



	By end of Year 3	By end of Year 4	By end of Year 5	By end of Year 6
Search technologies (Co2/1.5)	<p>NCCE/Teach Computing 3.5 Desktop publishing (Creating Media)</p> <ul style="list-style-type: none"> Familiarisation with LWJ suite and network system: How to turn on/off, log-on to a computer and use a mouse; open Word, insert pictures save, retrieve and organise work copy and paste an image or text create different effects with different technological tools, demonstrating control <p>Children can...</p> <ul style="list-style-type: none"> recognise how text and images convey information recognise that text and layout can be edited choose appropriate page settings add content to a desktop publishing publication (PowerPoint/Word) copy and paste an image or text consider how different layouts can suit different purposes consider the benefits of desktop publishing 	<p>Rising Stars 4.5 We are co-authors - Producing a Wiki. (Communication and Collaboration)</p> <p>Children can...</p> <ul style="list-style-type: none"> Understand the conventions for collaborative online work, particularly in wikis. Be aware of their responsibilities when editing other people's work. Become familiar with Wikipedia, including potential problems associated with its use. Practice accurate and careful research skills. Write for a target audience using a wiki tool. Develop collaboration and proof-reading skills. use appropriate keyboard commands to amend text on a device save, retrieve and evaluate work, making amendments insert a picture/text/graph/hyperlink from the internet or a personal file use software to record, create and edit sounds and capture still images 	<p>Rising Stars 5.4 We are Web Developers (Creating a web page about online safety/Alchemy Island)</p> <p>NCCE/Teach Computing 6.2 Webpage Creating (Creating Media)</p> <p>Children can...</p> <ul style="list-style-type: none"> review an existing website and consider its structure plan the features of a web page consider the ownership and use of images (copyright) recognise the need to preview pages outline the need for a navigation path recognise the implications of linking to content owned by other people use the skills already developed to create content select, use and combine the appropriate technology tools to create effect review and improve their own work and support others to improve their work 	<p>Rising Stars 6.6 We are Publishers - creating a yearbook (Communication/collaboration)</p> <p>Children can...</p> <ul style="list-style-type: none"> Manage or contribute to large collaborative projects, facilitated using online tools. Write and review content. Source digital media while demonstrating safe, respectful and responsible use. Design and produce a high-quality print document
Multimedia (Co2/1.6)	<p>NCCE/Teach Computing 3.2 Stop-Frame Animation (Creating Media)</p> <p>Children can...</p> <ul style="list-style-type: none"> use software to capture video for a purpose use software to record sounds change sounds recorded explain that animation is a sequence of drawings or photographs relate animated movement with a sequence of images plan, create, review and improve an animation evaluate the impact of adding other media to an animation publish their animation and use a movie editing package to edit/refine and add titles 	<p>NCCE/Teach Computing 4.2 Audio Editing (Creating Media)</p> <p>Children can...</p> <ul style="list-style-type: none"> identify that sound can be recorded explain that audio recordings can be edited collect audio from a variety of resources including own recordings recognise the different parts of creating a podcast project use a digital device to record sounds and present audio apply audio editing skills independently - change recorded sounds, volume, duration and pauses combine audio to enhance their podcast project evaluate the effective use of audio 	<p>NCCE/Teach Computing 4.5 Photo editing (Creating Media)</p> <p>Children can...</p> <ul style="list-style-type: none"> explain that the composition of digital images can be changed explain that colours can be changed in digital images explain how cloning can be used in photo editing explain that images can be combined combine images for a purpose evaluate how changes can improve an image 	<p>Rising Stars 6.3 We are Advertisers - creating a short television advert (Creativity)</p> <p>Children can...</p> <ul style="list-style-type: none"> Think critically about how video is used to promote a cause. Storyboard an effective advert for a cause. Work collaboratively to shoot suitable original footage and source additional content, acknowledging intellectual property rights. Work collaboratively to edit the assembled content to make an effective advert. use the skills already developed to create content using unfamiliar technology collect audio from a variety of resources including own recordings and internet clips trim, arrange and edit audio levels to improve quality



<p>Handling Data (Co2/1.6)</p>	<p>NCCE/Teach Computing 3.4 Data & Information – Branching Databases</p> <p>Children can...</p> <ul style="list-style-type: none"> •create questions with yes/no answers •identify the attributes needed to collect data about an object •create a branching database •explain why it is helpful for a database to be well structured •plan the structure of a branching database •independently create an identification tool 	<p>Rising Stars 4.6 We are Meteorologists - Presenting the Weather (Productivity - Excel)</p> <p>Children can...</p> <ul style="list-style-type: none"> • Understand different measurement techniques for weather, both analogue and digital. • Use computer-based data logging to automate the recording of some weather data. • Use spreadsheets to create charts • Analyse data, explore inconsistencies in data and make predictions • Practice using presentation software and, optionally, video. 	<p>NCCE/Teach Computing 6.4 - Introduction to Spreadsheets (Data and information - Excel)</p> <p>Children can...</p> <ul style="list-style-type: none"> • create a data set in a spreadsheet • build a data set in a spreadsheet • explain that formulas can be used to produce calculated data • apply formulas to data • create a spreadsheet to plan an event • choose suitable ways to present data 	
<p>Technology in our lives (Co2/1.4)</p>	<p>NCCE/Teach Computing 3.1 Connecting Computers (Computing Systems and Networks).</p> <p>Children can...</p> <ul style="list-style-type: none"> • explain how digital devices function • identify input and output devices • recognise how digital devices can change the way we work • explain how a computer network can be used to share information • explore how digital devices can be connected • recognise the physical components of a network 	<p>NCCE/Teach Computing 4.1 The Internet (Computing Systems and Networks)</p> <p>Children can...</p> <ul style="list-style-type: none"> •describe how networks physically connect to other networks •recognise how networked devices make up the internet •outline how websites can be shared via the World Wide Web (WWW) •describe how content can be added and accessed on the World Wide Web (WWW) •recognise how the content of the WWW is created by people •evaluate the consequences of unreliable content 	<p>NCCE/Teach Computing 5.1 Sharing Information (Computing Systems and Networks)</p> <p>Children can...</p> <ul style="list-style-type: none"> • explain that computers can be connected together to form systems • recognise the role of computer systems in our lives • experiment with search engines • describe how search engines select results • explain how search results are ranked • recognise why the order of results is important, and to whom 	<p>NCCE/Teach Computing 6.1 Internet Communication (Computing Systems and Networks)</p> <p>Children can...</p> <ul style="list-style-type: none"> • explain the importance of internet addresses • recognise how data is transferred across the internet • explain how sharing information online can help people to work together • evaluate different ways of working together online • recognise how we communicate using technology • evaluate different methods of online communication
<p>Coding and Programming (Co2/1.1, 1.2, 1.3)</p>	<p>NCCE/Teach Computing 3.3 Programming A (Sequencing Sounds)</p> <p>Children can...</p> <ul style="list-style-type: none"> • explore a new programming environment • identify that commands have an outcome • explain that a program has a start • recognise that a sequence of commands can have an order • change the appearance of their project • create a project from a task description 	<p>NCCE/Teach Computing 4.3 Programming A (Repetition in Shapes)</p> <p>Children can...</p> <ul style="list-style-type: none"> • identify that accuracy in programming is important • create a program in a text-based language • explain what 'repeat' means • modify a count-controlled loop to produce a given outcome • decompose a task into small steps • create a program that uses count-controlled loops to produce a given outcome 	<p>NCCE/Teach Computing 5.3 Programming A (Selection in Physical Processing - Crumbles)</p> <p>Children can...</p> <ul style="list-style-type: none"> • control a simple circuit connected to a computer • write a program that includes count-controlled loops • explain that a loop can stop when a condition is met • explain that a loop can be used to repeatedly check whether a condition has been met • design a physical project that includes selection • create a program that controls a physical computing project 	<p>NCCE/Teach Computing 6.3 Programming A (Variables in Games)</p> <p>Children can...</p> <ul style="list-style-type: none"> • define a 'variable' as something that is changeable • explain why a variable is used in a program • choose how to improve a game by using variables • design a project that builds on a given example • create and evaluate their project



<p>NCCE/Teach Computing 3.6 Programming B (Events and Actions in Programmes)</p> <p>Children can...</p> <ul style="list-style-type: none"> • explain how a sprite moves in an existing project • create a program to move a sprite in four directions • adapt a program to a new context • develop their program by adding features • identify and fix bugs in a program • design and create a maze-based challenge 	<p>NCCE/Teach Computing 4.6 Programming B (Repetition in Games)</p> <p>Children can...</p> <ul style="list-style-type: none"> • develop the use of count-controlled loops in a different programming environment • explain that in programming there are infinite loops and count controlled loops • develop a design that includes two or more loops which run at the same time • modify an infinite loop in a given program • design and create a project that includes repetition 	<p>NCCE/Teach Computing 5.6 Programming B (Selection in Quizzes)</p> <p>Children can...</p> <ul style="list-style-type: none"> • explain how selection is used in computer programs • relate that a conditional statement connects a condition to an outcome • explain how selection directs the flow of a program • design, create and evaluate a program which uses selection 	<p>NCCE/Teach Computing 6.6 Programming B (Sensing -Microbits)</p> <p>Children can...</p> <ul style="list-style-type: none"> • create a program to run on a controllable device • explain that selection can control the flow of a program • update a variable with a user input • use a conditional statement to compare a variable to a value • design a project that uses inputs and outputs on a controllable device • develop a program to use inputs and outputs on a controllable device
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Online Safety (Co2/1.7)

	By end of Year 3	By end of Year 4	By end of Year 5	By end of Year 6
<p>Developing online safety guidelines</p>	<p>Children can...</p> <ul style="list-style-type: none"> • Consider online safety scenarios encountered in Year 2 (both at school and at home) and appreciate how these new experiences can be used to refine their online safety rules. • Consider what new strategies they can apply to online safety scenarios, such as calling Childline. • Review and edit their online safety guidelines. • Develop and edit their online safety rules so they are easily understood and appropriate for Year 3 pupils. 	<p>Children can...</p> <ul style="list-style-type: none"> • Consider online safety scenarios encountered in Year 3 (both at school and at home) and appreciate how these new experiences can be used to update their online safety rules. • Consider what new strategies they can apply to online safety scenarios, beyond talking to a trusted adult. • Review and edit their online safety guidelines. • Develop their online safety rules so they are easily understood and appropriate for Year 4 pupils. 	<p>Children can...</p> <ul style="list-style-type: none"> • Consider online safety scenarios encountered in Year 4 (both at school and at home) and appreciate how these new experiences can be used to update their online safety rules. • Consider what new strategies they can apply to online safety scenarios, such as clicking the CEOP 'Report abuse' button. • Review and edit their online safety guidelines. • Develop their online safety rules so they are easily understood and appropriate for Year 5 pupils. 	<p>Children can...</p> <ul style="list-style-type: none"> • Consider online safety scenarios encountered in Year 5 (both at school and at home) and appreciate how these new experiences can be used to update their online safety rules. • Consider what new strategies they can apply to online safety scenarios, such as using reporting buttons within websites and apps. • Review and edit their online safety guidelines. • Develop their online safety rules so they are easily understood and appropriate for Year 6 pupils.
<p>Social and emotional wellbeing and developing resilience</p>	<p>Children can...</p> <ul style="list-style-type: none"> • begin to understand that information shared online cannot always be controlled • develop a deeper understanding of the consequences of online bullying. • understand the role of a bystander in online bullying. 	<p>Children can...</p> <ul style="list-style-type: none"> • Understand that peer pressure can be a positive and negative influence. • Understand that access to the internet is not the same for everyone. • Recall ways to report concerns and inappropriate behaviour. 	<p>Children can...</p> <ul style="list-style-type: none"> • Recognise that online behaviour can have real life negative effects on other people. • Understand that we must take responsibility for our own actions online, regardless of what other people are doing. • Critically assess all information surrounding an online safety scenario to decide whether it constitutes online bullying. • Use their knowledge of online safety to reach a consensus on the appropriate response to an online incident. 	<p>Children can...</p> <ul style="list-style-type: none"> • Understand the negative consequences of sharing nude selfies. • Develop confidence in saying no when they are posed with a request for inappropriate and/or indecent images of themselves. • Understand that once an image is online, it stays online forever. • Understand what is meant by nude selfies and learn that, sending, sharing and storing inappropriate images of Under-18s is a crime.



Responsible internet use	<p>Children can...</p> <ul style="list-style-type: none"> • use clues to make choices about which web pages they consider most useful and trustworthy. • understand that not all links are safe or trustworthy. • understand different ways to report concerns and inappropriate behaviour. 	<p>Children can...</p> <ul style="list-style-type: none"> • Understand that because of the internet, information can be spread more quickly and reach more people now than at any time in the past. • Understand that although information posted on the internet might not always be true or accurate, it lasts forever. 	<p>Children can...</p> <ul style="list-style-type: none"> • Understand that some people get paid to endorse products online. • Develop a discerning attitude to online content so that they can confidently reach their own conclusions. • Appreciate the value of trusted adults in helping them reach an informed conclusion. 	<p>Children can...</p> <ul style="list-style-type: none"> • Understand that most online sites and apps require an account holder to be a minimum of 13 years old. • Understand that they should check and adhere to the age restrictions of a site or app. • Understand why age restrictions apply to online communication tools. • Develop resilience to online behaviour and influences in an unfamiliar setting. • Learn how to use appropriate social networking sites safely.
Keeping information safe	<p>Children can...</p> <ul style="list-style-type: none"> • Understand that every time we use the internet we leave a digital trail that can be found, copied, shared and broadcast. • Understand that the things we upload onto the internet last forever. 	<p>Children can...</p> <ul style="list-style-type: none"> • Understand the risks involved in clicking on and opening links on suspicious websites and in emails. • Understand that hacking can be illegal and has consequences for the hacker. • Develop awareness of viruses and what to do if they think their account has been compromised. 	<p>Children can...</p> <ul style="list-style-type: none"> • Understand that posting inappropriate information online can cause regret later. • Understand how to manage their online reputation. • Understand that, although information posted on the internet might not always be true or accurate, it can last forever. • Understand that it is possible to search the internet for information about particular individuals. 	<p>Children can...</p> <ul style="list-style-type: none"> • Understand that they need to respect other people's preferences when uploading images or video to the internet. • Understand that everyone has the right to privacy and can refuse permission for images or videos of themselves being uploaded to the internet. • Develop their understanding that content posted on the internet can last forever.
Digital citizenship	<p>Children can...</p> <ul style="list-style-type: none"> • understand that good online behaviour is important for making the internet an enjoyable place for everyone • understand that email is a widely used form of digital communication that lasts forever and can be shared. 	<p>Children can...</p> <ul style="list-style-type: none"> • Understand that both digital rights and responsibilities are important to ensure the internet is a great place for everyone. • Understand that there are consequences for knowingly ignoring rights. • Further develop a positive and responsible attitude towards technology and internet use. 	<p>Children can...</p> <ul style="list-style-type: none"> • Understand that copyright laws exist to protect original content creators. • Understand that content they choose to use or upload on the internet may be subject to copyright laws. • Further develop their understanding of rights and responsibilities as digital citizens. 	<p>Children can...</p> <ul style="list-style-type: none"> • Develop confidence in their ability to act appropriately when confronted with unfamiliar situations involving technology and the internet. • Revisit the key concepts of digital citizenship.
Playing games and having fun	<p>Children can...</p> <ul style="list-style-type: none"> • understand that internet identities are actively constructed by the user • recognise that internet identities can be misleading or not representative of the creator • recall that personal information should not be shared by anyone online who we don't know in real life. 	<p>Children can...</p> <ul style="list-style-type: none"> • Understand that virtual friends are still strangers that they do not know. • Apply their knowledge of online safety to decide what information they, as virtual friends, can safely share online. • Recap rules for reporting suspicious or uncomfortable online situations. 	<p>Children can...</p> <ul style="list-style-type: none"> • Understand different business models for online games. • Understand that accounts for devices are linked to real-life bank accounts. • Understand that some features in online games and apps cost real money. • Understand that research, parental controls and device settings are tools we can use to help us game confidently. 	<p>Children can...</p> <ul style="list-style-type: none"> • Understand the risks involved with online gaming, including exposure to inappropriate content, grooming, bullying, trolling and the use of bribery tactics. • Understand that research and parental controls and device settings are tools we can use to help us game safely and confidently. • Apply their knowledge of safe gaming practices to plan and deliver an assembly to other children and/or parents. • Consolidate everything they have learnt about age-appropriate online gaming in preparation for their transition to KS3.