Edward Peake CofE (VC) School
Science Curriculum Progression

Curriculum Intent:
The science curriculum at Edward Peake has been specifically designed for our pupils to ensure that they not only become confident and enquiring scientists but also are enthralled by the wonders of science and its impact on our lives in the past, present and future. We benefit from four fully equipped science labs which are used by all year groups which allows us to create a curriculum that suits the needs of our pupils.
Our main aims are to:

- Live: Ensure pupils develop scientific investigation skills, an enquiring mind and high quality communication skills which they can apply to lifelong learning so that they can make an active contribution to society.
- Love: Broaden pupils' horizons by giving them opportunities to explore current environmental, global and scientific issues in order for them to better understand the world they live in.
- Learn: Develop independent, confident and successful scientists who achieve the best possible academic standards, whatever their starting point.

Pupils will explore the impact of science for the future. This will be done through our four key concepts that are threaded throughout our science curriculum. These are: making healthy lifestyle choices, maintaining and building communities, sustainability and jobs for the future. The science curriculum at Edward Peake has been designed to meet the aims of our whole school curriculum to ensure that all pupils are able to succeed no matter their starting points and barriers to learning. Our curriculum is designed to be challenging for all pupils but as part of our commitment to equality we will support pupils in accessing this aspirational content. We are also committed to meeting the whole school aims of developing pupils' cultural awareness by exploring a wide range of scientists from across the world and their impact on our lives through their scientific discoveries.
We have made a commitment to support the draft sustainability and climate change strategy for education published by the Department for Education in November 2021. A copy of the draft strategy can be found here: DFE Draft Climate and sustainability document

| Skills and Knowledge | Year 6 | Year 7 | Year 8 | Year 9 |
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| BIOLOGY 1 | Pupils know:<br>How living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals. | Pupils know:<br>How to use a microscope to observe cells<br><br>Structure and function of plant and animal cells | Pupils know:<br>Food groups and food tests.<br><br>Structure and function of the digestive system.<br><br>The role of enzymes in digestion. | Pupils know:<br>Internal features and differences of plant and animal cells<br>Specialised cells<br><br>Aerobic respiration<br><br>Diffusion and osmosis |

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| | How to classify plants and animals based on specific characteristics. | Structural adaptations of specialised cells and unicellular organisms<br><br>Role and process of diffusion<br><br>Cells as the basic structural unit of all organisms; adaptations of cells related to their functions; the main sub-cellular structures of eukaryotic and prokaryotic cells<br><br>The importance of cellular respiration; the processes of aerobic and anaerobic respiration | Absorption of food molecules by diffusion.<br><br>Pupils go on the extend their knowledge about:<br>The effect of drugs on the body<br><br>Enzymes and factors affecting the rate of enzymatic reactions.<br><br>Carbohydrates, proteins, nucleic acids, and lipids as key biological molecules.<br><br>The relationship between health and disease.<br><br>The impact of lifestyle factors on the incidence of non-communicable diseases.. | Pupils go on the extend their knowledge about:<br>Cells as the basic structural unit of all organisms.·<br>Adaptations of cells related to their functions.The main sub-cellular structures of eukaryotic and prokaryotic cells.<br>The importance of cellular respiration – the processes of aerobic and anaerobic respiration. |
| | Where in the curriculum this is taught:<br>**Y6 – Living things and their habitats**<br>summer term | Where in the curriculum this is taught:<br>**Y7- Cells**<br>Autumn Term | Where in the curriculum this is taught:<br>**Y8-Health and lifestyle**<br>Autumn term | Where in the curriculum this is taught:<br>**Y9- Cells**<br>Autumn term |
| BIOLOGY 2 | Pupils know:<br>the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood. the impact of diet, exercise, drugs and lifestyle on the way their bodies function. the ways in which nutrients and water are | Pupils know:<br>Organisation in plants and animals (cells to systems)<br><br>Structural adaptations of gas exchange surfaces (alveoli) | Pupils know:<br>The process and importance of photosynthesis.<br><br>The adaptation of leaves for photosynthesis.<br><br>The process of aerobic respiration in living organisms. | Pupils know:<br>Cells to systems, Photosynthesis<br><br>Enzymes, and factors affecting the rate of enzymatic reactions.<br><br>Carbohydrates, proteins, nucleic acids, and lipids as key biological molecules. |

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| | transported within animals, including humans. | Structure and function of the skeletal system, including joints and muscles<br><br>Pupils go on to learn<br><br>Cells as the basic structural unit of all organisms; adaptations of cells related to their functions; the main sub-cellular structures of eukaryotic and prokaryotic cells<br><br>The importance of cellular respiration; the processes of aerobic and anaerobic respiration<br><br>The need for transport systems in multicellular organisms, including plants<br><br>The structure and function of the skeleton. The role of joints and muscles in movement | The process of anaerobic respiration in humans and microorganisms.<br><br>Photosynthesis as the key process for food production and therefore biomass for life.<br><br>The process of photosynthesis.<br><br>Factors affecting the rate of photosynthesis.<br><br>The importance of cellular respiration – the processes of aerobic and anaerobic respiration. | The relationship between the structure and functions of the human circulatory system.<br><br>The need for transport systems in multicellular organisms, including plants.<br><br>The importance of cellular respiration – the processes of aerobic and anaerobic respiration.<br><br>Photosynthesis as the key process for food production and therefore biomass for life.<br><br>The process of photosynthesis. |
| | Where in the curriculum this is taught:<br>**Y6 - Animals including humans.**<br>Autumn term | Where in the curriculum this is taught:<br>**Y7_Structure and function of body systems**<br>Spring term | Where in the curriculum this is taught:<br>**Y8-Biological processes**<br>Spring term | Where in the curriculum this is taught:<br>**Y9-Cell Systems**<br>Autumn term |
| BIOLOGY 3 | Pupils know:<br>that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago. that living | Pupils know:<br>Human fertilisation and implantation | Pupils know:<br>Interdependence of organisms within a food web.<br><br>Plant and animal adaptations | Pupils know:<br><br>Fertilisation and implantation<br><br>Single gene inheritance and single gene crosses with |

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| | things produce offspring of the same kind, but normally offspring vary and are not identical to their parents.<br>how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution. | Structure and function of the male and female reproductive systems<br><br>Plant pollination and fertilisation<br><br>Communicable diseases including sexually transmitted infections in humans<br><br>Hormones in human reproduction, hormonal and non-hormonal methods of contraception | Levels of organisation within an ecosystem.<br><br>Some abiotic and biotic factors that affect communities – the importance of interactions between organisms in a community.<br><br>The role of microorganisms (decomposers) in the cycling of materials through an ecosystem.<br><br>Organisms are interdependent and are adapted to their environment.<br><br>Methods of identifying species and measuring distribution, frequency and abundance of species within a habitat. | dominant and recessive phenotypes.<br><br>Genetic variation in populations of a species.<br><br>Pupils go on the extend their knowledge about:<br>The uses of modern biotechnology including gene technology – some of the practical and ethical considerations of modern biotechnology. |
| | Where in the curriculum this is taught:<br>**Y6 Evolution. Inheritance and adaptation**<br>Spring term | Where in the curriculum this is taught:<br>**Y7-Reproduction**<br>Summer term | Where in the curriculum this is taught:<br>**Y8-Ecosystems and Adaptation**<br>Summer term | Where in the curriculum this is taught:<br>**Y9-Fertilisation and implantation**<br><br>Spring term |
| BIOLOGY 4 | | | Pupils know:<br>What causes variation (genetic and environmental). The concequences of Natural selection | Pupils know:<br>The connection between Variation and natural selection<br><br>The importance of biodiversity. |

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| | | | The genome, and how its interaction with the environment influences the development of the phenotype of an organism.<br>Single gene inheritance and single gene crosses with dominant and recessive phenotypes.<br>Sex determination in humans.<br>Pupils go on the extend their knowledge about:<br>Genetic variation in populations of a species.<br>The process of natural selection leading to evolution.<br>The evidence for evolution.<br>The importance of selective breeding and modern biotechnology of plants and animals in agriculture. | Positive and negative human interactions with ecosystems.<br>Some abiotic and biotic factors that affect communities; the importance of interactions between organisms in a community. |
| | Where in the curriculum this is taught: | Where in the curriculum this is taught: | Where in the curriculum this is taught:<br>**Y8- Inheritance**<br>Summer term | Where in the curriculum this is taught:<br>**Y9-Variation and natural selection**<br>Summer term |

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| CHEMISTRY 1 | | Pupils know:<br>Definitions of material and substance<br><br>Factors in the particle model that determine properties of materials<br><br>Properties of substances in different states<br><br>Particle arrangement, separation, and movement in different states<br><br>Density and states of matter<br><br>Particles and changes of state<br><br>Melting and boiling points<br><br>Diffusion<br><br>Mass is conserved in changes of state<br><br>How energy changes in changes of state<br><br>There are different types of particles – molecules, atom, elements, and compounds<br><br>The structure of an atom | Pupils know:<br>The meaning of the terms physical and chemical properties.<br><br>The uses and physical and chemical properties of typical metals and non-metals Groups and periods in the Periodic Table and trends in the properties of elements in Groups or Periods.<br><br>Group 1 elements, their physical properties including their melting and boiling points, and trends in the reactivity of Group 1 elements with water.<br><br>Group 7 elements, their states and colours at room temperature, their physical properties including trends in boiling and melting points, and trends in the reactivity of Group 7 elements with iron.<br><br>Group 0 elements, their physical properties including trends in boiling points, and how the properties of the Group 0 elements make them suitable for their uses.<br><br>Atomic structure and its link to the reactivity and trends in properties of groups and periods in the Periodic Table. | Pupils know<br><br>How to use and the limitations of the Particle model<br><br>How to explain state change<br><br>The shapes of molecules (groups of atoms bonded together) and the way giant structures are arranged is of great importance in terms of the way they behave.<br><br>Changes of state in terms of particle kinetics, energy transfers, and the relative strength of chemical bonds and intermolecular forces.<br><br>Bulk properties of materials related to bonding and intermolecular forces.<br><br>Relating models of arrangements and motions of the molecules in solid, liquid, and gas phases to their densities.<br><br>Melting, evaporation, and sublimation as reversible changes.<br><br>Calculate energy changes involved in heating, using specific heat capacity, and those involved in changes of state, using specific latent heat.<br><br>Link between pressure and temperature of a gas at |

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| | | | Further reactions of Groups 1, 7 and 0 in the Periodic Table.<br>The transition metals and comparing their reactions and properties with the reactions and properties of typical metals. | constant volume, related to the motion of its particles (qualitative).<br>Sublimation and deposition |
| | | Where in the curriculum this is taught:<br>**Y7- Particles and their Behaviour**<br>Autumn term | Where in the curriculum this is taught:<br>**Y8-The Periodic Table**<br>Spring term | Where in the curriculum this is taught:<br>**Y9-Particle model and state change**<br>Autumn term |
| CHEMISTRY 2 | | Pupils know:<br>Definitions of atom, element, molecule, and compound<br>What the Periodic Table shows<br>Chemical symbols of elements<br>The differing properties between a compound and the elements whose atoms are in it<br>Writing and interpreting chemical formulae<br>Writing and interpreting chemical names<br>We then study in more detail<br>The Structure of the Periodic Table<br>Properties of materials | Pupils know:<br>Meaning of pure, mixture, solute, solvent, solution, dissolve, and solubility.<br>Use a temperature–time melting point graph to determine if a substance is pure.<br>Compare mixtures and compounds.<br>Explain dissolving and evaporation using the particle model.<br>Predict the mass of a solution made from given masses of solute and solvent.<br>Plot solubility data from data in a table.<br>Describe how solubility changes with temperature. | Pupils know:<br>The history and layout of the Periodic Table<br>Study in more depth Atoms and elements and compound molecules<br>Describe a simple model of the atom consisting of the nucleus and electrons, relative atomic mass, electronic charge, and isotopes.<br>The number of particles in a given mass of a substance.<br>The modern Periodic Table.<br>Position of elements in the Periodic Table.<br>Properties and trends of elements in the same group. |

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| | | Differences in properties of compounds<br>Differences in properties of molecules<br>Modelling substances<br>How elements interact with each other<br>Bonding and structure of elements, molecules, and compounds and their subsequent properties<br>Structure of an atom<br>The Discovery of the atom and the development of the atomic model<br>Forces between particles | Name types of mixtures that can be separated by filtration.<br>Explain how filtration works.<br>Explain some uses of filtration.<br>Describe how to use distillation to separate a solvent from a solution.<br>The bonding and structure of compounds and mixtures.<br>Determining properties of mixtures.<br>Separation of substances using filtration, distillation, evaporation, and chromatography. | Characteristic properties of metals and non-metals.<br>Chemical reactivity of elements in the Periodic Table.<br>Types of chemical bonding: ionic, covalent, and metallic.<br>Bulk properties of metals related to bonding and intermolecular forces. |
| | | Where in the curriculum this is taught:<br>**Y7**-**Elements, atoms and component**s<br>Autumn term | Where in the curriculum this is taught:<br>**Y8**-**Separation techniques**<br>Summer term | Where in the curriculum this is taught:<br>**Y9- Atoms and the Periodic Table**<br>Autumn term |

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| CHEMISTRY 3 | | Pupils know:<br>Definitions of chemical reactions, reactants, products<br><br>How to describe oxidation, combustion, and decomposition reactions<br><br>Predict reactants and products of oxidation reactions<br><br>The difference between chemical reactions and physical changes<br><br>Write word equations for oxidation, combustion, decomposition reactions, and simple reactions<br><br>The description of a balanced formula equation<br><br>How to simplify and use ratios in chemical formulae<br><br>Explain the conservation of mass<br><br>Using the conservation of mass to calculate masses of reactants or products<br><br>Students study in more detail<br><br>The energy changes in exothermic GCSE links and endothermic changes | Pupils know:<br>Reactions of metals with acids, oxygen, and water.<br><br>Word equations for the reactions of metals with acids, oxygen, and water.<br><br>Comparing the pattern of reactivity of metals with acids, oxygen, and water.<br><br>Describing the reactivity series.<br><br>Use the reactivity series to predict the reactivity of metals with acids, with oxygen, and with water.<br><br>Explaining displacement reactions and when they do/do not occur.<br><br>Extracting metals from their ores, including when carbon can be used.<br><br>Calculating the mass of metal in an ore.<br><br>Describing the properties of ceramics.<br><br>Explaining the properties of some polymers.<br><br>Explain the properties of some composites.<br><br>Explain how the properties of ceramics, polymers, and composites make them suitable for their uses. | Pupils know:<br>How to write word equations<br><br>Can explain the conservation of mass<br><br>Can use balanced chemical equations, ionic equations, and state symbols.<br><br>Study the measurement of energy changes in chemical reactions (qualitative). Bond breaking, bond making, activation energy, and reaction profiles (qualitative). |

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| | | How to write chemical formulae and balanced formula equations<br>That mass is conserved in chemical reactions<br>Energy changes in different reactions<br>how substances react and different types of chemical reaction the law of conservation of energy in chemical reactions | Pupils go on to study in more detail how to<br>Writing chemical formulae.<br>Prepare salt from a metal carbonate or oxide.<br>How substances react.<br>Different types of chemical reactions.and write ionic equations.<br>Reactions of acids and reactions of metals REDOX reactions.<br>The bonding and structure of compounds and mixtures.<br>How to determine properties of substances.<br>Extraction of metals.<br>Typical properties of transition metals vs Group 1 metals.<br>Group 7 displacement reactions. | |
| | Where in the curriculum this is taught: | Where in the curriculum this is taught:<br>**Y7_Reactions**<br>Spring term | Where in the curriculum this is taught:<br>**Y8-Metals and other materials**<br>Spring term | Where in the curriculum this is taught:<br>**Y9- Chemical changes**<br>Spring term |
| CHEMISTRY 4 | | Pupils know:<br>Definitions of acid, alkali, base, neutralisation reactions, salt<br>How to describe hazards linked to using acids and alkalis and how to control those risks | Pupils know:<br>The composition of the Earth and atmosphere.<br>The process of making sedimentary, igneous, and metamorphic rocks. | Pupils know<br>More about the properties of materials<br>Word equations |

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| | | The difference between concentrated and dilute solutions, in terms of particles<br><br>The colour changes with litmus, universal indicator solution and universal indicator paper, on addition of acids, alkalis, and neutral solutions<br><br>The pH scale and pH ranges of acidic, neutral, and alkaline solutions<br><br>How to predict the pH of a solution on adding an indicator and f how to determine the pH of a solution<br><br>Useful neutralisation reactions<br><br>How pH changes in neutralisation reactions<br><br>Predicting the salt formed from acids and metals or bases<br><br>Describe how to make a salt from an acid and a base. How to write chemical formulae, balanced formula equations<br><br>Pupils go on the study how<br><br>Mass is conserved in chemical reactions<br><br>Preparing salt from a metal carbonate or oxide | Uses of sedimentary, igneous, and metamorphic rocks.<br><br>Explaining the properties of sedimentary, igneous, and metamorphic rocks.<br><br>Explain how the properties of sedimentary, igneous, and metamorphic rocks make them suitable for their uses.<br><br>Use the rock cycle to describe how materials in rocks are recycled.<br><br>Explain how uplift provides evidence for the rock cycle.<br><br>Describe how carbon moves between carbon stores in the carbon cycle.<br><br>Explain why the concentration of carbon dioxide in the atmosphere did not change for many years.<br><br>Describing the greenhouse effect, global heating, and climate change.<br><br>Explaining why global heating occurs.<br><br>Describing some impacts of global heating and how to prevent climate change.<br><br>Describing how aluminium is recycled. | Characteristic properties of metals and non-metals.<br><br>Chemical reactivity of elements in relation to their position in the Periodic Table.<br><br>The chemistry of acids; reactions with some metals and carbonates.<br><br>Electrolysis of molten ionic liquids and aqueous ionic solutions.<br><br>Extraction and purification of metals related to the position of carbon in the reactivity series. |

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| | | How substances react<br>Different types of chemical reactions<br>Writing ionic equations<br>Reactions of acids<br>Redox reactions<br>Hydrogen ion concentration and its impact on pH<br>Descriptions of strong and weak acids | Describing advantages and disadvantages of recycling.<br>We go on to look for evidence for the composition and evolution of the Earth's atmosphere since its formation.<br>Evidence, and uncertainties in evidence, for additional anthropogenic causes of climate change.<br>Common atmospheric pollutants: sulphur dioxide, oxides of nitrogen, particulates, and their sources.<br>We study how we use fuels<br>Natural resources and their uses.<br>The viability of recycling of certain materials.<br>Life cycle assessment and recycling to assess environmental impacts associated with all stages of a product's life. | |
| | Where in the curriculum this is taught: | Where in the curriculum this is taught:<br>**Y7-Acids and Alkalis**<br>Summer term | Where in the curriculum this is taught:<br>**Y8-The Earth**<br>Autumn term | Where in the curriculum this is taught:<br>**Y9-Useful chemical reactions**<br>Summer term |
| PHYSICS 1 | Pupils know: | Pupils know: | Pupils know: | Pupils know : |

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| | | There are different types of forces<br>The effects of forces on shape and motion.<br>Effects of magnetic, gravitational, and electric fields.<br><br>Pupils go on to extend their knowledge on<br>Forces and fields: electrostatic, magnetic, gravity<br>Elastic and inelastic stretching | How to interpret speed and distance–time graphs<br><br>The effects of Pressure<br><br>The effects of turning forces<br><br>Pupils go on to extend their knowledge on :<br>Interpreting quantitatively graphs of distance, time, and speed<br><br>Pressure in fluids acts in all directions: variation in Earth's atmosphere with height, with depth for liquids, up-thrust force (qualitative)<br><br>Links between pressure and temperature of a gas at constant volume, related to the motion of its particles (qualitative) | The effect of forces: types and interaction pairs<br><br>How to draw and interpret force diagram, about speed and motion, Stretching and Hooke's Law, Forces at a distance mass and weight and the effect of unbalanced forces<br><br>Pupils go on to extend their knowledge on :<br>Forces as vectors.<br><br>Representing equilibrium and non-equilibrium situations using free-body diagrams.<br><br>Acceleration caused by forces.<br><br>Newton's First and Third Laws.<br><br>Speed of sound, estimating speeds and accelerations in everyday contexts.<br><br>Interpreting quantitatively graphs of distance, time, and speed.<br><br>Explaining the shape of displacement– time and velocity–time graphs; calculating speed and acceleration using tangents of a graph. |

| | Where in the curriculum this is | Where in the curriculum this is taught:<br>**Y7-Forces**<br>Autumn term | Where in the curriculum this is taught:<br>**Y8 Motion and Pressure**<br>Summer term | Where in the curriculum this is taught<br>**Y9-Forces and motion**<br>Autumn term |
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| PHYSICS 2 | | Pupils know:<br>The Solar System and its formation<br>Seasonal changes<br>Phases of the Moon and eclipses | Pupils know:<br>How to describe Energy resources<br>Energy stores and transfers.<br>Work done, energy, and power<br>How to explain energy changes in a system involving heating, doing work using forces, or doing work using an electric current: calculating the stored energies and energy changes involved.<br>How to calculate work done as force × distance.<br>Power as the rate of transfer of energy.<br>calculate energy efficiency for any energy transfers.<br>The law of conservation of energy in a closed system, dissipation | Energy conservation, transfer, and dissipation.<br>Specific heat capacity and specific latent heat.<br>Gravitational energy formula<br>Kinetic energy formula<br>Elastic energy formula<br>Efficiency formula |

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| | | | Renewable and non-renewable energy sources used on Earth, changes in how these are used. | |
| | | Where in the curriculum this is taught:<br>**Y7-Space**<br>Summer term | Where in the curriculum this is taught:<br>**Y8-Energy**<br>Spring term | Where in the curriculum this is taught:<br>**Y9-Energy**<br>Spring term |
| PHYSICS 3 | Pupils know:<br>the brightness of a lamp or the volume of a buzzer is associated with the number and voltage of cells used in the circuit.<br>How to compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches.<br>recognised symbols when representing a simple circuit in a diagram | Pupils know:<br>Properties and behaviour of light<br>How the eye and the camera work<br>Combining colours, coloured filters and coloured objects and frequencies<br>Velocities differing between media: absorption, reflection, refraction effects | Pupils know:<br>Pupils can explain static electricity<br>Build circuits and taking measurements.<br>Explain the effects of magnetic fields and the uses of electromagnets.<br>Measure resistance using p.d. and current measurements.<br>Explore current, resistance and voltage relationships for different circuit elements – including their graphical representations.<br>Pupils go on to study the quantity of charge flowing as the product of current and time.<br>Drawi circuit diagrams; exploring equivalent resistance for resistors in series. | Pupils know:<br>The uses and dangers of static electricity.<br>How to draw electric fields.<br>Can explain the magnetic fields around permanent and induced magnets.<br>Determine the direction of the Earth's magnetic field, using a compass.<br>Explain the magnetic effects of currents and how solenoids enhance the effect.<br>Know how motors and generators work.<br>Know how transformers are used in the National Grid and the reasons for their use. |

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| | | | The domestic air conditioning supply – live, neutral, and earth mains wires, safety measures.<br>Power transfer related to p.d. and current, or current and resistance.<br>Explore the magnetic fields of permanent and induced magnets, and the Earth's magnetic field, using a compass.<br>Magnetic effects of currents, how solenoids enhance the effect.<br>How transformers are used in the national grid and the reasons for their use. | |
| | Where in the curriculum this is taught:<br>**Y6- Electricity**<br>Spring term | Where in the curriculum this is taught:<br>**Y7-Light**<br>Spring term | Where in the curriculum this is taught:<br>**Y8-Electricity and Magnetism**<br>Autumn term | Where in the curriculum this is taught:<br>**Y9-Electricity and magnetism**<br>Summer term |
| PHYSICS 4 | Pupils know<br>that light appears to travel in straight lines. How light travels in straight lines explains that objects are seen because they give out or reflect light into the eye.<br>We see things because light travels from light sources to our eyes or from light sources | Pupils know:<br>Types and features of waves<br>How the ear works<br>Uses of ultrasound<br>Amplitude, wavelength, frequency, relating velocity to frequency and wavelength<br>Transverse and longitudinal waves | Pupils know: | Pupils know<br>Wave properties<br>How we see light<br>Calculate wave speed, using frequency and wavelength |

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| | to objects and then to our eyes.<br>The idea that light travels in straight lines explains why shadows have the same shape as the objects that cast them. | | | Determine the speed of water waves or sound waves experimentally<br>properties of ultrasound and infrasound and seismic waves<br>The effects of ionising radiation |
| | Where in the curriculum this is taught:<br>taught:<br>**Y6 Light,** Autumn term | Where in the curriculum this is taught:<br>**Y7-Sound**<br>Autumn term | Where in the curriculum this is taught: | Where in the curriculum this is taught:<br>**Y9-Waves, sound, and light**<br>Spring term |

**Curriculum Impact:**
Pupils achieve academically, are ready for their next steps in education and have high aspirations for their future.
Live: Ensure pupils develop scientific investigation skills, an enquiring mind and high-quality communication skills which they can apply to lifelong learning so that they can make an active contribution to society.
Pupils enjoy their science lessons and actively participate.
Pupils, regardless of background, are able to investigate a problem, question current scientific knowledge and communicate their ideas clearly. Love: Broaden pupils' horizons by giving them opportunities to explore current environmental, global and scientific issues in order for them to better understand the world they live in.
Pupils are inspired by what they have learnt about science in the world and are keen to pursue these interests further through career choices or travel.
Learn: Develop independent, confident and successful scientists who achieve the best possible academic standards, whatever their starting point.
Pupils make good progress and are able to achieve academic success
Disadvantaged pupils are supported in order to close the gap between themselves and their peers