



The Mead Infant & Nursery School – Computing Subject Progression Tracker

Computing Subject Progression Tracker

| | Nursery | Reception | Year 1 | Year 2 |
|-----------------------------|--|---|---|--|
| Computer Science (thinking) | <p>Understand and follow simple instructions</p> <p>Use a simple program on a computer or device.</p> <p>Begin to operate simple equipment e.g. CD player, remote control toys</p> | <p>Can understand and follow instructions and begin to write own instructions (algorithms).</p> <p>Start to recognise that computers need programs to function.</p> <p>Lear to use technology independently – cameras, bee-bots ,chrome books</p> | <p>Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions-</p> <p>Understand that an algorithm is a set of instructions used to solve a problem or achieve an objective. Know that an algorithm written for a computer is called a program.</p> <p>Create and debug simple programs –</p> <p>Know how to work out what is wrong with a simple algorithm when the steps are out of order. Know that an unexpected outcome is due to the code that has been created and know how to make logical attempts to fix the code</p> <p>Use logical reasoning to predict the behaviour of simple programs-</p> <p>When looking at a program, read code one line at a time and make good attempts to envision the bigger picture of the overall effect of the program.</p> | <p>Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions-</p> <p>Explain that an algorithm is a set of instructions to complete a task. When designing simple programs, show an awareness of the need to be precise with their algorithms so that they can be successfully converted into code.</p> <p>Create and debug simple programs –</p> <p>Create a simple program that achieves a specific purpose. They can also identify and correct some errors</p> <p>Use logical reasoning to predict the behaviour of simple programs-</p> <p>Identify the parts of a program that respond to specific events and initiate specific actions. For example, they can write a cause and effect sentence of what will happen in a program</p> |



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| Information technology | Begin to know that information can be retrieved on computers. | <p>Complete a simple program</p> <p>Use ICT hardware to interact with age-appropriate computer software</p> | <p>Use technology purposefully to create, organise, store, manipulate and retrieve digital content-</p> <p>Sort, collate, edit and store simple digital content e.g. name, save and retrieve their work and follow simple instructions to access online resources,</p> | <p>Use technology purposefully to create, organise, store, manipulate and retrieve digital content-</p> <p>Demonstrate an ability to organise data and edit more complex digital data Know how to create, name, save and retrieve content. Use a range of media in their digital content including photos, text and sound.</p> |
| Digital literacy | Know ways we can be safe at nursery | <p>Children recognise that a range of technology is used in places such as homes and schools e.g. they log into their Mini mash account both at school and home.</p> <p>Children select and use technology for particular purposes.</p> <p>To log-in using their own log-in.</p> <p>To add their name to a picture they created on the computer to understand ownership of work online.</p> <p>Talk about how to keep safe when using the internet</p> | <p>Recognise common uses of information technology beyond school-</p> <p>Understand what is meant by technology and can identify a variety of examples both in and out of school. Make a distinction between objects that use modern technology and those that do not e.g. a microwave vs. a chair</p> <p>Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies-</p> <p>Children understand the importance of keeping information, such as their usernames and passwords, private and actively demonstrate this in lessons. Children take ownership of their work and save this in their own private space such as their My Work folder</p> | <p>Recognise common uses of information technology beyond school-</p> <p>Can effectively retrieve relevant, purposeful digital content using a search engine. Can apply their learning of effective searching beyond the classroom. They can share this knowledge. Make links between technology they see around them, coding and multimedia work they do in school e.g. animations, interactive code and programs</p> <p>Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies-</p> <p>Know the implications of inappropriate online searches. Begin to understand how things are shared electronically such as posting work to the Purple Mash</p> |



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| | | | | display board. Develop an understanding of using email safely and know ways of reporting inappropriate behaviours and content to a trusted adult. |
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Many activities in the early years revolve around children developing an understanding of their environment. Settings encourage children to explore, observe, solve problems, predict, discuss and consider. ICT resources can provide tools for using these skills as well as being examined in their own right, with computers not the only resources. ICT equipment added to role-play reflects the real world, builds on children's experiences and allows them opportunities to understand how, why, when and where different forms of technology are used in everyday life.