# Curriculum statement for the teaching and learning of Computing

At Inspire Academy Primary School, our curriculum is carefully planned, tailored, progressive and aspirational. It ensures learning that contextualises, addresses cultural deficit and gaps in knowledge and experience, and that ultimately equips our children for the next stage of education and for life beyond.

| INTENT | At Inspire Academy, we recognise that technology is everywhere and will play a pivotal part in our children's lives.  Therefore, we want to model and educate our children on how they can use technology positively, responsibly and safely.<br><br>In a world that is continuously evolving, we want to ensure that through our Computing curriculum, our pupils develop skills such as resilience and creativity, by providing them with opportunities to tackle problems, make mistakes and reflect.<br><br>We want our pupils to be creators not consumers and our broad curriculum encompassing Computer Science, Information Technology and Digital Literacy reflects this. We recognise that technology can allow pupils to share their learning in creative ways so we encourage staff to embed Computing across the whole curriculum.  We also understand the accessibility opportunities technology can provide for our pupils, and this is reflected in our SEND provision. | | | |
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| Underpinned By | **The teaching of skills** | **The application of skills** | **Vocabulary** | **Online Safety** |
| | Our children learn how to use a range of computer hardware and software, including spreadsheets, databases, email systems, word processing, multimedia presentations, application use, programming and coding. | Our children are given regular opportunities to apply the computing skills and knowledge that they have been taught to support their learning in other curriculum subjects, for example, preparing presentations to showcase learning, using educational apps etc. | Our children will understand and use appropriate topic vocabulary, including that associated with programming, such as; algorithm, debug, input, output, variables etc. | Our children learn how to use mobile technology and the internet safely and responsibly.  Information on this subject will be shared with parents on a regular basis. |

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| Implementation | **EYFS**<br>In the Early Years Foundation Stage, children will have computing experiences indoors, outdoors and through role play in both child-initiated and teacher-directed time. Children have the opportunity to use computers, iPads and Beebots regularly and use technology for cross-curricular purposes e.g. creating art / playing Maths games on the computers, using digital microscopes to explore the natural world etc. They use technology purposefully to take photos and record videos / audio to document their learning in the continuous provision.<br><br>By the end of the EYFS, pupils should be taught to:<br><ul><li>Operate simple equipment such as microphones, cameras and remote-controlled toys.</li><li>Complete a simple program on a computer.</li><li>Use ICT hardware to interact with age-appropriate software.</li><li>Recognise that technology is used in places such as homes and schools.</li><li>Develop confidence in using computers (and other hardware such as iPads) independently, including logging on by themselves, and printing and saving their own work.</li><li>Select and use technology for particular purposes.</li></ul> | **Key Stage 1**<br>By the end of key stage 1, pupils should be taught to:<br><ul><li>Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following a sequence of instructions.</li><li>Write and test simple programs.</li><li>Use logical reasoning to predict and computing the behaviour of simple programs.</li><li>Organise, store, manipulate and retrieve data in a range of digital formats.</li><li>Communicate safely and respectfully online, keeping personal information private, and recognise common uses of information technology beyond school.</li><li>Select and use technology for particular purposes.</li></ul> | **Key Stage 2**<br>By the end of key stage 2, pupils should be taught to:<br><ul><li>Design and write programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.</li><li>Use sequence, selection, and repetition in programs; work with variables and various forms of input and output; generate appropriate inputs and predicted outputs to test programs.</li><li>Use logical reasoning to explain how a simple algorithm works and to detect and correct errors in algorithms and programs.</li><li>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.</li><li> Describe how Internet search engines find and store data; use search engines effectively; be discerning in evaluating digital content; respect individuals and intellectual property; use technology responsibly, securely and safely.</li><li>Select, use and combine a variety of software (including Internet services) on a range of digital devices to accomplish given goals, including collecting, analysing, evaluating and presenting data and information.</li></ul> |
| | **Blocked Curriculum Approach**<br>At Inspire Academy, we have invested in the Rising Stars Switched On Computing programme of study. This is a clear and effective, cross-curricular scheme of work that provides coverage in line with the National Curriculum.  We also use other resources such as Google Classrooms (KS2), Seesaw (KS1) and Purple Mash to supplement this. | **An Embedded 'Relevant' and 'Progressive' Online Safety Curriculum**<br><br>Safer Internet Day is covered each February to raise awareness within school and the local community about the possible dangers of using the internet and mobile technologies, and to advise on ways in which to reduce risk. The role of parents is recognised and they are involved in understanding how to keep their children safe at home with regular information and updates regarding specific games / | **Resources**<br>Children have access to a wide range of resources to support their development of skills and create opportunities for cross-curricular links through iPads, various apps, Beebots and laptops. |

| | | sites shared through emailed letters home and through our Twitter page.<br><br>Staff are trained in the area of online safety, and children are taught the skills and knowledge that they may need to keep themselves safe online.<br><br>Issues such as cyberbullying, online wellbeing, screen time/ addiction, the reliability of information and 'stranger danger' are discussed in PSHE lessons and assemblies. | |
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| | **Progression of skills**<br><br>We have developed a Key Skills document for Year 1 – Year 6 that covers every element of the Computing Curriculum.  This document clarifies what should be covered and ensures progression as children move up through school. | **Creative Approach**<br><br>Children at Inspire will have the opportunity to develop links between other subjects to ensure Computing is integrated across other areas of the curriculum. This will ensure pupils have the opportunity to develop and embed important skills as well as exposing them to technology regularly. Opportunities to link the real world are also considered to give purpose to their work e.g. through communication and interaction with authors on social media. | **Staff Training**<br><br>Subject leaders regularly support in both Key Stages, providing training and direction for their curriculum, and external training is sourced where needed. |

Children will leave Inspire Academy as confident users of technology, able to use it to accomplish a wide variety of goals, both at home and in school.  Children will have a secure and comprehensive knowledge of the implications of technology and digital systems; this is important in a society where technologies and trends are rapidly evolving.  Children will be able to apply the British values of democracy, tolerance, mutual respect, rule of law and liberty when using digital systems

To measure the impact of our Computing across the school, we look at children's work saved within their accounts (Seesaw KS1, Google Classrooms KS2) or evidenced in our floor books or on display, and talk to the children about what they have learnt and why.  Teachers assess children against a Learning Challenge in each lesson and assessment data is loaded onto our Arbor system.

| Impact | **PUPIL VOICE**<br>Through discussion and feedback, children talk enthusiastically about their computing lessons and speak about how they love learning on the computer. Children across the school articulate well about the potential risks of being online, and can talk about ways to keep safe. | **EVIDENCE IN KNOWLEDGE**<br>Pupils know how and why technology is used in the outside world, and in the workplace. They know about different ways that computers can be used. | **EVIDENCE IN SKILLS**<br>Pupils use acquired vocabulary in computing lessons. They have the skills to use technology independently, for example accessing age-appropriate software and games in the EYFS and selecting an appropriate range of computer software and applications independently in KS1 and KS2. | **BREDTH AND DEPTH**<br>Teachers plan a range of opportunities to use computer technology under the three key areas of Computer Science, Information Technology and Digital Literacy. |
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