

Computing - Year One

	Head	Hands
Information Technology: Computer Skills	<ul style="list-style-type: none"> <li>Do they know how to switch a computer on and shutdown a computer independently? [1,2,3]</li> <li>Do they know how to log on and log off on a computer independently, with a username and password? [1,2]</li> </ul>	<ol style="list-style-type: none"> <li>Can they click and drag with a mouse or trackpad?</li> <li>Can they launch an application by double clicking it?</li> <li>Can they save work into a folder by following instructions?</li> <li>Can they create step-by-step instructions using pictures?</li> <li>Can they direct a Bee-Bot (or similar programmable toy) to a toy?</li> <li>Can they program a Bee-Bot (or similar programmable toy), one instruction at a time, using the arrow buttons?</li> <li>Can they start their programming sequence again if they need to?</li> <li>Can they type their name on a piece of work they have created?</li> <li>Can they type the date on a piece of work they have created?</li> <li>Can they open a web browser?</li> <li>Can they choose the correct Safe Search filter when using a search engine?</li> <li>Can they help to construct an email?</li> <li>Can they type with two hands?</li> <li>Can they use shift, space and enter correctly?</li> <li>Can they use undo and redo?</li> <li>Can they make text bold, italic or underline?</li> <li>Can they save work into a folder by following instructions?</li> <li>Can they select single words?</li> </ol>
Computer Science: Programming	<ul style="list-style-type: none"> <li>Can they write and follow detailed step-by-step Instructions? [4,5,6]</li> <li>Can they say what an algorithm is? [4]</li> <li>Can they say why it is important to be precise when writing an algorithm? [4,7]</li> <li>Can they check their work for mistakes (debug)? [4,7]</li> </ul>	
Digital Literacy: Online Safety	<ul style="list-style-type: none"> <li>Do they know the SMART rules for internet safety? [11]</li> <li>Do they know who to tell if they feel unsafe when online? [11]</li> <li>Do they recognise which personal information they should keep safe from strangers? [8,9,11]</li> <li>Do they know how the online and offline world link? [10,11,12]</li> <li>Do they understand why email is a good way to communicate? [10,11,12]</li> </ul>	
Information Technology: Word Processing	<ul style="list-style-type: none"> <li>Do they have some knowledge of the location of letters and symbols on the keyboard? [13,14,15,16,17,18,21,22]</li> </ul>	

Information Technology: Painting	<ul style="list-style-type: none"> <li>• Can they identify what a paint program is used for? [19,20,22]</li> </ul>	19. Can they draw shapes using different brushes and colours? 20. Add text to a painting? 21. Can they save work into a folder by following instructions? 22. Can they use the undo and redo function? 23. Can they save images to a folder of their choice? 24. Can they construct an email using a computer or digital device? 25. Can they manipulate an application window by moving and resizing it? 26. Can they save their work in their folder independently? 27. Can they edit text using backspace, delete and the arrow keys? 28. Can they evaluate and improve their sequence (debug)? 29. Can they resize text and images?
Greater Depth	<ul style="list-style-type: none"> <li>• Can they describe how computer technology can improve their life? [24,25,26,27]</li> <li>• Can they apply their knowledge of online safety to help others make safe choices? [24,28]</li> <li>• Can they explain the purpose of formatting text? [23,24,25,26,27,28,29]</li> </ul>	
Heart		
<ul style="list-style-type: none"> <li>• Do they show an age appropriate desire to extend their own learning and find out more?</li> <li>• Do they actively share what they have found with others?</li> <li>• Do they show enthusiasm and commitment to the topic?</li> </ul>		

Computing - Year Two

	Head	Hands
Information Technology: Presentation Skills	<ul style="list-style-type: none"> <li>Do they know what computer skills are needed for safe and effective computer use? [1,2,3,4,5]</li> </ul>	<ol style="list-style-type: none"> <li>Can they create folders?</li> <li>Can they print files?</li> <li>Can they add images?</li> </ol>
Digital Literacy: Online Safety	<ul style="list-style-type: none"> <li>Do they know the SMART rules for internet safety? [7,8,9,10]</li> <li>Do they know who to tell if they feel unsafe when online? [8,9,10]</li> <li>Do they recognise which personal information they should keep safe from strangers? [7,8,9,10]</li> <li>Do they understand how what they do online leaves a trail called a digital footprint? [6,7,8,10]</li> <li>Do they know that people can use the information they put online? [9,10]</li> <li>Can they give their opinion about a website? [6,7,8]</li> </ul>	<ol style="list-style-type: none"> <li>Can they format text and text boxes?</li> <li>Can they insert slides?</li> <li>Can they identify keywords that will give good search results?</li> <li>Can they use a website to search for information?</li> <li>Can they identify websites suitable for their age?</li> <li>Can they identify unkind online behaviour?</li> <li>Do they know how to safely search for information online?</li> <li>Can they search using the words "for kids"?</li> <li>Can they follow a weblink?</li> <li>Can they locate their own blog?</li> <li>Can they log in and post a blog or comments?</li> <li>Can they write an algorithm for a shape or a route?</li> </ol>
Digital Literacy: Using the internet	<ul style="list-style-type: none"> <li>Do they understand how to blog safely and responsibly? [11,13,14]</li> <li>Can they identify search results that will give some useful information? [11,12]</li> <li>Do they know where to find the address of a link? [11,12,13,14]</li> </ul>	<ol style="list-style-type: none"> <li>Can they write an algorithm to turn accurately 90° (a quarter turn)?</li> <li>Can they give and follow instructions?</li> <li>Can they draw lines of different lengths using the forward command?</li> <li>Can they move blocks into the Scripts Area in Scratch?</li> <li>Can they snap blocks together to combine commands in Scratch?</li> <li>Create simple algorithms using a number of different blocks in Scratch?</li> <li>Can they use the repeat and green flag blocks to control algorithms in Scratch?</li> </ol>
Computer Sciences: Preparing for Programming	<ul style="list-style-type: none"> <li>Can they use the language of Turtle Logo? [15,16,17]</li> </ul>	<ol style="list-style-type: none"> <li>Can they use keywords to give better search results?</li> <li>Can they upload photos to a blog?</li> </ol>
Computer Sciences: Programming	<ul style="list-style-type: none"> <li>Can they explain what an algorithm is? [18,19,21]</li> <li>Can they explain why it is important to be precise when writing an algorithm? [20,21,22]</li> </ul>	<ol style="list-style-type: none"> <li>Can they save files in an organised folder structure?</li> <li>Can they search for files on the computer?</li> <li>Can they set windows side by side?</li> </ol>

	<ul style="list-style-type: none"> <li>Do they know how to recognise errors in an algorithm (debug)? [21,22]</li> </ul>	
Greater Depth	<ul style="list-style-type: none"> <li>Can they describe how computer technology can improve their life? [23,24,25,26,27,28,29,30]</li> <li>Can they apply their knowledge of online safety to help others make safe choices? [23]</li> <li>Can they explain what a 'digital footprint' is and how it is generated? [23,26]</li> <li>Do they know that when programming they can combine separate algorithms together to achieve a purpose? [29,30]</li> </ul>	<p>28. Can they format text boxes and images?</p> <p>29. Can they evaluate and improve their sequence (debug)?</p> <p>30. Can they use more than one sprite and combine algorithms?</p>
Heart		
<ul style="list-style-type: none"> <li>Do they show an age appropriate desire to extend their own learning and find out more?</li> <li>Do they actively share what they have found with others?</li> <li>Do they show enthusiasm and commitment to the topic?</li> </ul>		

Computing - Year Three

	Head	Hands
Information Technology: Word Processing	<ul style="list-style-type: none"> <li>Do they know why various features for formatting text are used? [1,2,3,4,5,6,7,8,9]</li> </ul>	
Digital Literacy: Online Safety	<ul style="list-style-type: none"> <li>Do they know the SMART rules for internet safety? [10,13,15,17,18]</li> <li>Do they know who to tell if they feel unsafe when online? [10,13,15,17,17]</li> <li>Do they recognise which personal information they should keep safe from strangers? [12,13,16,17,18]</li> <li>Do they know how to decide if an email is safe to open? [13]</li> <li>Do they know how companies use websites to promote products? [11,16]</li> <li>Can they explain why a strong password is important? [12]</li> <li>Can they explain what privacy settings are? [17]</li> <li>Do they understand how Email is used as a form of communication? [13,14,15,16]</li> <li>Do they understand the differences between communication in real life and online? [16]</li> </ul>	<ol style="list-style-type: none"> <li>Can they use undo and redo?</li> <li>Can they format text including: bold; italic; underline; change case; alignment; change font type and size?</li> <li>Can they select text in different ways?</li> <li>Can they select single words?</li> <li>Can they cut, copy and paste text?</li> <li>Can they insert images?</li> <li>Can they copy a screenshot into another application?</li> <li>Can they use a secure password?</li> <li>Can they use keyboard shortcuts?</li> <li>Can they recognise cyberbullying?</li> <li>Can they identify a targeted advert?</li> <li>Can they create a strong password?</li> <li>Can they identify an email that they should not open?</li> <li>Can they write an email with an address and subject?</li> <li>Do they know how to safely send and receive an email?</li> <li>Can they identify different forms of online communication and discuss the positive and negative aspects of these?</li> <li>Can they share what they have learnt about online safety?</li> <li>Can they use what they know about online safety to plan an event using online methods?</li> </ol>
Digital Literacy: Internet Research	<ul style="list-style-type: none"> <li>Do they know the SMART rules for internet safety? [22]</li> <li>Do they know who to tell if they feel unsafe when online? [22]</li> <li>Do they recognise which personal information they should keep safe from strangers? [22]</li> <li>Do they know how to distinguish between a reliable and unreliable website or webpage? [20,21]</li> </ul>	<ol style="list-style-type: none"> <li>Can they bookmark or favourite a page and name different types of online communication?</li> <li>Can they identify which word order gives the better results when searching online and be able to support this with examples?</li> <li>Can they share a webpage with others?</li> <li>Can they research the different types of online communication used by their peers?</li> </ol>

	<ul style="list-style-type: none"> <li>Do they know and understand how word order affects the results returned? [19,20]</li> </ul>	
Computer Sciences Programming	<ul style="list-style-type: none"> <li>Do they know what the effect of using the "repeat" command within algorithms is? [23,24,25]</li> </ul>	<p>23. Can they create and debug algorithms to draw regular polygons using the repeat command/ block?</p> <p>24. Can they draw shapes with spaces between using penup and pendown?</p> <p>25. Can they change and alter the pen settings?</p> <p>26. Can they explain why particular results are returned by a search engine?</p> <p>27. Can they use an effective layout?</p> <p>28. Can they use the Snipping Tool?</p> <p>29. Can they use bullets and numbering effectively?</p> <p>30. Can they insert and format text boxes effectively?</p> <p>31. Can they create and debug algorithms to draw patterns by repeating regular polygons?</p>
Greater Depth	<ul style="list-style-type: none"> <li>Can they explain who can access their online communication when they use different forums? [26]</li> <li>Do they know how and why online activity leaves a digital footprint? [26]</li> <li>Do they know what an 'effective' layout is? [27,28,29,30]</li> <li>Can they explain how in programming they can use 'repeat' within algorithms to achieve a purpose? [31]</li> </ul>	
Heart		
<ul style="list-style-type: none"> <li>Do they show an age appropriate desire to extend their own learning and find out more?</li> <li>Do they actively share what they have found with others?</li> <li>Do they show enthusiasm and commitment to the topic?</li> </ul>		

	Head	Hands
Information Technology: Word Processing	<ul style="list-style-type: none"> <li>Do they know why various features for formatting text are used? [1,2,3,4,5,6,7]</li> <li>Do they understand what the acronym URL means and where to find them? [8]</li> <li>Can they suggest ways to improve a layout? [1,4,7]</li> </ul>	<ol style="list-style-type: none"> <li>Can they select, edit and manipulate text in different ways?</li> <li>Can they insert an image into a document?</li> <li>Can they format an image?</li> <li>Can they use formatting tools to improve the layout?</li> <li>Can they use the spellcheck tool?</li> <li>Can they insert a simple table?</li> <li>Can they change the size and orientation of the page?</li> <li>Can they copy the URL that they need?</li> <li>Can they define cyberbullying?</li> <li>Can they access a trusted search engine?</li> <li>Can they explain what digital citizenship is?</li> <li>Can they tell someone else at least one way to stay safe online?</li> <li>Can they identify comments or messages that may be hurtful to others?</li> <li>Can they edit their own messages and comments to make sure they are kind?</li> <li>Can they choose an appropriate number of words for a search term?</li> <li>Can they explain how to use other people's work respectfully?</li> <li>Can they create a program that includes a logical sequence?</li> <li>Can they successfully decompose a problem into its smaller parts?</li> <li>Can they debug a program they have written?</li> <li>Can they use repetition and selection?</li> <li>Can they use the duplicate function?</li> <li>Can they create a series of linked frames that can be played as a short animation?</li> <li>Can they control and adjust a time slider to locate a different point in a film clip?</li> <li>Can they insert images to create a simple stop-motion animation short film clip?</li> </ol>
Digital Literacy: Online Safety	<ul style="list-style-type: none"> <li>Do they know the SMART rules for internet safety? [9,11,12]</li> <li>Do they know which information to keep private online and explain why? [11,12]</li> <li>Can they apply their new knowledge to design a character to promote online safety? [9,11,12,13]</li> <li>Do they know how to respond to a hurtful message or comment online? [13,14]</li> <li>Do they understand that different search terms give different results? [10,15]</li> <li>Do they understand that search results are ranked? [10,15]</li> <li>Do they know what plagiarism is? [16]</li> </ul>	
Computer Science: Programming (Scratch)	<ul style="list-style-type: none"> <li>Do they know that they can work with variables and adjust these depending on the effect they wish to create? [17,18]</li> <li>Do they know what the duplicate function does? [21]</li> <li>Can they demonstrate that they understand how to combine a range of different effects to create their own quiz? [17,19,20,21]</li> </ul>	
Information Technology: Animation	<ul style="list-style-type: none"> <li>Can they explain the difference that technology has made to animation? [22]</li> <li>Do they know what is meant by animation? [22,23,24]</li> <li>Can they evaluate the good and bad points about some animation software? [24]</li> <li>Do they know what the term 'onion skinning' means? [25]</li> </ul>	

Greater Depth

- Can they build on their existing knowledge to experiment and innovate when programming? [26,27,28,30,31]
- Can they analyse the software when programming to check it is fit for purpose? [26,29]
- Do they recognise limitations of animation software and suggest improvements? [26]

25. Can they make slight changes to an image using 'onion skinning'?
26. Can they write a program which accomplishes a specific goal?
27. Can they edit and refine still images with multiple layers of onion skins?
28. Can they make extensive use of a time slider to animate multiple objects simultaneously?
29. Can they choose a relevant website to link a document to?
30. Can they create a hyperlink?
31. Can they type at an appropriate speed?

Heart

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	Head	Hands
Digital Literacy: Online Safety	<ul style="list-style-type: none"> <li>Do they know the SMART rules for internet safety? [3]</li> <li>Can they explain what to do with spam email? [1]</li> <li>Do they know why they should cite a source? [4]</li> <li>Can they explain the rules for creating a strong password? [2]</li> <li>Do they know that not everything they see online is true? [1,3,4]</li> <li>Can they explain how to stay safe online? [1,2,3,4]</li> </ul>	<ol style="list-style-type: none"> <li>Can they identify a spam email?</li> <li>Can they create a strong password using a set of rules?</li> <li>Can they identify unsafe online behaviour?</li> <li>Can they spot citations online?</li> <li>Can they alter a photograph?</li> <li>Can they enter text and numbers into a spreadsheet?</li> <li>Can they identify and refer to cells by row and column?</li> <li>Can they enter formulae into cells including those which begin with the SUM function?</li> <li>Can they edit data?</li> <li>Can they use further functions including AVERAGE, MIN and MAX?</li> <li>Can they create graphs?</li> <li>Can they create a program that includes a logical sequence?</li> <li>Can they successfully decompose a problem into its smaller parts?</li> <li>Can they debug a program they have written?</li> <li>Can they move and edit blocks as part of an algorithm?</li> <li>Can they draw 2D shapes or lines?</li> <li>Can they draw simple 3D models?</li> <li>Can they manipulate 2D shapes into 3D shapes?</li> <li>Can they use a range of SketchUp tools including: shape, push, pull, orbit, pan, zoom, erase and fill?</li> <li>Can they record and play their own sounds in recording software?</li> <li>Can they import an existing sound file into recording software to play?</li> <li>Can they choose appropriate software for sound recording?</li> <li>Can they record a radio advert?</li> <li>Can they listen to and improve on their own recordings by re-recording?</li> </ol>
Digital Literacy: Spreadsheets	<ul style="list-style-type: none"> <li>Do they know the purpose of spreadsheets? [6,7,8,9,10,11]</li> <li>Can they discuss the effect of editing data on the results? [6,9]</li> <li>Do they know the meaning of the functions AVERAGE, MIN and MAX? [10]</li> </ul>	
Computer Sciences: Programming (Scratch)	<ul style="list-style-type: none"> <li>Do they know that they can work with variables and adjust these depending on the effect they wish to create? [12,13]</li> <li>Can they demonstrate that they understand how to combine a range of different effects to create their own game? [14,15]</li> </ul>	
Computer Sciences: 3D Modelling	<ul style="list-style-type: none"> <li>Can they explain the properties of a 2D and a 3D shape within the context of computing? [16,17,18]</li> <li>Do they know what it means to manipulate shapes using computing? [19]</li> </ul>	
Information Technology: Radio Station	<ul style="list-style-type: none"> <li>Do they know how to plan a radio advert ready for recording? [20,21,22,23]</li> <li>Can they evaluate what features makes good quality audio content? [24]</li> </ul>	
Greater Depth	<ul style="list-style-type: none"> <li>Do they know how spreadsheets can be used within the context of the wider world? [27,28]</li> <li>Do they know the advantages of spreadsheets over comparative manual methods? [27,28]</li> <li>Do they know how to plan appropriate audio content for a podcast? [29,30]</li> </ul>	

25. Can they create multiple strong passwords for use across different platforms?
26. Can they independently use a wide range of SketchUp tools and concepts including: making groups and components, offset, inference, arc, scale and follow me (only on the large toolbar)?
27. Can they design their own spreadsheet for a specific purpose?
28. Can they select data and create graphs with appropriate formatting?
29. Can they enhance sound recordings using software effects?
30. Can they program an algorithm as a sequence of game instructions with actions and consequences?

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	Head	Hands
Digital Literacy: Online Safety	<ul style="list-style-type: none"> <li>Do they know the SMART rules for internet safety? [1,2,3,4,5]</li> <li>Do they understand how the internet can shape our ideas about boys and girls through stereotypes? [3]</li> <li>Can they explain what a stereotype is and understand how a stereotype can be harmful? [3,5]</li> <li>Can they compare gender stereotypes? [3,5]</li> <li>Can they explain why someone might have an online friendship? [3,4,5]</li> </ul>	<ol style="list-style-type: none"> <li>Can they look in the address bar of a website so check for security?</li> <li>Can they identify the lock symbol in an address bar?</li> <li>Can they identify personal information?</li> <li>Can they explain some of the dangers of revealing personal information to an online friend?</li> <li>Can they identify a situation they should be careful in online?</li> <li>Can they select, edit and manipulate text in different ways?</li> <li>Can they insert into and format an image within a document?</li> <li>Can they use formatting tools to improve the layout?</li> <li>Can they use the spellcheck and thesaurus tools?</li> <li>Can they change the size and orientation of the page?</li> <li>Can they select appropriate characters to match a scene?</li> <li>Can they animate characters with movement and speech in a story scene?</li> </ol>
Information Technology: Word Processing	<ul style="list-style-type: none"> <li>Do they know what features within formatting to use to make effective layouts for differing genres of writing? [6,7,8,9,10]</li> <li>Can they suggest ways to improve a layout? [6,7,8,9,10]</li> </ul>	<ol style="list-style-type: none"> <li>Can they use broadcast and receive blocks correctly in code?</li> <li>Can they use show and hide blocks correctly in code?</li> <li>Can they create a sequence of story scenes with added audio?</li> <li>Can they write a script using appropriate software?</li> <li>Can they search for relevant information using appropriate websites?</li> <li>Can they use a digital video camera (or similar device) to record?</li> <li>Can they import video files into video editing software?</li> <li>Can they arrange video files to form a complete film?</li> <li>Can they identify a gender stereotype in a media message?</li> <li>When filming, can they structure the timing of sections to meet a given running time?</li> <li>Can they use rapid costume changes to give an animation effect?</li> <li>Can they add interactive features to an animated scene?</li> </ol>
Computer Science: Programming (Scratch)	<ul style="list-style-type: none"> <li>Do they know that they can work with variables and adjust these depending on the effect they wish to create? [14,15]</li> <li>Can they demonstrate that they understand how to combine a range of different effects to create their own animated story? [11,12,13,15]</li> </ul>	
Information Technology: Film Making	<ul style="list-style-type: none"> <li>Do they know how to plan a script ready for recording? [16,18,19,20]</li> <li>Can they evaluate what features makes good quality audio content? [17]</li> <li>Can they plan suitable questions to ask an interviewee? [17]</li> <li>Can they evaluate whether information is reliable or not? [17]</li> </ul>	
Greater Depth	Can they explain why cyberbullying can be as harmful as in-person bullying? [21]	

Do they know how to cross-check information using different sources? [21]

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