Red	Green