

Term → Year ↓	Term 1a	Term 1b	Term 2a	Term 2b	Term 3a	Term 3b
12	Particles In this topic you discover the sub-atomic particles which make up atoms and the ways in which physicists categorise these.	Mechanics (motion) You will learn about motion and the ways we can describe this, including devising a method to measure the strength of gravity by freefall.	Mechanics (forces) Apply the ideas of forces to explain how to motion and shapes of objects change, how objects balance and other fundamentals of mechanics.	Mechanics (materials) In this topic you will learn about the key properties of the materials we rely on in our day to day lives.	Revision	Simple harmonic motion Study how objects oscillate such as a swinging pendulum or a mass on a spring.
	Electricity Revisit the key concepts of electricity and apply this to more interesting and complex circuits. You will learn of many applications of electrical circuits which are important to society.	Waves Learn about waves, how they interact with each other and the different types of waves we rely on in everyday life.	Quantum mechanics We will study the various quantum phenomena and use the ideas from the particles topic and waves topic to explain these.	Revision	Circular motion Explain the principles of the centripetal force and examples of where this occurs.	
13	Electric and gravitational fields The concept of fields is one of the great unifying ideas in physics. You will be introduced to electric and gravitational fields and their effects.	Capacitors Use the ideas from electrical fields to explain the function of this important electrical component.	Magnetic fields Learn about magnets and electromagnetism, along with some of the applications in our day to day lives. By the end of the topic you will be able to describe a range of interesting electromagnetic phenomena.			
	Thermal physics Learn about the thermal properties of materials and the nature of ideal gases including kinetic theory.	Nuclear physics Link the properties of the nucleus to the production of nuclear power through the characteristics of the nucleus, the properties of unstable nuclei, and the link between energy and mass.	Option topic			