



## Upper key stage 2 (5/6) Spring Term B

### History



Children will build upon their prior knowledge of chronology as well as significant events and people over time. This will reinforce children’s understanding of how to use a range of sources to answer a historical enquiry question. They will evaluate the cause and effect of the Industrial Revolution. By exploring the impact of this, they will be able to make connections with inventions from this period and how it has impacted lives today. Children will be given the opportunity to appreciate the cultural diversity of life for some Victorians and make comparisons with their own. The children’s understanding of the Victorian era will be further consolidated through reviewing *Street Child* in English this term.

### Science



Children will build upon their prior learning from key stage 1 of the basic parts of the human body by discovering how the circulatory system operates. By the end of the unit, children will be able to identify and name the main parts of the circulatory system of the human body and understand how and why the heart rate is affected. Children will apply their understanding of how humans obtain their nutrition through what they eat and what constitutes a balanced diet (learnt in lower key stage two) by researching and investigating the importance of diet and exercise on the human body. They will explore the effects different lifestyles and drugs have on the way the human body functions. They will compare and contrast the different ways water and nutrients are transported in animals. In addition, children will have the opportunity to recognise the impact scientists have had on the world around them in the field of the human circulatory system.

### Religious Education (RE)



#### Year 5

Children will study this unit through the disciplinary lens of philosophy to answer the main enquiry question. They will learn to explore different beliefs about what causes and affects happiness as well as examine a philosophical ideology of happiness and how knowledge and ignorance can impact life. Previously they have looked at how people express a commitment to a worldview or religion which will give them an understanding of the dedication and commitment people participate in. Furthermore, they have looked at what philosophy is and how people make moral decisions which will have laid the foundations for them to begin looking further into the views of some key philosophers such as Kant and Plato. To aid understanding of this unit, children will have previously learnt in key stage 1 about significant events, festivals and communities and what the meaning behind these are to different beliefs. They will have also understood readings from religious texts and spoken about the impact of these words. Prior learning, in Year 3 with regards to religious outlooks on life, will offer further opportunity for children to discuss through a philosophical lens, moral dilemmas and how the outcomes can change from person to person. Children have previously looked at whether seeing is believing and if believing in God is reasonable where they began to ask deeper questions and think like philosophers themselves and understand arguments made by great philosophers as well as responding to these arguments with their own thoughts. This links particularly well to when they will look at Plato’s allegory of the cave.

#### Year 6

By applying and drawing upon their developing philosophical thinking, children will learn to explore and evaluate a range of answers to questions about the world around them, including questions relating to meaning and existence. Furthermore, they will analyse and evaluate different ways in which philosophers understand humanness incorporating what it means to live a ‘good’ life. They will use well-chosen pieces of evidence to support

and counter a particular argument. Previously, children have looked at how people express a commitment to a worldview or religion and how people make moral decisions. To aid understanding of this unit, children will have previously learnt in KS1 about significant events, festivals and communities and applied their knowledge of this to their developing religious literacy. They will have also understood readings from religious texts and spoken about the impact of these words. Prior learning, in Year 3 with regards to religious outlooks on life, will offer further opportunity for children to discuss through a philosophical lens, moral dilemmas and how the outcomes can change from person to person. Children have also discussed and debated about whether seeing is believing and if believing in God is reasonable and began to ask deeper questions and think like philosophers themselves. They have begun to develop and understand arguments made by great philosophers as well as responding to these arguments with their own thoughts. This links particularly to when they will look at Plato's allegory of the cave.

**Computing**



**Year 5 - Data and Information – Flat-file databases**

This unit looks at how a flat-file database can be used to organise data in records. Children will use tools within a database to order and answer questions about data. They will create graphs and charts from their data to help solve problems. They will also use a real-life database to answer a question and present their work to others. This unit of work will build upon learning in year 3, where pupils learnt how to create and use branching databases; and in year 4 where children used digital devices (data loggers) to collect data using sensors to be analysed by a computer.

**Year 5 - Programming – Selection in Physical Computing**




In this unit, children will use physical computing to explore the concept of selection in programming using the Crumble programming environment. They will be introduced to a microcontroller (Crumble controller) and learn how to connect and program it to control components (including output devices — LEDs and motors). Children will be introduced to conditions as a means of controlling the flow of actions in a program. They will make use of their knowledge of repetition and conditions when introduced to the concept of selection (through the 'if...then...' structure) and write algorithms and programs that utilise this concept. To conclude the unit, children will design and make a working model of a fairground carousel that will demonstrate their understanding of how the microcontroller and its components are connected, and how selection can be used to control the operation of the model. Throughout this unit, they will apply the stages of programming design that have been taught previously. This unit of work builds upon the concepts taught in years 3 and 4 where children learnt how to create algorithms that respond to events in sequence and that use both infinite and count controlled loops to demonstrate how algorithms use repetition to reduce the steps within a programme.

**Year 6 - Data and Information – Spreadsheets**

This unit introduces the children to spreadsheets. They will be supported in organising data into columns and rows to create their own data set. Children will be taught the importance of formatting data to support calculations, while also being introduced to formulas and will begin to understand how they can be used to produce calculated data. Children will be taught how to apply formulas that include a range of cells and apply formulas to multiple cells by duplicating them. They will use spreadsheets to plan an event and answer questions. Finally, they will create charts, and evaluate their results in comparison to questions asked. This unit builds upon learning from year 3, where children planned and created branching databases in order to answer questions; and in year 5 where flat-file databases were used to group, sort and refine large amounts of data in order to answer questions.

**Year 6 - Programming – Variables in games**

This unit explores the concept of variables in programming through games in Scratch. First, children find out what variables are and relate them to real-world examples of values that can be set and changed. Then they use variables to create a simulation of a scoreboard. In Lessons 2, 3, and 5, which follow the Use-Modify-Create model, children

	<p>experiment with variables in an existing project, then modify them, before they create their own project. In Lesson 4, children focus on design. Finally, in Lesson 6, they apply their knowledge of variables and design to improve their games in Scratch. This unit of work builds upon the concepts taught in years 3 and 4 where children learnt how to create algorithms that respond to events in sequence and that use both infinite and count controlled loops to demonstrate how algorithms use repetition to reduce the steps within a programme.</p>
<p><b>Art and design</b></p> 	<p>Children will explore, appreciate and respond to the work of British artist, William Morris along with other Victorian artists. They will explore print making and repeated patterns used in both works of art and household textiles. This will lead to children creating their own prints inspired by Morris using similar inspirations from the British countryside using prints and ink. This will build on their prior knowledge of creating prints using everyday objects in EYFS and making repeated patterns by printing using polystyrene in key stage 1. Later this year, they will develop their knowledge of patterns by creating Indian inspired Madhubani style paintings.</p>
<p><b>Design Technology (DT)</b></p> 	<p>Children will have the opportunity to build on a wide range of existing skills as they further their learning journey into upper key stage 2. Children will build on their prior knowledge from key stage 1 where they explored movement of simple mechanisms such as levers, sliders, wheels and axles. Children will develop this understanding further by exploring and using mechanical systems in their products. As children investigate mechanisms in Victorian toys, they will have the opportunity to develop their understanding of driving mechanisms such as cams, sliders and followers, as well as the properties of various materials. This will ensure the children have strong foundations for the next stage of their journey into key stage 3 where they learn how to select from specialist tools, techniques, process, equipment and machinery precisely, including computer aided manufacture. Children will have many opportunities to foster the skills of co-operation. They will have a high regard for the heights of human achievements in all cultures and societies. Children will gain a deeper understanding and appreciation of the historical influences have shaped their own heritage and that of others.</p>
<p><b>Physical Education (PE)</b></p> 	<p>In this unit, prior knowledge from lower key stage 2 will be built upon by increasing children's accuracy when striking a ball, as well as their positioning on the court. Children will develop the range and quality of their racket skills when playing net and wall games. They will focus on tactics and skills by participating in games based on tennis. Throughout these activities, children must think about the skills they are learning and how they can use strategies and tactics to outwit the opposition. They will achieve this by learning how to send the ball into a target area or the opponent's side of the court.</p> <p>Children will build upon their prior learning from lower key stage 2 by developing their range and quality of throwing as well as catching and striking abilities using a rounders ball and bat. Previously, they have learnt how to throw and catch with a bean bag and tennis ball, as well as how to strike using a short tennis racket. They will also build upon their knowledge of fielding from lower key stage 2 by learning about different roles, such as bowler, batter, wicketkeeper, and backstop. Throughout these activities, the children will think about the skills that they are learning and use different tactics and strategies to outwit their opposition. When fielding, they will work together to prevent runs or points being scored. When batting, they will be able to put the ball into space away from fielders so that they can run around bases and score effectively. By the end of the unit, children will be able to score and develop games independently.</p>
<p><b>Personal, social, health and economics (PSHE)</b></p>	<p>Children will build on their speaking and listening skills, to equip them with the knowledge and skills needed, to prepare them for their place in society throughout their life. Children will learn about the importance of staying mentally strong and strategies to use if they struggle with their mental health, at any stage of their life. Children will</p>



learn that mental health is a common issue that many people experience. They will become competent in looking out for the signs and experiences. Children will know where to get help and support from. During key stage 1 and lower key stage 2, children will have learnt how to become more self-aware, talk about how they feel and judge their own feelings. They will have also explored the knowledge that not all medicines and substances are good for our body, even those that can be used safely. To further this knowledge, in upper key stage 2 children will learn facts about legal and illegal substances including smoking and drug taking and their associated risks. During this unit of work, children will also explore the concepts of basic first aid and how to make an emergency call. Children will learn how to be a discerning consumer of information online and understand that information, including that of search engines, is ranked, selected and targeted. Ensuring children have an ability to recognise the difference between right and wrong, and readily apply this to their own understanding of their lives, is fundamental. Children will recognise the legal boundaries, and in doing so, respect the civil and criminal law of England. Children will be encouraged to form a vision of a better future through the development of hope and positivity.

**Music**



Children will now be more competent as they enter upper key stage 2 in singing with control and accuracy. They will play musically with increased confidence recognising notation with developing conviction. Children will use this unit to gain a secure understanding of musical composition, organisation and manipulation of ideas within musical structures. This unit will give children opportunities to sing and play with expression and this will be explored through recognising major scale patterns. Children will use pitch knowledge to recreate pieces of music on a wider range of tuned instruments. During this unit children will become more confident with improvising and composing music for a range of purposes using the inter related dimensions of music. Building on their knowledge from lower key stage 2 children will move on from five note melodies to play a tune and the middle eight – the bridge. Children will develop an understanding of the history of music and appreciate and understand a wide range of music drawn down from different traditions, composers and musicians. Children will be given many opportunities to be inspired and engaged by music and recognise how their creative gifts and talents can be nurtured.