



Barons Court Primary School and Nursery Computing Curriculum Map

Our Purpose of Education and Key Concepts	Computing Subject Vision	Subject Domains
The Purpose of Education at Barons Court is to build pupils' characters through learning which is rich in skills and knowledge so that they make positive contributions to their local community and beyond, both today and within tomorrow's world. Our curriculum has key concepts that run like golden threads throughout all learning. • Connections: Connection builds confidence and trust between people, it's the foundation of the bonds we form and the relationships we build. As an urban school situated in a tight-knit community with links across generations of families, our pupils have a strong sense of belonging which enlarges their worldview. We believe that making connections stems from our learning environment to the world beyond. • Experiences: Our learners are capable of great things - we ensure that we expose them to a wide range of possibilities to build their confidence, broaden their aspirations and to simply have fun! We invite families and visitors to help facilitate learning new skills and share bold new experiences together, this helps us learn more about ourselves and the world in which we live. • Responsibility: Through developing our knowledge, understanding, skills and actions, we aspire to nurture and benefit our local community and the world beyond through an important characteristic of social responsibility. • Acceptance: We work to develop our heads and bodies, hearts and characters, actions and attitudes, and our moral compasses to become open and accepting of ourselves and others. Through the design and implementation of our curriculum, pupils grow to be Bold, Ambitious, Resilient, Open, Nurturing and Successful members of our community.	Children from Barons Court will gain the thinking skills to tackle problems logically. We will give them the skills to drive solutions for future innovation.	E-Safety Information Technology Computer Science Digital Literacy

	Computing Roadmap					
	Year 1 (3 weeks)	Year 2 (3 weeks)	Year 3 (3 weeks)	Year 4 (3 weeks)	Year 5 (3 weeks)	Year 6 (3 weeks)
EQ 1	How can I stay safe and healthy in real life and online? Focus:E Safety Domain: E Safety Concept: Connections and Responsibility Enrichment opportunity:	What should be private online? Focus:E Safety Domain: E Safety Concept: Connections and Responsibility Enrichment opportunity:	Can you trust everyone? Focus:E Safety Domain: E Safety Concept: Connections and Responsibility Enrichment: Visit from Police	Can I spend too much time on my computer? Focus:E Safety Domain: E Safety Concept: Connections and Responsibility Enrichment opportunity: E-Safety Assembly. Children to share their key recommendations in assembly.	What does being ethical online mean? Focus:E Safety Domain: E Safety Concept: Connections and Responsibility Enrichment opportunity: E-Safety Assembly	How does the internet try to manipulate us? Focus:E Safety Domain: E Safety Concept: Connections and Responsibility Enrichment opportunity: E-Safety Assembly
EQ 2	How can I make my robot move? Focus: Programming: Instructions Domain: Computer Science Concept: Experiences Enrichment opportunity:	Why doesn't my Scratch character do what I want it to? Focus: Programming: Debugging Domain: Computer Science Concept: Experiences Enrichment opportunity:	How can I make my Scratch characters talk to each other? Focus: Programming: Debugging Domain: Computer Science Concept: Experiences Enrichment opportunity:	Can I create my own game in Scratch? Focus: Programming: Selection Domain: Computer Science Concept: Experiences Enrichment opportunity: Share game with year three and get feedback for how to make improvements	How can I combine multiple sprites in a Scratch program? Focus: Programming: Variables Domain: Computer Science Concept: Experiences Enrichment opportunity:	How can a microbit water a plant? Focus: Programming: Inputs and Outputs Domain: Computer Science Concept: Experiences Enrichment opportunity:
EQ 3	What needs a computer to work? Focus: Technology around us Domain: Information Technology Concept: The wider world	How can technology help us? Focus: Technology around us Domain: Information Technology Concept: The wider World	How can computers talk to each other? Focus: Technology around us Domain: Information Technology Concept: Networks Enrichment opportunity:	Is the internet an accurate and reliable source of information? Focus: Technology around us Domain: Information Technology Concept: The internet	How does a Google search work? Focus: Technology around us Domain: Information Technology Concept: Internet searches Enrichment opportunity:	How can online communication be a positive force? Focus: Technology around us Domain: Information Technology Concept: Communication

	Enrichment opportunity: Local area walk	Enrichment opportunity: Member of Office staff (Despina) to talk to the children about technology in the workplace		Enrichment opportunity:		Enrichment opportunity: To share form with year four to complete.
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Computing: Year 1				
When	Enquiry Question	Context and enrichment	Learning Objectives	End Point Assessment
Autumn 1 Week 2	Computing: How can I stay safe and healthy in real life and online?	Focus: E Safety Domain: E Safety Concept: Connections and Responsibility Enrichment opportunity:	Identify when to tell an adult if there is something they are worried about online. Switch a device on and off. To know what private information is. To know not to share passwords and personal information.	To describe what they would do if something online made them feel uncomfortable and what might make them uncomfortable.
Spring 1 Week 6	Computing: How can I make my robot move?	Focus: Programming: Instructions Domain: Computer Science Concept: Experiences Enrichment opportunity:	Input simple instructions into Cubetto. To develop mouse and track pad control. Identify the uses of keys on a standard keyboard (e.g. delete, space bar for "finger space").	To be able to input 4 commands into Cubetto and predict where the device will end up.
Summer 2 Week 7	Computing: What needs a computer to work?	Focus: Technology around us Domain: Information Technology Concept: The wider world Enrichment opportunity: Local area walk	Name and recognise a variety of ICT uses outside of school e.g. mobile phone, supermarket, cash machine. To identify the main external parts of a computer.	To be able to verbally tell the different parts of a computer (monitor, screen, mouse/trackpad, harddrive) and to know some uses of ICT outside of school.

Computing: Year 2				
When	Enquiry Question	Context and enrichment	Learning Objectives	End Point Assessment
Autumn 1 Week 2	Computing: What should be private online?	Focus: E Safety Domain: E Safety Concept: Connections and Responsibility Enrichment opportunity:	To understand the concept of a digital footprint Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies. To know how to keep their information private.	To make a poster that describes the idea of a digital footprint and describes steps to keep their information private.
Summer 1 Week 3	Computing: Why doesn't my Scratch character do what I want it to?	Focus: Programming: Debugging Domain: Computer Science Concept: Experiences Enrichment opportunity	Create, save, and retrieve and print a document or digital content. Navigate to a specific application/program. Login to a device and log off again. Create and debug simple programs. Identify and understand what an algorithm is and how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. Use logical reasoning to predict the outcome of a simple (5 step) algorithm in Scratch Jnr or Cubetto.	To produce a simple program in Scratch Jnr that moves their character from one side of the screen to the other, demonstrating debugging skills as they progress to the end point.
Summer 2 Week 10	Computing: How can technology help us?	Focus: Technology around us Domain: Information Technology	To understand how technology helps us. To know the different uses of computing in school and beyond.	To present a news story about new technology around us.

		Concept: The wider World Enrichment opportunity: Member of Office staff (Despina) to talk to the children about technology in the workplace	Understand the terms input and output.	
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Computing: Year 3				
When	Enquiry Question	Context and enrichment	Learning Objectives	End Point Assessment
Autumn 1 Week 2	Computing: Can you trust everyone?	Focus: E Safety Domain: E Safety Concept: Connections and Responsibility Enrichment: Visit from Police	To understand that anything they post online is permanent and how to create a positive digital footprint. Know what is acceptable and unacceptable behaviour when using devices and online content. Knowing the symptoms of too much screen time. To know that some games have financial elements to them and that this can be a form of gambling. To know a range of ways to report concerns about content and contact. To understand the danger of pop ups, suspicious links and online scams. Know that for most people the internet is an integral part of life and has many benefits.(RSHE) Know how to consider the effect of their online actions on others and know how to recognise and display respectful behaviour online and the importance of keeping personal information private.(RSHE) Know where and how to report concerns and get support with issues online. (RSHE) Know the rules and principles for keeping safe online, how to recognise risks, harmful content and contact, and how to report them.(RSHE) Know that the same principles apply to online relationships as to face-to- face relationships, including the importance of respect for others online including when we are anonymous.(RSHE)	To write an e safety guide that includes the taught elements and an explanation of each
Spring 1 Week 2	Computing: How can I make my Scratch characters talk to each other?	Focus: Programming: Debugging Domain: Computer Science Concept: Experiences Enrichment opportunity	Predict the outcome of a simple (10 step) algorithm in Scratch Jnr. Debug a program in Scratch Jnr. Begin to decompose (break down code into small chunks) when creating scripts.	To create a Scratch Jnr project where the sprites interact with each other via a conversation.
Summer 2 Week 6	Computing: How can computers talk to each other?	Focus: Technology around us Domain: Information Technology Concept: Networks Enrichment opportunity:	To recognise how digital devices can change the way we work. To recognise the physical components of a network. To explain how digital devices can be connected. Create a new folder. To be able to enter a specific address in the address bar. Open a document to edit it. Research using an appropriate method on the internet, a key phrase.	To use Powerpoint or slides to create a brief presentation on networks and how devices are connected.

Computing: Year 4				
When	Enquiry Question	Context and enrichment	Learning Objectives	End Point Assessment

Autumn 1 Week 2	Computing: Can I spend too much time on my computer?	Focus: E Safety Domain: E Safety Concept: Connections and Responsibility Enrichment opportunity: E-Safety Assembly. Children to share their key recommendations in assembly.	Understand how to manage their own screen time independently in order to support their digital wellness. To give examples of the risks posed by online communication. To understand that harmful or offensive communication continuously online is a form of bullying. Know about the benefits of rationing time spent online, the risks of excessive time spent on electronic devices and the impact of positive and negative content online on their own and others' mental and physical wellbeing. (RSHE) Know that the internet can also be a negative place where online abuse, trolling, bullying and harassment can take place, which can have a negative impact on mental health.(RSHE) Know that people sometimes behave differently online, including by pretending to be someone they are not.(RSHE)	To write an explanation text that explains limiting screen time, how online communication can be harmful and showing that bullying can occur online, and for some children to share their key recommendations in a school assembly.
Autumn 2 Week 11	Computing: Can I create my own game in Scratch?	Focus: Programming: Selection Domain: Computer Science Concept: Experiences Enrichment opportunity: Share game with year three and get feedback for how to make improvements	Design and write simple algorithms using loops and selection in Scratch (e.g. IF statements). Decompose code to inform own program design.	To create a simple game in the Scratch environment that includes an IF statement. For example a maze game (IF sprite is touching <i>colour</i> send to x,y)
Spring 2 Week 11	Computing: Is the internet an accurate and reliable source of information?	Focus: Technology around us Domain: Information Technology Concept: The internet Enrichment opportunity:	Understand computer networks including the internet, how they can provide multiple services, such as the world wide web and the opportunities they offer for communication and collaboration Evaluate the consequences of unreliable content Combine images transitions and sound to create a presentation. Differentiate searched material. Drag and drop. Know how information and data is shared and used online. (RSHE) Know how to be a discerning consumer of information online including understanding that information, including that from search engines, is ranked, selected and targeted.(RSHE)	To create a powerpoint or slides presentation that describes how the internet and WWW work and shows that some online content may be unreliable and how to spot reliable content.

Computing: Year 5				
When	Enquiry Question	Context and enrichment	Learning Objectives	End Point Assessment
Autumn 1 Week 2	Computing: What does being ethical online mean?	Focus: E Safety Domain: E Safety Concept: Connections and Responsibility Enrichment opportunity: E-Safety Assembly	Recognise inappropriate content, contact and conduct and know how to report concern. Know how to keep their information private e.g. privacy settings. To understand that gaming and other types of online activity can be addictive and that screen time needs to be managed. To understand the ethical responsibilities and rights associated with online behaviour and content (consent). Know why social media, some computer games and online gaming, for example, are age restricted. (RSHE) Know how to critically consider their online friendships and sources of information including awareness of the risks associated with people they have never met. (RSHE)	To present a Newsround style information news segment to demonstrate knowledge of the taught objectives.
Autumn 1 Week 3	Computing: How can I combine multiple sprites in a Scratch program?	Focus: Programming: Variables Domain: Computer Science Concept: Experiences Enrichment opportunity:	Use variables and loops (UNTIL). Make a computer complete a simple task through a list of commands using various forms of input and output. Design and create programs that use sequence, selection and repetition (IF, THEN, ELSE).	To create a more complex game in Scratch that includes IF, THEN, ELSE commands and loops. https://scratch.mit.edu/projects/19220863/editor/
Autumn 2 Week 14	Computing: How does a Google search work?	Focus: Technology around us Domain: Information Technology Concept: Internet searches Enrichment opportunity:	Understand how search results are ranked. To describe how search engines select results. To record, edit and present digital media and use titles transitions and other effects. Use key shortcuts.	To produce a Powerpoint or slides presentation that demonstrates their knowledge of the ways in which search engines rank results.

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Computing: Year 6				
When	Enquiry Question	Context and enrichment	Learning Objectives	End Point Assessment
Autumn 1 Week 2	Computing: How does the internet try to manipulate us?	Focus: E Safety Domain: E Safety Concept: Connections and Responsibility Enrichment opportunity: E-Safety Assembly	Identify a range of ways to report concerns about content and contact. Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour. To know that it is illegal to download copyrighted material including music, games and images without express written permission from the copyright holder Know that it is illegal to have many social media profiles under the age of 13. To understand the effect of online comments and show responsibility and sensitivity when online in order to maintain a positive digital footprint.	To participate in a class debate on whether or not the age limit to many online platforms is fair.
Spring 2 Week 12	Computing: How can a microbit water a plant?	Focus: Programming: Inputs and Outputs Domain: Computer Science Concept: Experiences Enrichment opportunity:	Apply programming skills to create a program that accomplishes a specific goal, including controlling or simulating physical systems. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.	To program a microbit to sense moisture levels in soil and to then activate a mechanism to water the plant if it dries out. https://makecode.microbit.org/projects/plant-watering
Summer 1 Week 5	Computing: How can online communication be a positive force?	Focus: Technology around us Domain: Information Technology Concept: Communication Enrichment opportunity: To share form with year four to complete.	Explain how sharing information online can help people work together. To recognise how we communicate using technology. To evaluate different types of online communication. Use advanced searches when using search engines. Use search technologies effectively, appreciate how results are selected and ranked and be discerning in evaluating digital content. 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.	To complete an end of topic multiple choice quiz using Google Forms.