

Christ Church C.E Primary School

Computing and ICT Scheme of Work for Year 6

Term	Unit title & summary	Expectations	Computing Programme of Study	Software Apps	Hardware	Cross Curricular Links
Autumn 1	<p>We are app planners</p> <p>Planning the creation of a mobile app</p>	<ul style="list-style-type: none"> • Develop an awareness of the capabilities of smartphone and tablets • Understand geolocation, including GPS. • Identify interesting, solvable problems. • Evaluate competing products. • Pitch a proposal for a smartphone or tablet app. 	<p>Focus: Computer networks</p> <ul style="list-style-type: none"> • 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. • 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. • Work with.....various forms of input and output. 	<p>Software: App Inventor/Touchdevelop, Picasa Web, Google Drive Presentation/Prezi or similar</p> <p>Apps: Codea, TouchDevelop</p>	<ul style="list-style-type: none"> • Laptops • Desktops • iPads 	<ul style="list-style-type: none"> • English • Art & Design • Geography • Music

E-Safety Coverage

The pupils consider the capabilities of smartphones and tablet computers, and how these can be used purposefully. They become aware some of the capabilities of these devices, including how they can be used to record and share location information; they consider some of the implications of this. They use search engines safely and effectively. The pupils could make use of their own tablets or smartphones in school, considering how they can do this safely and to good effect.

Term	Unit title & summary	Expectations	Computing Programme of Study	Software Apps	Hardware	Cross Curricular Links
Autumn 2	<p>We are project managers</p> <p>Developing project management skills</p>	<ul style="list-style-type: none"> • Scope a project to identify different components that must be successfully combined. • Identify their existing talents and plan how they can develop further knowledge and skills. • Identify the component tasks of a project and develop a timeline to track progress. • Identify the resources they'll need to accomplish a project. • Use web based research skills to source tools, content and other resources. • Consider strategies to ensure the quality of a collaborative project. 	<p>Focus: Computational thinking</p> <ul style="list-style-type: none"> • Solve problems by decomposing them into smaller parts. • 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. • Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. • Be discerning in evaluating digital content. • Use logical reasoning to explain how some algorithms work and to detect and correct errors in algorithms and programs. 	<p>Software: Google Apps for Education/VLE/GitHub /Basecamp</p> <p>Apps: Web browser (safari)</p>	<ul style="list-style-type: none"> • Laptops • Desktops • iPads • Internet access 	<ul style="list-style-type: none"> • English • Maths
E-Safety Coverage						
The pupils use online tools safely and effectively, considering how they can contribute positively to a shared project. Again, they use search engines safely and effectively. They may also make use of online content, respecting any copyright conditions.						
Spring 1	<p>We are market researchers</p> <p>Researching the app market</p>	<ul style="list-style-type: none"> • Create a set of good survey questions. • Analyse the data obtained from a survey. • Work collaboratively to plan questions. • Conduct an interview or focus group. • Analyse and interpret the information obtained from interviews or a focus group. • Present their research findings. 	<p>Focus: Productivity</p> <ul style="list-style-type: none"> • 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. • Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. 	<p>Software: Google Drive applications/Microsoft Office/Microsoft Windows Movie Maker</p> <p>Apps: Web browser, Keynote, iMovie</p>	<ul style="list-style-type: none"> • Laptops • Desktops • iPads • Internet access 	<ul style="list-style-type: none"> • English • Maths

E-Safety Coverage

The pupils show regard for the ethical and legal frameworks around conducting interviews and online surveys, such as the need to preserve anonymity and/or confidentiality. In conducting their research, the pupils need to act safely and responsibly, as well as showing respect for those participating in the research.

<p>Spring 2</p>	<p>We are interface designers</p> <p>Designing an interface for an app</p>	<ul style="list-style-type: none"> • Work collaboratively to design the app's interface. • Use wireframing tools to create a design prototype of their app. • Develop or source the individual interface components (media assets) they will use. • Address accessibility and inclusion issues. • Document their design decisions and the process they've followed. 	<p>Focus: Communication/Collaboration</p> <ul style="list-style-type: none"> • Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. • Use sequence, selection and repetition in programs; work with variables and various forms of input and output. • Use logical reasoning to explain how some algorithms work and to detect and correct errors in algorithms and programs. • 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. • Be discerning in evaluating digital content. • Recognise acceptable/unacceptable behaviour. 	<p>Software: Justinmind Prototyper/Pencil Project/ Microsoft Powerpoint.</p> <p>Apps: Sketchypad or iMockups</p>	<ul style="list-style-type: none"> • Laptops • Desktops • iPads 	<ul style="list-style-type: none"> • English • Art & Design • D & T • PSHE
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E-Safety Coverage

The pupils need to think carefully about copyright in relation to both sourcing and creating their own digital content and user interface components for their apps.

Term	Unit title & summary	Expectations	Computing Programme of Study	Software Apps	Hardware	Cross Curricular Links
Summer 1	<p>We are app developers</p> <p>Developing a simple mobile phone app</p>	<ul style="list-style-type: none"> • Become familiar with another programming toolkit or development platform. • Import existing media assets to their project. • Write down the algorithms for their app. • Program, debug and refine the code for their app. • Thoroughly test and evaluate their app. 	<p>Focus: Programming</p> <ul style="list-style-type: none"> • Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. • Use sequence, selection and repetition in programs; work with variables and various forms of input and output. • Use logical reasoning to explain how some algorithms work and to detect and correct errors in algorithms and programs • 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. 	<p>Software: App inventor/ TouchDevelop</p> <p>Apps: TouchDevelop/ Codea</p>	<ul style="list-style-type: none"> • Laptops • Desktops • iPads 	<ul style="list-style-type: none"> • English • Maths • Art & Design • D & T • PSHE

E-Safety Coverage

Pupils using their own or the school's tablets or smartphones for this unit need to consider how to do so safely and purposefully. Children participating in online communities for either for either of the development platforms here need to do so in a safe, responsible and respectful manner. The pupils should also think carefully about any safety implications of the apps they develop.

Term	Unit title & summary	Expectations	Computing Programme of Study	Software Apps	Hardware	Cross Curricular Links
Summer 2	<p>We are marketers</p> <p>Creating video and web copy for a mobile phone app.</p>	<ul style="list-style-type: none"> Consider key marketing messages, including identifying a unique selling point. Develop a printed flyer or brochure incorporating text and images. Further develop knowledge, skills and understanding in relation to creating a website. Further develop skills relating to shooting and editing video. 	<p>Focus: Creativity</p> <ul style="list-style-type: none"> 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. 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) to design and create.....content that accomplish given goals, including collecting, analysing, evaluating and presenting.....information. Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. 	<p>Software: Microsoft Publisher, Wordpress/Google Sites, Movie maker and other chosen by the pupils</p> <p>Apps: Pages, Wordpress. iMovie and other apps chosen by the pupils.</p>	<ul style="list-style-type: none"> Laptops Desktops iPads Cameras 	<ul style="list-style-type: none"> English Maths Art & Design D & T

E-Safety Coverage

In marketing their app, the pupils should consider the legal and ethical frameworks around advertising across different media. They should also think about the need to protect personal information about themselves and other members of their group when marketing their app. In creating websites for their apps, the pupils need to consider the e-safety implications for the site's users as well as themselves