Computing 3 I's

Intent	Research link	Implementation	Impact
❖ To build a computing curriculum that develops pupil's learning and results in the acquisition of knowledge of the world around them that ensures all pupils can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems. **O** - Computing requires an open mind. It involves investigating, exploring and learning new things. By being open minded we can try new things in computing, from learning the principles of coding to exploring digital art. We have to be open minded about the things which we might see online and know that not everything is meaningful to us. **C** - We want to learn how to do new things in computing and explore how we can change and adapt to improve our skills and learn new skills. We ask questions about computer systems and how they work and begin to understand the importance of technology in our lives.	**CAS - Computing in the National Curriculum 2013:** Computers are now part of everyday life. For most of us, technology is essential to our lives, at home and at work. 'Computational thinking' is a skill children must be taught if they are to be ready for the workplace and able to participate effectively in this digital world Why is computational thinking so important? It allows us to solve problems, design systems, and understand the power and limits of human and machine intelligence. It is a skill that empowers, and one that all pupils should be aware of and develop competence in. Pupils who can think computationally are better able to conceptualise, understand and use computer-based technology, and so are better prepared for today's world and the future. **Education for a connected world 2020:** Children have the right to enjoy childhood online, to access safe online spaces, and to benefit from all the opportunities that a connected world can bring to them, appropriate to their age and stage.	❖ A clear and effective, bespoke cross curricular scheme of work that provides coverage in line with the National Curriculum. Teaching and learning should facilitate progression across all key stages within the strands of digital literacy, information technology and computer science ❖ Access to resources which aid in the acquisition of skills and knowledge. ❖ Children will have access to the hardware (Chromebooks, iPads, programmable equipment) and software that they need to develop knowledge and skills of digital systems and their applications	❖ Children will be 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.

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❖ All pupils at Leconfield Primary School have the right to have rich, deep learning experiences that balance all the aspects of computing. The curriculum is designed to allow a broad and balanced curriculum to be delivered throughout the school. **O** - Computing requires an open mind. It involves investigating, exploring and learning new things. By being open minded we can try new things in computing, from learning the principles of coding to exploring digital art. We have to be open minded about the things which we might see online and know that not everything is meaningful to us. **C** - We want to learn how to do new things in computing and explore how we can change and adapt to improve our skills and learn new skills. We ask questions about computer systems and how they work and begin to understand the importance of technology in our lives. **K** - We always show kindness online, to other uses of the internet or to our peers when we are trying out new skills.	**CAS - Computing in the National Curriculum 2013:** 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. 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. **Education for a connected world 2020:** Children have the right to enjoy childhood online, to access safe online spaces, and to benefit from all the opportunities that a connected world can bring to them, appropriate to their age and stage.	❖ A clear and effective scheme of work that provides coverage in line with the National Curriculum. ❖ Teaching and learning should facilitate progression across all key stages within the strands of digital literacy, information technology and computer science. Children will have the opportunity to explore and respond to key issues such as digital communication, cyber-bullying, online safety, security, plagiarism and social media.	❖ Children will be 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.

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❖ To develop pupils who are responsible users of technology, who know the importance of e-safety and respect the internet and the technology which they are using. **R** - We respect the technology which we are using and the other users of technology too. We know the importance of safety when using the internet and computers and use this respectfully and responsibly. **K** - We always show kindness online, to other uses of the internet or to our peers when we are trying out new skills.	**NSPCC - E-safety for schools 2021** Being online is an integral part of children and young people's lives. Social media, online games, websites and apps can be accessed through mobile phones, computers, laptops and tablets – all of which form a part of children and young people's online world. The internet and online technology provides new opportunities for young people's learning and growth, but it can also expose them to new types of risks. E-safety should form a fundamental part of schools' and colleges' safeguarding and child protection measures. Schools have a dual responsibility when it comes to e-safety: to ensure the school's online procedures keep children and young people safe, and to teach them about online safety, in and outside of school. Your school should foster an open environment in which children and young people are encouraged to ask any questions and participate in an ongoing conversation about the benefits and dangers of the online world.	❖ Wider Curriculum links and opportunities for the safe use of digital systems are considered in wider curriculum planning. ❖ Parents are informed when issues relating to online safety arise and further information/support is provided if required. ❖ As well as opportunities underpinned within the scheme of work, children will also spend time further exploring the key issues associated with online safety.	❖ Children are responsible, competent, confident and creative users of information and communication technology. ❖ Children will be able to apply the British values of democracy, tolerance, mutual respect, rule of law and liberty when using digital systems