

	KNOWLEDGE	SKILLS	OUTCOMES
Year 3 Computer science	<p>General ICT skills and Word processing</p> <p>Know the parts of a computer</p> <p>Know how to switch the computer on and off know how to Log on and off (sign in sign out)</p> <p>Know what the desktop is Know the buttons on the mouse</p> <p>Know some of the icons on the desktop and how to use the mouse to open them</p> <p>Know where the letters and numbers are on the keyboard</p> <p>Know I can type with multiple fingers on both hands</p> <p>Know the function of some additional keys (space, enter, shift, caps lock, backspace)</p> <p>Know what a word processor is</p> <p>Know how to change from lower case to capital letters</p> <p>Know how to change the font</p> <p>Know how to change the size of font</p> <p>Know how to underline text</p> <p>Know how to use bullet points</p> <p>Know how to align text</p> <p>Know how to make the text bold or italic</p> <p>Know how to save work</p> <p>Know how to retrieve their work from last week</p> <p>Know how to search for an image online</p> <p>Know how to copy an image</p> <p>Know how to paste an image</p>	<p>Will be able to turn the computer on</p> <p>Will be able to log in and sign out</p> <p>Will be able to use a mouse with increasing accuracy</p> <p>Will be able to type with increasing speed and accuracy</p> <p>Will be able to use the shift, caps lock and change case buttons to change the case of letters and words.</p> <p>Will be able to highlight text using bold, italic and underline buttons.</p> <p>Will be able to move text using the align left, right and centre buttons.</p> <p>Will be able to insert an image</p> <p>Will be able to save a document</p> <p>Will know how to print a document</p>	<p>ALL</p> <p>Can turn on a computer.</p> <p>Can log on to the school network with support.</p> <p>Can follow clear instructions to find programs on the desktop.</p> <p>Can type using both hands with some accuracy</p> <p>Can change some features and effects on a word processing program</p> <p>Can copy and paste an image into word with support.</p> <p>Can save their work</p> <p>Can print their work</p> <p>MOST</p> <p>Knows the difference between shutting down and turning off the computer</p> <p>Can log on to the school network independently.</p> <p>Can independently open programs used in lessons.</p> <p>Can type using both hands with increasing speed and accuracy</p> <p>Can change a range of different effects in a word processing program</p> <p>Can copy and paste an image into word and begin to format it</p> <p>Can print a document using the default settings.</p> <p>Can save and reopen their work</p> <p>SOME</p> <p>Can explain the difference between shutting down and turning off the computer and demonstrate both.</p> <p>Can log on to the school network independently and can explain to others what they need to do.</p> <p>Can find specific programs by searching the desktop independently.</p> <p>Can print a document in colour or black and white.</p> <p>Can insert an image into word using copy and paste of the 'insert' button and can format the size and position of the image.</p> <p>Can save, rename and reopen their work</p>
Year 3 Computer science	<p>E-safety/ RHE</p> <p>I know why people use the internet as part of their lives</p> <p>I know the benefits of using the internet</p> <p>I know that the internet can be a negative place and it can impact our mental health</p> <p>I know ways of communicating online</p>	<p>Identify cyberbullying</p> <p>Identify suspicious signs in an email</p> <p>Writing and sending emails</p> <p>Communicate safely and responsibly online</p>	<p>ALL</p> <p>Know one good and bad thing about using the internet</p> <p>Know how the internet can negatively effect our wellbeing</p> <p>Know that we use email and instant messages to communicate online</p> <p>Know how some people can be unkind on the internet</p> <p>Know how to be kind communicating on the internet.</p> <p>know to a safe person to tell if they encounter hurtful comments on messages online;</p> <p>Know what personal information is and what to keep private;</p> <p>Know how to create a strong password;</p> <p>Know what privacy settings are;</p>

	<p>(email, blog, instant messaging and video calling) I know some positive and negative aspects of online communication I know how to communicate respectfully online I know how online actions can impact other people and their feelings. I know how to respond to a hurtful message or comment online. I know where and how to address any concerns I have online I know the importance of keeping personal information private I know what personal information is I know what a password is and why it is important I know how to create a strong password. I know what privacy settings are and why they are important.</p>		<p>MOST Know the positive and negative aspects of using the internet Know how the internet can negatively effect our wellbeing identify and explain different forms of online communication; Know some of the benefits and disadvantages of communication online; explain the differences between communication in real life and online; Know how some people can be unkind on the internet Know how to be kind communicating on the internet; know to a safe person to tell if they encounter hurtful comments on messages online; Know what personal information is and what to keep private; They can explain why you need keep personal information private; Know how to create a strong password, explaining why it is important; Know what privacy settings are and how to use them safely; SOME Know the positive and negative aspects of using the internet Know how the internet can negatively effect our mental wellbeing; identify and explain different forms of online communication; Know some of the benefits and disadvantages of communication online; explain the differences between communication in real life and online; Know how some people can be unkind on the internet and the affect it has; Know how to be kind communicating on the internet; give examples of people they can report hurtful comments on messages to and explain why they are good choices; Know what personal information is and what to keep private; They can explain why you need keep personal information private; Know how to create a strong password, explaining why it is important and giving tips to help others create a strong password; Know what privacy settings, why they are important and how they can be used safely;</p>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Year 3 Programming</p>	<p>Programming – Scratch (dressing up) I know who Ada Lovelace is I know what an algorithm is I know what a sprite is I know what coding is I know how to choose a sprite, duplicate its costume and change the colour of its items of clothing. I know what a block of code is I can make a block of code I can copy a block of code I know what the term bug means in computing I know how to use the selection tool to code changes I know how to design, edit and code my sprite I know what import means</p>	<p>I can choose a sprite and alter its appearance I can use code to make something change I can import different backgrounds I can use code to change the backgrounds</p>	<p>ALL Can select a sprite Can modify a sprite’s appearance with support. Can choose a background Can write a simple algorithm using a pre-selected blocks. Can code a sprite to react to a mouse click. Can use code to change a sprites colour Can use code to change a sprites costume MOST Can modify a sprite’s appearance independently. Can draw their own accessories onto a sprite Can add additional accessories for a sprite Can import a background Can write a simple algorithm using a pre-prepared plan. Can code a sprite to react to a mouse click. Can duplicate code Can use repeat loops in algorithms. Can begin to recognise errors in code (bugs) SOME Can modify a sprite’s appearance and create new sprites independently. Can write a simple algorithm.</p>

	<p>I know how to import backgrounds</p> <p>I know how to code to change the background</p> <p>I know what a pause does in a sequence</p> <p>I know how to code a pause into a sequence</p> <p>I know how to create and debug a simple program</p>		<p>Can code a sprite to react to a mouse click or a keystroke Creating a sequence of instructions that follow each other contained in one block</p> <p>Can duplicate blocks from code provided and can explain in their own words what it does.</p> <p>Can import a background.</p> <p>Can recognise bugs in code and begin to fix them.</p> <p>Can explain the function of repeat loops in algorithms.</p>
Year 3 Programming	<p>Programming- scratch (conversation)</p> <p>Know what an algorithm is</p> <p>Know what a wait block is</p> <p>Know how to write an algorithm with a wait block</p> <p>I know how to turn an algorithm into code</p> <p>I know what d-bugging means</p> <p>I know if my code has a bug</p> <p>I know how to debug my code</p> <p>I know how to change the background</p> <p>I know how to move the sprites</p> <p>I know how to edit the appearance of a sprite</p> <p>I know how to make the spite disappear</p> <p>I know how to make the sprite change size</p>	<p>Be able to write an algorithm with a wait code</p> <p>Be able to code two sprites to have a conversation</p> <p>Be able to change the position and appearance of a sprite</p>	<p>ALL</p> <p>Write a simple algorithm</p> <p>Turn that algorithm into code</p> <p>Program a wait block into the code</p> <p>Code a sprite to speak</p> <p>Identify if a code doesn't work</p> <p>MOST</p> <p>Write an algorithm with a wait block</p> <p>Turn the algorithm into a code</p> <p>Understand the purpose of the wait block in a conversation</p> <p>Program two sprites to speak at different times</p> <p>Change the background</p> <p>Edit the appearance of the sprite</p> <p>Identify errors in code</p> <p>Begin to correct errors in code</p> <p>SOME</p> <p>Create and extended algorithm with a wait block and explain the purpose of the wait block</p> <p>Turn the algorithm into code</p> <p>Program two or more spites to have a conversation</p> <p>Program the sprites to wait and speak in turn</p> <p>Import different backgrounds</p> <p>Edit and enhance the appearance and movement of the sprites</p> <p>Identify errors in code and de-bug them efficiently</p>
Year 3 Information Technology	<p>Using the internet</p> <p>I know I can search for information on the internet</p> <p>I know how to search for information on the internet</p> <p>I know how the internet ranks information I search</p> <p>I know what it means to search safely</p> <p>I know what web browsers are safe to use</p> <p>I know how to search safely</p> <p>I know how to use key words to search for information</p> <p>I know why I can bookmark a web page</p> <p>I know how to bookmark a web page</p> <p>I know how to create a bookmarks folder</p> <p>I know how to research a question of my own</p> <p>I know how to find a website that answers my question</p>	<p>Can search safely and effectively for information</p> <p>Can bookmark a page of interest to use at a later date</p> <p>Can find relevant results for their question</p> <p>Can use the results they find in an information page</p> <p>Can make their information page attractive and clear</p>	<p>ALL</p> <p>Can use a search engine to find basic information.</p> <p>Can bookmark a page with support.</p> <p>Can search for an image with support.</p> <p>Can use some information they have found in a fact file.</p> <p>MOST</p> <p>Can explain what a search engine is used for.</p> <p>Can bookmark a page independently.</p> <p>Can search for an image and use copy and paste to retrieve it.</p> <p>Can use information they have researched to create a fact file.</p> <p>SOME</p> <p>Can explain what a search engine is used for and how to effectively search using keywords.</p> <p>Can create bookmarks and organise them into folders.</p> <p>Can search for an image and use more than one method to retrieve it from a webpage (scrnprt or snipping tool).</p> <p>Can use information they have researched in their own words to create an attractive fact file.</p>

	<p>I know how to use information I have found in my own work</p> <p>I know what to do if I come across a nasty image</p> <p>I know how to copy an image from the internet</p> <p>I know how to add a caption to an image</p> <p>I know how to make my factsheet attractive and clear</p>		
<p style="text-align: center;">Year 4 Computer science</p>	<p>Basic ICT skills</p> <p>Know the parts of a computer</p> <p>Know how to switch the computer on and off</p> <p>know how to Log on and off (sign in sign out)</p> <p>Know what the desktop is</p> <p>Know the buttons on the mouse</p> <p>Know some of the icons on the desktop and how to use the mouse to open them</p> <p>Know where the letters and numbers are on the keyboard</p> <p>Know I can type with multiple fingers on both hands</p> <p>Know the function of some additional keys (space, enter, shift, caps lock, backspace)</p> <p>Know how to save work</p> <p>Know how to retrieve their work from last week</p> <p>Know how to search for an image online</p> <p>Know how to copy an image</p> <p>Know how to paste an image</p> <p>know how to choose a layout on PP</p> <p>know how to change and insert text on PP</p> <p>Know how to insert and edit photos on PP</p> <p>Know how to add animations on PP</p> <p>Know how to add transitions on PP</p>	<p>Will be able to use a mouse with increasing accuracy</p> <p>Will be able to type with increasing speed and accuracy</p> <p>Will be able to use the shift, caps lock and change case buttons to change the case of letters and words.</p> <p>Will be able to highlight text using bold, italic and underline buttons.</p> <p>Will be able to move text using the align left, right and centre buttons.</p> <p>Will be able to insert an image</p> <p>Will be able to save a document</p> <p>Will be able to choose a preferred layout on pp</p> <p>Will be able to insert and edit text and images on PP</p> <p>Will be able to create an interesting slide show with transitions and animations</p>	<p>ALL</p> <p>Can log on to the school network with support.</p> <p>Can follow clear instructions to find programs on the desktop.</p> <p>Can type using both hands with some accuracy</p> <p>Can change some features and effects in PowerPoint</p> <p>Can copy and paste an image into PP with support.</p> <p>Can save their work</p> <p>MOST</p> <p>Knows the difference between shutting down and turning off the computer</p> <p>Can log on to the school network independently.</p> <p>Can independently open programs used in lessons.</p> <p>Can type using both hands with increasing speed and accuracy</p> <p>Can change a range of different effects in PowerPoint</p> <p>Can copy and paste an image into PP and begin to format it</p> <p>Can save and reopen their work</p> <p>SOME</p> <p>Can log on to the school network independently and can explain to others what they need to do.</p> <p>Can find specific programs by searching the desktop independently.</p> <p>Can insert an image into word using copy and paste of the 'insert' button and can format the size and position of the image.</p> <p>Can save, rename and reopen their work</p> <p>Can insert a range of animations and transitions to their presentation</p>

<p style="text-align: center;">Year 4 Computer science</p>	<p>E SAFETY/ RHE</p> <p>I know how to recognise cyberbullying.</p> <p>I know who to tell if I encounter cyberbullying.</p> <p>I know how the impact cyber bullying can have on our mental health and well being</p> <p>I know what a bystander is and what to do to support someone who is being cyber-bullied</p> <p>I know what a search engine is</p> <p>I know how an online search works.</p> <p>I know how to search for specific information effectively and safely online</p> <p>I know that not everything online is trustworthy</p> <p>I know what how to identify whether information online is reliable</p> <p>I know how to keep myself safe online.</p> <p>I know how to keep myself emotionally safe online.</p> <p>I know where and how to report concerns and get support with issues online</p>	<p>Identify and respond safely to cyber-bullying</p> <p>Know how to use search engines effectively and safely</p>	<p>ALL</p> <p>Know what cyber bullying</p> <p>Know to tell an adult if they are being cyberbullied</p> <p>Know what a bystander is</p> <p>Know that cyber-bullying can make someone upset, angry, sad, scared</p> <p>Know that a search engine helps us find information on the internet and can name an example of one.</p> <p>Choose an appropriate number of words for a search term.</p> <p>Knows that not everything you see online is reliable</p> <p>Know how to keep themselves safe on line including who and where to report concerns to.</p> <p>MOST</p> <p>Know what cyber bullying is and the signs of it</p> <p>Know what to do when someone is being cyberbullied including the role of a bystander</p> <p>Know some of the effects cyber-bullying can have on your mental health</p> <p>Understand what a search engine is and that search results are ranked.</p> <p>Choose an appropriate number of words for a search term.</p> <p>Knows that not everything you see online is reliable and know some strategies for spotting what is fake and real.</p> <p>Know how to keep themselves safe on line including who and where to report concerns to.</p> <p>SOME</p> <p>Know what cyber bullying is and can explain examples of it</p> <p>Know what to do when someone is being cyberbullied including the role of a bystander</p> <p>Can explain the effects cyber-bullying can have on your mental health</p> <p>Understand what a search engine is and that search results are ranked.</p> <p>Knows what tracking is.</p> <p>Choose an appropriate number of words for a search term.</p> <p>Knows that not everything you see online is reliable and can explain strategies for spotting what is fake and real.</p> <p>Know how to keep themselves safe on line including who and where to report concerns to.</p>
<p style="text-align: center;">Year 4 Programming</p>	<p>Programming – Scratch Music Machine</p> <p>Know what programming and coding is.</p> <p>Know and understand what an algorithm is.</p> <p>Know how to debug a simple program.</p> <p>know what a coding sequence and repetition are</p> <p>know what input and output mean</p> <p>Know how to create a simple program.</p> <p>Know how to code a mouse click as an input.</p> <p>I know how to code a button to play sounds</p> <p>I know how to code a</p>	<p>Pupils create simple buttons which play different sounds when they are clicked with the left mouse button.</p> <p>Sounds are created using sequences of notes, repeat loops and imported sounds.</p>	<p>ALL</p> <p>Create programs that still contain bugs, not be confident describing sequences of code, use mostly strings of individual blocks and need to use support materials.</p> <p>MOST</p> <p>Create a program with buttons that play sequences of notes or imported sounds. Sequences will use strings of individual blocks, repeat loops and may include instrument, volume and tempo blocks. They should also be able to describe the order blocks in a sequence will be played and debug their own code.</p> <p>SOME</p> <p>Create a program that may also include a flashing background, volume/tempo controls or a button to stop it playing. Sequences will use strings of individual blocks; repeat loops; instrument, volume and tempo blocks and may show creative use of imported sounds. They should also be able to confidently describe the order blocks in a sequence will be played and debug their own code independently.</p>

	<p>sequence of notes</p> <p>I know how to code a sequence of drums</p> <p>I know how to code multiple sequences alongside each other</p> <p>I Know how to code a repeat loop command.</p> <p>I know how to use a set tempo to block in my code</p> <p>I know how to change the type of note using the instrument block</p> <p>I Know how to use a set volume to block on one instrument</p> <p>I know how to create a sequence that includes an imported sound</p> <p>I know how to create a sequence that uses a play sound and a play sound until block</p> <p>I know who Alan Turing is and his importance in computing.</p>		
<p style="text-align: center;">Year 4 Programming</p>	<p>Programming – Scratch Smoking car</p> <p>I know what decomposition is.</p> <p>I know new logical language</p> <p>I know how to use logical language.</p> <p>I know how to code a sprite to change direction using the arrow keys.</p> <p>I know how to code a sprite to move using a keyboard key.</p> <p>I know how to draw a simple background.</p> <p>I know how to make the backgrounds rotate using a keyboard press.</p> <p>I know how to code the pen to go up and down with keyboard presses.</p> <p>I know how to code a key to clear all pen drawings.</p> <p>I know how to make a title page using a sprite</p> <p>I know how to make a sprite appear and disappear from view.</p>	<p>To be able to code a sprite to move in different directions</p> <p>To be able to create a background and make it move</p> <p>To be able to use code to draw an image</p> <p>To be able to erase their drawing with code</p> <p>To be able to make a sprite disappear and reappear</p>	<p>ALL</p> <p>Know some new vocabulary. Create a program where the sprite is directed around the screen using the keyboard with some bugs. They will have created a background with support and may have included some code for the pen tool.</p> <p>MOST</p> <p>Know some vocabulary and begin to use it when discussing their work. Create a program where a sprite is directed around the screen using keyboard inputs. They will have created more than one background that you can rotate using a keyboard input. They will also have code that allows the turning on, off and clearing of the pen tool. They may or may not include a title screen.</p> <p>SOME</p> <p>Know new vocabulary and use it with confidence when discussing and explaining their work. Create a program that will also include a title screen with clear instructions for the game that appears when the game is run and the disappears after a few seconds. They may have multiple backgrounds of their own design.</p>

<p style="text-align: center;">Year 4 Information technology</p>	<p>Using the internet-networks I know what a network is I know that information moves around the school network via the internet and cables I know what the internet is I know what happens when I make a search on the internet I know who Tim Berners-Lee is and his contribution to the development of the internet I know how information is passed across the internet I know what a digital footprint is. know how to choose a layout on PP know how to change and insert text on PP Know how to insert and edit photos on PP Know how to add animations on PP Know how to add transitions on PP Know how to use the internet safely to research Know how to use information in a presentation</p>	<p>Will be able to use a mouse with increasing accuracy Will be able to type with increasing speed and accuracy Will be able to use the shift, caps lock and change case buttons to change the case of letters and words. Will be able to highlight text using bold, italic and underline buttons. Will be able to move text using the align left, right and centre buttons. Will be able to insert an image Will be able to save a document Will be able to choose a preferred layout on pp Will be able to insert and edit text and images on PP Will be able to create an interesting slide show with transitions and animations Will be able to research efficiently Will be able to present their work</p>	<p>ALL Have simplistic understanding of the connections in the school network. Understand that the internet is a web of computers that are connected by wires across the world. Know that we leave a digital footprint from the things we search. Can type using both hands with some accuracy Can change some features and effects in PowerPoint Can copy and paste an image into PP with support. Can save their work Can use the internet to research with support.</p> <p>MOST Be able to explain the role of a server, switch and router in a computer network. Know that data is split into packets that can take different routes. Understand that we can leave a digital footprint online that others can trace. Can type using both hands with increasing speed and accuracy Can change a range of different effects in PowerPoint Can copy and paste an image into PP and begin to format it Can save and reopen their work Can present their information Can use the internet to research</p> <p>SOME They will be able to explain the role of different parts of a computer network. Be able to explain how data might move through a network when users perform actions like logging on, opening and printing a document. Explain a number of ways we leave a digital footprint online and how others can trace it. Can insert an image into word using copy and paste of the 'insert' button and can format the size and position of the image. Can save, rename and reopen their work Can insert a range of animations and transitions to their presentation Can present their work with confidence Can use the internet efficiently to research information</p>
<p style="text-align: center;">Year 5 Computer science</p>	<p>Basic ICT skills Know the parts of a computer Know how to switch the computer on and off know how to Log on and off (sign in sign out) Know what the desktop is Know the buttons on the mouse Know some of the icons on the desktop and how to use the mouse to open them Know where the letters and numbers are on the keyboard Know I can type with multiple fingers on both hands Know the function of some additional keys (space, enter,</p>	<p>Will be able to use a mouse with increasing accuracy Will be able to type with increasing speed and accuracy Will be able to use the shift, caps lock and change case buttons to change the case of letters and words. Will be able to highlight text using bold, italic and underline buttons. Will be able to move text using the align left, right and centre buttons. Will be able to insert an image Will be able to save a document</p>	<p>ALL Can log on to the school network. Can follow clear instructions to find programs on the desktop. Can type using both hands with some accuracy Can change some features and effects in PowerPoint Can copy and paste an image into PP with support. Can save and reopen their work</p> <p>MOST Knows the difference between shutting down and turning off the computer Can independently open programs used in lessons. Can type using both hands with increasing speed and accuracy Can change a range of different effects in PowerPoint Can copy and paste an image into PP and begin to format it Can save and reopen their work</p> <p>SOME Can explain when and why we shut down/sign out of the computers Can find specific programs by searching the desktop independently.</p>

	<p>shift, caps lock, backspace) Know how to save work Know how to retrieve their work from last week Know how to search for an image online Know how to copy an image Know how to paste an image know how to choose a layout on PP know how to change and insert text on PP Know how to insert and edit photos on PP Know how to add animations on PP Know how to add transitions on PP</p>	<p>Will be able to choose a preferred layout on pp Will be able to insert and edit text and images on PP Will be able to create an interesting slide show with transitions and animations</p>	<p>Can insert an image into PP using copy and paste of the 'insert' button and can format the size and position of the image. Can save, rename and reopen their work Can insert a range of animations and transitions to their presentation Can deliver a well organised and presented PP</p>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Year 5 Computer science</p>	<p>E-Safety/ RHE I know the risks of spending too much time online on my physical and mental wellbeing. I know how to ration the time I spend online to improve my physical and mental health. I know what email is and what it is used for. I know the signs of a suspicious email. I know what a SPAM email is and its dangers I know how to identify spam emails and what to do with them. I know how to write and send an email I know what information is safe to share on line. I know what personal information should be kept private. I know how to identify a safe website I know how to look for changes that have been made to an original photograph. I know that not everything I see online is true. I know how false photographs can make people feel bad about themselves. I know how to recognise how images in the media (and</p>	<p>Identifying suspicious emails. Sending safe emails Identifying safe websites Identifying manipulated photos.</p>	<p>ALL Know a risk of spending too much time online on their physical and mental wellbeing Know that it is importance to limit the time we spend online Know what email is Know some signs of a spam email. Know what to do with a spam email. Know not everything the see online is true. Know that photographs can be altered Know online images and advertising can make us feel sad about ourselves MOST Know some risks of spending too much time online on their physical and mental wellbeing Know some ways they can ration the time they spend online Know what email is and how it is used. Can identify suspicious and SPAM and explain some dangers of spam email. Know what information can be shared online and what information to keep private Know 3 ways to identify a safe website. Understand that not everything we see online is true Explain how photographs can be altered and why they might have been altered Know online images and advertising can negatively impact our mental wellbeing SOME Know a range of risks of spending too much time online on their physical and mental wellbeing Know a range of ways they can ration the time they spend online Can explain the benefits of using email and why people use email. Identify SPAM and explain the dangers of spam email. Explain some steps to take to avoid receiving spam email and what to do if you do receive SPAM Can explain the importance of keeping personal information private Know ways to identify a safe website and how to recognise fake ones. Understand that not everything we see online is true</p>

	<p>online) do not always reflect reality</p> <p>I know how to recognise how images in the media can affect how people feel about themselves</p> <p>I know who to where and how to get support with online issues.</p>		<p>Explain how photos can be altered and why we might do this</p> <p>Know online images and advertising can negatively impact our mental wellbeing</p>
<p>Year 5 Programming</p>	<p>Programming scratch</p> <p>Crab Maze</p> <p>I know who Grace Hopper is</p> <p>I know what the term 'decompose' means</p> <p>I know how to decompose a computer program</p> <p>I know what a forever loop does</p> <p>I know how to use a forever loop to make my crab look like it is opening and closing its claws</p> <p>I know what conditional selection means</p> <p>I know how to make my crab move when the game starts</p> <p>I know how to make my crab steer when I press a key on the keyboard</p> <p>I know how to design a maze with a start and finish</p> <p>I know how to make mazes where all the walls are the same colour</p> <p>I know what a spawn point is</p> <p>I know how to make the game stop when the crab touches the maze wall</p> <p>I know how to use coordinates to make a spawn point so the crab starts at the starting point</p> <p>I know how to make the game change level when the crab touches the finish colour</p> <p>I know how to make a coin that can be picked up by the crab increasing the score</p> <p>I know how I might make a game like this myself</p>	<p>Children can draw a maze</p> <p>Children can create a program to steer a crab around a maze using keys on the keyboard.</p> <p>Children can code when the crab touches the walls of the maze the game ends.</p> <p>Children can use coordinates to program their sprite to move to a certain point when the game ends.</p> <p>Children can add scoring coins using a variable to hold the score.</p>	<p>ALL</p> <p>Draw their own maze</p> <p>Can code the sprite across the screen.</p> <p>Can use a repeat loop</p> <p>Create a simple program that may still have bugs.</p> <p>Can begin to verbalise some understanding of the coordinates</p> <p>MOST</p> <p>Create their own maze</p> <p>Can code their sprite to move efficiently around the maze</p> <p>can use different code and algorithms</p> <p>can create a simple program and begin to debug errors</p> <p>understands the use of coordinates and programs a sprite to spawn to a specific point</p> <p>SOME</p> <p>Can draw different levels of mazes</p> <p>con confidently use a range of code commands and algorithms</p> <p>can program the game to end if the sprite touches a wall then use coordinates to respawn the sprite in a desired location</p> <p>Can include coins and scoring to their program.</p> <p>May also create a plan for a similar game of the own design.</p> <p>Can debug errors in their code</p>
<p>Year 5 Programming</p>	<p>We are artists</p> <p>I know what a tessellation is</p> <p>I know how to draw simple shapes using word</p> <p>I know how to duplicate shapes in Inkscape or word</p>	<p>use a computer to create artistic designs.</p> <p>use built in features to enhance compositions.</p>	<p>ALL</p> <p>Be able to efficiently use a vector-based drawing program to create a simple tessellation.</p> <p>Be able to copy code into scratch to create repeating shape patterns.</p> <p>Be able to create a tessellation in the style of Bridget Riley.</p> <p>MOST</p>

	<p>I know how to create lines in a computer aided programme (Inkscape)</p> <p>I know how to create a complex shape which will tessellate</p> <p>I know who Bridget Riley is</p> <p>I know to apply filters to my artwork</p>		<p>Be able to efficiently use a vector-based drawing program to create a simple tessellation.</p> <p>Be able to efficiently use a vector-based drawing program to create a more complex tessellation.</p> <p>Be able to use scratch to create patterns out of repeating shapes.</p> <p>Be able to create a tessellation in the style of Bridget Riley.</p> <p>SOME</p> <p>Be able to efficiently use a vector-based drawing program to create a simple tessellation.</p> <p>Be able to efficiently use a vector-based drawing program to create a more complex tessellation.</p> <p>Be able to use scratch to create patterns with dynamic variables (size, colour, shade) out of repeating shapes.</p> <p>Be able to create an aesthetically pleasing tessellation in the style of Bridget Riley.</p>
<p>Year 5</p> <p>Information technology</p>	<p>We are Photographers</p> <p>E-SAFETY RECAP: I know how to look for changes that have been made to an original photograph.</p> <p>I know a famous photographer</p> <p>I know the features of a good photograph</p> <p>I know key vocabulary linked to photography (focus, angle, zoom, crop)</p> <p>I know how to use a digital camera</p> <p>I know how to upload photographs to a computer</p> <p>I know how to apply an effect to a photograph</p> <p>I know how to crop a photograph</p> <p>I know what a photo collage is</p> <p>I know how to insert photographs into a document</p> <p>I know how to add borders to frame photographs</p> <p>I know what powerpoint is</p> <p>I know how to add images to a powerpoint presentation</p> <p>I know how to include different transitions</p>	<p>To be able to recognise features of a quality photo</p> <p>To be able to take a digital photo.</p> <p>To be able to upload a digital photo.</p> <p>To be able to edit a digital photo.</p> <p>To be able to present a collection of digital photos.</p>	<p>ALL</p> <p>Be able to take a photograph</p> <p>Upload some photos to the computer</p> <p>begin to explore ways to edit a photograph on a computer program</p> <p>sort their photos into a simple presentation to show to others</p> <p>MOST</p> <p>Take a good photo on a camera</p> <p>Upload multiple photos to a computer file</p> <p>use imaging editing software to enhance their photos</p> <p>use a range of filters and effects to produce more effective images</p> <p>present their work in a slide show with some transitions to gain the viewers interest</p> <p>SOME</p> <p>Take steady photographs</p> <p>upload photos to a computer file</p> <p>use imaging editing software to enhance their photos select specific filters and effects to produce more effective images</p> <p>explain how particular effects have been achieved in their work or might have been achieved in the works of others.</p> <p>present their work in a slideshow with a range of transitions to maintain the viewers interest</p>
<p>Year 6</p> <p>Computer science</p>	<p>General ICT skills</p> <p>Know how to use a spreadsheet to record data</p> <p>Know how to use a formula to add two cells</p> <p>Know how to use a formula to multiply two cells</p> <p>Know how to use a formula to add up multiple numbers</p> <p>Know how to use a drag</p>	<p>enter data into cells</p> <p>enter data and formulae into cells, modify the data, make predictions of changes and check results</p> <p>use 'SUM' function</p> <p>create and use a spreadsheet to produce</p>	<p>ALL</p> <p>Can enter data and formulae into a spreadsheet with guidance</p> <p>Can use 'SUM' function with guidance</p> <p>Can create a spreadsheet</p> <p>MOST</p> <p>Can enter data into a spreadsheet</p> <p>Can enter data and formulae into cells, modify the data, make predictions of changes and check results</p> <p>Can use 'SUM' function</p>

	<p>selection to auto complete a column</p> <p>Know how to make a column chart to show profit</p> <p>Know how to make my spreadsheets look clear and attractive</p>	<p>costings which are within budget</p>	<p>Can create a spreadsheet to produce costings which are within budget</p> <p>SOME</p> <p>Confidently and independently enter data into a spreadsheet</p> <p>Can independently enter data and formulae into cells, modify the data, make predictions of changes and check results</p> <p>Can use 'SUM' function and explain clearly what it does</p> <p>Can create an appealing spreadsheet to produce costings which are within budget</p>
<p>Year 6</p> <p>Computer science</p>	<p>E-Safety/ RHE</p> <p>I know why someone might have an online friendship.</p> <p>I know what personal information is and why it should be kept private.</p> <p>I know some of the dangers of revealing personal information to an online friend.</p> <p>I know how to keep myself safe when communicating with an online friend.</p> <p>I know what bullying and cyberbullying are.</p> <p>I know how the impact cyber bullying can have on our mental health and physical well being</p> <p>I know ways in which people could address cyberbullying.</p> <p>I know what a stereotype is</p> <p>I know how a stereotype can be unfair, negative or destructive.</p> <p>I know how to identify a gender stereotype in an online media message.</p> <p>I know what an age restriction</p> <p>I know age restrictions for some computer games and social media sites.</p> <p>I know why age restrictions are used to keep children safe.</p> <p>I know what a citation is</p> <p>I know why it is important to cite a source.</p> <p>I know how to cite a website.</p>	<p>Identifying warning signs when communicating with another person online.</p> <p>Identifying and reacting to cyberbullying.</p> <p>I can recognise stereotypes and the negative impact this can have</p> <p>Know how to cite websites used</p>	<p>ALL</p> <p>Know one positive and one negative of having an online relationship.</p> <p>Identify personal information.</p> <p>Explain some dangers of revealing personal information to an online friend.</p> <p>Say what bullying and cyberbullying are.</p> <p>Understand why they should ask an adult if they are worried about cyber bullying.</p> <p>Understand what a stereotype is.</p> <p>Know what age restrictions are and how they keep us safe</p> <p>Know what plagiarism is.</p> <p>MOST</p> <p>Know the positives and negatives of having an online friendship</p> <p>Understand why certain information should be kept private</p> <p>Identify cyber bullying and offer an effective suggestion of what to do</p> <p>Identify a gender stereotype and discuss the impact this can have on someone</p> <p>Know why computer games and social media have age restrictions and how they keep us safe</p> <p>Know the importance of using citations and what plagiarism is.</p> <p>SOME</p> <p>Explain why people have online relationships and how they can be negative.</p> <p>Reason why certain information should be kept private</p> <p>Explain what certain information is safe to be public</p> <p>Explain the equivalence between online and in person bullying.</p> <p>Offer good advice to someone who may be experiencing cyberbullying</p> <p>Identify gender stereotyping in a media message.</p> <p>Understand and explain the impact stereotyping can have on mental health</p> <p>Know why computer games and social media have age restrictions and how they keep us safe</p> <p>Know the importance of using citations and what plagiarism is.</p>
<p>Year 6</p> <p>Programming</p>	<p>Scratch Maths quiz</p> <p>know what programming and coding is.</p> <p>Know and understand what an algorithm is.</p> <p>Know how to create a simple program.</p>	<p>To include a welcoming block of code to a game</p> <p>To program questions and answers</p> <p>To programme different responses to background and sound to correct or incorrect answers</p>	<p>ALL</p> <p>Create a quiz program that contains some bugs</p> <p>use code to ask and answer simple questions</p> <p>Can duplicate blocks of code</p> <p>Can add some sounds and change the background</p> <p>Will recognise an image of Steve Jobs</p> <p>MOST</p> <p>Program a maths quiz that asks multiple maths questions and responds with the sprite saying "correct" or "wrong" using if-else</p>

	<p>I know how to include a start block and a welcoming block of code</p> <p>I know how to ask and answer questions in code</p> <p>I know how to code maths questions</p> <p>Know how to code key press as an input.</p> <p>Know how to use conditional selection (if commands).</p> <p>know how to use and if-else selection block to make my sprite say correct or wrong</p> <p>I know how to duplicate blocks of code efficiently</p> <p>I know how I can test my code after making every question and fix (debug) any errors.</p> <p>Know what a variable is</p> <p>I know how to create a variable called score and use it to collect the score throughout the quiz</p> <p>I know how to change the background when the user gets the question correct</p> <p>I know how to take away a point if the user gets the question wrong</p> <p>I know how to add sounds if user gets question right or wrong</p> <p>Know who Bill Gates is and why he is important in computing</p>	<p>To programme a point scoring system</p>	<p>selection blocks. They will be able to duplicate blocks of code and use a variable to keep score. They may use a broadcast block to code the background to change after a correct answer.</p> <p>Know why Steve Jobs is an important figure</p> <p>SOME</p> <p>Create a program which may also take away points for incorrect answers, make a sound for correct answers, change the background if answer is wrong. They may go on to apply what they have learnt to begin making a new quiz of their own.</p> <p>Discuss who Steve Jobs is and explain how his contributions have developed computing and technology</p>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Year 6 Programming</p>	<p>Using technology – Animation</p> <p>To know what a stop-motion animation is.</p> <p>To know that stop-motion animation is made using a series of individual frames or pictures.</p> <p>To know how to storyboard an animation.</p> <p>To know how to create a backdrop/ scenery for an animation.</p> <p>To know how to use a digital camera.</p> <p>To know how to move a model in a stop motion animation.</p> <p>To know how to upload photos to a computer.</p>	<p>To be able to create a stop-motion animation using a 'stick-man' animation program.</p> <p>To be able to write a storyboard.</p> <p>To be able to make a backdrop/ scenery.</p> <p>To be able to use a digital camera.</p> <p>To be able to use a stop-motion animation program that uses pictures.</p> <p>To be able to use moviemaker to combine a video and audio track and export a single file.</p>	<p>ALL</p> <p>A simple animation that moves an object, might include unwanted hands in the clip/ jerky movements.</p> <p>MOST</p> <p>Create a stop-frame animation that gets characters to move in small increments. It will have simple scenery and may have background music or spoken audio.</p> <p>SOME</p> <p>A complex animation that relates a clear narrative. It could have good scenery, a good focus, can also include removal or adding tricks (Where things are taken away or added to create an effect, for eg sinking of Titanic by cutting layers of the ship off) May have titles. May also have sound edited using audacity.</p>

	To know how to combine video and audio clips.		
Year 6 Information technology	<p>Using technology - Excel</p> <p>Know how to use a spreadsheet to record data</p> <p>Know how to use a formula to add two cells</p> <p>Know how to use a formula to multiply two cells</p> <p>Know how to use a formula to add up multiple numbers</p> <p>Know how to make a pie chart</p> <p>Know how to make a pie chart to show costs</p> <p>Know how to use a drag selection to auto complete a column</p> <p>Know how to make a column chart to show profit</p> <p>Know how to use a formula to calculate percentages</p> <p>Know how to make my spreadsheets look clear and attractive</p>	<p>Be able to create a clearly presented spread sheet</p> <p>Be able to import data into graphs</p> <p>Be able to use formulas to add and multiply numbers in cells</p> <p>Be able to verbalise what their spread sheet represents</p>	<p>ALL</p> <p>Can use autocomplete to repeat a single value data with support.</p> <p>Can copy a simple formula into a spreadsheet.</p> <p>Can create a graph from spreadsheet data with support.</p> <p>Can change the colour of some cells in a spreadsheet.</p> <p>Can verbalise what their spread sheet shows</p> <p>MOST</p> <p>Can use autocomplete to repeat a single value data and incrementally increasing data with support.</p> <p>Can create a simple formula to calculate within a spreadsheet with support.</p> <p>Can create a variety of graph from spreadsheet data with support.</p> <p>Can change the colour of cells in a spreadsheet to make the data easier to read.</p> <p>Can explain what the data on the spread sheet represents</p> <p>SOME</p> <p>Can use autocomplete to repeat a single value data and incrementally increasing data independently.</p> <p>Can create a simple formula to calculate within a spreadsheet independently.</p> <p>Can create a variety of graphs from spreadsheet data independently.</p> <p>Can change the colour of some cells in a spreadsheet to make the data easier to read and aesthetically pleasing.</p> <p>Can explain in detail what their spread sheet represents and use it to inform others of profits made.</p>