

Computing Curriculum Statement

'Following Jesus, together we care, inspire and achieve.'

Introduction

The use of computers and computer systems is an integral part of the National Curriculum and knowing how they work is a key life skill. In an increasingly digital world there now exists a wealth of software, tools, and technologies that can be used to communicate, collaborate, express ideas, and create digital content. At Crawford's Primary School, we recognise that pupils are entitled to a broad and balanced computing education with a structured, progressive approach to learning how computer systems work, the use of IT and the skills necessary to become digitally literate and participate fully in the modern world.



Aims

The school's aims are to:

- Provide a broad, balanced, challenging and enjoyable curriculum for all pupils;
- Develop pupil's computational thinking skills that will benefit them throughout their lives;
- Meet the requirements of the national curriculum programmes of study for computing at Key Stage 1 and 2;
- Respond to new developments in technology;
- Equip pupils with the confidence and skills to use digital tools and technologies throughout their lives;
- Enhance and enrich learning in other areas of the curriculum using IT and computing;
- Develop an understanding of how to use computers and digital tools safely and responsibly.

Programmes of study

We use [Keychain Computing](#) which is a fully resourced computing scheme of work, where each unit has been developed by the **National Centre for Computing Education (NCCE)**. Resources are regularly updated to reflect any changes in the National Curriculum (NC); they can be accessed via Keychain Computing and/or the [Teach Computing website](#). This supports us to deliver exciting lessons to pupils and to continue developing our subject knowledge.

Early years:

It is important in the foundation stage to give children a broad, play-based experience of IT and computing in a range of contexts, including off-computer activities and outdoor play. Computing is not just about computers. Early years learning environments should feature IT scenarios based on experience in the real world, such as in role-play. Children gain confidence, control, and language skills through opportunities such as 'programming' each other using directional language to find toys/objects, creating artwork using digital drawing tools, and controlling programmable toys. Outdoor exploration is an important aspect and using digital recording devices such as video recorders, cameras and microphones can support children in developing communication skills. This is particularly beneficial for children who have English as an additional language.



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By the end of Key Stage 1 pupils should be taught to:

- Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following a sequence of instructions;
- Write and test simple programs;
- Use logical reasoning to predict and compute the behaviour of simple programs;
- Organise, store, manipulate and retrieve data in a range of digital formats;
- Communicate safely and respectfully online, keep personal information private and recognise common uses of information technology beyond school.

By the end of Key Stage 2 pupils should be taught to:

- Design and write programs that accomplish specific goals, including controlling or simulating physical systems; solving problems by decomposing them into smaller parts;
- 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;
- Use logical reasoning to explain how a simple algorithm works and to detect and correct errors in algorithms and programs;
- 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;
- 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;
- 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.



For a detailed skills progression of Crawford's Computing Curriculum, from Year 1 to Year 6, please click [here](#).

Assessment and record-keeping

Teachers regularly assess progress through observations and evidence. Key objectives to be assessed are taken from the National Curriculum to assess computing each term. Assessment should be process-oriented - reviewing the way that techniques and skills are applied purposefully by pupils to demonstrate their understanding of computing concepts. We assess the children's work in computing by making informal judgments as we observe the children during lessons. Once the children complete a unit of work, we make a summary judgment of the work for each pupil as to whether they have yet to obtain, obtain, or exceed the expectations of the unit.



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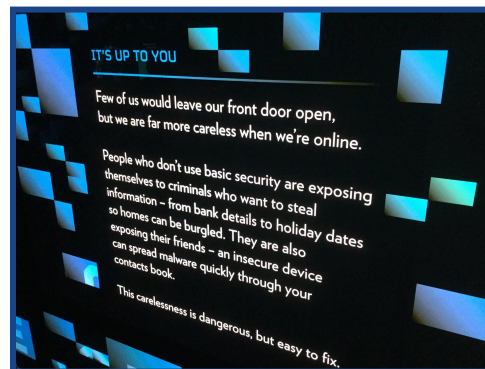
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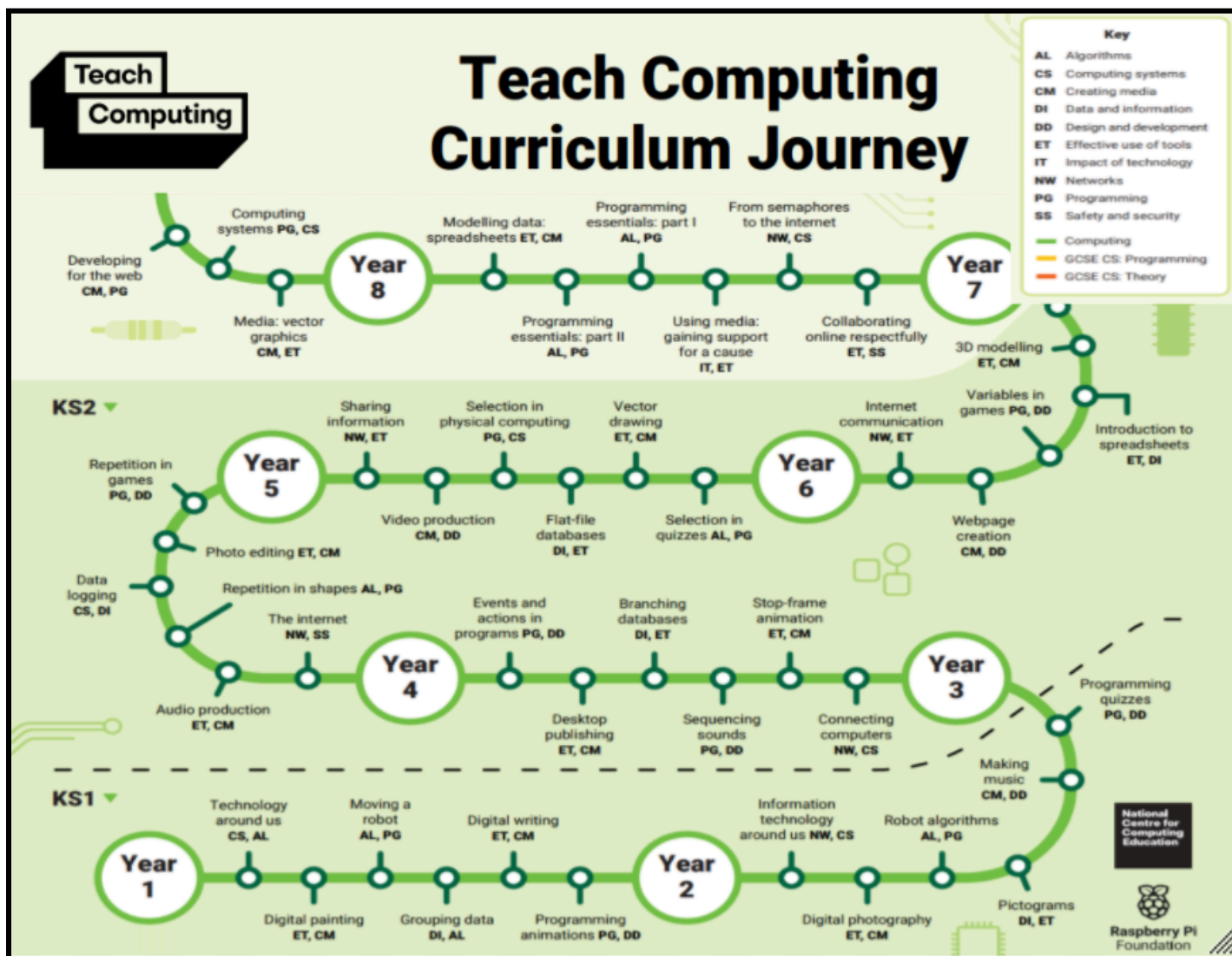
Security

We take security very seriously. As such:

- The Online Safety Leader and IT Consultants will be responsible for regularly updating antivirus software and managing the school's filtering and broadband provision;
- The use of IT and computing will be in line with the school's [Online Safety Policy](#) and '[Acceptable Use Policy](#)'. All staff, volunteers, and UKS2 children must sign a copy of the school's AUP. Parents will be made aware of the 'acceptable use policy at school entry and UKS2';
- All pupils and parents will be aware of the school rules for responsible use of IT and computing and the internet and will understand the consequences of any misuse.



See below for the Teach Computing Curriculum Journey.



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