

## Year 7 Physics Scheme of Work

Week no.	Topic	Outline	Basic concepts/Skills
1	1 What is energy	Introduction to energy transfers and how energy is stored. Pupils will describe how energy is transferred within a system. Observing how the energy is transferred including the mechanism used to transfer it	Energy transfer
2			
3	2 Useful or wasted	Continuation on types of energy and categories of useful and wasted types with respect to appliances. Introduction to independent, dependent and control variables for simple experiments.	Uses of energy
4			
5	3 Fuels	Looking at the use of energy from the Sun stored in fossil fuels. Discussing the idea of non-renewable and evaluating the use of fossil fuels linking to global temperature. Line graphs are introduced.	Fossil fuels
6			
7	4 Resources	Continuation of non-renewable resources and comparison to renewable resources. Linking this to energy use.	Renewable and Non-renewable resources
		Half Term	
8			
9	5 Energy FA	Using the context of energy to complete a practical and demonstrate knowledge of the types of variable to complete a fair test.	FA to develop planning skills including identifying variables. Pupils to also identify basic trends.
10			
11	6 What is current	Introduction to electricity, linking to energy from previous lessons. Circuit symbols are introduced as well as device used to measure current.	Current and electrons
12			
13	7 Sharing current	Investigation into how current moves around two different types of circuit: series and parallel. Pupils again have the opportunity to use the experiment to identify variables.	Series and parallel circuits with current
14			

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		Christmas	
15	8 What is voltage	Leading on from previous lessons, pupils are introduced to voltage in a circuit. Vocabulary is developed as well as the idea of models used to scientific concepts.	Voltage in series and parallel
16			
17	9 Static and models	Pupils complete another formative assessment on developing their own model of circuits to show understanding of the difference between current and voltage. The second half of the lesson is using knowledge gained from electricity to observe and explain static electricity.	Static electricity
18			
19	10 Mid unit test	Mid unit test will assess the first two units covered Energy and Electricity.	
20			
		Half Term	
21	11 Magnetism	Introduction to magnetic materials and the forces involved in the interaction between magnetic materials.	Magnetic materials, attraction, repulsion
22			
23	12 Magnetic fields	Leading on from the previous lesson pupils can experiment with making their own magnets and observing the shape of magnetic fields around and between magnets.	Magnetic fields
24			
25	13 Electromagnets	Another opportunity to identify variables within and experiment and develop evaluating skills in making an electromagnet.	Opportunity for FA developing evaluative skills.
		Easter	
26			
27	14 Planets	Introduction to the basic structure of the solar system. Pupils can relate the previous types of forces learnt about to gravitational force experienced on Earth.	Order of the solar system.
28			
29	15 Moon & Graphs	In the context of learning about other planets pupils develop data processing skills and	Moon phases

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		analysis. Phases of the moon are introduced and related to the order of the solar system.	
30			
31	16 Seasons	Linking to the previous lesson, the orientation of the Earth is linked to the seasons it experiences. The space unit can be summarised in this lesson.	Seasons
		Half Term	
32			
33	17 End of unit test	Pupils are to be tested on all four units covered in Year 7.	
34			
35	Summer project		
36			
37	Summer project		
38			
39	Summer project		
40			