CURRICULUM PROGRESSION GRID: COMPUTING				
LOWER KEY STAGE 2				
Computing Systems & Networks	**Creating Media**	**Data and Information**	**Programming**	**Online Safety**
NC Link • 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;	**NC Link** • 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;	**NC Link** • 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;	**NC Link** • 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 simple algorithms work and to detect and correct errors in algorithms and programs;	**NC Link** • Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.
Build on KS1 • use technology purposefully to create, organise, store, manipulate and retrieve digital content • recognise common uses of information technology beyond school	**Build on KS1** • use technology purposefully to create, organise, store, manipulate and retrieve digital content • recognise common uses of information technology beyond school	**Build on KS1** • use technology purposefully to create, organise, store, manipulate and retrieve digital content	**Build on KS1** • 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	**Build on KS1** • 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.

			• use technology purposefully to create, organise, store, manipulate and retrieve digital content	
Intent • To explain how digital devices function • To identify input and output devices • To recognise how digital devices can change the way that we work • To explain how a computer network can be used to share information • To explore how digital devices can be connected • To recognise the physical components of a network • To describe how networks physically connect to other networks • To recognise how networked devices make up the internet	**Intent** • To explain that animation is a sequence of drawings or photographs • To relate animated movement with a sequence of images • To plan an animation • To identify the need to work consistently and carefully • To review and improve an animation • To evaluate the impact of adding other media to an animation • To recognise how text and images convey information • To recognise that text and layout can be edited • To choose appropriate page settings • To add content to a desktop publishing publication • To consider how different layouts can suit different purposes	**Intent** • To create questions with yes/no answers • To identify the attributes needed to collect data about an object • To create a branching database • To explain why it is helpful for a database to be well structured • To plan the structure of a branching database • To independently create an identification tool • To explain that data gathered over time can be used to answer questions • To use a digital device to collect data automatically • To explain that a data logger collects 'data points' from sensors over time	**Intent** • To explore a new programming environment • To identify that commands have an outcome • To explain that a program has a start • To recognise that a sequence of commands can have an order • To change the appearance of my project • To create a project from a task description • To explain how a sprite moves in an existing project • To create a program to move a sprite in four directions • To adapt a program to a new context • To develop my program by adding features • To identify and fix bugs in a program • To design and create a maze-based challenge • To identify that accuracy in programming is important • To create a program in a text-based language • To explain what 'repeat' means	**Intent** • I can give examples of technology-specific forms of communication (e.g. emojis, memes and GIFs). • I can explain how sharing something online may have an impact either positively or negatively • I can describe appropriate ways to behave towards other people online and why this is important. • I can recognise online bullying can be different to bullying in the physical world and can describe some of those differences • I can explain why copying someone else's work from the internet without permission isn't fair and can explain what problems this might cause. • I can explain what app permissions are and can give some examples. • I can describe simple ways to increase privacy

• To outline how websites can be shared via the World Wide Web (WWW) • To describe how content can be added and accessed on the World Wide Web (WWW) • To recognise how the content of the WWW is created by people • To evaluate the consequences of unreliable content	• To consider the benefits of desktop publishing • To identify that sound can be recorded • To explain that audio recordings can be edited • To recognise the different parts of creating a podcast project • To apply audio editing skills independently • To combine audio to enhance my podcast project • To evaluate the effective use of audio • To explain that the composition of digital images can be changed • To explain that colours can be changed in digital images • To explain how cloning can be used in photo editing • To explain that images can be combined • To combine images for a purpose • To evaluate how changes can improve an image	• To recognise how a computer can help us analyse data • To identify the data needed to answer questions • To use data from sensors to answer questions	• To modify a count-controlled loop to produce a given outcome • To decompose a task into small steps • To create a program that uses count-controlled loops to produce a given outcome • To develop the use of count-controlled loops in a different programming environment • To explain that in programming there are infinite loops and count-controlled loops • To develop a design that includes two or more loops which run at the same time • To modify an infinite loop in a given program • To design a project that includes repetition • To create a project that includes repetition	on apps and services that provide privacy settings. • I can explain the difference between a 'belief', an 'opinion' and a 'fact. and can give examples of how and where they might be shared online, e.g. in videos, memes, posts, news stories etc. • I can explain what is meant by fake news e.g. why some people will create stories or alter photographs and put them online to pretend something is true when it isn't. • I can explain what is meant by the term 'identity'. • I can explain how my online identity can be different to my offline identity. • I can describe some strategies, tips or advice to promote health and wellbeing with regards to technology.

NCCE Unit Links Autumn 1 – Connecting computers, The internet,	**NCCE Unit Links** Autumn 2 – Animation, audio editing Summer 1 – Desktop publishing, Photo editing	**NCCE Unit Links** Spring 2 – Branching databases, Data logging	**NCCE Unit Links** Spring 1 – A sequence in music, A repetition in shapes Summer 2 – Events and actions, Repetition in games	**Project Evolve Links** **Cycle A** Online Relationships Online Bullying Copyright & Ownership Privacy and Security **Cycle B** Managing Online information Health, Well-being and Lifestyle Self-Image and Identity Online Reputation
Implementation See NCCE lesson plans	**Implementation** See NCCE lesson plans	**Implementation** See NCCE lesson plans	**Implementation** See NCCE lesson plans	**Implementation** See Project Evolve lesson plans
Vocabulary: . move, screen, close, click, drag, log on, log off, keyboards, keys, mouse, click, button, double click, drag, present, commands, add sound.	**Vocabulary:** paint, colour, brush, tools, settings, undo, redo, text, image, size, poster, launch, application, software, window, minimise, restore, size	**Vocabulary:** filter, Google, search engine, image, keyboard, email, internet, subject, address, communicate, sender, safe, secure.	**Vocabulary:** algorithm, instruction, order, debug, program, turn, left, right, clockwise, anticlockwise, blocks, sequence, project, repeat, repeat forever, invisible, grow, shrink	**Vocabulary:** Identity, communication, positive, community, respect, privacy, bullying, permission, search, belief, opinion, fact, sceptical, trustworthy,