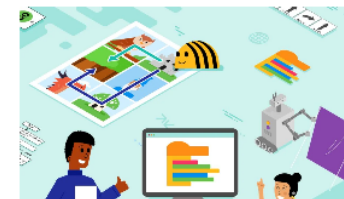




Computing

Curriculum Intent, Implementation and Impact Statement



Intent

In line with the 2014 National Curriculum for Computing, our aim is to provide a high-quality computing education which equips children to use computational thinking and creativity to understand and change the world. The curriculum will teach children key knowledge about how computers and computer systems work, and how they are designed and programmed. Learners will have the opportunity to gain an understanding of computational systems of all kinds, whether or not they include computers.

By the time they leave King David School, children will have gained key knowledge and skills in the three main areas of the computing curriculum: computer science (programming and understanding how digital systems work), information technology (using computer systems to store, retrieve and send information) and digital literacy (evaluating digital content and using technology safely and respectfully). The objectives within each strand support the development of learning across the key stages, ensuring a solid grounding for future learning and beyond.

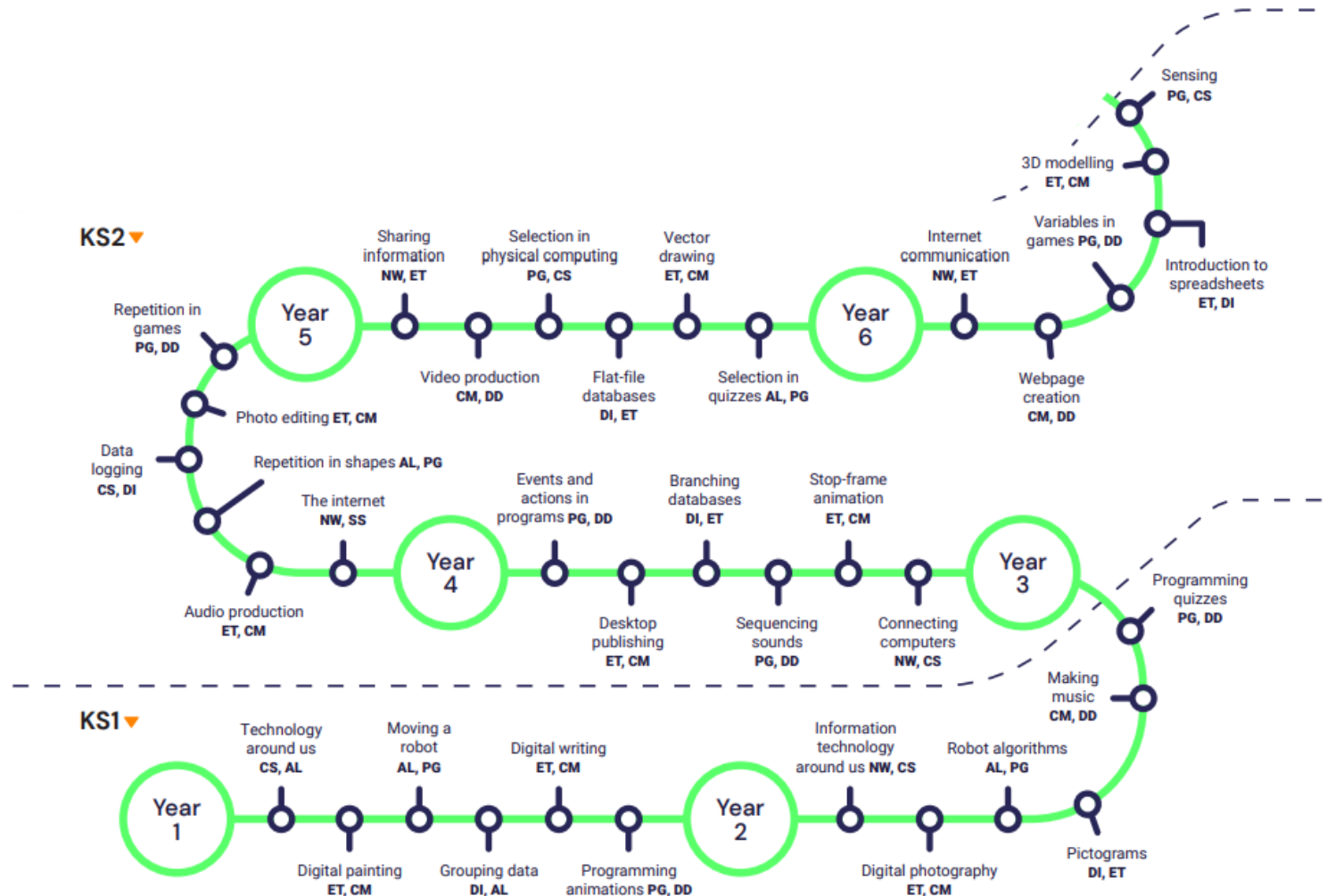
Opportunities are sought throughout the curriculum of computing to support and promote the ethos of the school, living up to our motto of “Where Stars Shine”, and meeting the Mission and Vision Statements through the Golden Threads.

Key Stage 1 National Curriculum Expectations	Key Stage 2 National Curriculum Expectations
<p><i>Pupils should be taught to:</i></p> <ul style="list-style-type: none"><i>understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions;</i><i>create and debug simple programs;</i><i>use logical reasoning to predict the behaviour of simple programs;</i><i>use technology purposefully to create, organise, store, manipulate and retrieve digital content;</i><i>recognise common uses of information technology beyond school;</i><i>use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.</i>	<p><i>Pupils should be taught to:</i></p> <ul style="list-style-type: none"><i>design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts;</i><i>use sequence, selection, and repetition in programs; work with variables and various forms of input and output;</i><i>use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs;</i><i>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;</i><i>use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content;</i><i>select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information;</i><i>use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</i>

Implementation

In September 2023, King David School adopted the NCCE's Teach Computing curriculum. Computing is taught using a blocked curriculum approach. This ensures children are able to develop depth in their knowledge and skills over the duration of each of their computing topics.

We have a large number of Chromebooks. Each class has assigned eight Chromebooks, and there are a further 24 Chromebooks available to borrow, to make this up to a class set. We also have a set of eight ipads. These resources ensure that all year groups have the opportunity to use a range of devices and programs for many purposes across the wider curriculum, as well as in discrete computing lessons.



Impact

Our approach to the curriculum results in a fun, engaging, and high-quality computing education. We are in the process of developing our monitoring across the subjects of the National Curriculum, moving towards measuring the impact of the curriculum through triangulation of outcomes: pupil voice, assessment and recording of achievement against the Key Skills, planning, monitoring of books, saved work and displays, lesson learning walks, discussions with teaching staff, pupils and parents. Pupils' achievement is recorded against the Key Skills and a summative grade given at the end of the academic year, which is shared with the parents in pupil reports. Until 2023, pupils' individual attainment was tracked through the Key Skills. Comparisons could be made between a cohort's progress in the subject over time and also between different cohorts' achievement against the Key Skills, and this has been used to inform planning and the provision of resources. The Key Skills for Computing are available in a separate document. In 2023/24, we are in the process of switching over to new assessment systems using the NCCE's Teach Computing curriculum.

Key Skills strands:

- a. Algorithms and programs
- b. Data retrieving and organising
- c. Using the internet
- d. E-safety
- e. Databases
- f. Presentation