

Year 5 – Computing curriculum

| Computer Science | | |
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| Programming | | |
| Learning Objectives | Key Skills | Outcome |
| <ul style="list-style-type: none"> To continue to develop their understanding of how computer and technology works and how computers process instructions and commands. To create, edit and refine more complex sequences of instructions for a variety of programmable devices. To use variables within programs to complete your goal. To use aspects of computational thinking to complete a goal. Create algorithms using logic and calculations. Use decomposition to debug code. Collaborate with others to complete a program. | <ul style="list-style-type: none"> Use software to create programs to create a competitive game. Using different devices to understand different forms of input and output. Continue to develop understanding of how a computer and technology works, focusing on computational thinking. Combining sequences of instructions to follow a pattern or create a shape. Using decomposition to break down a problem into smaller parts and find a solution. Write, design and debug programs. Evaluate Script for the required outcome. Perseverance when tackling a problem. | <ul style="list-style-type: none"> Create simple game in Kodu and Scratch 2 with a clear goal. Can debug a simple error in a program. Will be able to detect a problem and have a strategy to fix it. Can work with others on a project. Plan and create a game as a pair. Create an Animation using Scratch 2 |
| Modelling | | |
| Learning Objectives | Key Skills | Outcome |
| <ul style="list-style-type: none"> To use a range of basic simulations to represent real life situations and explore the effects of changing variable and the benefits of using the simulations. | <ul style="list-style-type: none"> Explore a range of increasingly complex simulations, exploring the effect of changing variables Use software to create models of 3D objects, landscapes or items. Discuss their use of simulations and compare with reality. | <ul style="list-style-type: none"> Use Sketchup to create an art gallery. Design and create a building with realistic proportions. |
| Computer networks | | |
| Learning Objectives | Key Skills | Outcome |
| <ul style="list-style-type: none"> Understand computer networks. | <ul style="list-style-type: none"> Understand how networks operate and how they are implemented. | <ul style="list-style-type: none"> Students can discuss different aspects of a network. |

Information technology

Using the internet

| Learning Objectives | Key Skills | Outcome |
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| <ul style="list-style-type: none"> To talk about the different forms of information (text, images, sound, media) and understand some are more useful than others To understand and talk about how the information can be used to answer specific questions To understand that Cloud based tools can allow multiple people to contribute to shared documents and Google Sites Understand how to search for key words and phrases. Save images from the internet. Work with email. Work with on tools and understand there limits. (dropbox,) Understand how and why we use creative commons images. | <ul style="list-style-type: none"> Recognise that not all information is useful some information is more useful Use web based resources to find answers to questions Develop questions about a specific topic and use information to answer those questions Begin to navigate within a website using hyperlinks and menu buttons to locate information Use basic information from the internet. Begin to use on-line tools, such as Google docs and sites to collaborate together- for example by working together to add ideas to a word bank, write a shared story use on-line tools, such as Purple Mash, Office 365 and powtoon add ideas to a word bank, write a shared story Search for creative commons images and videos. | <ul style="list-style-type: none"> Can search effectively. Understand how websites are ranked. Create using Offiec 365 and Purples Mash. Can search for creative commons content. |

Creating manipulating and publishing

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| <ul style="list-style-type: none"> To continue to produce work using a computer, using more advanced features of programs and tools. To work collaboratively together to create documents, including presentations. Work with different office applications to produce fit for it's propose. Use a combination of software to complete a | <ul style="list-style-type: none"> Use office applications to create range of work in other curriculum areas. Work together to collaboratively produce a presentation using cloud based tools. Understand that different applications are more suited for certain tasks. Combine software (Import from the internet, edit image or video and present in documents, webpage or | <ul style="list-style-type: none"> Manipulate images to add to the art gallery using paint.Net. Create an animation using Scratch 2. |
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| task <ul style="list-style-type: none"> Manipulate images ready to be presented. | presentation) | |
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Handling Data

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| <ul style="list-style-type: none"> Understand the different between data and information. To use technology to create graphs and amend created graphs. To begin to create their own branching databases using IT. Understand the value of data and why collecting data is important. Understand why data must be accurate. | <ul style="list-style-type: none"> Understand the different between data and information. Input data and manipulate it to achieve your goal. Use the application to present the data visually (Chart or Graph). Type data correctly. | <ul style="list-style-type: none"> Create a collaborative database using purple mash. Analyse the data by sorting and producing graphs. |
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Digital Literacy

E-safety and Acceptable use

| Learning Objectives | Key Skills | Outcome |
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| <ul style="list-style-type: none"> Develop awareness of relevant e-Safety issues and understand that personal information is unique to them. Identify characteristics of people who are worthy of their trust Students develop awareness of online protocols, in order to stay safe on the web. Students develop strategies for staying safe when using the Internet. Begin to collaborate with other Students outside of Chorlton Park Primary School. | <ul style="list-style-type: none"> Develop awareness of relevant e-Safety issues, such as cyber bullying. Students understand and abide by the school's AUP and know that it contains rules that exist in order to keep Students safe online. Understand what personal information should be kept private. Know that passwords keep information secure and that they should be kept private. Communicate safely using the blog Know how to use online spaces safely. Understand age restrictions on content (games, videos) | <ul style="list-style-type: none"> Students to use the Internet to undertake independent and appropriate research and attempt to distinguish between fact and fiction. Create blog post on other schools blogs. Students work on Thinkuknow in the cyber café. Students know about CEOP and know the correct procedure for reporting a problem. Understand CC licencing. |



Chorlton Park Primary School