Alfriston School
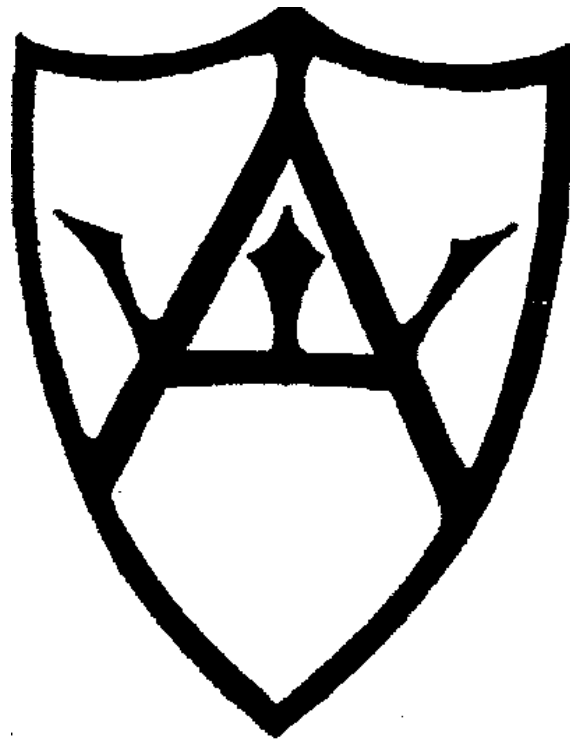

Computing Policy

Approved by staff: February 2022

Next Review: February 2024

ALFRISTON SCHOOL 'Fair, Friendly, Fulfilling & Fun!'

Our Curriculum Intent

VISION
We have high aspirations for all of our children to be happy, confident, responsible and knowledgeable individuals who can learn at their best. We delight in equipping all children to achieve personal success and develop a lifelong love of learning.

Collaborative Bee

Our curriculum and wider school community provide opportunities for us to work together and learn from each other in a supportive environment. We model effective communication and teach coaching skills to enable children to recognise their own needs and those of others.

Curious Meerkat

Our curriculum is designed to enable children to become critical thinkers and develop a thirst for new experiences. We encourage children to develop their questioning skills in order to build on prior learning and deepen their knowledge.

Creative Spider

We have a diverse and creative curriculum, providing a wide range of first hand experiences and extra-curricular activities. We celebrate the individuality of all our learners, giving them the confidence to express themselves. We provide a safe and supportive environment in which they can find different ways to deepen their learning.

Independent Cat

Through our curriculum, we provide opportunities for all children to be independent learners with high aspirations. Pupils of all abilities and social backgrounds are given the opportunity to achieve. Every child is recognised as a unique individual.

Determined Tortoise

Our curriculum provides breadth, depth and challenge. We model the importance of resilience, encouraging children to embrace mistakes as part of learning and development. We motivate each child to believe that they can persevere in order to meet their own potential.

Kind Hands

Kind Feet

Kind Words

Kind Everything

Introduction

"A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science, and design and technology, and provides insights into both natural and artificial systems. 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."

Primary National Curriculum for Computing 2014

Through our computing curriculum we aim to give our pupils the life-skills that will enable them to embrace and utilise new technology in a socially responsible and safe way. We want our pupils to be able to operate in the 21st century workplace and we want them to know the career opportunities that will be open to them if they study computing. We want children to become autonomous, independent users of computing technologies, gaining confidence and enjoyment from their activities. We want the use of technology to support learning across the entire curriculum and to ensure that our curriculum is accessible to every child. Not only do we want them to be digitally literate and competent users of technology but through our computing lessons we want them to develop creativity, resilience and problem solving skills

by learning how to be 'computational thinkers'. We want our pupils to have a breadth of experience to develop their understanding of themselves as individuals within their community but also as members of a wider global community and as responsible digital citizens.

Curriculum

Computing is a foundation subject within the national curriculum. The programmes of study for computing are separated into KS1 and KS2.

Curriculum 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
- To respond to new developments in technology
- To equip pupils with the confidence and skills to use digital tools and technologies throughout their lives.
- To enhance and enrich learning in other areas of the curriculum using IT and computing.
- To develop the understanding of how to use computers and digital tools safely an responsibly

The National Curriculum for Computing aims to ensure that all pupils:

- can understand and apply the fundamental principles of computer science, including logic, algorithms, data representation, and communication
- can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
- can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems.
- are responsible, competent, confident and creative users of information and communication technology.

Foundation Stage

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. Children may also be introduced to basic keyboard and mouse skills through directed activities.

Outdoor exploration is an important aspect and using digital recording devices such as video recorders, cameras, microphones and tablets can support children in developing

communication skills. This is particularly beneficial for children who have English as an additional language.

Key Stage 1 and 2

At Alfriston Primary School, we follow the National Centre for Computing Excellence (NCCE) Teach Computing curriculum in line with National Curriculum for Computing expectations.

Key Stage 1 Computing
By the end of Key Stage 1, children 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 computing the behaviour of simple programs
- organise, store, manipulate and retrieve data in a range of digital formats
- communicate safely and respectfully online, keeping personal information private, and recognise common uses of information technology beyond school.

Key Stage 2 Computing
By the end of Key Stage 2, children should be taught to:

- design and write 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; 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.

Alfriston Primary School's computing curriculum cycle documents for EYFS, Key Stage 1, Lower Key Stage 2 and Upper Key Stage 2 lay out when units of work will be taught across the year.

The curriculum cycle documents can be found within the subject folder on our local network:

[Computing – NCCE 2021](#)

Assessment, Recording and Reporting

Teachers regularly assess progress through observations and evidence. Key objectives to be assessed are taken from the National Curriculum to assess computing each term. The school uses key indicators from the NCCE progress trackers in our own assessment documents. Assessing computing is an integral part of teaching & learning and key to good practice.

Assessment should be process orientated - reviewing the way that techniques and skills are applied purposefully by pupils to demonstrate their understanding of computing concepts. As assessment is part of the learning process, it is essential that pupils are closely involved. Assessment can be broken down into:

- Formative assessments are carried out during and following short focused tasks and activities. They provide pupils and teaching staff the opportunity to reflect on their learning in the context of the agreed success criteria. This feeds into planning for the next lesson or activity.

- Summative assessment should review pupils' ability and provide a best fit 'level'. Independent tasks provide a number of opportunities and scope for pupils to demonstrate their capability throughout the term. There should be an opportunity for pupil review and identification of next steps. Summative assessment should be recorded for all pupils – showing whether the pupils have met, exceeded or not achieved the learning objectives.

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, obtained or exceeded the expectations of the unit.

We record the results in our assessment files and we use these to plan future work, provide the basis for progress and to communicate with the pupil's future class teacher(s). The children's work is saved in their Google Drive. Other work may be completed in, or printed and displayed in, their topic/ Learning Journey books.

Resources and Access

The school acknowledges the need to continually maintain, update and develop its resources and to make progress towards consistent, compatible computer systems by investing in resources that will effectively deliver the objectives of the National Curriculum and support the use of IT, computer science and digital literacy across the school. Teachers are required to inform the computing subject leader of any faults as soon as they are noticed. A service level agreement with Schools ICT is currently in place to help support the subject leader to fulfil this role both in hardware & software. Every classroom has a computer connected to the school network and an interactive whiteboard with sound and video facilities, and internet access is available in all classrooms. Each class has an allocated slot one afternoon per week for teaching computing as a discrete subject. Devices including Chromebooks, laptops and iPads are available for use throughout the school day as part of computing lessons and for cross-curricular use. Pupils may use IT and computing independently, in pairs, alongside a TA or in a group with a teacher.

Security

We take security very seriously. As such:
- the computing technician will be responsible for regularly updating anti-virus software.
- use of IT and computing will be in line with the school's 'acceptable use policy' (AUP). All staff, governors, volunteers and pupils must sign a copy of the schools AUP.
- parents will be made aware of the 'acceptable use policy' and will be asked to sign a Parent Consent Form – Acceptable Use Agreement for Electronic Devices when their child joins the school.

- in year 1 (start of KS1) and in year 3 (start of KS2) the AUP will be sent home for children to sign.
- each year, pupils will be reminded of the 'Acceptable Use of Technology Policy Agreement'.
- 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 consequence of any misuse.
- the agreed rules for safe and responsible use of IT and computing and the internet will be displayed in all computing areas.

Cross curricular links

As a staff we are all aware that IT and computing skills should be developed through core and foundation subjects. Where appropriate, IT and computing should be incorporated into schemes of work for all subjects. IT and computing should be used to support learning in other subjects as well as developing computing knowledge, skills and understanding. Our school provides pupils with opportunities to enrich and deepen learning using cross-curricular approaches which embeds computing in English, Mathematics, Science, Geography and History from Year 1 to Year 6.

Parental involvement

Parents are encouraged to support the implementation of IT and computing where possible by encouraging use of IT and computing skills at home for pleasure, through home-learning tasks and use of the school's online learning platform. Parents will be made aware of issues surrounding online safety and encouraged to promote this at home.

SEND and Equal opportunities

We believe that all children have the right to access IT and computing. In order to ensure that children with special educational needs achieve to the best of their ability, it may be necessary to adapt the delivery of the computing curriculum for some pupils.

We teach IT and computing to all children, whatever their ability. Computing forms part of the national curriculum to provide a broad and balanced education for all children. Through the teaching of computing we provide opportunities that enable all pupils to make progress. We do this by setting suitable challenges and responding to each child's individual needs. Where appropriate IT can be used to support SEN children on a one to one basis where children receive additional support.

The Role of Subject Leader

The Computing subject leader will:

- ensure teachers understand the requirements for teaching Computing in the national curriculum and support lesson planning.
- ensure resources are up-to-date and easy to access
- lead by example by setting high standards in their own teaching;
- keep up-to-date with local and national developments and disseminate this information to staff;
- prepare, organise and lead CPD;

- monitor and evaluate Computing provision in the school by conducting regular planning and work scrutiny, lesson observations, learning walks and assessment data analysis, with a view to identifying the support teachers and children need;
- write an action plan that forms part of the SDP and is reviewed annually;
- discuss regularly with the Headteacher the progress of implementing the National Curriculum for Computing in school.

<u>Linked Policies</u>

Online Safety & ICT Acceptable Use Agreement

Online Safety Policy (adopted from ESCC)

Feedback and Marking Policy

Equality Policy

SEND Policy

Anti-Bullying Policy

Behaviour Policy

Safeguarding & Child Protection

Prevent Policy

MHEW Policy