Computing Progression Grid

Concept	FS2	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Digital Literacy - How can we use information technology to find, store, use and share content?	Explore technology and use different digital devices Recognise that you can access content on a digital device using a mouse, touchscreen or appropriate access device Understand that we control computers and operate a device to fulfil a task Use technology to explore and access digital content Choose a digital device from a selection to complete a specific task	Identify and name a range of digital devices and their main parts Turn the computers on and off safely Use a mouse and keyboard to interact with digital technology Understand that we control computers by giving them instructions Know where to save and open work Understand that you can find information from a website	Recognise the uses and features of information technology and how this is all around us Explain how information technology benefits us Recognise that choices are made when using information technology Understand that work saved on a computer at school can be opened on a different computer Understand that you can use a search engine to find information using keyword searches	Explain how digital devices function using inputs and outputs Understand how a computer network changes the way we work through sharing information Explore and recognise how devices can be connected through a network Begin to type using all fingers Use right-click, left-click and double-click appropriate on a mouse Understand that you can organise files using folders Open and save a file to a suitable folder Know how to copy text and images into another document	Type using all fingers Delete, move and copy files within folders, using a suitable file name when saving work. Recognise and use a range of input and output devices Describe how networks physically connect to other networks Recognise how networked devices make up the internet Understand how websites can be accessed and shared via the World Wide Web Recognise that the content of the World Wide Web is created by people	Use the keyboard to type at a suitable pace Organise files effectively using folders Explain that computers can be connected together to form systems Understand the main functions of an operating system Understand how to use a search engine efficiently Understand how search engines select and rank results and why this order is important	Use common keyboard shortcuts Recognise common file types and extensions Understand that different devices can have different operating systems and can give examples Understand how information is transferred over the internet Explain how sharing information online lets people in different places work together Contribute to and evaluate working on a shared project online

Data - How is information stored, organised and shared across computer systems and devices?	Sort familiar objects into one or more categories Collect simple data on a topic Can present simple data using images	Identify that objects can be counted Describe objects in different ways Count objects with the same properties Compare groups of objects	Recognise that we can count and compare objects and how this data can be represented in different ways Select objects by attribute and make comparisons Understand that we can present information using a computer	Create questions with yes/ no answers Identify the object attributes needed to collect relevant data Create a branching database and identify objects using a branching database Understand why it is helpful for a database to be well structured Compare different ways of presenting and organising data	Explain that data gathered over time can be used to answer questions Use a digital device to collect data automatically Understand that a data logger collects 'data points' from sensors over time Use data collected over a long duration to find information and answer questions	Use a form to record information, comparing paper and computer-based databases Outline how grouping and sorting data allows us to answer questions Explain that computer programs can be used to compare data visually using a database	Identify questions which can be answered using data Explain that formula can be used to produce calculated data Apply formulas to data, including duplicating Create a spreadsheet to plan an event, choosing suitable ways to present data
Logic and Algorithms - What processes or sets of rules, need to be followed in order to solve a problem or complete a task?	Order steps of a known task Input a short sequence of instructions to control a device Recognise the success or failure of an action Repeat an action with technology to trigger a specific outcome	Identify and list the steps of a known task in order Understand what an algorithm is Create simple algorithms Debug an error in a simple algorithm or program	Describe a series of instructions as a sequence Understand that a sequence of commands has a start and an outcome Use logical reasoning to predict the outcome of a program Design, create and debug a program using algorithms	Explain that a program has a start Recognise that a sequence of commands can have an order Remix a program by changing the design features Identify and fix bugs in a program	Understand that accuracy in programming is important Create a program in a text-based language Explain that in programming there are infinite loops and count-controlled loops Decompose a program into parts Design and create a project that includes repetition	Write a program that includes count-controlled loops Explain that a loop can stop when a condition is met, e.g. number of times Explain how selection directs the flow of a program Develop a program to run on a controllable device that includes selection	Explain what a variable is and why it is used in a program Design and program a game that uses variables to improve game play Update a variable with a user input and use a conditional statement to compare a variable to a value Develop a program to use inputs and outputs on a controllable device

Multimedia – How can we present information effectively?	Access content in a range of formats Distinguish between text, image, video and audio content Create simple digital content Choose media to convey information	Select media to present information on a topic Understand that you can edit and change digital content Select basic options to change the appearance of digital content Design and create digital content for a specific purpose Combine media with support to present information	Apply edits to digital content to achieve a particular effect Plan out digital content Present ideas and information by combining media independently Talk about what makes digital content good or bad Edit digital content to improve it	Recognise how text and images convey information Add content to a desktop publishing publication considering how different layouts can suit different purposes Choose appropriate page settings in desktop publishing. Explain that animation is a sequence of drawings and photographs Plan and create an animation Review and improve an animation Evaluate the impact of adding other media to an animation	Understand that digital images can be changed for a range of different uses Make good choices when selecting different tools to change the composition of an image Understand that sound can be digitally recorded, explaining that a digital recording is stored as a file Use a digital device to record sound Explain that audio can be changed through editing Evaluate editing choices made to digital projects	Identify and use appropriate hardware and software to fulfil a specific task Recognise video as moving pictures, which can include audio Capture video using a digital device, incorporating features of an effective video Identify that video can be improved through reshooting and editing. Identify that drawing tools can be used to produce different outcomes, choosing to use drawing tools to achieve a desired effect Recognise that vector drawings consist of layers Group objects to make them easier to work with	Use a variety of hardware and software, making independent choices appropriate for the purpose, audience and aims of the digital content. Plan the features of a web page, recognising the need to preview pages in webpage design Understand the need for a navigation path, being mindful of the implications of linking to content owned by other people Use a computer to create and manipulate three-dimensional (3D) digital objects Identify that physical objects can be broken down into a collection of 3D shapes Design and construct a digital model by combining 3D objects

Safety – What steps do we need to take to keep ourselves (and our data) safe?						
Understand that it is easy to hide your identity online

Understand that some information is private, especially amongst people who you don't know well

Understand that we can communicate online

Understand it is important to be kind online

Understand that some online content is inappropriate

Understand what to do when you see something that makes you feel unsafe or confused online | Understand that information can be public or private

Understand why we use passwords

Understand that you can share digital content online

Understand what makes a good online friend and the need to be kind and thoughtful online as in the real world

Recognise inappropriate content and know to tell an appropriate adult

Know who to tell if concerned about content or contact online | Understand what personal information is and the need to keep it private

Can remember a simple password and know not to tell anyone

Understand that digital content belongs to the person who first created it

Understand that the digital content that we make belongs to us and others need to ask permission to use it

Know that not all information found online is true

Understand that spending a long time in front of a computer screen can be unhealthy | Understand when to share personal information and when not to

Understand that people can give permission to others to use their content.

Understand the benefits of a good password

Recognise what kind of websites are trustworthy sources of information

Understand that games and films have age ratings, and what that means | Evaluate the consequences of unreliable content online

Recognise the benefits and risks of different apps and websites

Understand that when we share content online, we may not be able to delete it

Understand how the media can portray groups of people differently

Know different ways of reporting unacceptable content and contact online | Critically evaluate websites for reliability of information and authenticity

Recognise inaccurate information online and begin to understand the motivations behind advertisements online

Know where to find copyright free images and audio, and why this is important

Understand what makes a strong password and why this is important at school and in the wider world

Demonstrate responsible use of online services and technologies, and know a range of ways to report concerns | Understand that our personal information is valuable, sensitive and private to us and that giving away personal information can lead to both physical and emotional damage.

Know that there are laws around the purchase of games; the production, sending and storage of images; what is written online; and around online gambling

Understand that we are often exposed to stereotypes in the media, which can affect the way that we see ourselves and other people

Understand that the online world creates unique issues, which can affect our self-image, mental health and identity |

Computing Key Concepts and Intentions

Oughtibridge Primary School

Digital Literacy
Data
Safety
Multimedia
Logic and
Algorithms

C1: Use a wide range of hardware and software and develop proficient skills through regular practise with them.

C2: Create meaningful content across a variety of digital contexts.

C3: Analyse problems in computational terms and design computer programs to solve such problems.

C4: Develop knowledge of online safety including how to minimise risk, particularly in relation to personal data and content.

C5: Understand how to manage relationships online, treating others with respect at all times.

C6: Develop the skills necessary to critically analyse information and decide if it is reliable or trustworthy.