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Computing Policy

Record of Policy Amendment / History

Version/ Issue	Date	Author	Reason for Change
Version 1	June 2021	Purple Mash / DHamilton	-
Version 2	November 2022		Update to Link governor, curriculum, assessment & resources
Version 3	January 2023		Update to support for all learners.
Version 4	November 2023		Update link governor & resources

Computing Policy

Introduction

This policy sets out Elmsleigh Infant and Nursery School's aims and strategies for the successful delivery of Computing. This policy should be read in conjunction with other relevant school policies.

The policy has been developed by the Computing Lead (Ms Hamilton) in consultation with staff and 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.

Whole School Curriculum Intent

At Elmsleigh Infant School our intention is for every single child to have the knowledge, skills and purposeful experiences to provide them with the foundations to build a brighter future. We believe that by creating a magical, nurturing, safe and supportive learning environment we can enable our children to be responsible and respectful citizens who are ready for the next stage in achieving their dreams as independent learners.

Elmsleigh is on a mission to change lives every day - to ignite learning through passion, motivation and commitment to ensure that children reach their potential.

Right from the start, we want every child to become confident communicators in order to grow in becoming successful in all areas of the curriculum. Everything we believe in is underpinned through our clear and consistent approach to teaching phonics across the school.

Computing Curriculum Intent

At Elmsleigh Infant and Nursery School we understand that our children have varied digital experiences. Technology is everywhere and will play a pivotal part in students' lives, therefore we want to model and educate our pupils on how to use technology positively, responsibly and safely.

Through providing children with the knowledge and skills encompassed in computer science, information technology and digital literacy, we intend to continue to build a computing curriculum that enables children to be confident, creative and independent learners of the 21st century.

Computing Curriculum Implementation

In Nursery and Reception, computing skills are taught cross-curricularly using Barefoot Computing lessons and Sheffield ILS Computing toolkit 2021 (See EYFS computing overview). Children are taught to use equipment and software confidently and purposefully. Our school has implemented PurpleMash which provides teachers with a clear and progressive scheme of work in line with National Curriculum objectives for KS1. Teachers

are expected to follow the progression of units over the year as well as embedding computing across the curriculum. Children will have experiences of all three strands in Year 1 and Year 2, but the subject knowledge and vocabulary becomes increasingly more specific and in depth. Units of work are sequenced to enable prior knowledge and concepts to be built upon. We prepare our children to be safe online through three whole school online focus weeks and assemblies, PurpleMash Online Safety units, links to PSHE and Project Evolve.

The units of work have been mapped out across the year for KS1 (see KS1 computing overview for more information):

YEAR 1

Information Technology	Computer Science	Digital Literacy
Unit 1.2 Grouping and Sorting	Unit 1.4 Lego Builders	Unit 1.1 Online Safety
Unit 1.3 Pictograms	Unit 1.7 Coding	Whole school internet safety weeks
Unit 1.6 Animated Story Books	Using Beebots / programmable mice	
Unit 1.8 Spreadsheets		
Unit 1.9 Technology outside of school		

YEAR 2

Information Technology	Computer Science	Digital Literacy
Unit 2.4 Questioning	Unit 2.1 Coding	Unit 2.2 Online Safety
Unit 2.5 Effective Searching	Using Beebots	Unit 2.5 Effective Searching
Unit 2.6 Creating Pictures		Whole School Internet Safety weeks
Unit 2.7 Making Music		

We have a set of 15 chromebooks which are used by each class every week, this ensures we have a dedicated time for specific teaching of skills. These can also be used for remote learning. The computing curriculum is also enhanced by our iPad mini's, iPads, programmable toys and easi-speaks.

Computing Curriculum Impact

Before our children leave Elmsleigh, we aim for them to be confident users of technology and have a secure knowledge of the implications of technology. This is important in a society where technologies and trends are rapidly evolving. We want them to have developed a

curiosity as to how things work and how to think creatively to solve problems. Our Computing curriculum is high quality and is planned to demonstrate progression. We measure the impact of our curriculum in the following ways -

- Pupil and teacher discussions about their work and learning
- Continual assessment of the children's work which is saved in folders on PurpleMash
- Teaching staff in KS1 assess children's ability within specific aspects of computing termly using the progression of skills statements on Insight.
- Pupil progress is monitored and used to inform teaching, before being shared between year groups upon transition.
- Children's work is stored using Tapestry in EYFS, and then in Computing folders in KS1.
- Discussions with pupils by the subject leader in order to hear pupil voice.
- High quality displays in classrooms and around school.

Safeguarding: Online safety

Online safety has a high profile for all stakeholders (See our Online Safety Policy). 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 2 - see whole school online safety sessions overview.
- 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.
- Data policies which stipulate how we keep confidential information secure.
- A curriculum that is threaded throughout other curriculums and embedded in the day-to-day lives of our pupils.
- Pupils, staff and parents have Acceptable Use Policies which are signed and copies freely available.
- Training for staff and governors which is relevant to their needs and ultimately positively impacts on the pupils.
- Our online safety policy (part of our safeguarding policies) clearly states how monitoring of online safety is undertaken and any incidents/infringements to it are dealt with.
- Scheduled pupil voice sessions and learning walks steer changes and inform training needs.
- Filtering and monitoring systems for all our online access.
- Engagement in the 360 safe self-assessment tool.

Curriculum

As a school, we have chosen the Purple Mash Computing Scheme of Work for KS1. 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 and strong cross-curricular links. Furthermore, it gives excellent supporting material for less confident teachers.

Teachers' own use of technology in the classroom is an essential part of preparing and delivering engaging, motivating lessons. The computing co-ordinator will keep teachers up to date with the latest uses of technology and computing as a teaching tool. Teachers then need to implement these tools into their lessons wherever possible.

Early Years

We aim to provide our pupils with a broad, play-based experience of Computing in a range of contexts which link to varied areas of learning. EY children have access to BusyThings and Purplemash online learning platforms as well as using Barefoot Computing lessons and Sheffield ILS Computing toolkit 2021. We believe the following:

- Children in Early Years should develop their computational thinking through a range of activities.
- Recording devices can support children to develop their communication skills. This is especially useful for children who have English as an additional language or additional needs.
- 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/programmable toys.

Key Stage 1 outcomes (National Curriculum)

- 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
- 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.

Assessment

As a school, we use 'Insight' to track progress. Pupil attainment will be assessed against the knowledge and skills progression. This enables staff to accurately identify attainment of pupils for each key learning intention which in turn helps to inform future planning.

Work from a range of classes and abilities is shared using the Noticeboard feature in Purple Mash.

Formative assessment is undertaken each session/interaction in Computing and pupils are very much encouraged to be involved in that process. We will be using features such as preview and correct in Purple Mash to further support feedback and assessment.

Supporting All Learners

As a Purple Mash 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 needs / EHCP.

Within Purple Mash it is expected the lessons are differentiated by outcome and the support/scaffolding children are given. For each unit of work, there are three levels of outcomes. The emerging stage outcomes includes children in the lowest 20% who may have SEND learning needs.

For more able children, including high functioning SEND children, there are extension tasks provided in many of the lessons.

Within a computing lesson, you will see quality first teaching, and adult support, modelling, simplified language, scaffolding by breaking down the steps, demo videos and hints, mixed ability pairs, 'work experts' and USB mice for children who find the pad difficult to use. We also use visual prompts / support cards where needed.

We place particular emphasis on the flexibility technology brings to allow 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. Where needed, a variety of appropriate devices will be provided e.g. designated computers, tracker balls, Talking and Interactive software, and touch screens to enable children with Special Educational Needs to access the curriculum.

Organisation and Resources

Resources

- 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.
- The Computing Lead keeps up to date with the latest technology resources and will make informed decisions about possible procurement of them through their own research and with support from Esteem ICT Team.
- A range of resources are available which successfully support delivering the Computing curriculum and enables all learners to reach their full potential.
- Suggestions for getting the very best out of the resources are made available to teaching and support staff by the Computing Lead.
- Resources are suitably maintained and replenished when needed, which is overseen by the Computing Lead.
- An itemised list of all resources is shared with staff and kept up to date by the Computing Leader.

- The Computing Action Plan details foreseen future resource procurement which is shared with senior leaders before the budget setting period.
- Audits of school resources are conducted regularly by the Computing Leader, which informs bidding for budgets allocations.

Hardware

The school's hardware is logged on Parago. Each device has a sticker and unique number.

Key Stage 1 have a total of 12 chrome boxes, 3 in each classroom area and 15 Chromebooks to use as a class set, all connected to the network. Reception has 6 chrome boxes all connected to the network - 3 in each classroom.

Each classroom has a SMARTBoard Interactive Whiteboard, desk-top computer, a visualizer, webcam, keyboard, mouse and class teacher iPad. The desktop computer is attached to the interactive whiteboard ensures continuous use regardless of illness, supply cover or job shares. All teaching staff have a laptop.

The Rainbow room (special needs /autistic children) has a mobile 'visi-lift' which can be moved between areas, height and position adjustable, so it is accessible to all. This is connected to the network. They also have a set of iPads.

In the hall there is a projector and screen and facilities to enable a laptop to be connected for use in lessons and assemblies. There is also an internet connection, sound system and photocopier.

In the reception area we have a signing in screen for staff, parents and visitors to use to ensure the school have a log of all visitors to the school.

The school now has a bank of iPads and ipad mini's which are kept in a central place and can be booked out for specific group work. Every class can have access to these iPads. iPads will start to be replaced on a yearly rolling program with a view to each class having their own set.

Whole school resources located in central location off the hall

Programmable toys:

- 4 Pixies (Programmable floor Turtles.) together with appropriate resources
- 4 Bee-Bots
- 3 Constructa-bots
- 5 Pro-Bots to extend learning in Year 2.

Resources to enhance teaching and learning:

- Flip cameras - 4
- Easi-speaks - 4
- Easi-scope - 1
- Nintendo Wii
- Talking Tins / boards (Also in classrooms)
- Sets of 6 chargeable Beebots in each Reception class
- Set of 6 chargeable Beebots for KS1 to share
- Coding critters - Reception

Remote Control cars set - Nursery

Programmable Mice - Year 1

Class iPads - Each teacher has an iPad to keep in class.

Software

As a school, we now use the cloud to save work onto the shared drive. Software on staff laptops and desk-top computers will automatically update to the latest version.

Every computer is attached to a shared network which is monitored and maintained by the Computing coordinator and the technician. Staff do not have access to the administrator's password so are unable to download any of their own software without prior permission granted. We have entered into annual subscriptions to enable the school to access online learning sites and curriculum/assessment tools. These include:

Computing

Busy Things - EYFS. School log-in.

Purple Mash - Whole school. Individual logins

Wider Curriculum

Phonics Tracker - Whole School Phonics assessment tool.

Twinkl - Whole School teacher resources

Widget - SEND resources

All our iPads have the same apps installed to ensure continuity (A spreadsheet of installed apps is maintained by the Computing co-ordinator). These apps are organised into folders for each curriculum area. Apps are monitored and updated regularly, in line with current needs of the school.

Health, Safety and Security

Elmsleigh Infant and Nursery 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 reminded 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. PAT testing occurs on a yearly basis.

The school has a full security alarm system and consequently all computers are kept in classrooms. Blinds are closed at night for added security as most chromeboxes are now sited on tabletops as these are at the appropriate height for the pupils. Laptops and class iPads are kept in lockable cabinets.

Where necessary, computers and sockets have power breakers, and are regularly maintained.

The Computing Lead will inform relevant staff of any redundant hardware so the safe and environmentally friendly disposal of the equipment can be arranged.

Disposal of ICT Resources - The school will dispose of any ICT resources in line with current academy protocol. Computers or equipment that may contain sensitive files will have hard drives wiped. Audits will be updated when old hardware is disposed of and signed off by governors.

The Acceptable Use Policy sets out conditions under which pupils will be allowed access to the Internet, as well as Pupil Rules displayed in Computing areas for pupils to refer to. Access to web sites will be filtered and parents must agree to the Acceptable Use Policy. All pupils have access to the Internet under supervision and will be taught to use it purposefully.

Contingency Planning / Disaster Recovery

Administration System

The Pupil/Staff Data system (MIS) the school uses is Integris. This system is internet based and is backed up via cloud. Similarly, the SAP payroll and invoice system is internet based. There is no requirement therefore to back up systems via encrypted memory sticks.

Curriculum System

Back-ups are now cloud-based. This is completed on a regular basis so that the recovery of documents can be managed in the event of loss of data files or system failure. All management hardware and software are covered by a maintenance contract with Esteem Academy. All software and hardware is replaced and reloaded in the event of system failure, theft etc.

Contacts in the event of a system failure.

Esteem ICT Manager - Adrian Foster - afoster@esteemmat.co.uk Tel: 07572 373960

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 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 time.

Evaluation and Feedback will be achieved through:

- Dedicated Computing 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.
- Posts approved requests to the school's social media accounts.

Computing Lead

- 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.
- Working as needed with the Head Teacher /DSL to ensure online safety provision is above adequate and all legislation is in place.

Technician

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

Administration Staff

- Maintains the school website content.
- Supports procurement of resources and technical services.
- Supports the technician with some data management.

This policy will be reviewed yearly, more regularly if needed.