Westgate Primary School
Computing Policy

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… 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.'

Computing Programme of Study, DfE, 2013

This policy document sets out the school's aims, principles and strategies for the delivery of computing. It will form the basis for the development of computing in the school over the next 3 years.

Intent Statement
At Westgate we want to equip children with the confidence and skills to work and play in a world where technology is continuously evolving, and is of increasing importance for their future, both at home and in employment. Children need to be curious, competent users of a range of technologies, who fully grasp the impact and potential of emerging technologies on our lives, both socially and as problem solving tools. Our curriculum focuses on computer science, safeguarding, information literacy, data handling and media. These strands are revisited in each year group, through a range of subjects, ensuring the learning is embedded and skills are successfully developed. This ensures our children become digitally literate in order to be creative, active participants in a digital world, who understand the importance of using technology sustainably, safely and respectfully.

Aims and Objectives
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

These aims are fulfilled through our computing curriculum across school as follows:

Early Years
It is important in the Foundation Stage to give children a broad, play-based experience of Computing in a range of contexts, including outdoor play. Computing is not just about computers. Early years learning environments should feature computing scenarios based on experience in the real world, such as in role play.

Key Stage 1
Pupils are taught to:

- understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions;
- create and debug simple programs;
- use logical reasoning to predict the behaviour of simple programs;
- use technology purposefully to create, organise, store, manipulate and retrieve digital content ;

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- recognise common uses of information technology beyond school;
- 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.

Key Stage 2
Pupils should be taught 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 some simple algorithms work 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;
- use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content;
- 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;
- use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Teaching and Learning
The teaching of Computing combines practical and theory lessons designed not only to introduce skills but to promote discussion and nurture understanding, as well as enthusing pupils. Teachers use resources from a variety of sources, including *Rising Stars and Purple Mash* to meet the requirements of the National Curriculum Programmes of Study for Computing. This policy should be read in conjunction with the Scheme of Work for Computing, and the Knowledge Organisers, which set out in detail what children in different year groups will be taught and how this can facilitate or enhance learning in other curriculum areas. Children may be required to work individually, in pairs or in small groups according to the nature of the task. Different outcomes may be expected depending on the ability and needs of the individual child.

Organisation of Content
Our Scheme of Work is based on the National Curriculum requirements and has been adapted in conjunction with the Curriculum Innovation Computing Scheme of Work. It is reviewed and updated as necessary.

The Computing Curriculum is based on and has been split into three aspects. These aspects are Digital Literacy, Computer Science and Applying Technology.

Two of the aspects are broken down further. The *Applying Technology* aspect includes Media and Data Handling. The *Digital Literacy* aspect includes Information Literacy. This focuses on searching for information and checking its accuracy and plausibility and Safeguarding. This focuses on teaching pupils to communicate safely and respectfully online as well as protecting themselves and others from online threats, and is incorporated into our school's PSHE curriculum. This includes the promotion of British Values, specifically: the rule of law in relation to lawful use of computers; and respect and tolerance for those with different faiths and beliefs, through raising children's awareness of the risks of online radicalisation and extremism.

Assessment
Teachers regularly assess pupils' attainment in Computing against key outcomes identified in the Scheme of Work (child friendly versions can also be found on the Knowledge Organisers) through observations and evaluation of completed activities. Children's Computing work is saved on the school network in individual files.

Resources and Access
The school acknowledges the need to continually maintain, update and develop its resources and to make progress towards a consistent, compatible system by investing in resources that will effectively deliver the requirements of the National Curriculum and support the use of computing across the school. To enable regular and whole class teaching of Computing, access to three banks of laptops and a bank of iPads is timetabled for each class. Laptops are located in the KS2 library and the KS1 cupboard; iPads are also stored in the KS2 library and must be returned to the charging trollies when not in use.

Relevant software is loaded onto devices: access to a wide range of 2Simple software is achieved through Purple Mash in Reception/ KS1. The school also uses a remote management system (Jamf) to manage apps efficiently on school iPads.

Each member of teaching staff also has a laptop and iPad, which they are able to use at home to plan and prepare lessons using technology.

Every class has an interactive touch-screen board linked to a main computer on the school network and iPads can be wirelessly linked to the screen to support teaching and learning.

Teachers are required to inform the technician of any faults as soon as they are noticed **via email or telephone**.

Health and safety (see also Health & Safety Policy)
The school is aware of the health and safety issues involved in children's use of computing.
- All fixed electrical appliances in school are tested by a reputable contractor at least every five years and all portable electrical equipment in school is tested by an external contractor every twelve months. It is advised that staff should not bring their own electrical equipment in to school but if this is necessary, then the equipment must be PAT tested before being used in school.
- Damaged equipment should be reported to the technician or Computing Leader who will arrange for repair or disposal.
- Children should not put plugs into sockets or switch the sockets on.
- Trailing leads should be made safe behind the equipment.
- Liquids must not be taken near the computers.
- E-safety forms an integral part of the curriculum and the school will deliver further education through assemblies and parent presentations.

SEN, Inclusion and Equal Opportunities
We will ensure that all children are provided with the same learning opportunities whatever their gender, culture, race, disability or learning difficulties. As a result we hope to enable all children to develop positive attitudes towards others. All pupils have equal access to computing and all staff members follow the equal opportunities policy.

The Role of the Subject Leader
The Computing subject leader's role is to:
- Provide support and guidance to colleagues;
- Be an advocate and a champion for the subject;
- Keep up to date with developments in Computing and disseminate information to colleagues as appropriate;
- Work in collaboration with class teachers to manage the resources;
- Look after matters relating to the curriculum including development of the curriculum and assessment.

Whole school coordination and support is essential to the development of Computing: however it is the responsibility of each individual teacher to plan and teach appropriate computing activities and assist the leader in the monitoring and recording of pupil progress in the subject.

Monitoring and Evaluation
Monitoring is carried out by the subject leader for Computing and by the Senior Leadership Team, in the following ways:
- Informal discussion with staff and pupils;
- Monitoring of the implementation of the Computing Scheme of Work;

- Looking at children's saved computing files and observing children at work.

Information gathered through monitoring activities is used to inform subject leader action planning, changes to the school Scheme of Work, and the School Improvement Plan, as appropriate.

This policy was agreed in May 2022 and will be reviewed every three years thereafter.

Signed: **(On behalf of the governing body)**

Signed: **(Head teacher)**

Date: **04/05/2022**

See also:
Computing Acceptable Use Policy
E-Safety Policy