




Unit	Category/ Topic	Objectives	Review			Revised?
						
BIOLOGY Plants	Photosynthesis and plant nutrition	Explain what photosynthesis is. 8(1.1), 9(1.1)				
		Name the reactants and products in the process of photosynthesis and write the word equation 8(1.1), 9(1.1)				
		Describe how the food that plants make is used 8(1.1)				
		Explain the relationship between glucose and starch 9(1.1)				
		Describe how to test for starch in a leaf 9(1.1)				
		Describe an experiment to measure the rate (speed) of photosynthesis in a plant. 8(1.3)				
		Identify the different mineral salts needed by plants, such as nitrates and magnesium and explain each of their function in plant growth 9(1.2)				
		Explain what a fertilizer is. 9(1.2)				
		Explain why plants need water. 9(1.2)				
		Describe the path of water from the soil through the roots and then up to leaves where it evaporates 9(1.2)				
BIOLOGY Plants	Plant Organs	Describe the function of Roots, leaves, flowers and stems 7(1.1), 8(1.2), 8(1.4)				
		Explain how the structure of a leaf helps it carry out photosynthesis. 8(1.2)				
		Identify what roots can store. 8(1.4)				
		Describe how a root hair cell is adapted to absorb water. 8(1.4)				
		Describe the function of xylem vessels in the stem 8(1.5)				
		Label the parts of a flower and identify which parts are male and which parts are female 9(1.4)				
		Explain why petals are powerfully scented and usually have bright colors 9(1.4)				
		Explain what pollination is and describe the process 9(1.5)				
		Describe the process of fertilization in a flower and seed formation 9(1.6)				
		Explain what seed dispersal is and explain why seeds need to be dispersed away from parent plants 9(1.7)				
		Describe three methods by which seeds are dispersed 9(1.7)				
BIOLOGY Cells and organisms	Life, cells and microbes	Identify the seven characteristics of living things 7(2.1)				
		Explain what a micro-organism is and identify different types 7(2.2)				
		What type of organisms can cause organic decay? 7(2.3)				
		What environmental conditions can increase the rate at which organic matter decays? 7(2.3)				
		Describe the role of micro-organisms in the production of yoghurt, cheese and bread. 7(2.4)				
		What causes infectious diseases? 7(2.5)				

		Describe the function of antibiotics 7(2.5)				
		What did Louis Pasteur discover? 7(2.5)				
		Identify the different parts of an animal and a plant cell 7(2.6), 7(2.7)				
		Describe how the structures of red blood cells, nerve cells and root hair cells help them to carry out their roles 7(2.8)				
BIOLOGY Cells and organisms	Tissue, organs and organ systems	Explain how cells, tissues and organs are related 7(2.8)				
		Describe the function of the human skeleton 7(1.3)				
		Identify the organs that the cranium, the ribs and the sternum protect. 7(1.3)				
		Describe the three different types of joint in the human body. 7(1.4)				
		Describe the role of cartilage and synovial fluid at joints. 7(1.4)				
		Explain what antagonistic muscles are. 7(1.5)				
		Identify the seven different types of nutrients that humans need. 8(2.1)				
		Explain what a balanced diet is. 8(2.2)				
		Describe the cause and effect of deficiency diseases. 8(2.2)				
		Explain why humans need to digest food. 7(1.2) 8(2.3)				
		Explain what the alimentary canal is 8(2.4)				
		Describe the function of the organs in the digestive system 8(2.4)				
		Describe the role of teeth and identify the different types that humans have. 8(2.5)				
		Identify the different parts of a tooth and identify the substance that can dissolve enamel. 8(2.5)				
		Define chemical digestion 8(2.6)				
		Explain what enzymes are and what they do. 8(2.6)				
		Identify the structures and organs in the human circulatory system. 7(1.2), 8(3.1)				
		Describe the role of veins, arteries, capillaries, the lungs and the heart in the circulatory system 8(3.1)				
		Identify the areas of the circulatory system where blood is oxygenated and where it is deoxygenated. 8(3.1)				
		Identify the different parts of the heart and explain the role of valves 8(3.2)				
		Identify the 4 things that make up human blood and describe their roles. 8(3.3)				
		Explain how the structure of arteries, veins and capillaries help them carry out their role. 8(3.4)				
		Identify the different organs and structures in the respiratory system. 7(1.2) 8(4.1)				
Explain what 'gas exchange' is and what 'air sacs' are 8(4.2)						
Explain which gases diffuse in and out of the air sacs 8(4.2)						
Explain what aerobic respiration is 8(4.3)						

		Name the reactants and products in the process of respiration and write the word equation 8(4.3)				
		Explain the benefits of keeping fit and describe how a person can keep fit. 8(4.4)				
		Describe the negative effects of smoking. 8(4.5)				
		Identify the drug that makes cigarettes addictive. 8(4.5)				
		Explain what gametes are and identify the two types of human gametes 8(5.1)				
		Explain what human fertilisation is. 8(5.1)				
		Describe how the structure of a sperm cell and an egg cell help them carry out their roles. 8(5.1)				
		Identify the different parts of the male and female reproductive system. 8(5.2)				
		Identify the path sperm cells and egg cells take as they travel through the reproductive system. 8(5.2)				
		Explain what happens in the female reproductive system when an egg is fertilised and when an egg is not fertilised. 8(5.3)				
		Explain the role of the placenta and the amnion during the development of a embryo and foetus 8(5.4)				
		What is a foetus and when does an embryo become a foetus. 8(5.4)				
		Explain the process of birth. 8(5.4)				
		Explain what happens when an organism grows and explain what adolescence is. 8(5.5)				
		Describe effects of nicotine on conception, growth, development and health. 8(5.6)				
BIOLOGY Cells and organisms	Classification , variation and inheritances	Identify the 4 major groups that plants are divided into 7(4.4)				
		Explain the difference between vertebrates and invertebrates 7(4.5), 7(4.6)				
		Identify the 5 classes of vertebrates and describe the common characteristics of each class. 7(4.5)				
		Describe the difference between molluscs, annelids and arthropods. 7(4.6)				
		Identify the four main groups of arthropods. 7(4.6)				
		Explain what a species is 7(4.1)				
		Explain how species are named. 7(4.1)				
		Explain what a classification key is and describe how it is used. 9(3.1)				
		Explain what variation is 7(4.2), 9(3.2)				
		Explain how a frequency diagram can show variation. 7(4.2)				
		Use a frequency diagram to show the range and pattern of variation in a characteristic. 7(4.3)				
		Explain why variation exists. 9(3.2)				
		Know how to calculate the range, mean, median and mode from a set of values. 7(4.3)				
		Explain what genes are 9(3.3) ,				

		Explain where an organism gets its genes from. 9(3.4)				
		Identify characteristics which are caused by genes and characteristics which are caused by the environment. 9(3.3)				
		Identify where genes are in an organism and explain the relationship between DNA, genes, chromosomes and the nucleus. 9(3.4)				
		Explain what happens to chromosomes when a cell divides. 9(3.4)				
		Describe in steps the process of selecting breeding. 9(3.5)				
		Identify plants and animals that have been selectively bred. 9(3.5)				
		Give the advantages and disadvantages of selective breeding. 9(3.5)				
		Describe the process of natural selection. 9(3.6)				
		Describe examples of natural selection: Peppered moth and resistant bacteria. 9(3.7)				
		Compare similarities and differences in natural selection and selective breeding. 9(3.5), 9(3.6)				
		Explain how Charles Darwin's observations helped him develop his theory of natural selection and evolution. 9(3.8)				
BIOLOGY Living things in their environment	Living things in their environment	Explain what a habitat is. 7(3.1)				
		Explain what adaptation is 7(3.1)				
		Describe how plants are adapted to survive in their habitats 9(2.1)				
		Describe how animals are adapted to survive in their habitats 9(2.2)				
		Explain the difference between structural adaptations and behavioral adaptations 9(2.1), 9(2.2)				
		Describe what ecologists study 9(2.3)				
		Describe sampling techniques and how they can be used in ecology to obtain data 9(2.3)				
		Explain what a food chain is 7(3.2)				
		Define these key terms; primary producer, consumer, herbivore, carnivore and trophic level 7(3.2)				
		Describe the effect of human activity on food chains 7(3.3)				
		Explain the difference between a food chain and a food web 7(3.2), 9(2.4)				
		Describe how energy flows in a food web. 9(2.4)				
		Define decomposers and explain their role in ecosystems 9(2.5)				
		Describe how the human population has changed over time 9(2.6)				
		Describe how these factors affect the size of animal populations: birth rate, death rate, food supply, predators and disease. 9(2.6)				
		Define pollution 7(3.4), 9(2.7)				
		Identify causes of water pollution and air pollution 7(3.4)				
		Describe the process and effect of fertilizer pollution in water 9(2.7)				
		Explain what the ozone layer is, where it is found and how it protects us. 7(3.5), 9(2.9)				

		Explain what effect CFC's had on the ozone layer. 7(3.5), 9(2.9)				
		Describe different habitats by their environmental conditions and the organisms that live there. 9(2.8)				
		Explain what conservation is and describe how humans can help preserve habitats. 7(3.6)				
		Explain how human activity has impacted: wetlands, rainforests and coral reefs and explain what can be done to protect these habitats. 7(3.6), 9(2.8)				
		Explain how burning fossil fuels and CO ₂ is linked to global warming 7(3.4), 9(2.9)				
		Explain what can be done to reduce the effects of global warming 7(3.6), 7(3.7), 9(2.9)				
		Explain the difference between a non-renewable energy resource and a renewable energy resource. 7(3.7)				
		Identify renewable energy resources and non-renewable energy resources. 7(3.7)				
Chemistry Particles, elements, compound s and mixtures	States of matter	Identify the 3 states of matter and describe their properties. 7(5.1)				
		Describe the 3 states of matter in terms of moving particles and forces of attraction. 7(5.2), 8(6.1)				
		Describe what happens to the particles in solids, liquids and gases when they are heated and cooled. 7(5.3), 7(5.4),				
		Explain the following processes: melting, boiling, freezing and condensation. 7(5.3), 7(5.4), 8(6.1)				
		Explain the process of diffusion. 8(6.2)				
		Explain how temperature, concentration and particle size affect diffusion. 8(6.3)				
		Describe what Brownian motion is and explain what causes it. 8(6.4)				
		Explain what causes gas pressure. 8(6.5)				
		Explain how pressure, temperature and the number of particles affect gas pressure. 8(6.5)				
Chemistry Particles, elements, compound s and mixtures	Elements compounds and material properties	Explain the following terms: atom, element and molecule. 8(7.1)				
		Draw the structure of an atom and describe the position of electron, protons and neutron in an atom. 9(4.1)				
		Describe the experiment Rutherford used to discover the structure of the atom. 9(4.1)				
		Describe how electrons are arranged in an atom. 9(4.2)				
		Draw the electron arrangement of the first 20 elements of the Periodic Table. 9(4.2)				
		Identify the chemical symbols of common elements 8(7.2)				
		Describe how elements are arranged in the periodic table 8(7.3)				
		Identify the position of metals and non-metals on the periodic table 8(7.3)				
		Describe the general properties of metals 7(6.1), 7(6.3)				
		Describe the general properties of non-metals 7(6.2), 7(6.3)				
		Describe experiments you could carry out to identify if a material is a metal or a non-metal. 7(6.3)				
		Describe the general properties of elements in group 1. 9(4.3)				

		Describe trends in the properties of group 1 metals as you go down the group (metaling and boiling points, how vigorously they react with water). 9(4.3)				
		Describe the general properties of element in groups 7 and 8. 9(4.4)				
		Describe the reactivity of group 7 elements as you go down the group. 9(4.4)				
		Define what a compound is and explain how it is different from an element. 8(7.4)				
		Write the formula for common compounds (carbon dioxide, water, oxygen and methane) explain what the formula can tell you about the atoms in a molecule. 8(7.5)				
		Explain how the properties of Plastics, Fibers, Ceramics and Glass make them good material for a range of products. 7(6.4)				
		Explain the difference between a compound and a mixture. 8(8.1)				
		Explain what an alloy is 8(8.2)				
		Identify common everyday mixtures. 8(8.2)				
		Describe how filtration can be used to separate soluble and insoluble substances. 8(8.3)				
		Describe how evaporation can be used to produce a solute from a solution. 8(8.3)				
		Describe how chromatography can be used to separate coloured compounds. 8(8.4)				
		Explain the difference between solutes, solvents and solutions and give examples of all three. 8(8.5)				
		Define the terms <i>solubility</i> and <i>saturated solution</i> 8(8.6)				
		Describe how temperature affects solubility. 8(8.6)				
		Explain what an independent variable is, what a dependent variable is and what a control variable is. 8(8.7)				
Chemistry Energy and Material changes	Energy and material changes	Explain the difference between a physical change and a chemical change. 8(9.1)				
		Use word equations to represent chemical reactions and define the terms reactants and products 8(9.1)				
		Describe what happens to atoms during a chemical reaction and explain what is meant by <i>conservation of mass</i> 8(9.4)				
		Describes observations that could indicate that a chemical reaction has taken place. 8(9.6)				
		Explain the difference between an exothermic reaction and an endothermic reaction 9(5.1), 9(5.2), 9(5.3), 9(5.4)				
		Give examples of exothermic and endothermic reactions 9(5.1), 9(5.2), 9(5.3), 9(5.4)				
		Describe how we can measure if a reaction is exothermic or endothermic. 9(5.2), 9(5.3), 9(5.4)				
		Explain what combustions (burning) is. 8(9.2), 9(5.1)				
		Identify everyday substances that are acidic or alkaline and describe some properties of acids and alkalis. 7(7.1)				
		describe properties of acidic substances and properties of alkaline substances. 7(7.1)				
		Identify different chemical hazard symbols. 7(7.1)				

		Identify which indicators are used to test if a substance is acidic, alkali or neutral. Explain what the results mean. 7(7.2), 7(7.3)				
		Explain what the pH scale is and identify which parts of the scale are acidic, alkaline and neutral. 7(7.3)				
		Explain what a neutralisation reaction is. 7(7.4)				
		Describe examples of everyday neutralization reactions. 7(7.5)				
		Explain what a salt is. 9(7.1)				
		Describe a method to produce a neutral solution from an acid and an alkali. 9(7.4)				
		Identifying what substances are produced when a metal reacts with an acid. 8(9.3), 9(6.3)				
		Describe a method for producing a salt from a metal and an acid. 9(7.2)				
		Identifying what substances are produced when a metal carbonate reacts with an acid. 8(9.3), 9(7.3)				
		Describe a method for producing a salt from a metal carbonate and an acid 9(7.3)				
		Describe the test for hydrogen gas, carbon dioxide and oxygen gas. 8(9.3), internet				
		Explain what the reactivity series of metals is 9(6.4)				
		Identify the position of common elements in the reactivity series (K, Na, Ca, Mg, Al, Zn, Fe, Pb, Cu, Ag, Au). 9(6.4)				
		Describe the reactions and the products made when metals react with oxygen (relate to reactivity). 8(9.2), 9(6.1)				
		Describe the reactions and the products made when metals react with water (relate to reactivity). 9(6.2)				
		Explain what rusting is and identify the conditions needed for rust to happen. 8(9.7)				
		Describe displacement reactions and explain how they can be used to identify metals. 9(6.5)				
		Explain how displacement reactions are used in industry. 9(6.6)				
		Describe the methods that can be used to measure the rate of a reaction. 9(8.1)				
		Explain using collision theory how reactants come together to form products. 9(8.2)				
		Interpret graphs to explain the rate of reaction. 9(8.2)				
		Explain how the following factors affect the rate of reaction; surface area, temperature, pressure, concentration and catalysts. 9(8.3), 9(8.4), 9(8.5), 9(8.6)				
Chemistry The Earth	The Earth	Explain the following terms; rocks, minerals and soil. Describe what affects the properties of soil 7(8.1),				
		Describe what affects the properties of soil 7(8.2)				
		Describe how igneous rocks are. 7(8.3)				
		Explain why some igneous rocks have large crystals and why some have small crystals. 7(8.3)				
		Describe how sedimentary rocks are formed. 7(8.4)				
		Explain why sedimentary rocks sometimes have fossils. 7(8.4)				

		Describe how metamorphic rocks are formed. 7(8.5)				
		Describe how the structures of the three types of rock are different from each other. 7(8.3), 7(8.4), 7(8.5)				
		Define the term weathering 7(8.6)				
		Give examples of the three types of weathering; physical, chemical and biological. 7(8.6)				
		Describe 3 ways in which rocks can be moved 7(8.7)				
		Define the following terms; erosion, deposition, sediments and abrasion 7(8.7)				
		Describe how fossils are formed and explain what they tell us about rocks. 7(8.8)				
		Explain what the fossil record is and what it tells us about life on Earth. 7(8.9)				
		Describe the structure of the Earth and identify what the different layers are made from. 7(8.10)				
		Explain what tectonic plates are. 7(8.10)				
		How old is the Earth and what evidence did scientist use to work this out? 7(8.10)				
		Explain what eras and periods are. 7(8.11)				
Physics Forces	Forces and motion	If a force acts on an object what effect could the force have on that object. 7(9.1)				
		Describe everyday situations where forces are produced. 7(9.1)				
		Describe how we can show the direction of a force on a diagram. 7(9.1)				
		Identify the instrument used to measure forces and state the units that force measured in. 7(9.2)				
		Define mass and weight and explain the difference between the two. 7(9.3)				
		Write down the units for mass and weight 7(9.3)				
		Describe what friction is and explain the effect it has on motion (motion objects) 7(9.4)				
		Define air resistance and explain how air resistance can be reduced 7(9.5)				
		Explain what happens to the speed of a falling object 7(9.6)				
Physics Forces	Measuring motion	Define speed and write down the equation that relates speed, distance and time. 8(10.1)				
		Describe an experiment to measure the speed of an object. 8(10.2)				
		Use the speed equation to calculate speed, distance and time. 8(10.3)				
		Draw distance-time graphs and explain why we use distance-time graphs. 8(10.4)				
		Use a distance-time graph to calculate the distance travelled by an object. 8(10.5)				
Physics Forces	Forces in action	Describe what density is and explain why different materials have different densities. 9(9.1)				
		Calculate density using mass and volume and identify the units used. 9(9.2), 9(9.3)				
		Explain what causes pressure. 9(9.4)				

		Calculate pressure using force and area and identify the units used. 9(9.5)				
		Explain why pressure increases in deep water and decreases high in the atmosphere. 9(9.6)				
		Explain using particle theory why pressure increases with increasing temperature. 9(9.6)				
		Describe how a force can have a turning affect when applied around a pivot. 9(9.7)				
		Describe the principles of moments. 9(9.8)				
		Calculate moments using force and distance from pivot and describe the units used. 9(9.9)				
Physics Energy	How we use energy and energy resources	Explain why humans need energy and describe how humans use energy. 7(10.1), 9(11.1)				
		Explain why energy consumption varies greatly around the world. 9(11.1)				
		Explain what an energy resource is. 9(11.2)				
		List 3 types of fossil fuels 9(11.2)				
		Identify what type of energy is stored in fossil fuels. 9(11.2)				
		Describe how we release the energy stored in fossil fuels. 9(11.2)				
		Describe step by step how power stations generate electricity. 9(11.2)				
		Explain what a renewable energy resource is and what a non-renewable energy resource is. 9(11.3)				
		Identify renewable energy resources and non-renewable energy resources. 9(11.3)				
		Describe how humans use wind power, water power, solar power and biofuels to produce energy. 9(11.3)				
Physics Energy	Forms of energy	Identify different chemical stores of energy. 7(10.2)				
		Explain how an object can store elastic energy and gravitational potential energy. 7(10.3)				
		Identify which type of objects contain stored thermal energy (internal energy). 7(10.4)				
		Describe how stored thermal energy is released. 7(10.4)				
		Identify which type of objects contain kinetic energy and what force reduces the kinetic energy of an object. 7(10.5)				
		Explain how the mass and the speed of an object affect its kinetic energy. 7(10.5)				
		Identify the forms of energy that transfer it from one place to another. 7(10.6)				
		List 9 forms of energy and identify which ones are stores of energy. 7(10.7)				
		Describe examples of different energy changes (changing from one form to another). 7(10.7)				
		Explain what is meant by the conservation of energy. 7(10.8)				
		Describe how a sound wave is produced. 8(11.1)				
		Explain how a loud sound is produced and explain how a quiet sound is produced. 8(11.1)				
		Explain how a high pitch sound is produced and explain how a low pitch sound is produced. 8(11.1)				

		Explain what amplitude is. 8(11.2)				
		Explain what frequency is and write down its units. 8(11.2)				
		Explain what is needed for sound to travel. 8(11.3)				
		Explain what a sound wave is. 8(11.3)				
		Describe the difference in shape between a loud sound and quiet sound on an oscilloscope. 8(11.4)				
		Describe the difference in shape between a high pitch sound and a low pitch sound on an oscilloscope. 8(11.4)				
		Identify the different parts of the human ear. 8(11.5)				
		Describe how humans hear sounds. 8(11.5)				
		Identify the frequency range of human hearing. 8(11.5)				
		Describe how light travels. 8(12.1)				
		Explain how we see luminous objects and explain how we can see non-luminous objects. 8(12.1)				
		Describe what a light ray is and explain why shadows are formed. 8(12.3)				
		Describe what sort of surfaces reflect light. 8(12.3)				
		Explain what the law of reflection is. 8(12.3)				
		Explain what refraction is 8(12.4)				
		Describe how light travels through different mediums e.g. air/glass/water. 8(12.4)				
		Explain what white light is made up of and describe how white light can be split. 8(12.5)				
		Explain what dispersion is. 8(12.5)				
		Explain what happens when white light and coloured light travel through different coloured filters. 8(12.6)				
		Identify the primary and secondary colours of light. 8(12.6)				
		Explain why objects look different colours. 8(12.6)				
		Explain what thermal conduction is. 9(11.4)				
		Identify which materials are the best thermal conductors. 9(11.4)				
		Explain the process of convection and explain why convection cannot happen in solids. 9(11.5)				
		Explain what thermal radiation is and identify what substances it can travel through. 9(11.6)				
		Explain what type of materials are good absorbers and emitters of thermal radiation and which materials are bad absorbers but good reflectors of thermal radiation. 9(11.6)				
		Describe the process of evaporation and explain why evaporation produces a cooling effect. 9(11.7)				
Physics Electricity and	Magnetism	Define the following terms; permanent magnet and magnetic material. 8(13.1)				
		List materials that are magnetic. 8(13.1)				

magnetism		Identify which pole of a magnet will face. 8(13.2)				
		Explain which magnetic poles attract and which magnetic poles repel. 8(13.2)				
		Describe a method to create a permanent magnet. 8(13.2)				
		Explain what a magnetic field is. 8(13.3)				
		Use magnetic field lines to draw the magnetic field around a bar magnet. 8(13.3)				
		Explain what an electromagnet is. 8(13.4)				
		Describe how an electromagnet can be made stronger. 8(13.4), 8(13.5)				
		What is produced around a wire when current flows through it? 8(13.6)				
		Describe the magnetic field around an electromagnet. 8(13.6)				
Physics Electricity and magnetism	Electricity	Describe how an object can be given static charge. 9(10.1)				
		Describe the effect that charged objects can have on each other. 9(10.1)				
		State what the two different types of charges are. 9(10.2)				
		Describe a situation when two charges attract each other and a situation when they repel each other. 9(10.2)				
		Describe what a coulombmeter measures. 9(10.2)				
		Explain in detail why rubbing two objects leads to one positively charged object and one negatively charged object. 9(10.3)				
		Explain what electric current is. 9(10.6)				
		Explain what two things are needed for electric current to flow. 9(10.4)				
		Identify materials that are electrical conductors and materials that are insulators. 9(10.4)				
		Explain why metals are good electrical conductors. 9(10.6)				
		Explain what a series circuit is and describe the properties of the current in a series circuit. 9(10.5)				
		Describe the direction of conventional current. 9(10.5)				
		Describe the direction of electron flow. 9(10.6)				
		What instrument is used to measure current. 9(10.5)				
		Explain what a cell and battery do in a circuit. 9(10.5)				
		Explain what voltage is. 9(10.7)				
		What instrument is used to measure voltage of a cell. 9(10.7)				
		Describe how you could increase the voltage in a circuit. 9(10.7)				
		If voltage in a circuit is increased what effect will that have on the current? 9(10.7)				
		Explain what electrical resistance is. 9(10.8)				
If the resistance in a circuit is increased what effect will this have on the current.						

		What happens to the current in a series circuit if keep on adding more components? 9(10.8)				
		Explain the role of resistors and variable resistors in a circuit. 9(10.8)				
		Explain what a parallel circuit is and describe what happens to the current in a parallel circuit. 9(10.9)				
		Describe the difference in brightness between two bulbs connected in series and two bulbs connected in parallel. 9(10.8), 9(10.9)				
		Explain the advantages of using a parallel circuit over a series circuit. 9(10.9)				
		Draw circuit diagrams of series and parallel circuits. 9(10.5), 9(10.9)				
		Identify a range of different circuit symbols. Stage 9 coursebook page 180				
Physics Earth and beyond	Earth and beyond	Explain why the Sun appears to move from east to west during the day. 7(11.1)				
		State the direction that stars appear to move in during the night sky. 7(11.2)				
		How long does it take the Earth to rotate once on its axis? 7(11.1)				
		Explain why some constellations of stars are only visible at certain times of the year. 7(11.2)				
		State how long it takes the Earth to orbit the Sun. 7(11.1)				
		List the different objects that make up the solar system. 7(11.3)				
		Name the 8 planets in the order from their distance from the Sun. 7(11.3)				
		Explain what a star is. 7(11.4)				
		Identify sources of light in the universe. 7(11.4)				
		Explain why we can see non-luminous objects in the sky like planets and moons. 7(11.4)				
		Explain what the moon is. 7(11.5)				
		Explain why it looks like the shape of the Moon keeps changing from day to day 7(11.5)				
		Describe the geocentric model of the solar system. 7(11.6)				
		Describe the heliocentric model of the solar system. 7(11.6)				
Identify the general size of the universe. 7(11.7)						
Describe how spacecraft are propelled into space? 7(11.8)						

The number system after the objectives are referencing the Cambridge Checkpoint Coursebooks stages and not grades.

7(11.3) refers to Stage **7** book, Chapter 11, topic 11.3 (The moving planets) which is taught in grade 6.

9(10.9) refers to Stage **9** book, Chapter 10, topic 10.9 (Components in parallel) which is taught in grade 8.