Christ Church C.E Primary School

Computing and ICT Scheme of Work for Year 1

Term	Unit title & summary	Expectations	Computing Programme of Study	Software Apps	Hardware	Cross Curricular Links
Autumn 1	**We are treasure hunters** Using programmable toys	• Understand that a programmable toy can be controlled by inputting a sequence of instructions. • Develop and record sequences of instructions as an algorithm. • Program the toy to follow their algorithm. • Debug their programs. • Predict how their programs will work.	**Focus: Programming** • Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. • Create and debug simple programs. • Use logical reasoning to predict the behaviour of simple programs. • Recognise common uses of information technology beyond school.	**Software:** Programming interface for programmable toy. **Apps:** Bee-Bot app; Daisy the dinosaur	• Programmable toy such a bee-Bot • Audio recorders are needed for the first step	• English • Maths • Geography • History • PSHE

E-Safety Coverage

The children learn to use simple programmable toys safely and sensibly, as well as showing respect for the work of their peers. Web access is supervised and safe practices are encouraged. Similarly, any filming is done with appropriate consent and assent.

Term	Unit title & summary	Expectations	Computing Programme of Study	Software Apps	Hardware	Cross Curricular Links
Autumn 2	**We are celebrating** Creating a card digitally	• Develop basic keyboard skills through typing and formatting text. • Develop basic mouse skills. • Use the web to find and select images. • Develop skills in storing and retrieving files. • Develop skills in combining text and images. • Discuss their work and think about whether it could be improved.	**Focus: Productivity** • Use technology purposefully to create, organise, store, manipulate and retrieve digital content. • Recognise common uses of information technology beyond school. • 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.	**Software:** Microsoft Powerpoint/Microsoft Word/Clicker 6, Microsoft Paint/2Paint a Picture **Apps:** Pages/Keynote	• Laptops • Desktops • iPads • Printer	• English • Art & Design • Music • RE • PSHE

E-Safety Coverage

Pupils have the opportunity to search for images on the web and again learn to use technology safely, switching off the screen if they have concerns, and reporting these to their teacher. The pupils are taught to respect the copyright conditions associated with any third party images they use. Pupils only use photos of themselves if appropriate permission is in place. If children share their work, then attention is paid to protecting their identity and copyright. If they send cards by email they use a class address and consider some aspects of using email safely.

Term	Unit title & summary	Expectations	Computing Programme of Study	Software Apps	Hardware	Cross Curricular Links
Spring 1	**We are collectors** Finding images using the web	• Find and use pictures on the web. • Know what to do if they encounter pictures that cause concern. • Group images on the basis of a binary (yes/no) question. • Organise images into more than two groups according to clear rules. • Ask and answer binary (yes/no) questions about their images.	**Focus: Computer networks** • Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. • Use technology purposefully to create, organise, store, manipulate and retrieve digital content. • 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. • Recognise common uses of information technology beyond school.	**Software:** Web browser, Microsoft Powerpoint or IWB software. **Apps:** Web browser, Keynote or Explain Everything	• Internet connection • Laptops • Desktops • iPads	• English • Maths • Science • PSHE

E-Safety Coverage

As pupils will be working with the web and searching for images, they'll need to make sure they use technology safely, as well as showing respect for others' intellectual property through observing copyright conditions. The pupils are taught to turn the screen off and let their teacher know if they have any concerns over content they encounter. The pupils are also introduced to the school's Acceptable Use Policy, if they haven't already had this explained to them.

Term	Unit title & summary	Expectations	Computing Programme of Study	Software Apps	Hardware	Cross Curricular Links
Spring 2	**We are painters** Illustrating an eBook	• Use the web safely to find ideas for an illustration. • Select & use appropriate painting tools to create & change images on the computer. • Understand how this use of ICT differs from using paint and paper. • Create an illustration for a particular purpose. • Know how to save, retrieve and change their work. • Reflect on their work and act on feedback given.	**Focus: Creativity** • Use technology purposefully to create, organise, store, manipulate and retrieve digital content. • Recognise common uses of information technology beyond school. • 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.	**Software:** Microsoft Paint/2Simple 2Paint a Picture, IXW software, Microsoft Word, Microsoft Powerpoint **Apps:** Brushes, Sketchbook Express	• Laptops • Desktops • iPads	• English • Art & Design • History

E-Safety Coverage

In searching for images on the web, pupils work initially from a set of carefully chosen sites. They again learn that they should turn the screen off and tell their teacher if they encounter material that concerns them. If work is uploaded to a pubic area, the importance of protecting the children's identities is recognised, as is their intellectual property rights over their original work. An extension activity provides an initial opportunity for the children to learn some aspects of using email safely.

Term	Unit title & summary	Expectations	Computing Programme of Study	Software Apps	Hardware	Cross Curricular Links
Summer 1	**We are storytellers** Producing a talking book	• Use sound recording equipment to record sounds. • Develop skills in saving and storing sounds on the computer. • Develop collaboration skills as they work together in a group. • Understand how a talking book differs from a paper based book. • Talk about and reflect on their use of ICT. • Share recordings with an audience.	**Focus: Communication/Collaboration** • Use technology purposefully to create, organise, store, manipulate and retrieve digital content. • Recognise common uses of information technology beyond school. • Use technology safely and respectfully.	**Software:** Microsoft powerpoint/2Create a Story/IWB software **Apps:** Keynote/Explain Everything/Video Memo	• Laptops • Desktops • iPads • MP3 recorders • Microphones	• English • Music • PSHE

E-Safety Coverage

The pupils learn to use audio recorders or microphones and audio recording software safely and sensibly. The pupils need to be aware of copyright material, and show appropriate respect for the owners of intellectual property when using technology. Regard is shown for appropriate consent and assent, school policies and third party terms and conditions if the pupils stories are uploaded to external websites.

Term	Unit title & summary	Expectations	Computing Programme of Study	Software Apps	Hardware	Cross Curricular Links
Summer 2	**We are TV Chefs** Filming the steps of a recipe	• Break down a process into simple, clear steps, as in an algorithm. • Use different features of a video camera. • Use a video camera to capture moving images. • Develop collaboration skills. • Discuss their work and think about how it could be improved.	**Focus: Computational thinking** • Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. • Use technology purposefully to create, organise, store, manipulate and retrieve digital content. • Recognise common uses of information technology beyond school. • Use logical reasoning to predict the behaviour of simple programs.	**Software:** Microsoft paint, Microsoft Windows Live Movie Maker/iMovie for OS X **Apps:** Brushes, iMovie	• Laptops • Desktops • iPads • Cameras with movie mode	• English • Maths • Science • Art & Design • PSHE

E-Safety Coverage

The pupils learn how to use digital video cameras safely and to show respect to those they are filming, including recognising the need for consent and assent. The important of not sharing videos more widely than is appropriate is considered, as is the need to exclude information that might identify individuals from video recordings. When using the web, pupils learn to turn the screen off and tell their teacher if they encounter material that concerns them. The pupils also start to learn about copyright, recognising that they own the copyright in their original work and that this cannot be published or copied without their permission.