



# Computing and Online Safety Curriculum

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Aspect	Year 1	Year 2
<b>Areas Taught</b>	Technology in Our Lives: Discovering my technology Multimedia: Green Screen, Presenting Ideas Handling Data: Counting Information Programming: Beebots	Technology in Our Lives: Technology in my Life, Internet Searches Multimedia: Animation Handling Data: Presenting Information Programming: Lightbot
<b>Events</b>	Anti-Bullying Week Hour of Code Safer Internet Day	
<b>Technology In Our Lives</b>	<ol style="list-style-type: none"> <li>1. <b>What ways is technology used in my home and community?</b></li> <li>2. <b>What are some of the benefits of using technology?</b></li> </ol>	<ol style="list-style-type: none"> <li>1. <b>Why do I use technology in my home and community?</b></li> <li>2. <b>What are the benefits of using technology?</b></li> <li>3. Why do I use technology in the classroom?</li> <li>4. <b>What information is available that other people have created?</b></li> <li>5. <b>Is all information on the internet true?</b></li> </ol>
<b>Multimedia</b>	<ol style="list-style-type: none"> <li>1. <b>How can I use technology to create and present my ideas?</b></li> <li>2. What different technology tools can I use creatively?</li> <li>3. <b>How can save information in a special place and retrieve it again?</b></li> <li>4. What technology can I use to create and present ideas?</li> </ol>	<ol style="list-style-type: none"> <li>1. <b>How can I organise and present my ideas in different ways?</b></li> <li>2. How do I add text and images?</li> <li>3. <b>How I use a keyboard?</b></li> <li>4. What online tools can I use to share my work?</li> <li>5. <b>How do I save and open files on the device I use?</b></li> </ol>
<b>Handling Data</b>	<ol style="list-style-type: none"> <li>1. <b>What are the different ways in which information can be shown?</b></li> <li>2. How do I add and discuss information to a pictograph?</li> <li>3. <b>How do I sort and present different kinds of information?</b></li> <li>4. How do I use technology to collect different types of information?</li> </ol>	<ol style="list-style-type: none"> <li>1. <b>How do I make and save a chart or graph using the data I collect?</b></li> <li>2. What can I say about the data that is shown in my chart or graph?</li> <li>3. <b>How do I understand a branching database?</b></li> <li>4. What kind of information will help me investigate a question?</li> </ol>
<b>Programming</b>	<ol style="list-style-type: none"> <li>1. <b>How can I give instructions and follow instructions to move a programmable object around?</b></li> <li>2. What happens when I press buttons on a robot?</li> <li>3. What actions do I need to do to make something happen?</li> <li>4. Do I know what will happen with a short sequence of instructions?</li> <li>5. <b>How do I debug mistakes in a programme?</b></li> </ol>	<ol style="list-style-type: none"> <li>1. <b>What instructions can I give to my friend and can I physically follow their instructions?</b></li> <li>2. <b>What order do I need to do things to make something happen?</b></li> <li>3. <b>What is an algorithm?</b></li> <li>4. <b>How do I tell you what will happen by looking at a programme?</b></li> <li>5. How do I make objects move?</li> <li>6. <b>How do I spot where a programme goes wrong so that I can debug it?</b></li> </ol>
<b>Computational Thinking</b>	<ol style="list-style-type: none"> <li>1. Why is providing clear instructions critical to computer programming?</li> <li>2. How do I create a set of instructions?</li> <li>3. What are algorithms?</li> </ol>	<ol style="list-style-type: none"> <li>1. Why is providing clear instructions critical to computer programming?</li> <li>2. How can problems be broken down?</li> </ol>

<p>Online Safety</p>	<p style="text-align: center;"><i>I am kind and responsible</i></p> <p style="text-align: center;">What are our class internet rules based on and our personal responsibilities?</p> <p style="text-align: center;"><i>I am safe</i></p> <p style="text-align: center;">How do I keep personal details private?</p> <p style="text-align: center;"><i>I am healthy</i></p> <p style="text-align: center;">How do I use technology in a healthy way?</p>	
<p>Basic Skills</p>	<ol style="list-style-type: none"> <li>1. How do I log in on laptop/PC?</li> <li>2. How do I use home button on a tablet?</li> <li>3. How do I develop coordination and motor skills in operation a mouse or roller pad on a laptop or PC?</li> <li>4. How do I open a document or other file on a laptop/PC?</li> <li>5. How do I open an appropriate app or home screen link on a tablet?</li> <li>6. How do I take a photo and open camera roll on a tablet?</li> <li>7. How do I follow a hyperlinked image to a website using a laptop or PC?</li> <li>8. How do I follow links to find information?</li> <li>9. How do I use keyboard to find the letters of your name or basic spellings?</li> <li>10. How do I use the uppercase key for a capital letter?</li> <li>11. How do I use a space bar to make spaces between words?</li> </ol>	<ol style="list-style-type: none"> <li>1. How do I use a personal login for online resources?</li> <li>2. How do I open apps and software?</li> <li>3. How do I save and open files and images?</li> <li>4. How do I insert images within apps and software?</li> <li>5. How do I use simple children's search engine e.g. Kiddle?</li> <li>6. How do I use a keyboard to enter text (index fingers left and right hand)?</li> <li>7. How do I know when and how to use the RETURN/ENTER key?</li> <li>8. How do I use SHIFT and CAPS LOCK to enter capital letters?</li> <li>9. How do I use DELETE and BACKSPACE buttons to correct text?</li> </ol>

Aspect	Year 3	Year 4
Areas Taught	Technology in Our Lives: QR Code, Safe Searching Multimedia: Making eBooks, Different Styles of Art Handling Data: Databases Programming: Scratch, Lego WeDo	Technology in Our Lives: Fact Checking, Information Multimedia: Comics, Adverts Handling Data: Data Logging, Games Programming: Scratch, Kodu
Events	Anti-Bullying Week Hour of Code Safer Internet Day	
Technology In Our Lives	<ol style="list-style-type: none"> <li>1. <b>How do I save and retrieve work on the internet, the school network or my own device?</b></li> <li>2. <b>What ways are there to communicate with others online?</b></li> <li>3. <b>How do I describe what the World Wide Web is?</b></li> <li>4. <b>How do I use search tools to find and use an appropriate website?</b></li> <li>5. <b>Can I use all of the images that I find online in my own work?</b></li> </ol>	<ol style="list-style-type: none"> <li>1. <b>How reliable is the information on the World Wide Web?</b></li> <li>2. <b>Where is the resources I am using from?</b></li> <li>3. <b>How do I search safely on the World Wide Web?</b></li> <li>4. <b>How can I check who owns photos, text and clipart?</b></li> <li>5. <b>How do I create a hyperlink to a resource on the World Wide Web?</b></li> </ol>
Multimedia	<ol style="list-style-type: none"> <li>1. What text, graphics and sound can I use to share my ideas and learning?</li> <li>2. What keyboard commands amend text on my device?</li> <li>3. How do I evaluate my work and improve its effectiveness?</li> <li>4. <b>How do I create different effects with different technology tools?</b></li> <li>5. <b>How do I combine a mixture of text, graphics and sound to share my ideas and learning?</b></li> </ol>	<ol style="list-style-type: none"> <li>1. How can I change the appearance of text to increase its effectiveness?</li> <li>2. <b>How do I create, modify and present documents for a particular purpose?</b></li> <li>3. What tools can I use to share my work?</li> <li>4. How do I give constructive feedback to my friends so that they can improve?</li> <li>5. <b>What new media can I use to extend my achievements?</b></li> <li>6. <b>How can I use different media when presenting to different audiences?</b></li> </ol>
Handling Data	<ol style="list-style-type: none"> <li>1. What different ways can data be organised?</li> <li>2. <b>How do I search a ready-made database to answer questions?</b></li> <li>3. What data can I collect to help me answer a question?</li> <li>4. <b>How do I add to a database?</b></li> <li>5. <b>How do I contribute to a branching database?</b></li> <li>6. What data can I collect to help me answer a question?</li> <li>7. What are the different ways data can be organised?</li> <li>8. How do I use a datalogger to monitor changes and talk about the information it collects?</li> </ol>	<ol style="list-style-type: none"> <li>1. <b>How can I organise data in different ways?</b></li> <li>2. How do I collect data?</li> <li>3. <b>When might data be inaccurate?</b></li> <li>4. How do I use a datalogger?</li> <li>5. How can I plan a database?</li> <li>6. What do I need to create a database?</li> <li>7. How do I search a database?</li> <li>8. <b>What is the best way to present data?</b></li> </ol>
Programming	<ol style="list-style-type: none"> <li>1. <b>How do I break an open-ended problem up into smaller parts?</b></li> <li>2. How do I put programming commands into a sequence to achieve a specific outcome?</li> <li>3. <b>How do I detect a problem in an algorithm?</b></li> <li>4. <b>What testing do I need to do on my programme?</b></li> <li>5. What are repeat commands?</li> <li>6. <b>How do I describe the algorithm I will need for a simple task?</b></li> </ol>	<ol style="list-style-type: none"> <li>1. <b>Why do I need to keep testing my program?</b></li> <li>2. What tools can I use to create a program?</li> <li>3. Where might errors in my program appear?</li> <li>4. <b>How can I debug my program?</b></li> <li>5. <b>How can I simplify a program?</b></li> <li>6. <b>What logical thinking do I need to use to solve a problem?</b></li> <li>7. How do I detect a change to select an action in a program?</li> <li>8. <b>How can algorithms help to sequence more complex programs?</b></li> </ol>
Computational Thinking	<ol style="list-style-type: none"> <li>1. What is the algorithm?</li> <li>2. How do I combine instructions to create my own sequence?</li> </ol>	<ol style="list-style-type: none"> <li>1. What difficulties are there to translating real problems into programs?</li> <li>2. How can I communicate ideas through codes and symbols?</li> </ol>

<p>Online Safety</p>	<p style="text-align: center;"><i>I am kind and responsible</i>  <b>What are our class internet rules based on our own personal responsibilities?</b>  <i>I am safe</i>  <b>How do I keep personal details private?</b>  <i>I am healthy</i>  <b>How do I use technology in a healthy way?</b></p>	
<p>Basic Skills</p>	<ol style="list-style-type: none"> <li>1. How do I navigate a public drive to save and retrieve files?</li> <li>2. How do I connect peripheral devices using a USB lead?</li> <li>3. How do I use images saved to camera roll within a variety of apps?</li> <li>4. How do I use Save and Save As on laptops and PCs?</li> <li>5. How do I copy and rename files to edit on tablets?</li> <li>6. What safe search engine can I use e.g. Primary ICT/Swiggle?</li> <li>7. How do I use individual fingers to input text and use SHIFT key to type characters?</li> <li>8. How do I amend text by highlighting and using SELECT/DELETE and COPY/PASTE?</li> <li>9. How do I swap between letters and symbol input on a tablet?</li> <li>10. How do add shapes and word art to documents and presentations?</li> </ol>	<ol style="list-style-type: none"> <li>1. How do I securely log on to a tablet, laptop and PC devices?</li> <li>2. How do I rename documents and other files?</li> <li>3. How do I browse to a specified website?</li> <li>4. How do I create hyperlink to a website?</li> <li>5. How do I recognise appropriate online sources for clipart and images?</li> <li>6. How do I acknowledge sources of information/images?</li> <li>7. How do I use a keyboard effectively, including the use of numbers?</li> <li>8. How do I use a spellcheck?</li> <li>9. What are the keyboard shortcuts on laptops and PCs?</li> <li>10. How do I change font sizes and colour of text?</li> <li>11. How do I use appropriate screen capture and insert in a document or presentation?</li> </ol>

Aspect	Year 5	Year 6
Areas Taught	Technology in Our Lives: Web Detectives Multimedia: Presenting Learning, Making my Building Handling Data: The Solar System, Active Data Programming: Scratch, Logo	Technology in Our Lives: Information Multimedia: My School, Linear Presentation Handling Data: Answering Questions, My Website Use Programming: Scratch
Events	Anti-Bullying Week Hour of Code Safer Internet Day	
Technology In Our Lives	<ol style="list-style-type: none"> <li>1. What are the different parts of the internet?</li> <li>2. How do I use a search engine to find information and check its reliability?</li> <li>3. How do I evaluate information from the World Wide Web?</li> </ol>	<ol style="list-style-type: none"> <li>1. What internet services do I need for different purposes?</li> <li>2. How is information transported on the internet?</li> <li>3. How are search results selected and ranked?</li> <li>4. How do I check the reliability of a website?</li> <li>5. What is copyright?</li> <li>6. How do I acknowledge a source of information?</li> </ol>
Multimedia	<ol style="list-style-type: none"> <li>1. What online and offline tools can I use to create and share ideas?</li> <li>2. What tools can I use to refine my work?</li> <li>3. What tools can I use to create effects for impact?</li> <li>4. What skills do I need to use in unfamiliar technology?</li> <li>5. How do I use keyboard shortcuts appropriately?</li> <li>6. How do I evaluate my work and improve its effectiveness?</li> </ol>	<ol style="list-style-type: none"> <li>1. What do I need to think about when planning an outcome?</li> <li>2. What unfamiliar technology could I use to increase my creativity?</li> <li>3. What range of media can I combine in presentations?</li> <li>4. What contribution does different media have to an outcome?</li> <li>5. Why have I used a particular online tool for a purpose?</li> <li>6. How can I be digitally discerning when evaluating the effectiveness of my work?</li> </ol>
Handling Data	<ol style="list-style-type: none"> <li>1. How do I use a database to collect and record data?</li> <li>2. How do I choose an appropriate tool to help collect data?</li> <li>3. How do I present data in an appropriate way?</li> <li>4. What different operations can I use to refine my search?</li> <li>5. How can I check possible mistakes in data?</li> </ol>	<ol style="list-style-type: none"> <li>1. How do I plan the process needed to investigate the work around me?</li> <li>2. What is the most effective tool to collect data for my investigation?</li> <li>3. What skills do I need to interrogate a database?</li> <li>4. How can I present data in an appropriate way?</li> </ol>
Programming	<ol style="list-style-type: none"> <li>1. How do I use variables to increase programming possibilities?</li> <li>2. What are 'if' and 'then' commands?</li> <li>3. How do I decompose a problem into smaller parts to design an algorithm?</li> <li>4. How do I write a program?</li> <li>5. When do I use logical reasoning to detect and debug a program?</li> <li>6. How do I change an input to achieve a different output?</li> <li>7. How can computer models provide information about a physical system?</li> </ol>	<ol style="list-style-type: none"> <li>1. How can I deconstruct a problem into smaller steps?</li> <li>2. How do I recognise when I need to use a variable to achieve a required output?</li> <li>3. Why are each step in my algorithm needed to achieve an outcome?</li> <li>4. How do I evaluate the effectiveness and efficiency of my algorithm whilst testing it?</li> <li>5. How do I use logical reasoning to detect and correct errors in algorithms and programs?</li> <li>6. How can I use different inputs to control a device or action and predict what will happen?</li> </ol>
Computational Thinking	<ol style="list-style-type: none"> <li>1. How do I use logical reasoning to detect and correct errors?</li> <li>2. How do I convert real-world activities into instructions?</li> </ol>	<ol style="list-style-type: none"> <li>1. How do I use logical reasoning to explain how some simple algorithms work?</li> </ol>

<p><b>Online Safety</b></p>	<p style="text-align: center;"><i><u>I am kind and responsible</u></i>  <b>What are our class internet rules based on and our personal responsibilities?</b>  <i><u>I am safe</u></i>  <b>How do I keep personal details private?</b>  <i><u>I am healthy</u></i>  <b>How do I use technology in a healthy way?</b></p>	
<p><b>Basic Skills</b></p>	<ol style="list-style-type: none"> <li>1. How do I use a secure personal login for a variety of online resources?</li> <li>2. How do I combine appropriate apps through the use of the camera roll on a tablet?</li> <li>3. How do I combine software to achieve effective outcomes?</li> <li>4. How do I work collaboratively on documents and presentations?</li> <li>5. How do I create hyperlinks within and between documents?</li> <li>6. How do I identify three online sources to check information?</li> <li>7. How do I use a keyboard to confidently input text, characters and numbers?</li> <li>8. How do I use bullet points?</li> <li>9. How do I add text boxes?</li> <li>10. How do I move, resize and rotate shapes, text and pictures?</li> <li>11. How do I use common keyboard shortcuts on laptops and PCs?</li> </ol>	<ol style="list-style-type: none"> <li>1. How do I securely access a variety of devices and online resources?</li> <li>2. How do I store documents and videos online where they can be accessed by themselves and shared with others?</li> <li>3. How do I use knowledge of software and apps to combine technologies to support my learning?</li> <li>4. How do I recognise file types for text, image and video files?</li> <li>5. How do I use a range of search filters e.g. +, -, or, info: advanced searching, file type?</li> <li>6. How do I effectively use right click menu within documents and presentations?</li> <li>7. How do I save as a particular file type?</li> <li>8. How do I select menu options within a variety of apps?</li> <li>9. How do I create tables?</li> <li>10. How do I use find and replace when editing documents?</li> </ol>