Summerseat Steps in Learning – Computing			
Reception	**Class Two**	**Class Three**	**Class Four**
Technology in our Lives			
• I can tell you about technology that is used at home and in school. • I can operate simple equipment. • I can use a safe part of the Internet to play and learn.	• I can tell you why I use technology in the classroom. • I can tell you why I use technology in my home and community. • I can talk about the parts of a computer. • I am starting to understand that other people have created the information I use. • I can identify benefits of using technology including finding information, creating and communicating. • I can talk about the differences between the Internet and things in the physical world.	• I can save and retrieve work on the Internet, the school network or my own device. • I can tell you ways to communicate with others online. • I can describe the World Wide Web as the part of the Internet that contains websites. • I think about the reliability of information I read on the World Wide Web. • I can identify key words to use when searching safely on the World Wide Web. • I can tell you how to check who owns photos, text and clipart. • I can create a hyperlink to a resource on the World Wide Web.	• I can tell you the Internet services I need to use for different purposes. • I can describe how information is transported on the Internet. • I can select an appropriate tool to communicate and collaborate online. • I can talk about the way search results are selected and ranked. • I can check the reliability of a website. • I can tell you about copyright and acknowledge the sources of information that I find online.
Digital Literacy (Online Safety)			
'Education for a Connected World' / Google internet Legends			
•I can ask an adult when I want to use the Internet. •I can tell an adult when something worrying or unexpected happens while I am using the Internet. •I can be kind to my friends. •I can talk about the	•I can explain why I need to keep my password and personal information private. •I can tell an adult when I see something unexpected or worrying online. •I can talk about why it's important to be kind and polite online and in real life. •I know that not everyone is who they say they are on the Internet. •I can recognise an age appropriate website. •I can agree and follow the online safety rules. •I can talk about why I should go online for a short amount of time.	•I can talk about what makes a secure password and why they are important. •I can protect my personal information when I do different things online. •I can use the safety features of websites as well as reporting concerns to an adult. •I know that anything I post online can be seen by others. •I can recognise and choose websites and games appropriate for my age. •I can make good choices about how long I spend online and talk to my friends about	•I protect my password and other personal information. •I can explain why I need to protect myself and my friends and the best ways to do this, including reporting concerns to an adult. •I can explain the consequences of sharing too much about myself online. •I can explain the consequences of spending too much time online or on a game. •I know that anything I post online can be seen, used and may affect others. •I can explain the importance of

amount of time I spend using a computer / tablet / game device. •I am careful with technology devices.		making good choices. •.I can talk about why I need to ask a trusted adult before downloading files and games from the Internet. I comment positively and respectfully online.	communicating kindly and respectfully. •I can discuss the importance of choosing an age-appropriate website or game. •I can explain why I need to protect my computer or device from harm. •I know which resources on the Internet I can download and use.

		PSHE guidance	

•	• To know that for most people the internet is an integral part of life and has many benefits.	• To know that people sometimes behave differently online, including by pretending to be someone they are not. • To know how to respond safely and appropriately to adults they may encounter (in all contexts, including online) whom they do not know. • To know how to consider the effect of their online actions on others and know how to recognise and display respectful behaviour online and the importance of keeping personal information private. • To know why social media, some computer games and online gaming, for example, are age restricted • To know that the internet can also be a negative place where online abuse, trolling, bullying and harassment can take place, which can have a negative impact on mental health.	• To know how information and data is shared and used online • To know how to critically consider their online friendships and sources of information including awareness of the risks associated with people they have never met. • To know that the same principles apply to online relationships as to face-to face relationships, including the importance of respect for others online including when we are anonymous. • To understand the rules and principles for keeping safe online, how to recognise risks, harmful content and contact, and how to report them. • To know where and how to report concerns and get support with issues online • To know how to be a discerning consumer of information online including understanding that information, including that from search engines, is ranked, selected and targeted

Coding & Computational Thinking

• I can make a floor robot move. • I can use simple software to make something happen. • I can make choices about the buttons and icons I press, touch or click on.	• I can give instructions to my friend (using forward, backward and turn) and physically follow their instructions. • I can tell you the order I need to do things to make something happen and talk about this as an algorithm. • I can program a robot or software / apps to do a particular task and make objects move / create patterns on a screen. • I can begin to predict what will happen for a short sequence of instructions. • I can use the word debug when I correct mistakes when I program. • I can watch a program execute and spot where it goes wrong so that I can debug it.	• I can use logical thinking to solve an open-ended problem by breaking it up into smaller parts. • I can put programming commands into a sequence to achieve a specific outcome. • I can use an efficient procedure to simplify a program. • I can use a variety of tools to create a program. • I keep testing my program and can recognise when I need to debug it. • I can use repeat commands. • I can describe the algorithm I will need for a simple task. • I recognise that an algorithm will help me to sequence more complex programs. • I can use 'if' and 'then commands to select an action. • I can detect a problem in an algorithm which could result in unsuccessful programming. • I can use a sensor to detect a change which can select an action within my program.	• I can decompose a problem into smaller parts to design an algorithm for a specific outcome and use this to write a program. • I can explain and program each of the steps in my algorithm. • I can refine a procedure using repeat commands to improve a program. • I can use a variable to increase programming possibilities and achieve a required output. • I can use different inputs (including sensors) to control a device or onscreen action and predict what will happen. • I can use a variable and operators to stop a program. • I can change an input to a program to achieve a different output. • I can use 'if' 'else' and 'then' commands to select an action. • I can talk about how a computer model can provide information about a physical system. • I can use logical reasoning to detect and correct errors in a algorithms and programs (Debug) I can evaluate the effectiveness and efficiency of my algorithm while I continually test the programming of that algorithm.
Text & Images *(Logging on and off, keyboard & mouse skills, word processing, combining text and image, web page creation)*			
Completes a simple program on a Text	• I can log on and off correctly.	<u>Text</u> Get quicker at typing with both hands. • Use a variety of font sizes, styles and colours	<u>Text</u> • Confidently type with both hands and use text effects discussing choices.

computer. • I can create shapes and text on a screen. • I can use technology to show my learning.	• I can a word bank on my device to enter text. • Use spacebar, backspace, delete, arrow keys, return. • Start to use two hands when typing. • Word process short texts to present. Graphics Use ICT to generate ideas for their work. Use various tools such as brushes, pens, rubber, stamps, shapes.	to increase its effectiveness. • Align text left, right and centre. • I can use a keyboard confidently and make use of a spellchecker to write and review my work. Graphics Acquire, store and combine images from cameras or the internet for a purpose. Use the print screen function to capture an image. Select certain areas of an image and resize, rotate and invert the image. Edit pictures using a range of tools in a graphics program.	Graphics • I can create, modify and present images within my work explaining my choices I can evaluate my work and improve its effectiveness.

Multimedia
(Digital art, animations, film making, music creation)

Shows an interest in technological toys with knobs or pulleys, or real objects such as cameras or mobile phones. I can tell you about different kinds of information such as pictures, video, text and sound.	• I can be creative with different technology tools. • I can use technology to organise and present my ideas in different ways. Sound recording Record sound at and away from a computer. Use software to record sounds. Change sounds recorded. Save, retrieve and edit sounds. Video Capture Discuss which videos to keep and which to delete. Arrange clips to create a short film. Add a title and credits.	• I can use photos, video and sound to create an atmosphere when presenting to different audiences. • I am confident to explore new media to extend what I can achieve. • I can create different effects with different technology tools. • I can give constructive feedback to my friends to help them improve their work and refine my own work. Sound recording Create own sound records Manipulate to achieve a desired effect Video Capture Capture video for a purpose. Choose which	• I can talk about audience, atmosphere and structure when planning a particular outcome. • I can combine a range of media, recognising the contribution of each to achieve a particular outcome. • I can use the skills I have already developed to create content using unfamiliar technology. • I can be digitally discerning when evaluating the effectiveness of my own work and the work of others. Sound recording Collect audio from a variety of resources including own recordings and internet clips.

		clips to keep and which to discard. Trim and arrange clips to convey meaning. Add titles, credits, slide transitions, special effects.	Create a multi-track recording using effects. Video Capture Storyboard and capture videos for a purpose. Plan for the use of special effects and transitions. Trim, arrange and edit audio levels to improve quality of their outcome. Export their video.
Data and Communication *(Data collection & presentation e.g. graphs, databases, spreadsheets / email / presenting e.g. PowerPoint)*			
Knows that information can be retrieved from computers. • I can talk about the different ways in which information can be shown. • I can sort different kinds of information and present it to others. • I can add information to a pictograph and talk to you about what I have found out.	• I talk about the different ways I use technology to collect information, including a camera, microscope or sound recorder. • I can make and save a chart or graph using the data I collect. • I can talk about the data that is shown in my chart or graph. • I am starting to understand a branching database. • I can tell you what kind of information I could use to help me investigate a question. • Use a range of applications and devices in order to communicate ideas, work and messages.	• I can organise data in different ways. • I can collect data and identify where it could be inaccurate. • I can use and add to a ready-made database to answer questions. • I can plan, create and search my own database. • I can use a data logger to monitor changes and can talk about the information collected. • I can choose the best way to present data to my friends. • Use some of the advanced features of applications and devices in order to communicate ideas, work or messages professionally.	• I can use a spreadsheet and database to collect and record data. • I can select the most effective tool to collect data for my investigation. • I can check the data I collect for accuracy and plausibility. • I can present data in an appropriate way. • I can interpret the data I collect. • I can search a database using different operators to refine my search. • I use the skills I have developed to interrogate a database. • Choose the most suitable applications and devices for the purposes of communication. • Use many of the advanced features in order to create high quality, professional or efficient communication.