

## Computing Assessment Year 4



### Year 4 Assessment Overview

Children will be understanding of the capabilities of the World Wide web (CS) while searching online (IT).

- They will be developing their understanding of appropriate behaviour online (DL) skills while learning about searching the Internet (IT).

At all times children will be learning about using technology safely and respectfully (DL).

- In most units for all strands, children will be developing their general information technology skills (IT).
- This overlap, repetition and reinforcement helps to give children a deeper understanding of the knowledge and skills across all strands and of their integrated nature in the real-world.

## Y4 Progression Overview (Teacher)

|           | Computer Science                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                    | Information Technology                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                     | Digital Literacy                                                                                                                                                                                                                                      |
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| Statement | Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.                                                                                                         | Use sequence, selection and repetition in programs; work with variables and various forms of input and output.                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.                                                                                                                                                                                                                                                                                                                                                                                       | Understand computer networks, including the internet; how they can provide multiple services, such as the World Wide Web, and the opportunities they offer for communication and collaboration.                                                                                    | Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.                           | Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.                                               | Use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concern about content and contact.                                                                              |
| Outcome   | When turning a real-life situation into an algorithm, the children's design shows that they are thinking of the required task and how to accomplish this in code using coding structures for selection and repetition. Children make more intuitive attempts to debug their programs. | Children's use of timers to achieve repetition effects are becoming more logical and are integrated into their program designs. They understand 'if statements' for selection and attempt to combine these with other coding structures including variables to achieve the effects that they design in their programs. As well as understanding how variables can be used to store information while a program is executing, they can use and manipulate the value of variables. Children can make use of user inputs and outputs such as 'print to screen', e.g. 2Code. | Children's designs for their programs show that they are thinking of the structure of a program in logical, achievable steps and absorbing some new knowledge of coding structures. For example, 'if' statements, repetition and variables. They can trace code and use step-through methods to identify errors in code and make logical attempts to correct them. e.g. traffic light algorithm in 2Code. In programs such as Logo, they can 'read' programs with several steps and predict the outcome accurately. | Children recognise the main component parts of hardware which allow computers to join and form a network. Their ability to understand the online safety implications associated with the ways the internet can be used to provide different methods of communication is improving. | Children understand the function, features and layout of a search engine. They can appraise selected webpages for credibility and information at a basic level. | Children can make improvements to digital solutions based on feedback. Children make informed software choices when presenting information and data. They create linked content using a range of software such as 2Connect and 2Publish+. Children share digital content within their community, i.e. using Virtual Display Boards. | Children can explore key concepts relating to online safety using concept mapping such as 2Connect. They can help others to understand the importance of online safety. Children know a range of ways of reporting inappropriate content and contact. |

| Year 4                                                                                                                                                |     |               |     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----|---------------|-----|
| Computer Science: Coding 4.1, Logo 4.5, Hardware investigators 4.8                                                                                    | WTS | EXS           | GDS |
| I can turn a real-life situation to solve into an algorithm, using a design that shows how I can accomplish this in code. (4.1, 4.5)                  |     | Rest of class |     |
| I can use repetition in my code. For example, using a loop that continues until a condition is met such as the correct answer being entered. (4.1)    |     | Rest of class |     |
| I can use timers within my program designs more accurately to create repetition effects. For example, I can create a counting machine. (4.1)          |     | Rest of class |     |
| I can use selection (decision) in my programming. For example, using an 'if statement' for a question where the program takes one of two paths. (4.1) |     | Rest of class |     |
| I can use variables within my program and know how to change the value of variables. (4.1)                                                            |     | Rest of class |     |
| I can use the user inputs and output features within my program, such as 'Print to screen'. (4.1)                                                     |     | Rest of class |     |
| I can identify errors in my code using methods including stepping through lines of code. (4.1)                                                        |     | Rest of class |     |
| I can read programs that contain several steps and predict the outcomes with increasing accuracy. (4.1, 4.5)                                          |     | Rest of class |     |

| Year 4                                                                                                                                             |     |               |     |
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| Information Technology: Writing for different audiences 4.4, Animation 4.6, Effective searching 4.7, 4.10 AI                                       | WTS | EXS           | GDS |
| I can create and improve my solutions to a problem based on feedback. For example, create an effective animation or musical composition. (4.6,4.9) |     | Rest of class |     |
| I can review solutions that others have created, using a checklist of criteria. (4.4, 4.6,4.9)                                                     |     | Rest of class |     |
| I can work collaboratively to create content and solutions. (4.4,4.9)                                                                              |     | Rest of class |     |
| I can share digital content using a variety of applications such as: 2Blog, 2Email and Display Boards. (Across units)                              |     | Rest of class |     |
| I understand the purpose of a search engine and the main features within it. (4.7)                                                                 |     | Rest of class |     |
| I can look at the information on a webpage and make predictions about the accuracy of the information contained within it. (4.7)                   |     | Rest of class |     |

| Year 4                                                                                                                                    |     |               |     |
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| Digital Literacy: Online safety 4.2                                                                                                       | WTS | EXS           | GDS |
| I have a good understanding of the online safety rules we learn at school. (4.2 & across curriculum)                                      |     | Rest of class |     |
| I can demonstrate how to use different online technologies safely. (4.2 & across curriculum)                                              |     | Rest of class |     |
| I can demonstrate how to use a few different online services safely. (4.2 & across curriculum)                                            |     | Rest of class |     |
| I know I have a right to privacy both on and offline. (4.2 & across curriculum)                                                           |     | Rest of class |     |
| I recognise that my wellbeing can be affected by how I use technology. (4.2 & across curriculum)                                          |     | Rest of class |     |
| I can report with ease any concerns with content and contact online and know immediate strategies to keep safe. (4.2 & across curriculum) |     | Rest of class |     |
|                                                                                                                                           |     | Rest of class |     |