Aintree Davenhill Primary School

Computing Policy

Approved by the Headteacher
July 2025

Review date July 2026

Aintree Davenhill Computing Policy

Computing Curriculum Intent

When planning and teaching computing at Aintree Davenhill, we believe that it is an essential part of the curriculum; a subject that not only stands alone but is woven and should be an integral part of all learning. Computing, in general, is a significant part of everyone's daily life and children should be at the forefront of new technology, with a thirst for learning what is out there. Computing within schools can therefore provide a wealth of learning opportunities and transferrable skills explicitly within the Computing lesson and across other curriculum subjects. Through the study of Computing, children will be able to develop a wide range of fundamental skills, knowledge and understanding that will equip them for the rest of their life. Computers and technology are such a part of everyday life that our children would be at a disadvantage would they not be exposed to a thorough and robust Computing curriculum. Children must be taught in the art form of 'Computational Thinking' to provide them essential knowledge that will enable them to participate effectively and safely in the digital world beyond our gates.

Our school motto is Excellence and Enjoyment meaning that we want children to enjoy computing and have a positive attitude to the subject. Our vision is also for our pupils to achieve excellence in computing and in every aspect of school life. We believe that successful learning enables children to develop the confidence to meet the challenge of new work.

Aintree Davenhill Primary School aims to ensure that all our pupils:

- are confident in using code and can understand and apply the fundamental principles and concepts of computer science, including logic, algorithms and data representation
- when coding, can analyse problems in computational terms, and have repeated practical experience of writing computer programs to in order to solve such problems
- effectively communicate and can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
- are able to connect with others responsibly and are competent, confident and creative users of information and communication technology

During lessons, we plan opportunities for the children to engage in a curriculum that has balanced coverage of computer science, information technology and digital literacy. The

children will have experiences of all three strands in each year group, but the subject knowledge imparted becomes increasingly specific and in depth, with more complex skills being taught, thus ensuring that learning is built upon. For example, children in Key Stage 1 learn what algorithms are, which leads them to the design stage of programming in Key Stage 2, where they design, write and debug programs, explaining the thinking behind their algorithms.

Using the National Curriculum, we aim to promote:

- proficient users of technology who can work both independently and collaboratively
- confidence and self-assurance, to provide challenge and a sense of achievement for all pupils, for whom computing should be an experience from which they derive pleasure
- computing hardware and software that is utilised to enhance the learning outcomes of our children
- a learning buzz that encourages children to predict, test and find new ways to solve problems
- opportunities across the curriculum to engage in the practical uses of computing, using it as a tool within both school and adult life

Computing Curriculum Implementation

In implementing the National Curriculum, we recognise a commitment to the following:

1) Progressively developing children's confidence and competence in the use of discreet computer skills.
2) Developing their ability to create multimedia content using animation and video, sound and music, web design, graphics, photography, painting and e-books.
3) Using a range of apps to create content; office apps, data and spreadsheet apps, iPad apps, presentation apps, online portals/platforms for sharing and communication, creating and publishing.
4) The use of computer programs and the understanding of how they work; giving instructions – inputs and outputs, how networks, the internet and WWW work, games design and programming, algorithms (sequences) and testing, computer simulations.
5) Understanding the web and Online Safety; researching the internet and search engines, how search engines work, collaboration and communication online and offline, the impact of ICT

in the wider world, social networking, sharing content and blogging, eSafety and digital foot prints.

6) Adopting a structured approach to the teaching and learning of computing vocabulary.

7) Providing links between computing and other subjects.

Planning

We base our computing planning on a scheme produced by Knowsley City Learning Centre. It acts as a working document for our teachers who edit, annotate and adapt it to suit their specific year group needs. Part of this involves our teachers identifying the possibilities for using computing across the curriculum and also identifying opportunities to develop children's speaking and listening skills and understanding of computing vocabulary.

The scheme sets out lesson plans for the academic year in order to meet the criteria of the Computing Curriculum. As a school, we have mapped out each half-termly unit for each year group to ensure that they link (where possible) to the topics they are delivering in other areas of the curriculum and that they have appropriate coverage of Information Technology (IT), Digital Literacy (DL) and Computer Science (CS).

The scheme facilitates the implementation of the Computing curriculum across the EYFS and Key Stages 1 and 2.

In each year group, teachers work together to adapt their long, medium and short term plans for computing.

Short term planning is done on a weekly basis using the agreed format. Consideration is given to what the pupils have already been taught in order to build on the concepts, knowledge and skills they have acquired and with their specific targets in mind.

Each lesson shows the objectives including any links to eSafety, key vocabulary, differentiation, resources required and the activity outline.

In certain year groups across school, some computing units will be taught by a specialist teacher from Knowsley CLC in order to facilitate PPA sessions.

Teaching and Classroom Organisation

As the aims of computing are to equip children with the skills necessary to use technology to become independent learners, the teaching style that we adopt is as active and practical as possible. While at times we do give children direct instruction on how to use hardware or software, the main emphasis of our teaching in ICT and computing is for individuals or groups of children to use computers to help them in whatever they are trying to study. So, for example,

children might research a history topic by using a website, or they might investigate a particular issue on the Internet. Children who are learning science might use the computer to model a problem or to analyse data. We encourage the children to explore ways in which the use of ICT and computing can improve their results, for example, how a piece of writing can be edited or how the presentation of a piece of work can be improved by editing text, etc. We recognise that all classes have children with widely differing ICT and computing abilities. This is especially true when some children have access to ICT equipment at home, while others do not. We provide suitable learning opportunities for all children by matching the challenge of the task to the ability and experience of the child. We achieve this in a variety of ways, by:

- setting common tasks, which are open-ended and can have a variety of responses
- setting tasks of increasing difficulty (not all children complete all tasks), grouping children by ability in the room and setting different tasks for each ability group
- providing resources of different complexity that are matched to the ability of the child
- using classroom assistants to support the work of individual children or groups of children
- whole class teaching and peer tutoring may all be employed in the teaching of computing

Assessment and Record Keeping

Formative Assessment

Self-Assessment

In line with the National Curriculum, children are taught to debug their own programs, use logical reasoning to explain simple algorithms (including their own), and detect and correct errors in both algorithms and programs.

Peer-Assessment

The ideas of self-assessment suggested above translate naturally into peer assessment, with pupils working with a partner to review, and help correct, algorithms and programs, or provide critical, constructive feedback on digital content.

Open Questioning

Pupils' knowledge of the concepts covered by the programme of study may not be immediately apparent in the work they produce. The use of open questioning is one way in which you can both assess and develop their grasp of concepts.

Discussion with Peers

Encouraging pupils to use similar open questions can be effective in allowing them to focus on what they have learned, rather than only on what they've done. Moving some of this discussion online, and perhaps involving pupils in other schools or countries, would be one powerful way

to illustrate the opportunities offered by computer networks for communication and collaboration.

Target Setting

Project management skills such as planning, organising, motivating others and allocating resources, are of great importance in real-world projects, and they can be widely applied in education.

Pupil Shared Drive

Children's computing work should be stored within their individual folder on the shared drive. EYFS pupils' learning is saved into a year group folder.

Summative Assessment

At the end of each unit, the teacher summarises where each child is working in relation to the programme of Study (POS) objectives and outcomes in the CLC scheme of work. Children are assessed as working towards, working within or working beyond expectations. These assessments are completed half-termly and stored securely on our school shared drive.

Infrastructure and Hardware Resources

The school has internet and connectivity to a full fibre 200 Mbs service. A new Wi-Fi system was installed in 2021 and network switches have been replaced.

iPads

Each teacher has an iPad. We also have two Key Stage (EYFS / KS1 and KS2) sets of iPads for use within the classroom to support the curriculum. An additional set of iPads is also available to support intervention group work and classroom learning.

Laptops

There is a bank of laptops available for use across the school. Each teacher has their own school laptop which a networked and have access to the shared drive for planning and preparation. Networked desktop machines connect to each interactive whiteboard in classrooms.

Printers and Photocopiers

We have two colour photocopiers, both of which are networked to the staff drive and laptops and iPads. There are two networked colour printers available for use in the EYFS / KS1 and KS2 Departments, as well as office printers for administrators and school leaders.

Interactive Whiteboards

Each classroom and four additional rooms used for group work, have an interactive whiteboard linked to a laptop and the school has a portable whiteboard which is networked.

Other resources to support the curriculum include Bee-bots, Pro-bots and BBC MicroBits.

Special Needs/Equal Opportunities

Aintree Davenhill Primary School embraces a culture of equal opportunities to ensure every member of the school community is regarded as being of equal worth and importance, irrespective of culture, race, gender, learning abilities, sensory or physical impairment, social class or lifestyle. The school achieves this through a system of recognising differences, meeting individual needs and taking positive action, so that everyone has equal access to the educational opportunities offered by the school. Furthermore, the school regularly monitors progress and achievement (see assessment section). We understand that a child's self-perception can be influenced by his or her environment, and so we aim to enhance our children's self-esteem and self-confidence by positively working to reduce any form of bias or discrimination and by promoting equality of opportunity. Strategies are employed to ensure that the cross-curricular dimension of equal opportunities permeates all of the life and work of the school. The school recognises that direct and indirect discrimination may occur and therefore understands the need for a positive and effective Equal Opportunities Policy. It is our policy to ensure this by:

- ensuring all children follow a differentiated adaptation of the Knowsley CLC Scheme of Work
- evidencing children's Computing work (where applicable)
- providing equal access and fairness of distribution of Computing opportunities
- providing curriculum materials and software which are in no way class, gender or racially prejudice or biased
- monitoring the level of access to computers in the home environment to ensure no pupils are unduly disadvantaged

Parental Involvement

The Early Years staff work hard to ensure that children make a smooth transition from Nursery into Reception. This is also true for children who have not previously attended Aintree Davenhill's Nursery. Parents new to our school are asked to sign an Acceptable User Policy (AUP) on behalf of their child in which they agree that their child will follow our school eSafety

rules, that they as parents will reinforce these rules at home and that they agree for their child to use the internet whilst in school.

Parents of children in Reception are invited to attend workshops that model how curriculum subjects such as maths, phonics and reading are taught. Appropriate computing resources are shared with parents during these sessions. Across the school, a range of online resources are shared with parents that will help them to support their children at home.
A Parents' Evening is held once a year and parents are invited to discuss their child's progress. At the Curriculum Evening (Meet the Teacher), held at the beginning of the school year, Online Safety Rules and Knowledge Organisers are shared with parents.
Class Dojo is an online tool used across school as part of our behaviour and reward system and to communicate with parents.

Impact of the Computing Curriculum

Monitoring and Evaluation

The computing curriculum is monitored by the Head teacher, the Computing Subject Leader along with the Computing Team and the Leadership Team through;

- observation of lessons – feedback to teachers
- resources being used
- courses and INSET attended by staff
- evaluation of the computing action plan for the SIP
- talking to pupils and staff

The Computing Subject Leader uses information gathered from the above plus knowledge of National and LEA initiatives to develop the action plan for computing for the School Improvement Plan.

The Computing team will review this policy on an annual basis and will communicate any changes to all teachers and parents.

The next scheduled review date for this policy is June 2025.