



Corporation Road Community Primary School

Computing LTP

Computing: Year 1/2B					
Vision: Computing in Corporation Road Primary School will be progressive, building children's computing skills in the areas of 'Computer Science', 'Information Technology' and 'Digital Literacy'. We will strive to ensure that all pupils can 'understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation'. That pupils can 'analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems. That pupils can 'evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems' as outlined in the National Curriculum. We want children to know the application of computing in the wider world and how this can relate to future employment prospects. Our vision is that all pupils are able to keep themselves and others safe online and know when they need support and who/where to get it from. We want all pupils to understand about their own digital presence (including the use of Social Media) and how nothing that is posted online is never really deleted.					
Domains			Key Concepts		
Information Technology			Computing Systems & Networks		
Computer Science			Programming A and Programming B		
Digital Literacy and Creating Media			Audio Media, Visual Media, Combining Audio & Visual Media and Data & Information		
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
IT Around Us	Digital Photography	Making Music	Pictograms	Robot Algorithms	An Introduction to Quizzes
Domains: - Information Technology	Domains: - Digital Literacy and Creating Media	Domains: - Digital Literacy and Creating Media	Domains: - Digital Literacy and Creating Media	Domains: - Computer Science	Domains: - Computer Science
Key Concepts: - Computing Systems & Networks	Key Concepts: - Visual Media	Key Concepts: - Audio Media	Key Concepts: - Data & Information	Key Concepts: - Programming A	Key Concepts: - Programming B
End Point: <u>Information Technology</u> Pupils can use technology purposefully to organise, store and retrieve digital content including search technologies, understanding how the results are selected and ranked. They understand how computer networks, the internet and the World Wide Web work and how each of these can provide multiple services. They understand how these forms of networking help people with communication and collaboration. Pupils recognise how information technology is used beyond school, especially how it links to future employment opportunities.	End Point: <u>Digital Literacy and Creating Media</u> Pupils use technology safely, respectfully and responsibly. They understand how to keep personal information private and why it is important to do so. They understand the need to be discerning in evaluating digital content. Pupils recognise acceptable/unacceptable behaviour concerning information technology and can identify a range of ways to report their concerns. Pupils can select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.			End Point: <u>Computer Science End Point</u> Pupils can use a variety of programming language, software and hardware to interact with the real world and solve problems. They can understand and use terms such as programming, coding, algorithm, logic, abstraction, conditions, selection and data to explain how they have solved these problems. They can design, write and debug programmes that interact with hardware and/or to solve a given problem.	

- To recognise the uses and feature of information technology (example of computers and their uses). - To identify information technology in the home (purpose in the home, open a file and move and resize images). - To identify information technology beyond school (examples, uses and types). - Explain how information technology benefits us (how it is used in shops and to help people). - To show how to use information technology safely. - To recognise that choices are made when using information technology.	- To know what devices can be used to take photographs. - To use a digital device to take a photograph (landscape and portrait). - To describe what makes a good photograph (improving and retaking). - To decide how photographs can be improved (effect of light and focus). - To use tools to change an image. - To recognise that images can be changed (identify which images are real and which have been changed).	- To say how music can make us feel. - To identify that there are patterns in music (create a rhythm pattern). - To show how music is made from a series of notes (use a computer to create a musical pattern using three notes). - To refine musical patterns on a computer. - To create music for a purpose (describe an animal using sounds and save work). - To review and refine our computer work (reopen work and make changes).	- To recognise that we can count and compare objects using tally charts (record, represent and compare). - To recognise that objects can be represented as pictures (enter data, view it in different formats and use pictograms to answer simple questions). - To create a pictogram (use a tally chart to create a pictogram). - To select objects by attribute and make comparisons (use tally charts and pictograms to answer comparison questions). - To recognise that people can be described by attributes (collect data, create a pictogram and analyse). - To explain that we can present information using a computer.	- To describe a series of instructions as a sequence (follow and give clear and unambiguous instructions). - To explain what happens when we change the order of instructions (use the same commands to create different algorithms for a range of sequences and program a floor robot). - To use logical reasoning to predict the outcome of a program (series of commands, follow a sequence and predict outcome). To explain that programming projects can have code and artwork (design mat, identify route and test mat). - To design an algorithm (create an algorithm to meet a goal and create a program). - To create and debug a program that I have written (plan algorithms, test and debug).	- To explain that a sequence of commands has a start. - To explain that a sequence of commands has an outcome (predict, match and change outcomes). - To create a program using a given design (work out the actions of a sprite, decide which blocks to use to meet a design and build sequences of blocks). - To change a given design (choose backgrounds and character to create a program). - To create a program using my own design (choose images, create algorithm and build sequences). - To decide how my project can be improved (add features and debug).
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