

Aintree Davenhill Medium Term Planning



Year Group: 5

Term: Spring 2

Maths	Science	English
Number and Place Value (Mental Maths) - Read and write any integer and use decimal notation for tenths, hundredths and thousandths and know what each digit represents - Count forwards and backwards in steps of 0.01, 0.1, 1, 10, 100, 1000 from any positive integer or decimal - Count forwards and backwards in equal steps and describe any patterns in the sequence - Order and compare whole numbers up to 1 000 000, negative numbers and decimals with up to two decimal places - Know by heart facts for all multiplication tables up to 12 x 12 - Complete and interpret information in a variety of sorting diagrams (including those used to sort properties of numbers) - Recall and use addition and subtraction facts for 1 and 10 (with decimal numbers to one decimal place) - Derive and use addition and subtraction facts for 1 (with decimal numbers to two decimal places) - Derive related facts from those already known (e.g. 4×0.8 linked to 4×8 or $3 + 7 = 10$ linked to $0.3 + 0.7 = 1$) - Use partitioning to double or halve any number, including decimals to two decimal places - Multiply and divide whole numbers and decimals with up to two decimal places mentally by 10 or 100, and integers by 1000 and use this to convert between units of measurement, e.g. cm to m, g to kg, etc. - Round whole numbers to the nearest 10, 100, 1000 or a number with up to two decimal places to the nearest integer or number of decimal places - Count in fraction steps and convert equivalent fractions (e.g. count in steps of $\frac{1}{12}$ converting to $\frac{1}{12}, \frac{1}{6}, \frac{1}{4}, \frac{1}{3}, \frac{5}{12}, \frac{1}{2}, \dots$) Mental and Written Multiplication - Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers - Multiply and divide numbers mentally drawing upon known facts - Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers - Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method) - Select a mental strategy appropriate for the numbers involved in the calculation - Solve problems involving multiplication including using their knowledge of factors and multiples, cubes and squares - Solve problems involving multiplication, including scaling by simple fractions and problems involving simple rates Mental and Written Division - Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers - Divide numbers mentally drawing upon known facts - Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context - Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method) - Select a mental strategy appropriate for the numbers involved in the calculation - Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign - Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates Fractions Calculations - Recognise mixed number and improper fractions and convert from one form to the other - Add and subtract fractions with the same denominator and denominators that are multiples of the same number (using diagrams) - Write mathematical statements > 1 as a mixed number, e.g. $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}$ Measurement (Area and Volume) - Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm²) and square metres (m²) and estimate the area of irregular shapes - Understand the difference between liquid volume, including capacity and solid volume - Estimate (and calculate) volume (for example, using 1cm³ blocks to build cuboids (including cubes)) - Use, read and write standard units of length and mass to a suitable degree of accuracy - Estimate and calculate capacity Data Handling - Calculate and interpret the mode, median and range - Add and subtract numbers mentally with increasingly large numbers and decimals to two decimal places - Add and subtract whole numbers with more than 4 digits and decimals with two decimal places, including using formal written methods - Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method) - Select a mental strategy appropriate for the numbers involved in the calculation - Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why	Forces Programme of Study - Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object - Identify the effects of air resistance, water resistance and friction, that act between moving surfaces - Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect - There are different types of forces (push, pull, friction, air resistance, water resistance, magnetic forces, gravity) - Gravity can act without direct contact between the Earth and an object - Friction, air resistance and water resistance are forces which slow down moving objects - Friction, air resistance and water resistance can be useful or unwanted - The effects of friction, air resistance and water resistance can be reduced or increased for a preferred effect - More than one force can act on an object simultaneously (either reinforcing or opposing each other) Working Scientifically - Explore falling paper cones or cup-cake cases - Design and make[exploring] a variety of parachutes - Carry out fair tests to determine which designs are the most effective - Explore resistance in water by making and testing boats of different shapes	Reading Word Reading - Use knowledge of root words to understand meanings of words - Apply knowledge of prefixes to understand meaning of new words - Use suffixes to understand meanings e.g. -ant, -ance, -ancy, -ent, -ence, -ency, -ible, -able, -ibly, -ably - Read and understand meaning of words on Y5/6 word list – see bottom - Use punctuation to determine intonation and expression when reading aloud to a range of audiences Reading Comprehension Maintain positive attitudes to reading and understanding what they read by: - Listening to and discussing a range of fiction/poetry/non-fiction which they might not choose to read themselves - Regularly listening to whole novels read aloud by the teacher from an increasing range of authors - Exploring themes within and across texts e.g. loss, heroism, friendship - Making comparisons within a text e.g. characters' viewpoints of same events - Analysing the conventions of different types of writing e.g. <i>use of first person in autobiographies and diaries</i> - Recommending books to their peers with reasons for choices - Reading books and texts that are structured in different ways for a range of purposes - Expressing preferences about a wider range of books including modern fiction/traditional stories/myths/legends - Learning a wider range of poems by heart - Preparing poems and playscripts to read aloud and perform, showing understanding through intonation, tone, volume and action so the meaning is clear to an audience Understand what they read by: - Checking that the book makes sense to them and demonstrating understanding e.g. <i>through discussion, use of reading journals</i> - Exploring meaning of words in context - Demonstrating active reading strategies e.g. <i>generating questions to refine thinking, noting thoughts in a reading journal</i> - Inferring characters' feelings, thoughts and motives from their actions and justifying inferences with evidence - Predicting what might happen from information stated and implied - Re-read and reads ahead to locate clues to support understanding - Scanning for key words and text marking to locate key information - Summarising main ideas drawn from more than one paragraph and identifying key details which support this - Identifying how language, structure and presentation contribute to meaning e.g. <i>formal letter, informal diary, persuasive speech</i> Discuss and evaluate how authors use language including figurative language, considering the impact on the reader - Exploring, recognising and using the terms metaphor, simile, imagery - Explaining the effect on the reader of the authors' choice of language - Distinguish between statements of fact or opinion within a text Participate in discussions about books that are read to them and those they can read for themselves, building on their own and others' ideas and challenging views courteously Explain and discuss their understanding of what they have read, including through formal presentations and debates, maintaining a focus on the topic and using notes where necessary by: - Preparing formal presentations individually or in groups - Using notes to support presentation of information - Responding to questions generated by a presentation - Participating in debates on an issue related to reading (fiction or non-fiction) Provide reasoned justifications for their views by: Justifying opinions and elaborating by referring to the text (Point + Evidence + Explanation) Writing Vocabulary, Spelling and Punctuation - Create complex sentences by using relative clauses with pronouns who, which, where, whose, when, that, e.g. Sam, who had remembered his wellies, was first to jump in the river The robberies, which had taken place over the past month, remained unsolved - Create and punctuate complex sentences using ed openers - Create and punctuate complex sentences using ing openers - Create and punctuate complex sentences using simile starters - Demarcate complex sentences using commas and explore ambiguity of meaning - Explore, collect and use modal verbs to indicate degrees of possibility, e.g. might, could, shall, will, must - Use devices to build cohesion within a paragraph, e.g. firstly, then, presently, subsequently - Link ideas across paragraphs using adverbials for time, place and numbers, e.g. later, nearby, secondly - Identify and use brackets and dashes - Use suffixes -ate, -ise, -ify to convert nouns and adjectives into verbs - Investigate verb prefixes e.g. dis-, re-, pre-, mis-, over- Composition - Plan their writing by: - Identifying the audience and purpose - Selecting the appropriate language and structures - Using similar writing models - Noting and developing ideas - Drawing on reading and research - Thinking how authors develop characters and settings (in books, films and performances)

		Draft and write by: • Selecting appropriate grammar and vocabulary • Blending action, dialogue and description within and across paragraphs • Using devices to build cohesion (see VGP column) • Using organisation and presentational devices e.g. headings, subheadings, bullet points, diagrams, text boxes Evaluate and edit by: • Assessing the effectiveness of own and others' writing in relation to audience and purpose • Suggesting changes to grammar, vocabulary and punctuation to enhance effects and clarify meaning • Ensuring consistent and correct use of tense throughout a piece of writing • Ensuring consistent subject and verb agreement • Proofreading for spelling and punctuation errors • Perform own compositions for different audiences: • Using appropriate intonation and volume • Adding movement • Ensuring meaning is clear Spelling • Spell words that they have not yet been taught by using what they have learnt about how spelling works in English • Use further prefixes and suffixes and understand the guidelines for adding them • Spell some words with 'silent' letters, e.g. knight, psalm, solemn • Continue to distinguish between homophones and other words which are often confused • Use knowledge of morphology and etymology in spelling and understand that the spelling of some words needs to be learnt specifically • Use dictionaries to check the spelling and meaning of words • Use the first three or four letters of a word to check spelling, meaning or both of these in a dictionary • Use a thesaurus • Use suffixes -ate, -ise, -ify to convert nouns and adjectives into verbs • Investigate verb prefixes e.g. dis-, re-, pre-, mis-, over- Handwriting • Write fluently • Choose when it is appropriate to print or join writing, e.g. printing for labelling a scientific diagram
History	Geography	Computing
	Hills and Mountains Locational Knowledge • Locate the world's countries, using maps to focus on Europe (including the location of Russia) and North and South America • Name and locate counties and cities of the United Kingdom • 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) Place Knowledge • A region of the United Kingdom • A region in a European country Human and Physical Geography • Describe and understand key aspects of: - physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains - 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 Mapping • Use a wide range of maps, atlases, globes and digital maps to locate countries and features studied • Relate different maps to each other and to aerial photos • Begin to understand the differences between maps e.g. Google maps vs. Google Earth, and OS maps • Choose the most appropriate map/globe for a specific purpose • Follow routes on maps describing what can be seen • Interpret and use thematic maps • Understand that purpose, scale, symbols and style are related • Recognise different map projections • Identify, describe and interpret relief features on OS maps • Use six figure coordinates • Use latitude/longitude in a globe or atlas • Create sketch maps using symbols and a key • Use a wider range of OS symbols including 1:50K symbols • Know that different scale OS maps use some different symbols • Use models and maps to discuss land shape i.e. contours and slopes • Use the scale bar on maps • Read and compare map scales • Draw measured plans Fieldwork • Use eight cardinal points to give directions and instructions • Observe, measure and record human and physical features using a range of methods including sketch maps, cameras and other digital technologies e.g. data loggers to record (e.g. weather) at different times and in different places • Interpret data collected and present the information in a variety of ways including charts and graphs Enquiry and Investigation • Ask and answer questions that are more causal e.g. Why is that happening in that place? Could it happen here? What happened in the past to cause that? How is it likely change in the future? Make predictions and test simple hypotheses about people and places	My Online Life (DL) (DL) To explain how identity online can be copied, modified or altered. (DL) To demonstrate responsible choices about their online identity, depending on context. (DL) To explain that there are some people they communicate with online who may want them to do themselves or their friends harm, they can recognise this is not their fault. (DL) To make positive contributions and be part of online communities. (DL) To describe some of the communities in which they are involved and describe how they collaborate with others positively. (DL) To search for information about an individual online and create a summary report of the information they find. (DL) To describe ways that information about people online can be used by others to make judgements about an individual. (DL) To recognise when someone is upset, hurt or angry online. (DL) To describe how to get help for someone that is being bullied online and assess when they need to do or say something or tell someone. (DL) To explain how to block abusive users. (DL) To explain how they would report online bullying on the apps and platforms that they use. (DL) To describe the helpline services who can support them and what they would say and do if they needed t help (e.g. Childline) (DL) To use different search technologies. (DL) To evaluate digital content and explain how they make choices from search results. (DL) To explain key concepts including data, information, fact, opinion, belief, true, false, valid, reliable and evidence. (DL) To understand the difference between online mis-information and dis-information. (DL) To explain what is meant by 'being sceptical'. To give examples of when and why it is important to be sceptical. (DL) To explain what is meant by a 'hoax'. To explain why they need to think carefully before they forward anything online. (DL) To explain why some information they find online may not be honest, accurate or legal. (DL) To explain why information that is on a large number of sites may still be inaccurate or untrue. To assess how this might happen (e.g. the sharing of misinformation either by accident or on purpose). (DL) To describe ways technology can affect sleep and describe some of the issues. (DL) To describe some of the strategies, tips or advice to promote healthy sleep with regards to technology. (DL) To create and use strong and secure passwords. (DL) To explain how free apps or services may read and share their information (e.g. friends, contacts, likes, images, videos, voice, messages, geolocation) with others. (DL) To explain how some apps may request or take payment for additional content (e.g. in-app purchases and explain why they should seek permission from a trusted adult before purchasing. (DL) To assess and justify when it is acceptable to use the work of others. (DL) To give examples of content that is permitted to be reused.

D.T	Art	Music
	Drawing – I need space Understand and explain what retrofuturism is. Participate in discussions and offer ideas. Evaluate images using simple responses, sometimes using formal elements to extend ideas. Provide plausible suggestions for how a piece was created. Comfortably use different stimuli to draw from. Use past knowledge and experience to explore a range of drawing processes. Select and place textures to create a collagraph plate, applying an understanding of the material, which may be supported by testing. Create a selection of drawings and visual notes that demonstrate their ideas using sketchbooks. Generate a clear composition idea for a final piece that shows how it will be drawn. Apply confident skills to make an effective collagraph print. Independently select tools and drawing techniques, with some guidance. Demonstrate growing independence, discussing ways to improve work.	Composition to represent the festival of colour (Theme: Holi festival) Hearing Colours To understand that music can be represented with colours To suggest a colour to match the music To justify own opinion To name the features or the mood of a piece of music Picturing Music To represent a piece of music as a graphic score To identify features of music To describe what pieces of music look like and why To represent music visually Vocal Composition To create a vocal composition based on a picture I can represent colours and shapes with vocal sounds I can explain my choices I can describe my use of dynamics, tempo and pitch Cross-curricular links Colour Composition To create a piece of music inspired by a single colour To describe the musical features of a piece of music To associate music with colour To create vocal sounds to represent colour To record a composition as a graphic score Performing in Colour To work as a group to perform a piece of music To adjust own dynamics and pitch according to a graphic score To keep in time with own group To communicate with own group I know own role in the group
P.E	P.S.H.E	R.E
Tennis To recap and perform a range of different shots with accuracy and control. To move quickly to the ball to perform a volley To play an overhead shot and know when you might use this. To use different court formations during doubles, play. To refine court movement to hit the ball before the second bounce. To perform a diagonal, serve to begin a game in competitive situations. Dance What a non-locomotor movement is and using it in our dance To perform both non-locomotor and locomotor movements together. To create new and exciting group patterns. A simple Line Dance routine. To create our own 3-step line dance with a partner. To work collaboratively within our group to improve our performance.	Living in the Wider World - To identify who to talk to if you are worried or scared about something - To understand mental health - To understand how to talk about feelings - To understand how to look after our mental health - To explore gender stereotypes - To explain why it is important to challenge gender stereotypes	U2.2 What would Jesus do? (Can we live by the values of Jesus in the 21st Century?) This investigation enables pupils to learn in depth from Christianity, considering in a detailed way some teachings of Jesus and the ways they are applied today. Pupils will consider examples of what Jesus said, and how Christians today respond to the challenges of his teachings. It enables a clear sequence of learning and the development of a rich knowledge of Christian worldviews. Pupils use some of the main disciplines with which religion and worldviews are studied: they think about making sense of texts and about questions of meaning, values and truth. Pupils will: Make connections between some of Jesus’ teachings and the way Christians live today (A1). - Discuss their own ideas about the importance of values to live by, comparing them to Christian ideas (C3). - Outline three or more examples of Jesus’ teaching on how his followers should live (A2). - Offer interpretations of two of Jesus’ parables and say what they might teach Christians about how to live (B3). - Explain the impact Jesus’ example and teachings might have on Christians today (B1). - Express their own understanding of what Jesus would do in relation to a moral dilemma from the world today (C3). - Explain the links between Jesus’ death on the cross and Christian belief in love and forgiveness, giving reasons why Christians want to follow Jesus (A2). - Investigate and explain the challenges of following Jesus’ teaching about love, forgiveness justice and / or generosity, expressing their own ideas (C3).