# Windmill Hill Academy
# Subject Key Summary Points

At Windmill Hill Academy, we inspire pupils to be passionate lifelong learners by providing them with an ambitious broad and balanced curriculum, with the inclusion of a variety of enrichments, which will inspire them to have high aspirations. We inspire all learners to have strong desire to know or learn something and questioning their learning experiences to find out more. Throughout each year group and across the curriculum, pupils will make sustained progress, develop excellent knowledge, understanding and skills, regardless of their different starting points and backgrounds.

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| **Subject** | Computing |
| **Overall curriculum** | An Daras Multi Academy Trust has used the latest pedagogy, research and understanding of local contextual needs to structure the curriculum design to ensure the growth of capability mature children who exhibit a sustained curiosity for learning. The 'lived values and experiences' of pupils are determined by the individual school and should run through all operational elements of curriculum provision.<br><br>A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science, PSHE, SMSC and design and technology, and provides insights into both natural and artificial systems. |
| **Pedagogy** | Our Computing curriculum focuses on developing our pupils through the acquisition of **WISDOM, KNOWLEDGE, and SKILLS.**<br><br>These have been selected because they ensure the **whole development of the child** will be prioritised, they enable pupils to meet the expectations of the National Curriculum 14 and have ambitions beyond the NC14. Each theme has a set of curriculum tools which ensure it is fully embedded through the lived experiences of staff, children, and stakeholders. Impact scales will measure the effectiveness of curriculum provision on the growth of children within these three **equally important** themes.<br><br>It is our school's intention to enable children to become independent and confident users of digital devices. To have a sound understanding of how they work, to use computational thinking (able to take complex problems and break them down into manageable steps) and to be able to use devices to store, organise and create their own work. We aim to provide learners with a structured programme that introduces relevant skills, knowledge and concepts related to the three main areas that make up the Computing curriculum; Computer Science, Digital Literacy and Information Technology. For this to be achieved, the school aims to be well equipped in all areas of Computing, allowing staff to teach Computing and the wider curriculum above and beyond the National Curriculum requirements..<br><br>**Wisdom**<br>Children develop in wisdom in the computing curriculum through:<br>▪ use computational thinking (able to take complex problems and break them down into manageable steps)<br>▪ independently applying skills and knowledge to new learning in computing<br>▪ debating ethical issues related to Internet use and online safety |

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| | ▪ Understanding the broad and growing uses of technologies but also understanding the limitations or 'dangers' that can be present.<br><br>**Knowledge**<br>Children acquire knowledge in computing:<br>▪ following a structured programme that introduces then builds on relevant skills, knowledge and concepts related to the three main areas that make up the Computing curriculum; Computer Science, Digital Literacy and Information Technology<br>▪ the school ensuring it is well equipped and up-to-date in all areas of Computing, allowing staff to teach Computing and the wider curriculum above and beyond the National Curriculum requirements<br>▪ through the school having staff that are well trained and confident in the use and teaching of Computing<br><br>**Capabilities**<br>Children develop their capabilities:<br>▪ developing a sound understanding of how digital devices work, when and how to use them and when not to use them<br>▪ applying their skills to produce outcomes in all subjects using digital technologies<br>▪ Independently using their learning effectively and being capable and ready for the next stage of their education and beyond into employment.<br><br>The core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming.<br><br>Building on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content. Computing also ensures that pupils become digitally literate – able to use, and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world.<br><br>Teachers will help pupils with SEND to overcome any barriers to participating and learning and make any 'reasonable adjustments' needed to include pupils. To make lessons inclusive, teachers will anticipate what barriers to taking part and learning may pose for pupils with SEND. Some modifications or adjustments will be made or smaller steps to achieve the learning goal. Occasionally, pupils with SEND will have to work on different activities, or towards different learning intentions, from their peers.<br><br>In EYFS, all areas of learning and development are important and inter-connected. These are stipulated in the 'Statutory framework for the early years foundation stage'. The most relevant statements for computing are taken from the following areas of learning:<br>• Personal, Social and Emotional Development<br>• Physical Development |

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| | • Understanding the World<br>• Expressive Arts and Design |
| **Assessment** | Assessment is regarded as an integral part of teaching and learning and is a continuous process.<br><br>**Formative**<br>All sessions should begin with a recap/recall of previous learning. Teachers should use skillful questioning to gauge starting points, to assess current understanding and knowledge, to ensure concepts have been acquired, to identify misconceptions. This formative assessment should support the teacher in adapting lessons to ensure pupils are learning new learning, building on prior learning, and making links between new and previous learning. At the end of each session, teachers should use assessment tools to ensure that the intent of the lesson has been achieved, to help plan for the following session and to support building a picture of the pupils' progress for final summative assessments. It is the responsibility of the class teacher to assess all pupils in their class, this will be triangulated with marking, TA feedback and pupil self-assessment. Any misconceptions are addressed with immediacy and the impact of targeted teaching reviewed.<br><br>**Summative**<br>It is the responsibility of the class teacher to assess all pupils in their class. Each child is assessed termly, against the NC criteria and recorded annually on ITrack. Pupils produce an outcome to demonstrate their unit learning. At the end of a whole unit of work, the teacher makes a summary judgement about the work produced. Teaching staff are provided with a rubric assessment which, when completed, indicates the children who are working towards, expected or working at greater depth. End of year assessment is reported on the annual report to parents.<br><br>In EYFS, the level of development children should be expected to have attained by the end of the EYFS is defined by the early learning goals (ELGs). These are not used as a curriculum or in any way to limit the wide variety of rich experiences that are crucial to child development. Instead, the ELGs support teachers to make a holistic, best-fit judgement about a child's development, and their readiness for year 1.<br><br>When assessing pupils with SEND, there will be carefully planned opportunities in order for them to demonstrate what they know and are able to do, using alternative means where necessary. Where a pupil is unable to use particular types of equipment, assessment of attainment will be based on understanding of the processes used as demonstrated through oral and written responses or, where possible, through the use of alternative equipment. The attainment of pupils who require adapted equipment, such as particular switches or voice-activated software, will be assessed using these specialist items.<br><br>The monitoring of the standards of children's learning and the quality of |

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| | learning and teaching of computing is the shared responsibility of the Senior Leadership Team and the subject leader. The work of the subject leader also involves supporting colleagues in the teaching of computing, being informed about current developments in the subject, and providing a strategic lead and direction for the subject in the school. A named member of the school governing body is briefed to overview the teaching of the curriculum in the school and the safeguarding governor will also have an overview in relation to online safety. |
| **Culture** | As Computing underpins today's modern lifestyle, we believe it is essential that all pupils gain the confidence and ability, that they need in this subject, to prepare them for the challenge of a rapidly developing and changing technological world. It is our intention that the study of Computing will enhance and extend children's learning across the whole curriculum whilst developing digital literacy, computer science and the ability to create computer programs. Pupils will also understand how to live and use technology safely in an increasingly digital society.<br>The online safety aspect of computing has strong links with our PSHE teaching based on the SCARF Programme. As well as teaching regular sessions, we also celebrate the annual 'Safer Internet Day' as well as 'anti-bullying week'. There are also occasions where additional sessions will be taught if needed due to latest developments/class needs.<br>It is imperative that parents and carers are kept up to date with the latest online safety guidance and guidance is regularly shared with parents via ClassDojo, via our website and webinars termly.<br>*See https://windmill-hill.eschools.co.uk/web/safeguarding/419772.*<br><br>Teachers will help pupils with SEND to overcome any barriers to participating and learning and make any 'reasonable adjustments' needed to include pupils. To make lessons inclusive, teachers will anticipate what barriers to taking part and learning may pose for pupils with SEND. Some modifications or adjustments will be made or smaller steps to achieve the learning goal. Occasionally, pupils with SEND will have to work on different activities, or towards different learning intentions, from their peers.<br><br>For some activities, there may need to be a 'parallel' activity for pupils with SEND, so that they can work towards the same learning intentions as their peers, but in a different way. The use of technology to assist learning can removes barrier e.g. Widget, switches, text readers and speech and communicator devices. Using keyboard shortcuts instead of a mouse, enables all pupils to be involved. Generic software, such as Microsoft Office, contains accessibility facilities for SEND pupils. Screen filters may help with glare or using coloured backgrounds e.g. yellow background with blue script for dyslexic learners.<br><br>Because the range of hardware and software is wide and continually expanding, teachers will always seek to collaborate with the SENDCo or colleagues e.g. previous teacher, on removing barriers to learning and participation for particular pupils with SEND. Pupils will also be able to advise on the technologies that suit them best. |

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| **Systems** | In EYFS, the most relevant statements for computing are taken from the following areas of learning:<br>▪ Personal, Social and Emotional Development<br>▪ Physical Development<br>▪ Understanding the World<br>▪ Expressive Arts and Design<br><br>Reception<br>Personal, Social and Emotional Development<br>▪ Show resilience and perseverance in the face of a challenge.<br>▪ Know and talk about the different factors that support their overall health and wellbeing: - sensible amounts of 'screen time'<br><br>Physical Development<br>▪ Develop their small motor skills so that they can use a range of tools competently, safely, and confidently.<br>Expressive Arts and Design<br>▪ Explore, use and refine a variety of artistic effects to express their ideas and feelings.<br><br>ELG<br>Personal, Social and Emotional Development<br>Managing Self<br>▪ Be confident to try new activities and show independence, resilience, and perseverance in the face of challenge.<br>▪ Explain the reasons for rules, know right from wrong and try to behave accordingly.<br><br>Expressive Arts and Design<br>Creating with Materials<br>▪ Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.<br><br>The national curriculum for computing aims to ensure that all pupils:<br>▪ can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation<br>▪ can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems<br>▪ can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems<br>▪ are responsible, competent, confident and creative users of information and communication technology.<br><br>By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study. *See the knowledge and skills organiser for computing which demonstrates the progression through the year groups.*<br><br>At Windmill Hill Academy, we use the NCCE Teach Computing Programme to teach Computing in Years 1-6. This also supports the |

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| | teaching of Online Safety which is supplemented by the PSHE teaching and units from Project Evolve, which have been checked against the Education for a Connected World document to ensure coverage. Pupils in Reception begin their Computing Learning by accessing Barefoot Computing to prepare them for Year One.<br><br>We have quality assured filtering and monitoring systems in place (set up by ICT4) in school which are regularly monitored by the Head of School via the Senso software, termly filtering checks and regular meetings with the ICT4 team. |
| **Policies/key documents** | ▪ Whole School Long term horizontal curriculum map<br>▪ NCCE Teach Computing overview<br>▪ Curriculum Journey Poster<br>▪ Computing Knowledge and Skills organiser: KS1 and KS2<br>▪ EYFS Long term overview<br>▪ Vocabularly progression for Years 1-6<br>▪ Education for a Connected World document<br>▪ PSHE Knowledge and Skills organiser<br>▪ Acceptable Use Policy<br>▪ Anti-bullying Policy<br>▪ Online Safety Policy<br>▪ SEND Policy<br><br>*All of these can be can be found on our website under the curriculum/policies tab.* |
| **Perceptions from viewpoints (e.g. pupils/parents/Governors)** | Pupil:<br>▪ The vast majority of pupils (94%) agree that they are learning a lot at this school. Pupil Survey Summer 2023.<br>▪ “What I like about my school... Mathematics, English, science, Wild Tribe, Physical Education, breaktimes and not to forget the after-school clubs.” Pupils Survey Summer 2023.<br>▪ “I like how they try to make lessons more fun or exciting!” Pupils Survey Summer 2023.<br>▪ The vast majority of pupils enjoy computing and feel safe when using technology online. Pupil Computing Survey Spring 2023.<br>Parent:<br>▪ The vast majority of parents agree (99%) that the teaching is good. Parent Survey Summer 2023.<br>▪ “They always get a warm welcome and the environment seems happy and stimulating for them.” Parent Survey Summer 2023<br>▪ “I feel the school offers a friendly, welcoming learning environment, and in my opinion, staff do your utmost to help a child if they are having difficulties, be that with their learning, or well-being.” Parent Survey Summer 2023<br>▪ “My child is very happy to go to school and enjoys the activities that she is given.” Survey Summer 2023<br><br>Staff:<br>▪ All staff agree (100%) that leaders are doing all that they can to improve teaching. Staff survey Summer 2023.<br>▪ “It is a wonderful school to work in and I am very proud of all of |

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| | our achievements!" Survey Summer 2023<br><br>Governors:<br>▪ "The school has a lovely warm, happy, inclusive feeling about it. The children appear very engaged and enthusiastic, which is evident by the work displayed on the walls and how all classes appear to have a learning thread running through, incorporating a number of visible subjects such as Maths, English Writing, Art, History etc." *Governor feedback Spring 2022* |