



Corporation Road Community Primary School

Computing LTP

Computing: Year 3/4A					
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
Connecting Computers	Animation	Desktop Publishing	Branching Databases	Sequence in Music	Events and Actions
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: - Combining Audio & Visual Media	Key Concepts: - Visual 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.	

<ul style="list-style-type: none"> - To explain how digital devices function (accept and produce inputs). - To identify input and output devices (classify, model a process and design a device). - To recognise how digital devices can change the way we work. - To explain how a computer network can be used to share information (connections and networks). - To explore how digital devices can be connected (computer are made up of a number of devices and information can be passed between devices). - To recognise the physical components of a network (how devices in a network are connected). 	<ul style="list-style-type: none"> - To explain that animation is a sequence of drawings and photographs (flip books). - To relate animated movement with a sequence of images (stop frame animation). - To plan an animation (storyboard). - To identify the need to work consistently and carefully (onion skinning to make small changes between frames). - To review and improve an animation (evaluate other learners' and improve own). - To evaluate the impact of adding other media to an animation. 	<ul style="list-style-type: none"> - To recognise how text and images convey information. - To recognise that text and layout can be edited (font style, size and colours and edit text). - To choose appropriate page settings (page orientation, placeholders, and templates). - To add content to a desktop publishing publication (locations for content, past text and images and edit content). - To consider how different layout can suit different purposes. - To consider the benefits of desktop publishing. 	<ul style="list-style-type: none"> - To create questions with yes/no answers. - To identify the object attributes needed to collect relevant data (groups and arrange objects into a tree structure). - To create a branching database. - To explain why it is helpful for a database to be well structured. - To identify objects using a branching database. - To compare the information shown in a pictogram with a branching database. 	<ul style="list-style-type: none"> - To explore a new programming environment (objects in Scratch e.g. sprites and backdrops). - To identify that commands have an outcome (create a program following a design). - To explain that a program has a start (sequence of connected commands). - To recognise that a sequence of commands can have an order. - To change the appearance of a project (commands, action and design). - To create a project from a task description (implement an algorithm as code). 	<ul style="list-style-type: none"> - To explain how a sprite moves in an existing project (relationship between an event and an action). - To create a program to move a sprite in four directions (characters and movement). - To adapt a program to a new context (programming extension). - To develop a program by adding features. - To identify and fix bugs in a program (test and modify). - To design and create a maze-based challenge (implement design and evaluate project).
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