



Computing Policy

“developing successful children, achieving high standards”

Kender Values:

Kindness and **responsibility**

Empathy and **resilience**

Nurture and **reflection**

Diligence and being **ready**

Encouragement and **resourcefulness**

Respect and **reasoning**

Agreed Spring 2016

Review Spring 2019

Introduction

At Kender we believe Computing should enrich, modernise and support our school's curriculum. Children's learning should be made more rewarding and inspirational by using ICT. Children's confidence and progress in their computing skills is essential for them to maximise their learning in the curriculum and to prepare them for the challenge of a rapidly developing and changing technological world. This document sets out the school's aims, principles and strategies for the delivery of the Computing curriculum. It will form the basis for the development of Computing in the school.

Rationale or statutory requirements

In line with the new National Curriculum we believe that Computing fulfills our vision best when it is taught discretely and systematically as a subject (to allow for targeted development of basic skills) as well as through ample cross-curricular study opportunities to use and apply the developing subject knowledge, skills and understanding.

A high-quality Computing education equips pupils to use computational thinking and creativity in their learning. 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.

During their time at Kender our children should acquire and develop the skills associated with computer science in order to:

- design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts;
- use sequence, selection and repetition in programs; work with variables and various forms of input and output;
- use logical reasoning to explain how algorithms work and 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;
- be able to use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact; and
- acquire and refine the techniques e.g. saving, copying, checking the accuracy of input and output needed to use ICT;

Our Vision and Values

We aim to teach our children to be responsible, confident and creative users of information and communication technology. We will do this by having an inclusive program of teaching where all children can access the curriculum. Some of the skills we will teach are listed below:

- basic Computing skills – no technology can be helpful for learning if it can't be used productively, confidently or quickly enough. Basic Computing skills include typing/keyboard/mouse/ organisation skills.
- Internet and e-safety skills – more than 80% of our children have an internet connected PC at home. Many children are using their computers more at home than at school. In school, their computer time is directed and monitored, but at home it is often much less supervised. Using the resources from the ThinkUKnow website, we take part annually in Safer Internet Day in February as well as incorporate specific e-safety teaching in the Computing curriculum.
- Key skills - higher order skills that equip learners for life in the 21st century, which include:
 - Problem solving
 - Information processing
 - Research and enquiry
 - Analysis
 - Creativity
 - Critical evaluation
 - Collaboration.

We aim to provide pupils with opportunities to use Computing equipment and software/web technologies to support a number of practical learning activities:

- researching and creating multimedia content;
- information storage and retrieval; and
- analysing, interpreting and presenting information.

Our strategic aims and objectives

We aim to:

- ensure a broad and balanced computing curriculum is provided for all children regardless of ethnic origin, gender, class, aptitude or disability;
- meet the national curriculum requirements for Computing;
- embed Computing across a curriculum that acknowledges its contribution to learning in all other subjects;
- equip pupils with a progression of Computing skills that they can apply both in and out of school;
- support all staff to make effective use of ICT at a professional level;

- make effective use of computers to transform teaching and learning providing opportunities that would otherwise not be possible;
- facilitate electronic communication between home and school;
- ensure the safety and well being of our pupils; and
- ensure computing resources are relevant and sufficient.

Our practice

We believe it is important in the foundation stage to give children a broad, play-based experience of ICT in a range of contexts, including outdoor play. ICT is not just about computers. Early years learning environments should feature ICT scenarios based on experience in the real world, such as in role-play. Children gain confidence, control and language skills through opportunities to 'paint' on the whiteboard or drive remote-controlled toys. Recording devices can support children to develop their communication skills. This is particularly useful with children who have English as an additional language.

In KS1 and KS2 Computing lessons form part of the weekly timetable and they are taught in half termly unit blocks. Cross-curricular links are often made with other subjects and thus Computing is used extensively for research into topic work. Computing is not exclusively taught in the ICT suite, as children and teachers have access to laptops and tablet computers in the classroom and this helps to integrate Computing as part of our lifelong learning and everyday life.

KS1 and KS2 teaching staff plan, prepare and deliver the Computing curriculum using the 'Switched on Computing' Scheme based on the National Curriculum. Teachers keep parents informed through termly topic webs. The subject leader ensures that he or she is kept up to date with any changes in legislation and disseminates any changes to staff. It is the responsibility of the subject leader to order any computing resources required and to inform staff of any new support or resources available to aid the teaching of computing within school.

A variety of teaching methods are employed to deliver the Curriculum, aimed at engaging children in visual, auditory and kinaesthetic activities. Enquiry and self-help skills are taught to enable children to become independent learners who are highly motivated.

Short-term plans are prepared by the teacher indicating specific activities, differentiated learning and assessment for learning and using the 'Switched on Computing' Programme for KS1 and KS2. Teachers assess computing on an ongoing basis through observation and discussion with children. Assessments are made in accordance with the National Curriculum requirements and inputted annually onto Kender's tracking system. Parents are also informed of these judgments through their child's annual reports.

Features of Progression

To ensure children make progress in computing, teaching should promote

opportunities for children, as they move through the Key Stages, to progress:

- from using single forms of information to combining different types of information, matching the form of presentation to the audience and what is being communicated;
- from personal use of ICT to using ICT to meet the needs of, and communicate with, others;
- from using ICT to replicate and enrich what could be done without ICT eg playing a word game or drawing a picture to using ICT for purposes that could not have been envisaged without it such as exploring 'what if' situations and modelling new ones;
- from using everyday language to describe work with ICT to increasingly precise use of technical vocabulary and ways of recording;
- from personal use of ICT in a few areas to understanding a wider range of uses of ICT and the consequences of its use for themselves, their work and others;
- from using ICT to address a single task eg writing a story to addressing more complex issues, and balancing conflicting needs and criteria;
- from organising information as separate items eg single graphic image to organising information in sequences and more complicated, interactive, structures eg a multimedia presentation or a database; and
- from initial exploration of ideas and patterns to more systematic use of ICT for analysis and design.

Our monitoring, evaluation and reporting

On-going formative assessment is an integral part of good practice. Its main purpose is to enable the teacher to match work to the abilities and needs of the children and ensure progression in learning.

Computing skills capability should be monitored regularly in relation to the Computing curriculum as outlined in the 'The National Curriculum' for England. Teachers should assess module requirements with reference to children's knowledge, understanding and skills. Other opportunities for assessment will arise from cross-curricular work.

Samples of work should be kept for groups of children stored in classrooms or on the school network within relevant class folders.

For the EYFS, observations and discussions are recorded and forms the main part of our assessment.

Links to other curriculum areas

Cross-curricular links are made with other relevant topics of study. Computing has deep links with mathematics, science, and design and technology, and so wherever possible is used by children and staff to develop basic skills for enjoyment and research.

Links to other policy documents

Safeguarding policy
Curriculum policy documents

Access to this policy document

This policy is available via the school office, the school website or on request.