Year 5 Curriculum Map

Cuddington Community Primary School

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	
ILP	**Benin Kingdom**	**Slums**	**Medieval Monarchs**	**Biomes**	**Changing Britain**	**Energy & Sustainability**	
Key Text(s)	Robot Girl (Malorie Blackman) Hidden Figures (Margot Lee Shetterly)	The Lizzie and Belle Mysteries (J.T. Williams) The Lost Thing (Shaun Tan)	Rumaysa: A Fairy Tale (Radiya Hafiza) The Whale (Ethan and Vita Murrow)	Anne Frank (Josephine Poole) Children of the Benin Kingdom (Dinah Orj)	The Island (Armin Greder) The Man Who Walked Between the Towers (Mordicai Gerstein)	High Rise Mystery (Sharna Jackson) Curiosity (Markus Motum)	
Science	**Earth and Space** **Pupils who are secure will be able to:** • Describe the geocentric and heliocentric models. • Name and describe the shape of celestial bodies. • Describe the orbits of celestial bodies in the Solar System and name the force that keeps them in their orbits. • Describe the orbit of the Moon around the Earth and its phases. • Explain how day and night occur. • Explain how the seasons occur. • Explain how a sundial works. • List some of the uses of satellites and explain why space junk poses a problem to them. **Working Scientifically** • Pose and identify testable questions about the movement of the celestial bodies in our Solar System. • Use a model to represent the Solar System. • Design and draw a table to record data on moons. • Accurately draw day and night and seasons diagrams. • Calibrate a sundial using a compass and torch and use it to measure time. • Analyse patterns in temperature data for the	**Mixtures and Separation** Pupils who are **secure** will be able to: • Define the term **mixture** and name some common examples. • Define the term **sieving** and explain how sieving separates mixtures. • Define the term **filtering** and explain how filtering separates mixtures. • Define the terms **solution** and **dissolve** and name some common examples of solutions. • Recall some factors that affect the time taken to dissolve. • Describe the effect of temperature on the time taken to dissolve. • Define the term **evaporating** and explain how evaporating separates solutions. • Identify when sieving, filtering and evaporating should be used. **Working Scientifically** • Research a mixture to find out what substances it is made from. • Draw and annotate a diagram to explain how sieving separates a solid-solid mixture. • Identify and justify which type of enquiry to use to answer my testable question. • Identify solutions by observing and describing their appearance. • Suggest which variables to change, measure and control when investigating how temperature affects the time taken to dissolve.	**Unbalanced Forces** Pupils who are secure will be able to: • Describe gravity and its effects. • Describe the relationship between mass and gravity. • Describe air resistance and its effects. • Describe friction and its effects. • Describe water resistance and its effects. • Describe the relationship between surface area and air and water resistance. • Explain how to make an object aerodynamic or streamlined. • Describe the effects of levers, pulleys and simple machines on movement. **Working Scientifically** • Analyse predictions, data and anomalies to write a conclusion. • Plan a fair test to investigate air resistance. • Write a method. • Evaluate a method and judge the degree of trust. • Design a results table. • Calculate the mean average from repeat data. • Draw and annotate a diagram.	**Life cycles and reproduction** Pupils who are secure will be able to: • Describe the life cycle of a plant, including the reproductive stage. • Describe the life cycle of a mammal. • Describe the life cycle of a bird and compare it with that of a mammal. • Describe the life cycle of an amphibian. • Describe the life cycle of an insect and compare it with that of an amphibian. • Describe asexual reproduction in plants. **Working Scientifically** • Observe and compare equivalent parts in different flowers. • Research the life cycles of different mammals. • Pose questions to compare the life cycles of different birds. • Suggest how one temperature may affect egg hatching. • Use data to describe a relationship and make predictions. • Represent root growth over time on a line graph.	**Properties and changes** Pupils who are secure will be able to: • Determine the hardness of different materials and link this to their uses. • Determine the transparency of different materials and link this to their uses. • Determine the thermal and electrical conductivity of different materials and link this to their uses. • Demonstrate, identify and describe reversible and irreversible changes. **Working Scientifically** • Evaluate the hardness test to determine the degree of trust in the results. • Plan and draw a table of results. • Write a detailed, organised and easy to follow method. • Write a prediction using prior knowledge of the states of matter. • Analyse observations about rusting and use them to support a conclusion. • Measure accurately in centimetres.	**Human Timeline** Pupils who are secure will be able to: • Order the stages in growth and development from birth to old age. • Describe physical and developmental changes from a baby through to old age. • Describe changes that occur in males and females during puberty. • Suggest ways to manage the changes that occur during puberty. • Recall what is meant by a gestation period. • Describe how gestation varies across animals and compare this to humans. **Working Scientifically**	**Making Connections: Does the size of an asteroid affect the diameter of its impact crater?** • Pupils who are secure will be able to: • Recall key knowledge from previous units. • Apply knowledge in new contexts. • When working scientifically, pupils who are secure will be able to: **Working scientifically** • To plan a comparative test. • To gather and record data. • To conclude and evaluate the investigation.

	Earth and use them to predict temperature values for the Earth in the future.	• Choose which measurements to take and how long to take them for.	• To draw an accurate line graph.			• Use data to describe growth from baby to adult. • Identify where on the graph the rate of growth changes. • Use a line graph to make predictions about height. • Choose a suitable title and axes labels for the scatter graph and plot data on the scatter graph.	

Humanities	**How did the Benin Kingdom begin?** **What was lifelike for the Edo people in the Benin Kingdom?** **How were trade links established and what goods were traded?** **What was the transatlantic slave trade?** **What can the Benin Bronzes teach us about the Benin Kingdom?** • To be able to know dates and use historical language in my work. • to be able to know how to show understanding of similarities and differences of different social, cultural and ethnic diversity in Britain and the wider world. • Historical interpretation: to be able to compare two historical representations/interpretations giving similarities and differences between the two. • **Historical Enquiry Skills –** To be able to know how to devise, ask and answer more complex questions about the past, considering key concepts in history. • To be able to know how to select sources independently and give reasons for choices. • To be able to know how to use different types of primary sources to investigate an historical issue.	**SLUMS – understanding the human and physical features of slums in Mexico, Pakistan, India, Kenya and South Africa.** **What is a slum?** **What are the similarities between Rocinha and Dharavi?** **What challenges are faced by people living in the slums?** **What improvements can be made for people living in the slums?** **What next for Dharavi?** • locate the world's countries, using maps to focus on Europe (including the location of Russia) and North and South America, concentrating on their environmental regions, key physical and human characteristics, countries, and major cities. • understand geographical similarities and differences through the study of human and physical geography of a region of the United Kingdom, a region in a European country, and a region in North or South America. • human geography, including: types of settlement and land use, economic activity including trade links, and the distribution of natural resources including energy, food, minerals and water. use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied.	**Medieval Monarchs** **Why was there a succession crisis in 1066?** **Who was responsible for the death of Thomas Becket?** **Which king was worse, John or Richard?** **What makes a great medieval monarch?** **How did power change during the medieval period?** • A study of an aspect or theme in British history that extends pupils' chronological knowledge beyond 1066. (The changing power of monarchs). • Chronological history: to be able to know how to add and draw periods of time on a timeline, adding significant events or when people lived. • Continuity and change; to be able to know how to identify and describe change and continuity across different periods and societies, using evidence to support my answer. **Historical Enquiry Skills –** • To be able to know how to select sources independently and give reasons for choices.	**BIOMES – the six major types of biomes; locations and features.** **What are the Earth's biomes?** **Why are biomes where they are?** **Why are biomes under threat?** **What are the features of your favourite biome?** **How can we persuade people to protect biomes?** locate the world's countries, using maps to focus on Europe (including the location of Russia) and North and South America, concentrating on their environmental regions, key physical and human characteristics, countries, and major cities. • identify the position and significance of latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle, the Prime/Greenwich Meridian and time zones (including day and night). • physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle.	**How have people fought for civil rights in Britain?** **What was the Bristol Bus Boycott?** **What was the Grunwick Strike?** **Why were there protests about Section 28?** **How did the Wheelchair Warriors fight for their rights?** • To be able to know how to show understanding of similarities and differences of different social, cultural and ethnic diversity in Britain and the wider world. • To be able to know that the past is represented and interpreted in different ways and give reasons for this. • To be able to know how to use different types of primary sources to investigate an historical issue. **Historical Enquiry Skills -** • To be able to know how to make supported inferences and make a general comment upon the utility of a source. • To be able to know how to devise, ask and answer more complex questions about the past, considering key concepts in history. • To be able to know how to select sources independently and give reasons for choices. • To be able to know how to analyse a range of source material to promote evidence about the past.	**ENERGY & SUSTAINABILITY – looking at different types of energy; renewable and non-renewable.** **What is sustainability?** **Are fossil fuels sustainable?** **What are renewable sources of energy?** **What can we learn from Curitiba?** **What can we learn from Freiburg?** locate the world's countries, using maps to focus on Europe (including the location of Russia) and North and South America, concentrating on their environmental regions, key physical and human characteristics, countries, and major cities. • understand geographical similarities and differences through the study of human and physical geography of a region of the United Kingdom, a region in a European country, and a region in North or South America • physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle. • human geography, including: types of settlement and land use, economic activity including trade links, and the distribution of natural resources including energy, food, minerals and water.

Art & Design **Design & Technology**	**Electrical systems: Doodlers** To know that, in a series circuit, electricity only flows in one direction. To know when there is a break in a series circuit, all components turn off. To know that an electric motor converts electrical energy into rotational movement, causing the motor's axle to spin. To know a motorised product is one which uses a motor to function.	**Sculpture and 3D: Interactive installation** To know that an art installation is often a room or environment in which the viewer 'experiences' the art all around them.	**Mechanical systems: Making a pop-up book** To know that mechanisms control movement. To understand that mechanisms can be used to change one kind of motion into another. To understand how to use sliders, pivots and folds to create paper-based mechanisms. To know that a design brief is a description of what I am going to design and make. To know that designers often want to hide mechanisms to make a product more aesthetically pleasing.	**Drawing: I need Space** To know that different marks and lines can be used to create specific effects. To know how to create texture on different materials. To know that prints need contrast between light and dark areas to make the image visible.	**Food: What could be healthier?** To understand where meat comes from – learning that beef is from cattle and how beef is reared and processed, including key welfare issues. To know that I can adapt a recipe to make it healthier by substituting ingredients. To know that I can use a nutritional calculator to see how healthy a food option is. To understand that 'cross-contamination' means that bacteria and germs have been passed onto ready-to-eat foods and it happens when these foods mix with raw meat or unclean objects.	**Painting and mixed media: Portraits** To know that artists use colour to create an atmosphere or to represent feelings in an artwork, for example by using warm or cool colours. To know that different marks and lines can be used to create specific effects. To know that artists create pattern to add expressive detail and texture to art works.

Music	**Melody and Harmony in Music** To create a harmony using voices and/or instruments. To demonstrate breath control and posture whilst singing. To know that opera is a dramatic form of vocal and orchestral music that originated in Europe.	**Sing and Play in Different Styles** To identify when the tempo changes in a piece of music. To know the historical connections of a song. To justify a personal opinion with reference to musical elements.	**Composing and Chords** To use structures within compositions, e.g., introductions, multiple verse and chorus sections, AB form or ABA form (ternary form). To use chords to compose music that evokes a specific atmosphere, mood or environment.	**Enjoying Musical Styles** To use structures within compositions, e.g., introductions, multiple verse and chorus sections, AB form or ABA form (ternary form). To use chords to compose music that evokes a specific atmosphere, mood or environment.	**Freedom to Improvise** To use a wider range of dynamics, including fortissimo (very loud), pianissimo (very quiet), mezzo forte (moderately loud) and mezzo piano (moderately quiet).	**Battle of the Bands!** To perform a song in solo or ensemble contexts, including instrumental performances that might be rehearsed, improvised or composed. To discuss and talk musically about the strengths and weaknesses of a performance.

Computing	**Computing systems and networks: Search engines** **Children will know that…** • How search engines work. • Anyone can create a website; therefore, people should take steps to check the validity of websites. • Web crawlers are computer programs that crawl through the internet. What copyright is.	**Programming 1: Music** **Children will know that…** • Programmers often save time when creating code by taking code from one program and turning it into another. • Nested loops are loops within loops. • Running a program to identify errors should be done before checking the code. Errors in a program could be a result of forgetting to end a loop.	**Data handling: Mars Rover 1** **Children will know that…** • Mars Rover is a motor vehicle that collects data from space by taking photos and examining rock samples. • What numbers using binary code look like and be able to identify how messages can be sent in this format. • RAM is Random Access Memory and acts as the computer's working memory. • What simple operations can be used to calculate bit patterns.	**Creating media: Stop motion animation (Option 2 - with cameras** **Children will know that…** • Decomposition of an idea is important when creating stop-motion animations. • Stop-motion animation is filmed one frame at a time using models and with tiny changes between each photograph. • Editing is an important feature of making and improving a stop-motion animation.	**Programming 2: Micro: bit** **Children will know that…** • To know that a Micro:bit is a programmable device. • To know that Micro:bit uses a block coding language similar to Scratch. • To understand and recognise coding structures including variables. • To know what techniques to use to create a program for a specific purpose (including decomposition).	**Skills showcase: Mars Rover 2** **Children will know that…** • Learning the difference between ROM and RAM. Recognising how the size of RAM affects the processing of data. Understanding the fetch, decode, execute cycle. Learning how the data for digital images can be compressed. • Recognising that computers transfer data in binary and understanding simple binary addition. Understanding how bit patterns represent images as pixels. Using logical thinking to explore software more independently, making predictions based on their previous experience. • Independently learning how to use 3D design software package TinkerCAD. Learn about different forms of communication that have developed with the use of technology.
Online safety	**Children will know that…** • Possible dangers online and how to stay safe. • The pros and cons of online communication. • That information on the internet might not be true or correct and ways of checking validity. • What to do if they experience bullying online. How to use an online community safely.					

RE	**CHRISTIANITY:** How did the Church begin, and where is it now? What does it mean to belong? How did the Church begin? Why is baptism important for Christians? How does baptism create a sense of 'belonging' to the Church? What is the Church like around the world? What do we understand by the word 'Church'? How can we express what the Church is?	**JUDAISM:** What does it mean to be part of a synagogue community? How do Jewish objects show what's important to some Jewish people? What helps us to be a part of a school community? How are we a place of 'study', 'gathering' and 'worship/prayer'? How is synagogue worship focused around the Torah? Does remembering the past help us in the future? Are Jewish people changed by observing Yom Kippur? What does it mean to be part of a synagogue community?	• **CHRISTIANITY:** Why is the idea of 'rescue' so important to Christians? • (Easter) SOS! HELP!!!! What do we mean by the word 'salvation'? Why do we like stories about rescue? How is the idea of 'salvation' (rescue) a common theme in the Bible's stories? How is the idea of 'salvation' (rescue) a common theme in the Bible's stories? What do Christians believe they need rescuing from? What was God's solution? And what does it have to do with 'salvation'? (Easter story)	**HINDU (SANATAN) DHARMA:** What helps Hindus to worship? What is 'Sanatana Dharma' (Hinduism)? Who do Hindus (Sanatanis) worship? How can sacred stories help Hindus (Sanatanis) make sense of their beliefs? How does practising puja help a Sanatani to worship God? n what other ways do Sanatanis express devotion to their deities? What are the similarities and differences between Sanatani worship and worship rituals and traditions in other religions?	**CHRISTIANITY:** What do Christians believe about creation? What does it mean to create? Can Christians believe in creation and the big bang? What does creation mean for Christians' relationship with God? What does the fall mean for human suffering and Christian hope? What responsibility do Christians today have for the earth and living things? How do different Christians live this out? How should Christians live in response to what the Bible says about creation?	**Thematic Unit:** How did it all begin? Why do people want to know how the world began? What do the Abrahamic worldviews say about how or why the world began? What do other worldviews say about how or why the world began? Does science prove that creation stories are wrong? What are the common threads across different beliefs (including scientific) about how the world began? What might account for the differences?

			How do Christians express their ideas about salvation? Jesus' last words were 'It is finished!' What do you think he meant? Why is this so important to Christians? How might we show our ideas about salvation? How do our ideas link with what Christians think?			What do I believe about how or why it all began? Where might my ideas have come from?
PE	**Dance – Unit 1 (P E Hub Unit 1)** • Perform different styles of dance fluently and clearly. • Refine and improve dances adapting them to include the use of rhythm and expression. • Work collaboratively in groups to compose simple dances. • Recognise and comment on dances suggesting ideas for improvement. **Football (PE Hub)** • To be able to play effectively in a variety of positions and formations on the pitch • To be able to relate a greater number of attacking and defensive tactics to gameplay • To be able to become more skilful when performing movements at speed	**Gymnastics – Unit 1 (PE Hub)** • Create longer and more complex sequences and adapt performances Take the lead in a group when preparing a sequence • Develop symmetry individually, as a pair and in a small group • Compare performances and judge • strengths and areas for improvement • Select a component for improvement. For example—timing or flow **Netball (PE Hub)** • To be able to use specific netball skills in games for example confidently: pivoting, dodging, bounce pass and previously learnt skills • To begin to play efficiently in different positions on the pitch in both attack and defence • To increase power and strength of passes, moving the ball over longer distances	**Dance -Unit 2 (PE Hub)** 1. Using professional examples to inspire ideas for explosive action. 2. Owning and exploring new movement possibilities. **3.** Concentrating on one simple theme throughout and linking aal activities to the communication of this to an audience. **Tag Rugby (PE Hub)** • To combine basic tag rugby skills such as catching and quickly passing in one movement - To be able to select and • implement appropriate skills in a game • situation • To begin to play effectively when attacking and defending • To increase the power of passes so the ball can be moved quickly over greater distance	**Gymnastics – Unit 2 (PE Hub)** • To take responsibility for our own warm-up including remembering and repeating a variety of stretches • Perform more complex actions, shapes and balances with consistency. • Use information given by others to improve performance. • Remember and repeat longer sequences with more difficult actions. **Tennis (PE Hub)** • Introduce Volley shots and • Overhead shots • Apply new shots into game situations • Play with others to score and defend points in competitive games - Further, explore Tennis service rules	**Athletics (PE Hub)** • Sustain pace over short and longer distances such as running • 100m and running for 2 minutes • Able to run as part of a relay team working at their maximum speed • Perform a range of jumps and throws demonstrating increasing power and accuracy **Cricket (PE Hub)** • Link together a range of skills and use in combination • Collaborate with a team to choose, use and adapt rules in games • Recognise how some aspects of fitness apply to cricket, e.g. power, flexibility and cardiovascular endurance	**Rounders (PE Hub)** • Link together a range of skills and use in combination. • Collaborate with a team to choose, use and adapt rules in games. • Recognise how some aspects of fitness apply to rounders, e.g. power, flexibility and cardiovascular endurance

RSHE **Kapow**	**BM (Being Me in My World)** 'Who am I and how do I fit?'	**CD (Celebrating Difference)** Respect for similarity and difference. Anti-bullying and being unique	**DG (Dreams and Goals)** Aspirations, how to achieve goals and understanding the emotions that go with this	**HM (Healthy Me)** Being and keeping safe and healthy	**RL (Relationships)** Building positive, healthy relationships	**CM (Changing Me)** Coping positively with change
Educational Opportunities	Virtual Reality Space experience Senior citizens Lunch Club Hello Yellow	Remembrance Service PE Day Anti-bullying week Friendship Day Carol Service Christmas Jumper Day	Senior citizens Lunch Club	Easter experience Senior citizens Lunch Club Trip to Hindu temple	Senior citizens Lunch Club Trip to Chessington World of Adventures	Year 5 class assembly Senior citizens Lunch Club

		Senior citizens Lunch Club				