Computing Progression of Knowledge 2022/23

Digital Literacy					
Y1	**Y2**	**Y3**	**Y4**	**Y5**	**Y6**
Media Balance Is Important To know when and why to take breaks from device time. To consider the feelings of people around me, even when using technology. **Pause for People** To know why it's important to be aware and respectful when using technology. To use 'Pause, Breathe, Finish up' as a self-regulation strategy for transitioning from technology to face-to-face interactions. **Safety in My Online Neighbourhood** To understand that the internet can be used to visit faraway places and learn new things. To know how to stay safe online. To explain rules for safely using the internet.	**Pause and Think Online** To understand the importance of being safe, responsible, and respectful online. To learn the 'Pause and Think' strategies for being a good digital citizen. **How Technology Makes You Feel** To recognise the different kinds of feeling you can have when using technology. To know what to do when you don't have a good feeling when using technology. **Internet Traffic Light** To understand that being safe online is similar to staying safe in real life. To identify websites and apps that are 'just right' or 'not right' for you. To know how to get help from an adult if you are unsure about a website.	**We, the Digital Citizens** To understand that being a good digital citizen means being safe and responsible online. To take a pledge to be a good digital citizen. **Device-Free Moments** To recognise the ways in which digital devices can be distracting. To identify how you feel when others are distracted by their digital devices. To identify ideal device-free moments for themselves and others. **That's Private** To recognise the kind of information that is private. To understand you should never give out private information online. **Digital Trails** To learn that the information you share online leaves a digital footprint/trail. To explore what information is OK to be shared online.	**Your Rings of Responsibility** To examine both online and in-person responsibilities. To describe the 'Rings of Responsibilities' as a way to think about how our behaviour affects us and others. **Password Power-Up** To define the term 'password' and describe its purpose. To understand why a strong password is important. To practise creating a memorable and strong password. **This is Me** To consider how posting selfies or other images can lead others to make assumptions about us. To reflect on the most important parts of our unique identities. To identify ways you can post online to best reflect who we are. **Our Digital Citizenship Pledge**	**My Media Choices** To learn the 'What? When? How much?' framework for describing our media choices. To use this framework and our emotional responses to evaluate how healthy different types of media choices are. To begin to develop our own definition of a healthy media balance. **Private and Personal Information** To identify the reasons why people share information about themselves online. To explain the difference between personal and private information. To explain why it is risky to share private information online. **Our Online Tracks** To define the term 'digital footprint' and identify the online activities that contribute to it. To identify ways we are in control of our digital footprints. To understand what responsibilities we have for	**Finding My Media Balance** To reflect on how balanced you are in your daily lives. To consider what 'media balance' means and how it applies to you. To create a personalised plan for healthy and balanced media use. **You Won't Believe This!** To define 'the curiosity gap'. To explain how clickbait uses the curiosity gap to get your attention. To use strategies for avoiding clickbait. **Beyond Gender Stereotypes** To define 'gender stereotypes' and describe how they can be present online. To describe how gender stereotypes can lead to unfairness or bias. To share how gender stereotypes impact who you are. **Digital Friendships** To compare and contrast different online-only friendships.

		Who is in Your Online Community? To compare and contrast how you are connected to different people and places, in person and on the internet. To demonstrate an understanding of how people can connect on the internet. **Putting a Stop to Online Meanness** To understand what online meanness can look like and how it makes people feel. To identify ways to respond to mean words online. **Let's Give Credit** To explain how giving credit is a sign of respect for people's work. To learn how to give credit in your schoolwork for content they use from the internet.	To define what a community is, both in person and online. To explain how having norms helps people in a community achieve their goals. To create and pledge to adhere to share norms for being in an online community. **The Power of Words** To understand it's important to think about the words we use. To identify ways to respond to mean words online. To decide what statements are ok to say online and which are not. **Is Seeing Believing?** To recognise that photos and videos can be altered digitally. To identify different reasons why someone might alter a photo or video. To analyse altered photos and videos to determine why.	the digital footprints for ourselves and others. **Keeping Games Fun and Friendly** To define 'social interaction' and give an example. To describe the positives and negatives of social interaction in online games. To create guidelines for positive social interaction. **Be a Super Digital Citizen** To reflect on the characteristics that make someone an upstanding digital citizen. To recognise what cyberbullying is. To share ways to be a super digital citizen. **A Creator's Rights and Responsibilities** To define 'copyright' and explain how it applies to creative work. To describe our rights and responsibilities as creators. To apply the copyright principles to real-life scenarios.	To describe the benefits and risks of online-only friendships. To describe how to respond to an online-only friend if they ask something that makes you uncomfortable. **Is it Cyberbullying?** To recognise similarities and differences between in-person bullying, cyberbullying and being mean. To empathise with the targets of cyberbullying. To identify strategies for dealing with cyberbullying and ways you can support those being cyberbullied. **Reading News Online** To understand the purposes of different parts of an online news page. To identify the parts and structure of an online news article. To know the things to watch out for when reading online news pages such as sponsored content and advertisements.

Coding

Computing Progression of Knowledge 2022/23

Y1	Y2	Y3	Y4	Y5	Y6
Moving a robot To explain what a given command will do To act out a given word To combine forwards and backwards commands to make a sequence To combine four direction commands to make sequences To plan a simple program To find more than one solution to a problem **Introduction to animation** To choose a command for a given purpose To show that a series of commands can be joined together To identify the effect of changing a value To explain that each sprite has its own instructions To design the parts of a project To use my algorithm to create a program	**Robot algorithms** To describe a series of instructions as a sequence To explain what happens when we change the order of instructions To use logical reasoning to predict the outcome of a program (series of commands) To explain that programming projects can have code and artwork To design an algorithm To create and debug a program that I have written **Introduction to quizzes** To explain that a sequence of commands has a start To explain that a sequence of commands has an outcome To create a program using a given design To change a given design To create a program using my own design To decide how my project can be improved	**Sequence in music** To explore a new programming environment I can identify that each sprite is controlled by the commands I choose 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 **Events and actions** 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	**Repetition in shapes** To identify that accuracy in programming is important To create a program in a text-based language To explain what 'repeat' means To modify a count-controlled loop to produce a given outcome To decompose a program into parts To create a program that uses count-controlled loops to produce a given outcome **Repetition in games** 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 which 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	**Selection in physical computing** To control a simple circuit connected to a computer To write a program that includes count-controlled loops To explain that a loop can stop when a condition is met, e.g., number of times To conclude that a loop can be used to repeatedly check whether a condition has been met To design a physical project that includes selection To create a controllable system that includes selection **Selection in games** To explain how selection is used in computer programs To relate that a conditional statement connects a condition to an outcome To explain how selection directs the flow of a program To design a program which uses selection To create a program which uses selection To evaluate my program	**Variables in games** To define a 'variable' as something that is changeable To explain why a variable is used in a program To choose how to improve a game by using variables To design a project that builds on a given example To use my design to create a project To evaluate my project **Sensing** To create a program to run on a controllable device To explain that selection can control the flow of a program To update a variable with a user input To use a conditional statement to compare a variable to a value To design a project that uses inputs and outputs on a controllable device To develop a program to use inputs and outputs on a controllable device

Computing Progression of Knowledge 2022/23

Information Technology					
Y1	**Y2**	**Y3**	**Y4**	**Y5**	**Y6**
Technology around us To identify technology To identify a computer and its main parts To use a mouse in different ways To use a keyboard to type To use the keyboard to edit text To create rules for using technology responsibly **Digital painting** To describe what different freehand tools do To use the shape tool and the line tools To make careful choices when painting a digital picture To explain why I chose the tools I used To use a computer on my own to paint a picture To compare painting a picture on a computer and on paper **Digital writing** To use a computer to write To add and remove text on a computer To identify that the look of text can be changed on a computer	**Information technology around us** To recognise the uses and features of information technology To identify information technology in the home To identify information technology beyond school To explain how information technology benefits us To show how to use information technology safely To recognise that choices are made when using information technology **Digital photography** To know what devices can be used to take photographs To use a digital device to take a photograph To describe what makes a good photograph To decide how photographs can be improved To use tools to change an image To recognise that images can be changed **Making music** To say how music can make us feel	**Connecting computers** To explain how digital devices function To identify input and output devices To recognise how digital devices can change the way 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 **Stop-frame animation** 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 **Desktop publishing** To recognise how text and images convey information	**The internet** To describe how networks physically connect to other networks To recognise how networked devices make up the internet To outline how websites can be shared via the World Wide Web To describe how content can be added and accessed on the World Wide Web To recognise how the content of the WWW is created by people To evaluate the consequences of unreliable content **Audio editing** To identify that sound can be digitally recorded To use a digital device to record sound To explain that a digital recording is stored as a file To explain that audio can be changed through editing To show that different types of audio can be combined and played together To evaluate editing choices made	**Sharing information** To explain that computers can be connected together to form systems To recognise the role of computer systems in our lives To recognise how information is transferred over the internet To explain how sharing information online lets people in different places work together To contribute to a shared project online To evaluate different ways of working together online **Video editing** To recognise video as moving pictures, which can include audio To identify digital devices that can record video To capture video using a digital device To recognise the features of an effective video To identify that video can be improved through reshooting and editing To consider the impact of the choices made when making and sharing a video	**Communication** To identify how to use a search engine To describe how search engines select results To describe how search engines select results To explain how search results are ranked To recognise why the order of results is important, and to whom To recognise how we communicate using technology To evaluate different methods of online communication **Web page creation** To review an existing website and consider its structure To plan the features of a web page To consider the ownership and use of images (copyright) To recognise the need to preview pages To outline the need for a navigation path To recognise the implications of linking to content owned by other people

Computing Progression of Knowledge 2022/23

To make careful choices when changing text To explain why I used the tools that I chose To compare writing on a computer with writing on paper **Grouping data** To label objects To identify that an object can be counted To describe objects in different ways To count objects with the same properties To compare groups of objects To answer questions about groups of objects	To identify that there are patterns in music To describe how music can be used in different ways To show how music is made from a series of notes To create music for a purpose To review and refine our computer work **Pictograms** To recognise that we can count and compare objects using tally charts To recognise that objects can be represented as pictures To create a pictogram To select objects by attribute and make comparisons To recognise that people can be described by attributes To explain that we can present information using a computer.	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 To consider the benefits of desktop publishing **Branching databases** To create questions with yes/no answers To identify the object attributes needed to collect relevant data To create a branching database To identify objects using a branching database To explain why it is helpful for a database to be well structured To compare the information shown in a pictogram with a branching database	**Photo editing** To explain that digital images can be changed To change the composition of an image To describe how images can be changed for different uses To make good choices when selecting different tools To recognise that not all images are real To evaluate how changes can improve an image **Data logging** 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 To use data collected over a long duration to find information To identify the data needed to answer questions To use collected data to answer questions	**Vector drawing** To identify that drawing tools can be used to produce different outcomes To create a vector drawing by combining shapes To use tools to achieve a desired effect To recognise that vector drawings consist of layers To group objects to make them easier to work with To evaluate my vector drawing **Flat-file databases** To use a form to record information To compare paper and computer-based databases To outline how grouping and then sorting data allows us to answer questions To explain that tools can be used to select specific data To explain that computer programs can be used to compare data visually To apply my knowledge of a database to ask and answer real-world questions	**3D modelling** To use a computer to create and manipulate three-dimensional (3D) digital objects To compare working digitally with 2D and 3D graphics To construct a digital 3D model of a physical object To identify that physical objects can be broken down into a collection of 3D shapes To design a digital model by combining 3D objects To develop and improve a digital 3D model **Spreadsheets** To identify questions which can be answered using data To explain that objects can be described using data To explain that formula can be used to produce calculated data To apply formulas to data, including duplicating To create a spreadsheet to plan an event To choose suitable ways to present data