Computing Policy

Agreed by: School
Agreed date: Autumn 2019
Review date: Autumn 2020
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Introduction

This policy sets out West Acton Primary School’s aims and strategies for the successful delivery of Computing. This policy should be read in conjunction with other relevant school policies such as the Safeguarding, Online Safety, Twitter Policy and Procedures, Equal Opportunities, and SEND policies.

The policy has been devised by school leaders using guidance from Purple Mash, consultants and pupil, parent and staff voice questionnaires have shaped and will continue to help shape this policy. This policy is based on government recommended/statutory programmes of study.

Due to the fast pace of technology innovation and constantly emerging trends, it is recommended that this policy is reviewed, at minimum, at the start of every academic cycle.

Aims

West Acton Primary School believes that every child should have the right to a curriculum that champions excellence; supporting pupils in achieving to the very best of their abilities. We understand the immense value technology plays not only in supporting the Computing and whole school curriculum but overall in the day-to-day life of our school. We believe that technology can provide: enhanced collaborative learning opportunities; better engagement of pupils; easier access to rich content; support conceptual understanding of new concepts and can support the needs of all our pupils.

Our Aims:

- Provide an exciting, rich, relevant and challenging Computing curriculum for all pupils.
- Enthuse and equip children with the capability to use technology throughout their lives.
- Give children access to a variety of high-quality hardware, software and unplugged resources.
- Instil critical thinking, reflective learning and a ‘can do’ attitude for all our pupils, particularly when engaging with technology and its associated resources.
- Teach pupils to become responsible, respectful and competent users of data, information and communication technology.
- Teach pupils to understand the importance of governance and legislation regarding how information is used, stored, created, retrieved, shared and manipulated.
- Equip pupils with skills, strategies and knowledge that will enable them to reap the benefits of the online world, whilst being able to minimise risk to themselves or others.
- Use technology imaginatively and creatively to inspire and engage all pupils, as well as using it to be more efficient in the tasks associated with running an effective school.
- Provide technology solutions for forging better home and school links.
- Utilise computational thinking beyond the Computing curriculum.
- Exceed the minimum government recommended/statutory guidance for programmes of study for Computing and other related legislative guidance (online safety).
Safeguarding

Online safety:
Online safety has a high profile at West Acton Primary School for all stakeholders. We ensure this profile is maintained and that pupil needs are met by the following:

- A relevant up-to-date online safety curriculum which is progressive from Early Years to the end of Year 6.
- A curriculum that is threaded throughout other curriculums and embedded in the day-to-day lives of our pupils.
- Training for staff and governors which is relevant to their needs and ultimately positively impacts on the pupils.
- Scheduled pupil voice sessions and learning walks steer changes and inform training needs.
- Through our home/school links and communication channels, parents are kept up to date with relevant online safety matters, policies and agreements. They know who to contact at school if they have concerns.
- Pupils, staff and parents have Acceptable Use Policies which are signed and copies freely available.
- Our online safety policy (in addition to our safeguarding policy) clearly states how monitoring of online safety is undertaken and any incidents/infringements to it are dealt with.
- Filtering and monitoring systems for all our online access.
- Data policies which stipulate how we keep confidential information secure.

Health and Safety

- West Acton Primary School takes all necessary measures to ensure both staff and pupils are aware of the importance of health and safety.
- Both staff and pupils are trained to handle electrical equipment correctly including how to power off and on. Pupils are reminded about the dangers of electricity and the danger signs to look out for. Adequate displays and warning signs are strategically placed around the school to reinforce health and safety.
- All staff should visually check electrical equipment before they use it and take any damaged equipment out of use. Damaged equipment should then be reported to the Subject Leader or Headteacher who will arrange for repair or disposal.
- All fixed electrical appliances in School are tested by a LA contractor every five years and all portable electrical equipment in School is tested by an external contractor every twelve months. Staff are advised not to bring their own electrical equipment into School but if this is necessary, then the equipment must be PAT tested before being used in School.

Security

- The Computing technician is responsible for regularly updating anti-virus software.
- Use of ICT and Computing will be in line with the School’s ‘Acceptable Use Policy’. All staff, volunteers, parents, and children must sign a copy of the School’s AUP.
- Parents will be made aware of the ‘Acceptable Use Policy’ on admission and at the beginning of each Key Stage.
• The agreed Rules for Safe and Responsible Use of ICT and Computing and the Internet will be displayed in all ICT and computing areas.

Curriculum
As a school, we have chosen the Purple Mash Computing Scheme of Work from Reception to Year 6. The scheme of work supports our teachers in delivering fun and engaging lessons which help to raise standards and allow all pupils to achieve to their full potential. We are confident that the scheme of work more than adequately meets the national vision for Computing. It provides immense flexibility, strong cross-curricular links and integrates perfectly with the 2Simple Computing Assessment Tool. Furthermore, it gives excellent supporting material for less confident teachers.

Implementation:
At West Acton Primary School, we aim to deliver the Computing curriculum through both explicit lessons and a broad range of cross-curricular experience. We ensure the pupils are reaching the computing curriculum by:

• Each class has one explicit Computing lesson each week in the ICT suite to deliver the Purple Mash Computing Scheme of Work.
• Each classroom has access to pupil computers to enhance learning and engagement.
• Other resources and equipment are available (for instance iPads and cameras) to use in other lessons to support engagement and develop Computing skills.

Cross curricular links
As a staff we are all aware that ICT and computing capability should be achieved through Core and Foundation Subjects. Where appropriate, ICT and Computing should be incorporated into schemes of work for all subjects. ICT and Computing should be used to support learning in other subjects as well as develop Computing skills.

Early Years Implementation
In addition to one explicit Computing lesson in the ICT suite each week we believe in incorporating technology regularly into the Early Years classrooms. We aim to provide our pupils with a broad, play-based experience of Computing in a range of contexts. We believe the following:

• Early Years learning environments should feature ICT scenarios based on experience in the real world, such as in roleplay.
• Pupils gain confidence, control and language skills through opportunities to ‘paint’ on the interactive board/devices or control remotely operated toys.
• Outdoor exploration is an important aspect, supported by ICT toys such as metal detectors, controllable traffic lights and walkie-talkie sets.
• Recording devices can support children to develop their communication skills. This is especially useful for children who have English as an additional language.

Teaching and Learning Objectives
Early Year Learning Goals:
• Knows how to operate simple equipment.

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• Knows that information can be retrieved from computers.
• Completes a simple program on a computer.
• Interacts with age-appropriate computer software.
• Recognise that a range of technology is used in places such as homes and schools.
• Select and use technology for particular purposes.

**Key Stage 1 Outcomes:**
• 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.
• 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 Outcomes:**
• 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 worldwide 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.

**Assessment, Marking and Feedback**
• Pupil attainment is assessed using the 2Simple Computing Assessment Tool for Years 1 to 6. The tool enables staff to accurately identify attainment of pupils through the detailed exemplification it has for each key learning intention.
• Teachers keep accurate records of pupil attainment by entering data using the 2Simple Computing Assessment Tool.
• Tracking of attainment by using the 2Simple Computing Assessment Tool is used to inform future planning.
• Children are encouraged to self, peer and group assess work in a positive way using online collaborative tools such as 2Blog in Purple Mash.
• Formative assessment is undertaken each session/interaction in Computing and pupils are very much encouraged to be involved in that process. Through using the progression of skills
documents and displays from 2Simple, both teachers and pupils can evaluate progress. Features such as preview and correct in Purple Mash are used to further support feedback and assessment.

- Summative assessment is undertaken in line with the assessment cycle (See Assessment Policy). Using electronic work samples from children’s portfolios on Purple Mash, teachers enter judgements about the samples into the 2Simple Computing Assessment Tool.
- Work from a range of classes and abilities is shared using the Noticeboard feature in Purple Mash. Additionally, exemplar pieces of work from individual pupils is shared with parents using class blogs, class display boards and school display boards.

**Resources**
A variety of software is available for supporting lessons across the curriculum. All software is recommended by the LA is used in School. Pupils also have access to resources online to cover all aspects of the curriculum. These resources are monitored and used under the guidance and supervision of the class teacher.

- All resources are procured with the underlining considerations of value: The extent at which the resource impacts on learning and the material cost of this. Protocol details for procurement can be found in the school finance policy.
- A range of resources is available which successfully supports delivering the Computing curriculum and enables all learners to reach their full potential.
- Resources are suitably maintained and replenished when needed, which is overseen by the Computing Leader.
- An itemised list of all resources is shared with staff and kept up to date by the Computing Leader.
- Audits of school resources are conducted regularly by the Computing Leader, which informs bidding for budgets allocations.
- The Computing Leader keeps up to date with the latest technology resources and will make informed decisions about possible procurement of them through their own research.
- Suggestions for getting the very best out of the resources are made available to teaching and support staff by the Computing Leader.
- The Computing Action Plan details foreseen future resource procurement which is shared with senior leaders before the budget setting period.

**Inclusion**
At West Acton Primary School, we aim to enable all children to achieve to their full potential. This includes children of all abilities, social and cultural backgrounds, those with disabilities, EAL speakers and SEN statement and non-statemented. We place particular emphasis on the flexibility technology brings to allowing pupils to access learning opportunities, particularly pupils with SEN and disabilities. With this in mind, we will ensure additional access to technology is provided throughout the school day and in some cases beyond the school day.

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Monitoring, Evaluation and Feedback
Monitoring standards of teaching and learning within Computing is the primary responsibility of the Computing Leader. All teachers are expected to keep an online portfolio or track children’s work using Purple Mash. This portfolio must contain work samples from all areas of the curriculum taught for the year group.

Details of monitoring and evaluation schedules can be found in the Computing Action Plan and School Monitoring Schedule.

Monitoring will be achieved through:
- Work scrutiny.
- Learning walks.
- Observations.
- Pupil voice.
- Teacher voice.
- Reflective teacher feedback.
- Learning environment monitoring.
- Dedicated Computing Leader and Assessment Leader time.

Evaluation and Feedback will be achieved through:
- Dedicated Computing Leader and Assessment Leader time.
- Using recognised standards documentation for end-of-year expectations.
- Using recognised national standards for benchmarking Computing provision in primary schools.
- Written feedback on evaluation of monitoring activities to be provided by the Computing Leader in a timely manner.
- Feedback on whole school areas of development in regard to Computing to be fed back through insets/AOB/staff meetings.

Roles and Responsibilities
Due to technology extending beyond the National Curriculum for Computing, there are key roles and responsibilities specific members of staff have.

Head Teacher
- Monitoring the implementation of the Computing Policy and its associated policies such as the Safeguarding and SEND Policies.
- Ratifying (in conjunction with the Governing Body) the Computing policy, Safeguarding policy and Computing Leader’s Action Plan.
- Securing technical support service contracts and infrastructure maintenance contracts.
- Approving CPD and training which is in line with the whole school’s strategic plan.
- Approving budget bids and setting them. Creating in conjunction with the Computing Leader, a long-term vision for Computing which includes forecasted expenditure and resources.
- Monitoring the performance of the Computing Leader in respect to their specific job role description for Computing.
• Ensuring any government legislation is being met.

Computing Leader and Twitter Leader
• Raising the profile of Computing for all stakeholders.
• Monitoring the standards of Computing and feeding back to staff in a timely fashion so they can act on areas for development.
• Ensuring assessment systems are in place for Computing.
• Maintaining overall consistency in standards of Computing across the school.
• Reporting on Computing at specific times of the year to the Governing Body/Head/Staff.
• Auditing the needs of the staff in terms of training/CPD.
• Actively supporting staff with their day-to-day practice.
• Seeking out opportunities to inspire staff in developing their practice through modelling and sharing new ideas, approaches and initiatives.
• Attending training and keeping abreast with the latest educational technology initiatives.
• Using nationally recognised standards to benchmark Computing.
• Creating Action Plans for Computing and supporting a long-term vision which feeds into the whole school development plan.
• Creating bids for the annual budgets and monitoring budget spend.
• Keeping an up-to-date log of all resources available to staff.
• Procuring physical and online resources that demonstrate best value.
• Reviewing the Computing curriculum and developing it as needed.
• Overseeing the effectiveness of the technician.
• Working as needed with the SENCO/Head Teacher to ensure online safety provision is above adequate and all legislation is in place.
• One teacher is responsible for the school twitter account (see Twitter policy and procedures document)

Technician
• Conducts routine scheduled maintenance/updates on systems.
• Supports the administration and set-up of online services including the school website.
• Fixes errors/issues with hardware and software set-up, prioritising as needed.
• Routinely checks school filtering, monitoring and virus protection.
• Sets up new hardware and installations.
• Maintains network connectivity and stability.
• Supports the Computing Leader and Head Teacher with future infrastructure needs and associated projected costs.

Teaching Staff
• Implementing the Computing curriculum
• Planning for and implementing a broad range of activities that provide exposure to a variety of different technology.
• Utilising the sharing resources on Purple Mash (blogs and display boards) to present exemplary work and encourage feedback between peers.

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• Updating and providing passwords for leavers and new starters and ensuring these are kept safe and secure.
• Supporting parents in how they can support their children at home using Purple Mash and other online resources.

Administration Staff
• Maintains the school website content.
• Posts approved requests to the school’s social media accounts.
• Supports procurement of resources and technical services.
• Supports the technician with some data management.

Home School Links
At West Acton Primary School, we provide access to a variety of resources that help to enhance the curriculum and enables all learners to reach their full potential. All pupils are provided with safe and secure passwords so that they can access these resources both at home and at school. Pupils are encouraged to utilize these online programs to support their learning at home. Parents are shown how to do this successfully during workshops, parents evenings and other events regularly.

The school website promotes the school and children’s achievements as well as providing information and communication between the school, parents and the local community. Online resources available at the school can be found on the school website and through the class teachers.

Parent Engagement
Parents are encouraged to support the implementation of Computing where possible by encouraging use of ICT and computing skills at home during home-learning tasks and through the school website. They will be made aware of online Safety and encouraged to promote this at home. Parents will be invited to a parental workshop annually. Current information will be provided for parents on the Online Safety section on the school website.
# Purple Mash Scheme of Work Year 1 - 6

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<td>Lego Builders</td>
<td>Maze Explorers</td>
<td>Animated Story Books</td>
<td>Coding</td>
<td>Spreadsheets</td>
<td>Technology outside school</td>
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<td>Programs – 2Go</td>
<td>Programs – 2Create A Story</td>
<td>Programs – 2Code</td>
<td>Programs – 2Calculate</td>
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<tr>
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<th>Unit 3.4 Touch Typing</th>
<th>Unit 3.5 Email (including email safety)</th>
<th>Unit 3.6 Branching Databases</th>
<th>Unit 3.7 Simulations</th>
<th>Unit 3.8 Graphing</th>
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<tbody>
<tr>
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<td>Programs – 2Type</td>
<td>Programs – 2Email, 2Connect, 2DIY</td>
<td>Programs – 2Question</td>
<td>Programs – 2Simulate, 2Publish</td>
<td>Programs – 2Graph</td>
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## Purple Mash Scheme of Work Year 1 - 6

### Theme Key:
- Coding and Computational thinking
- Spreadsheets
- Internet and Email
- Art and Design
- Music
- Databases and graphing
- Writing and Presenting
- Communication and networks

### Year 4

| Week | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| YEAR 4 | Unit 4.1 Coding | Unit 4.2 Online safety | Unit 4.3 Spreadsheets | Unit 4.4 Writing for different audiences | Unit 4.5 Logo | Unit 4.6 Animation | Unit 4.7 Effective Search | Unit 4.8 Hardware Investigators |
|       | Programs – Various | Programs – 2Calculate | Programs – 2Email, 2Connect, 2DIY | Programs – Logo | Programs – 2Email, 2Connect, 2DIY | Programs – Browser | Programs – Browser | Programs – Browser |

### Year 5

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<td>Programs – 2DIY 3D</td>
<td>Programs – 2Design and Make</td>
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