

Computing 2022/2023

What will our computing students be able to do when they leave us?

By the time pupils leave Little Gonerby CE Academy, we aim to develop pupils who are responsible, confident and creative users of technology, who apply computational thinking beyond the Computing curriculum. They will become digitally literate and are active participants in a digital world. They will know how to stay safe whilst using technology and on the internet, minimising risk to themselves and others. Our children will have had repeated practical experience writing computer programs in order to solve problems, including logic & algorithms. They will have the ability to ask and answer questions through collecting, analysing, evaluating and presenting data and information. Ultimately, they will have a clear understanding of how digital networks work and the services they provide. This will enable them to use search options effectively whilst understanding the need to evaluate the relevance of content. The children will be respectful, responsible and competent digital citizens; they will have the knowledge to support themselves and others online.

As a computing student I...							
	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Key Concepts	Key Concept - E-Safety						
Core Knowledge Progression	- interact with age-appropriate computer software. - recognise that a range of technology is used in places such as homes and schools.	- can keep my password private. - can tell you what personal information is. - can tell an adult when I see something unexpected or worrying online. - can talk about why it's important to be kind and polite. - can recognise an age appropriate website. - can agree and follow sensible e-Safety rules.	- can explain why I need to keep my password and personal information private. - can describe the things that happen online that I must tell an adult about. - can talk about why I should go online for a short amount of time. - can talk about why it is important to be kind and polite online and in real life. - know that not everyone is who they say they are on the Internet.	- Can identify a number of online dangers · - Can question the 'validity' of what they see on the internet · - Can recognise appropriate and inappropriate online behaviours · - Know where to go for help and support if they have concerns · - Can use technology safely, respectfully and responsibly	- Can explore options for privacy levels in a range of online settings (e.g. online gaming, social media) · - Can clearly identify levels of online risk · - Can identify and appropriately use social networking sites/features, making good judgements - Can use technology safely, respectfully and responsibly		

Key Concepts	Key Concept - Research and Presentation						
Core Knowledge Progression		- understand how to stay safe when using the internet. - understand websites contain images, information and video. - can research a subject as a group. - can access a website from a hyperlink. - can view, navigate and select websites safely. - can explore website content safely.	- can review reflect and share a presentation. - know technology is used to create a presentation. - can help with a shared presentation. - can add pictures and text to a presentation.	- understand how to stay safe when using the internet. - know search engines rank sites according to popularity. - know digital content may be copyright. - can work with others to explore software. - can view and save websites to my favourites list. - can add a web link to a class site.	- Can think of search terms to use linked to questions they are finding the answers for - Can talk about the reliability of information on the Internet, e.g. the difference between fact and opinion - Can use Internet safety rules	- Can use advanced search functions in Google, e.g. quotations - Can use AND and OR in their searches - Can check the accuracy of information, with support - Can begin to be aware of privacy and other issues related to using the Internet - Can interpret and question the plausibility of information	- Understand websites such as Wikipedia are made by users (link to E-Safety) - Can suggest ways to check the accuracy of information independently - Can be aware of privacy and other issues related to using the Internet
Key Concepts	Key Concept - Programming						
Core Knowledge Progression	Can complete a simple program on a computer.	- can experience and reflect on games and apps. - can create or order a simple set of instructions. - can contribute to a class game.	- can programme and control a technological toy. - can comment on why a programme may not work effectively.	- can experience and reflect on games and apps and gives reasons. - can explain key vocabulary in programming (algorithm/code). - can work with others to design a programme or game.	- Can include an algorithm to include selection (if) and repetition (loops) · - Can decomposed algorithms into component parts (procedures) - Can test and correct parts of an algorithm separately · - Can use conditional statements ('if...then') to create dangerous items in their world.	- Can create and edit variables · - Can predict the outcome of a control procedure · - Can use conditional Statements · - Can use loops and conditions to refine algorithms · - Can use conditional statements to control external outputs · - Can use conditional statements and infinite loops · - Can evaluate and edit the set of instructions to make a more efficient system ·	- Can use external triggers and infinite loops to control sprites · - Create and edit variables · - Can use conditional statements · - Can design their own game including sprites, backgrounds, scoring and/or timers · - Can use conditional statements, loops, variables and broadcast messages in the game. The game finishes when a player wins or loses and they must know they have won

						Can be aware of control applications in everyday life, e.g. automatic doors, robots in car factories, automatic security lights	- or lost · - Can evaluate the effectiveness of the game and debug as required
Key Concepts	Key Concept - Design						
Core Knowledge Progression	select and use technology for particular purposes.	- can view and reflect on and share digital artwork. - can choose software to create digital art. - can create a piece of digital artwork by myself. - can draw a free hand piece of digital artwork. - can use shapes to create a digital image. - can take a digital image - know things must be designed for they are made. - know 2D nets can be used to form 3D objects. - can create a shared 2D plan or 3D design. - can share designs in the classroom.	- can review reflect on and share a footage. - understand technology is used to make films. - understand film is not always real life. - can record simple video clips. - can help to edit a film.	- can identify a range of animations. - know animations are made up of frames. - know frames are played back to create movement. - can contribute to a shared animation. - can create a simple 2D and stop frame animation. - can share and reflect on animations in school. - can use software to create 2D and 3D objects. - can determine correct orientation when designing a net. - can work with others to modify a template. - can use a range of tools to create a design or add to a template. - can create, share and reflect on designs beyond the classroom.	- Can use a storyboard to edit a sequence of digital pictures or video independently. e.g. change sequence, add transitions, effects, and sound · - Can plan what they would like to happen in their film or animation. · - Can take a series of pictures to form a more complicated animation · - Can move items within their animation to create movement on playback · - Can begin to evaluate the suitability of the presentation for the given audience · - Can make changes to the presentation to make it more suitable for the audience, with support · - Can record and edit sound on the computer · - Can use the sound files in other applications	- Can capture video for a purpose · - Can discuss the quality of videos and choose which to keep and which to re-shoot · - Can trim and arrange clips to convey meaning · - Can add titles, credits, slide transitions, special effects and talk about the effect these have on the audience · - Can use music software to plan, create and play their own compositions · - Can evaluate and modify (edit) their own compositions· - Can use a range of musical instruments in their compositions.	- Can plan a multi-scene animation including characters, scenes, camera angles and special effects · - Can use stop-go animation software to shoot the animation frames · - Can adjust the number of photographs taken and the playback rate to improve the quality of the animation · - Can use a movie editing package to edit/refine and add titles · - Can plan for the use of Special effects/transitions to enhance their video - Can trim, arrange and edit audio levels of video to improve the quality of their outcome · - Can add titles, credits, transitions, special effects · - Can export their video in different formats for different purposes · - Can use more sophisticated music software to plan, create, edit and play

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