



Knowledge - Computing

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
E Safety	<ul style="list-style-type: none"> • Know the safety rules with Digi-Duck. • Know who to talk to about inappropriate websites 	<ul style="list-style-type: none"> • Know that not everything on the internet is true. • Know not to share personal information, name address and why. • To understand the dangers of the internet and to be aware of what potential problems could be encountered. • To know not to talk to anyone they don't know. • To know not to enter personal details on any website • To know the dangers of being online and how to stay safe using strong passwords. • To know what to do in a situation when being online where they're unsure. (strangers speaking to them, pop ups, inappropriate adverts etc). • To know how the internet is used in wider society (variety 	<ul style="list-style-type: none"> • Safe • Meet • Accept • Reliable • Tell • Know that Blocks are in place in school to prevent children from seeing inappropriate content. • Know that Personal information is what makes us who we are, they are all true about a person. Clues about where we live or go to school should be kept private and not shared online. Passwords can stop people from accessing our personal account and should be generated using a mixture of capital, lower case letters and symbols such as !&* 	<ul style="list-style-type: none"> • To know the all SMART rules and how to apply them in school and online at home. • To know how to resolve online safety issues using SMART. • To know the importance of staying safe on the internet and dangers that could occur. • Know why blocks are important. • Know why there are age restrictions. • Know how to use strategies to stay safe online 	<ul style="list-style-type: none"> • Be able to locate keys on a keyboard • Know how to improve typing skills and speed through practise • Know shortcuts using a keyboard • Understand what SMART stands for S–Safe M–Meet A – Accepting R – Reliable T-Tell • Know the impact that sharing digital content can have. • Know the sources of support when using technology. • Know children's responsibility to one another in their behaviour. • Know how to maintain secure passwords. • 	<ul style="list-style-type: none"> • To know that cyber bullying is online and bullying is in person. • To know what a 'media stereotype' is. • To know that in the SMART acronym, S for safe, M for meeting, A for accepting, R for reliable, T for tell.



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		<ul style="list-style-type: none">• of jobs, online banking, shopping etc).	<ul style="list-style-type: none">• Cyberbullying is a word often used to <i>describe when someone uses digital technology to be intentionally mean or unkind to someone more than once.</i>• Know the importance of it being unacceptable and should be reported as tell an adult		<ul style="list-style-type: none">• Encryption - The translation of data into a secret code. Encryption is the most effective way to achieve data security.• To read an encrypted file, you must have access to a secret key or password that enables you to decrypt it.• Know why we need a password - defence against identity theft• Know the features of a good password - Top tips are to use a password of at least 6 characters, use upper and lower case, use a combination of letters and numbers and (where allowed by the system) use special symbols such as \$ or &.• Know the advantages, disadvantages, permissions and purposes of altering an image digitally and the reasons for this.	
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					<ul style="list-style-type: none">• Know what 'plagiarism' means• Know what 'copyright' means - Many images are 'copyrighted' this means that the person who created the original images does	
					<ul style="list-style-type: none">• not give permission for it to be used in certain ways.• Know why we have a PEGI rating on a game – it considers the age suitability of a game, not the level of difficulty.• Know the dangers of spending too long online or playing a game.• Know the importance of choosing age appropriate websites or games.• Know the dangers of gaming online and how to stay safe.•	

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Information technology	<p>Know how to use an ipad to take photos. Know how to use a simple paint program to create a picture Know four ways of using technology outside the home. Know how to use a trackpad on a laptop</p>	<p>Know how to turn on a computer, log in and find appropriate programmes. To locate and type different letters on the keyboard. Know how to make simple changes in a word document including changing the word, captial letters font colour spacing. Know how to save. To know how to use the basic functions of a computer (logging in, finding the icons for the internet and microsoft word). To know how to copy and paste. To know what an aerial photograph is. To know how to save a word document and be able to open it the following lesson.</p>	<p>The desktop is the main homescreen where you can see all the different applications. All children have their own folder on the W Drive and should be shown how to access it. Children should be encouraged to use the shortcuts apps on the desktop to find and open Word and Google. Work should be saved into their personal file (via the W-Drive). Once saved, children should be encouraged to click on the blue disk to save changes. There are many ways to communicate online: Email, Instant Messaging, Gaming, Video Calling, Soial Media (although there are age restrictions on these), Blogging, Photos. The internet is a vast database and can hold many websites, in order to find helpful and appropriate content, you need to be specific in what you enter into a</p>	<ul style="list-style-type: none"> •To know that a data logger is a device that records data over time. •To know data loggers are powered by battery, they are portable and are equipped with internal memory for storage of the data they collect. •To know data loggers have a built-in instrument or sensor. •To know that a data logger can measure temperature, light and sound. •To know how to open an exel document and create a simple table to display data. <p>To know how to use data in a spreadsheet to create tables, piecharts, bargraphs.</p> <ul style="list-style-type: none"> •To know that wikipedia is the world’s largest wiki. •To know 3 advantages of collaborating to edit online. <p>To know that HTML is like code that has to be</p>	<ul style="list-style-type: none"> • Know what data is • Know what a database is • Know why we use databases • Know what a record is • Know how to sort data on a computer database • Know how information can be grouped • Group information to answer questions • Combine grouping and sorting to answer more specific questions • Know how to sort records to find information quickly • Know how to search a database to find information • Know how to narrow a search using the ‘AND’ tool in your search • Know why we use graphs • Know how to use graphs to answer questions 	<ul style="list-style-type: none"> • Pre-production is the process of planning or designing something (such as a product or film) prior to production. • Film-making or film production – is the process of making a film and involves various separate stages of production. • A documentary is a non-fiction film usually intended to provide a factual report on a particular subject. • Copyright means that we have the right to prevent other people copying our original work. • If you write or create something original then it belongs to you, just as something physical belongs to you. If someone else wants to use it or borrow it, they must ask your permission or acknowledge that it is yours.
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			<p>search engine. Ancient Roman fashion for kids/ks2 will help with early civilisation clothes and not a high street chain! Images should be searched for on Google, right click and save image as... Follow the path to W-Drive- Year 3- class colour- Pupil Folders- Name- Save</p> <p>To retrieve, open document on Word/ Publisher, Insert picture- locate from W Drive and click in sert.</p> <p>Incredibox is a music app that lets you create your own music with the help of a merry crew of beatboxers.</p> <p>Children to save each block so they can load it and edit it in the following lesson. Click on save – share – mix link - copy weblink onto word doc. Remind children about E-safety and the name we give to the piece and composer- first name only. Helpful videos, couple of minutes</p>	<p>written in the correct order, for a web design to work.</p>	<ul style="list-style-type: none"> • Know how to produce a graph digitally using data 	<p style="text-align: center;"><u>In excel</u></p> <ul style="list-style-type: none"> • Data is raw numbers and figures. • Spreadsheets organise and store data in meaningful ways so that it can be easily accessed and analysed. • To select a cell, we click on it. To enter data, we double click on it. Data can be typed directly into a cell or into the formula bar. • A formula can tell a computer which mathematical operation to use for a calculation: add, multiply, divide, or subtract. It also tells the computer which data to use. • Average -symbols used to represent comparing two values. • MIN – finds the smallest value • MAX- finds the largest value.
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			<p>long to show how to use Incredibox. https://www.youtube.com/watch?v=IJuYyh0IFLE&list=PLqMpCUz0Vm6EzNz-uB-9IhohJ8jZKKt8o Symbols for each character – the loop headphones makes a solo performance x deletes the loop. Click on the character to mute them Chorus click on the round link above the characters, it will direct which sounds to use and can add the chorus in when all have been set up.</p>			<p>Charts and graphs can be created using the data in the spreadsheet. Select the charts icon and which fields to display in the x-axis and y-axis.</p>
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<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Technology (Digital Literacy)</p>	<p>Know the ways we use technology in our classroom. Know ways that technology is used in my home and community Know how to use links to websites to find information</p>	<p>Know that not everyone is who they say they are on the Internet. Know to use polite and kind words on the internet. To know how to stay safe when using the internet. To know that being online/using technology for too long can have negative effects on health (both physical and mental). To know passwords should be changed regularly and that information should never be shared online.</p>	<p>WWW is an application which runs on the internet and enables people to share information. The internet is compared to roads and the world wide web is what you can see from the roads. Buildings would be websites and the traffic the content that is being transferred.</p>	<ul style="list-style-type: none"> To know the SMART rules and how to apply them when being safe online. <p>To know that not everything on the internet is always fact and understand that there other resources to check information.</p>	<ul style="list-style-type: none"> Know how to reference sources in their work Know the reliability of the results of sources to check validity and Know the impact of incorrect information. Know of appropriate and inappropriate text, photographs and videos and the impact of sharing these online Know an existing website and consider its structure Know the features of a web page Know what a website is Know what a web page is Know what a browser is Know how websites are created Know how to create a new site - click on the + in the bottom right-hand corner. 	<ul style="list-style-type: none"> To know that if a website is secure it will show 'https' and a padlock symbol in the search bar. To know that personal information should not be shared on the internet.
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					<ul style="list-style-type: none">• Know how to add a subpage to a webpage.• Know how to link a subpage with a hyperlink.• Know how to change the colour of the header• Know how to change the background colour of a section of your web page• Know how to add an image carousel to your web page• Know how to add a map to your web page• Know how to view your web page as it would appear on a phone, tablet, or computer.• Know the implications of linking to content owned by other people	
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<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Computer science</p>	<p>Know simple instructions for a 'Beebot' or similar. Know how to sequence instructions for movement eg left, right, up, down</p>	<p>Know that an algorithm is a set of instructions used to program a computer. Know how to create their own set of instructions to make something work. Know that algorithms can go wrong and need debugging. To know how to debug the program effectively so that the changes made make the algorithm work.</p>	<p>Scratch Jr is an app that enables young children to create their own stories and games. They can snap together programming blocks to make characters move, jump, dance and sing. They can modify characters using the paint editor, add their own voices and sounds and use the programming blocks to make their characters come to life.</p> <p>On the app, if you click on the house icon, then click on the book in the top right corner, you can find a blocks guide that will inform you of their function.</p> <p>They are split into Triggering blocks (to start an animation), Motion blocks (to move a character), Looks blocks (changes the size and visibility of a character), Sound blocks (pop or recorded sound), Control blocks (change the speed, pause and enable</p>	<p>Know how use HTML language to arrange text on a web browser. Know what an algorithm is. Know how to debug an algorithm on a game. Know how to use and adapt an already available template to design a times table game.</p>	<p>Algorithm sprite backdrop script block</p> <ul style="list-style-type: none"> •Know that an algorithm needs to go in the right order to be able to work •Know how to create a new sprite •Know how to design and colour a backdrop •Know how to code the keyboard keys to move the character •Know how to improve the backdrop on Scratch •Know how to make an exit that triggers the new event of changing to the next backdrop •Know how to add a comment to a block •Know how to add sound •Know how to create a wall •Know how to design a sprite •Know how to 'switch costume' •Know how to make a variable 	<ul style="list-style-type: none"> •To define a 'sprite' and an 'algorithm' •To know how to make a sprite move in any direction and by a set amount. •To structure and control the timing of events. •To know how to use the 'show' and 'hide' tool on Scratch. •To know to sequence events using the 'receive' and 'broadcast' tool. •To add sound effects to make a animation more interesting. <p>To know that 'debug' means to identify and remove errors from (computer hardware or software).</p>
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		<p>a repeat code), End blocks (to change page, run the script repeatedly or show the end of an animation).</p> <p>Screen share by clicking on arrow on Smartboard and selecting Screen Share option. On an iPad, slide down from the top right corner to show menu and select Screen Mirroring icons from screen. Click on the class colour and on the Smartboard click on the iPad number in the list.</p>  <p>To stop screen share, slide down on the iPad again and press Stop Mirroring.</p>		<p>Know that the score block needs to be -1 everytime the sprite hits where it shouldn't</p>	
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