Computing: Intent, Implementation, Impact

"The computer was born to solve problems that did not exist before." — Bill Gates, Microsoft founder and former CEO, philanthropist

Intent *How does it link to our curriculum vision? What is the scope of learning? What do we intend children to learn?*
At North Clifton Primary School our computing curriculum intends to prepare the children for the ever-changing world of technology and develop their skills for the future. We aim to instil the children with a sense of enjoyment around using technology and to develop pupil's appreciation of its capabilities and the opportunities to create, manage, organise and collaborate.   We want children to develop as respectful, responsible and confident users of technology, aware of measures that can be taken to keep themselves and others safe online.   Our curriculum encourages children to use ICT and computational thinking to create work, solve problems and develop thinking which in turn will help to them to contribute to the society we live in, as adults.   We intend for our pupils to be fluent with a range of tools and programs and aim that by the time children leave North Clifton at the end of Year 6, they will have the confidence and independence to choose the best tool and program to fulfil a task or challenge set by the teachers.

Implementation *How is the teaching of Compting organised?*
The National Curriculum for Computing is taught to KS1 and KS2 and the relevant EYFS strands within Personal, Social and Emotional Development, Physical Development, Maths and Expressive Arts and Design (Development Matters)   The National Curriculum states: *'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 to express themselves and develop their ideas through, information and communication technology- at a suitable level for the future workplace and as active participants in a digital world.'*   To deliver the National Curriculum, we use the Kapow scheme of work as a resource, which is designed with three main strands: - Computer science   - Information technology   - Digital literacy   The scheme is organised into five key areas, creating a cyclical route through which pupils can develop their computing knowledge and skills by revisiting and building on previous learning.   - Computer systems and networks   - Programming   - Creating media   - Data handling   - On-line safety   Children have the opportunity to explore, discuss and respond to key issues including cyberbullying, online safety, social media and security.   Wider curriculum links are implemented including links with mathematics, design and technology, science, geography and history.   Parents are informed when issues relating to online safety arise. Communication between teachers and parents is provided via Class Dojo, e-mail and text messaging.   **Recall, Retrieve and Assessment**   Children have regular opportunities to recall and revisit previous learning. They are given opportunities for Self or Peer Assessment and end of unit assessments, which will then be used to inform planning, preparation, differentiation and address misconceptions within that lesson, or for future lessons.

Impact *How do we know how well the children are doing?*

- Children know more, do more and remember more as a result of a balanced Computing curriculum.
- Children are confident when using technology and are able to achieve their desired goals, knowing how to balance time spent on technology and time spent away from it in a healthy and appropriate manner.
- Children are able to use their computational thinking and apply this to their everyday lives.
- Children have a secure and comprehensive knowledge of digital systems and technology, are critical thinkers and are able to understand how to make informed and appropriate digital choices in the future.
- Show a clear progression of technical skills across all areas of the national curriculum- computer science, information technology and digital literacy.
- Are aware of on-line safety issues and protocols and know how to deal with any issues or concerns.
- Children can articulate their understanding using subject vocabulary.
- Are able to work independently and collaboratively.
- Children are able to apply the British values (democracy, tolerance, mutual respect, rule of law and liberty) when using different systems and technology.
- Children discuss, reflect and appreciate the impact computing has on their learning, development and well-being.
- Meet the end of key stage expectations outlined in the national curriculum for Computing.
- Children are prepared for both future education and jobs, with a bank of computing skills and knowledge.