Aqueduct Primary School

Computing Policy
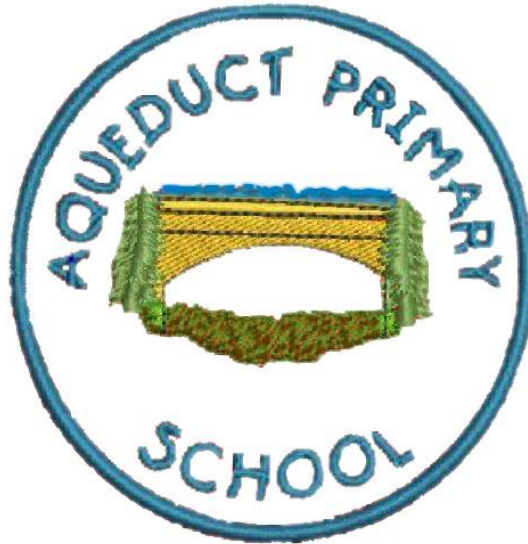
2022

Adopted by staff and Governors February 2022

- To help all children develop the skills and capabilities which is essential to developing Computer capability.

- Help all children to evaluate the benefits and risks of technology and how to manage their use of it safely and respectfully.

- Are responsible, competent, confident, and creative users in Computing

- Celebrate success in the use of technology.

The use of technology is an integral part of our curriculum and provides pupils with the technological and communication skills they will need to live in our modern world. At Aqueduct Primary School we use computing skills across all curriculum areas. This involves using the internet to look at sources of information. This is done in as safe a way as possible, using search engines, such as Kiddle and Kidrex, that are appropriate for children and under adult supervision. A large part of our Computing curriculum is Digital Literacy where we focus on E-safety to ensure our children are able to use the internet confidently and safely.

Our Computing policy recognises the value of using technology to enhance the curriculum but also realise that pupils need to have a sound awareness of how to keep safe. Computing has deep links with mathematics, science, design and technology and history, where Computing can be used for coding, creating timelines or creating data graphics for a science experiment.

Vision
"Building tomorrow, leading the way." (Whole School Vision Statement)
To develop lifelong transferable skills through promoting curiosity, confidence, and creativity whilst inspiring challenge.

Equal Opportunities
The Computing curriculum is planned, organised, and taught in ways which are compatible with the school's Equality policy.

- All learners are of equal value

- We recognise and respect difference

- We foster positive attitudes and relationships and a shared sense of cohesion and belonging

- We aim to reduce and remove inequalities and barriers that already exist

- We address prejudice and prejudice related bullying

To accommodate for equal opportunities, specialist computing equipment has been purchased to support the needs of all pupils within our school.

British Values
The children at Aqueduct Primary School also demonstrate the key British Values whilst accessing the Computing Scheme of Work. These values are:

Democracy
- Listening to everyone's ideas in order to form a majority.

- Working as part of a team and collaborating to use computing devices effectively.

Rule of Law
- Developing knowledge of lawful computing behaviours.

- Demonstrating respect for computing laws.

Individual Liberty
- Taking responsibility for our own computing behaviours.

- Exercising rights and personal freedoms safely through knowledge of E-safety.

Respect and Tolerance
- Showing respect for other cultures when undertaking research using computing devices.

- Providing opportunities for pupils of all backgrounds to achieve in computing.

Computing at Aqueduct Primary School

At Aqueduct Primary School our Computing curriculum follows the Purple Mash Scheme, which allows the school to provide creative curriculum focused activities using games and creative tools to support and inspire the children.

Foundation Stage

The Foundation Stage pupils investigate technology as part of Understanding of the World. Through exploratory play, children use technological toys and learn that they can make them work by pressing buttons and clicking on icons e.g., Bee Bots, torches, I-pads, computers, IWB, microphones, remote control vehicles, microwave and toaster. They are taught how to complete simple programs which they use to support their phonics and mathematical skills. Through role play, discussion and stories children learn that technology can be used for a range of purposes across home and school. Technology is used in the Foundation Stage, by adults and pupils to capture ideas, thoughts and experiences through images and text. This is a fundamental part of the evidencing process which tracks the learning journey.

Key Stage 1 and 2

In Key Stages 1 and 2, the planning, organisation and delivery of the Computing Curriculum is supported using the Purple Mash Computing Curriculum.
In Purple Mash, children will learn about different programmes, coding, online safety, games and creative tools. All the activities that children will be given will be open ended to allow children's creativity to flourish and allow the children to understand how different children and people express themselves. Children are also exposed to the Microsoft programmes as they progress throughout their school life. Children will be taught how to correctly use Microsoft Word, Publisher, PowerPoint, and Excel whilst understanding how to carefully select which programme dependent on the tasks needs. For example, creating a presentation to demonstrate work would require Microsoft PowerPoint.

At Key Stages 1 and 2 the Computing Curriculum is organised into the following aspects:

- E-Safety
- Programming
- Multimedia
- Technology in our lives

These themes are mapped in a long-term plan for the whole school and the learning objectives for each year group are linked to progression of skills and knowledge document to ensure progress is made across each year group (see appendix A)

Whole School Approach to Teaching and Learning of Computing

When delivering the National Curriculum for Computing, teachers are expected to employ a range of strategies and to use their professional judgement to decide on the most appropriate teaching and learning style.
These approaches include:
- An approach in order to develop their understanding of some of the underlying concepts of Computer Science (coding)

- Activities which allow pupils to practise and demonstrate their levels of understanding.

- Using presentation technology to demonstrate something to a group of pupils or the whole class

- Individual or paired work

- Collaborative group work

- Pupil led demonstrations / peer mentoring.

- Differentiated activities planned

- Teacher intervention where appropriate

Attainment targets

By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study. By the end of each academic year, the vast majority of pupils in each class will be working at National Standard. Finally, Year 6's will be given the opportunity to demonstrate their computing skills by combining and selecting the correct computer software to appropriately demonstrate the knowledge acquired during their time at Aqueduct Primary School.

Responsibilities carried out by an ICT Support Technician

All equipment is supported and maintained through a weekly visit from a technician who works under the direction of the Computing Subject Leader. He is directly employed by Telford and Wrekin Council and an SLA is in place for his services.

Monitoring

The Computing Subject Leader follows a systematic and regular programme of evaluation and monitoring of the Computing curriculum, across the school.

With the aim to:

- Check that the full curriculum is being delivered effectively

- Evaluate the success (or otherwise) of curriculum planning and delivery

- Have an awareness of impact and be able to demonstrate progression and attainment

- Have an overview of resource and staff training needs

- Ensure that aspects of Online Safety are taught appropriately and consistently

As a result of monitoring, appropriate CPD opportunities are provided for staff on an individual, group and whole school basis.

Parental Support

Children will have their own log in for Purple Mash where they will receive a personalised username and password. Children are therefore able to access Purple Mash at home to carry on their creative learning.

Safeguarding Children: Online Safety

Pupils and parents read, agree and sign a home school agreement which outlines the expectations for pupils to use the internet safely in school. From September 2022 parents will sign an **E-awareness Policy** to say that they understand and comply with our agreed school rules on how to be safe. The 'Think then Click' agreement is then returned to school and kept as a log for permission.

All staff read and sign the **Social media Policy** and agree that they understand and comply with our agreed school rules on using social networking sites and technology on school premises. This is also outlined in the **Staff Code of Conduct section 4.2 and 4.5**. The guidelines for how mobile technological devices are also outlined in this policy and agreed by all staff.

Safeguarding

Aqueduct School is committed to safeguarding and promoting the welfare of children and expects all staff and volunteers to share this commitment. This means that we have a Child Protection Policy and procedures in place which we refer to in our prospectus. All staff (including supply staff, volunteers and governors) must ensure that they are aware of these procedures. Families are welcome to read the Policy on the school website.

Our Designated Safeguard Leads (DSLs) are:

- • Tammy Lockley
- • Jo Clarke
- • Ash Palin
- • Cara Duppa
- • Lisa Batchelor

Our governor responsible for safeguarding is Louise Aubrey.

Area of Computing	RECEPTION	
E-Safety	I can talk about good & bad choices in real life (link to how the same things can happen on computers)	
	I can talk about good and bad choices when using websites – being kind, telling a grown up if something upsets us & keeping ourselves safe by keeping information private	
Programming	I can help adults operate equipment around the school, independently operating simple equipment (turning equipment on and off)	
	I can press buttons on a floor robot and talk about the movements (beebots)	
Multimedia	I can use a mouse to rearrange objects and pictures on a screen	
	I can recognise text, images and sound when using ICT	
	I can use a camera or sound recorder to collect photos or sound	
	I can use a keyboard to write my name	
Technology in Our Lives	I can recognise purposes for using technology in school and at home	
	I can understand that things I create belong to me and can be shared with others using technology	
	I can recognise that I can use the Internet to play and learn	

Appendix A

Area of Computing	YEAR 1
E-Safety Autumn 1 (cycle 1) **E-SAFETY DAY 8TH FEBRUARY**	I can stay safe online by choosing websites that are good for me to visit & not inappropriate sites (Safe internet search engines, kiddle, kidrex) Spring 2 (cycle 2)
	I can understand that if I create something, I own it (pictures, messages) Autumn 2 (cycle 2)
	I can begin to understand that many websites ask for information that are private Autumn 2 (cycle 2)
Programming Autumn 2 (cycle 1) Spring 2 (cycle 1) Spring 1 Summer 2 (cycle 2)	I can physically follow & give each other instructions to move around (Simon says, following exact commands)
	I can explore outcomes when buttons are pressed in sequences on a robot (beebots)
	I can begin to use software to create algorithms, movement & patterns on a screen -Purplemash, 2code, chimps (KS1 level)
	I can use the word debug to correct any mistakes when programming a floor robot - Purplemash, 2code, chimps, bubbles (Level 3 = the wrong bubbles pop)
	I can begin to predict what will happen for a short sequence of instructions in a program - Purplemash, 2code, chimps, turtle
	I can begin to programme a floor robot
Multimedia Autumn 1 (cycle 1) Autumn 1 (cycle 2)	I can type out a sentence using Microsoft Word
	I can use a video or camera to record an activity Summer 1 (cycle 1) Summer 1 (cycle 2)
	I can use index fingers (left and right hand) on a keyboard to build words & sentences
	I can use the space bar (thumbs) to make spaces between words.
Technology in Our Lives Spring 1 (cycle 1) Spring 2 (cycle 2)	I can begin to understand the reasons why we can use the Internet
	I can begin to understand what the Internet is and why it is used
	I can understand that not all things on the Internet will be true

Area of Computing	YEAR 2
E-Safety Autumn 1 (cycle 1) **E-SAFETY DAY 8TH FEBRUARY**	I can independently use safe search engines to search on the Internet Spring 2 (cycle 2)
	I can explore what cyber-bullying means & what to do if I encounter it Autumn 2 (cycle 2)
	I know that if I put information online it leaves a digital footprint or "trail" Autumn 2(cycle 2)
	I understand that not all websites are equally good sources of information Autumn 2 (cycle 2)
Programming Autumn 2 (cycle 1) Spring 2 (cycle 1) Spring 2 Summer 2	I can physically follow and give each other forward, backward & turn (right-angle) instructions
	I can create an algorithm to achieve a purpose
	I can predict what will happen & test results – Purplemash, 2code, chimps, turtle
	I can programme a floor robot to move forwards and backwards
	I can turn a floor robot
Multimedia Autumn 1 (cycle 2)	I can show control using a mouse using paint to draw a picture.
	I can create my own document adding text and images. Summer 1 (cycle 1)
	I can use a keyboard to enter text (index fingers left & right hand) Summer 1 (cycle 1)
	I Know when and how to use the RETURN/ ENTER key. Use SHIFT & CAPS LOCK to enter capital letters. Use DELETE & BACKSPACE buttons to correct text. Summer 1 (cycle 1)
	I can edit and save a document Summer 1 (cycle 1)
	I can find a document I have saved. Summer 1 (cycle 1)
Technology in Our Lives Spring 1 (cycle 1) Spring 2 (cycle 2)	I can begin to understand there are a variety of sources of information and begin to recognise the differences
	I can begin to understand what the Internet is and the purposes that it is used for
	I can understand the different types of content on websites and that some things may not be true or accurate

Area of Computing	YEAR 3 & 4
E-Safety Autumn 1 (cycle 1) **E-SAFETY DAY 8TH FEBRUARY** Autumn 2 (cycle 2)	I can agree sensible e-safety rules for the classroom
	I can choose a secure password for age-appropriate websites
	I can discuss what actions could be taken if I am uncomfortable or upset online e.g. Report Abuse button
	I can talk about what games I enjoy playing and what good choices are when playing games e.g. content, screen time
	I can use classdojo to share information and talk about who can see it, and how to communicate safely and respectfully
Programming Summer 1 (cycle 1) Summer 2 (cycle 2)	I can test & improve / debug programmed sequences
	I can explore outcomes when giving sequences on purplemash.
	I can use repeated algorithms to achieve solutions to tasks
	I can create an algorithm to tell a simple story
	I can explain algorithms planned by others & identify any problems - Purple mash, 2Code, traffic light.
Multimedia Autumn 1 (cycle 1) Spring 2 (Cycle 1) Autumn 1 Spring 2 (cycle 2)	I can create and modify documents & text.
	I can experiment with fonts, size, and colour of text.
	I can use a keyboard effectively, including the use of keyboard shortcuts.
	I can use font sizes and effects such as bullet points effectively
	I can correctly use spell check
	I can look at their own, and a friend's work & provide feedback that is constructive & specific
	I can research a topic safely.
Technology in Our Lives Summer 2 (cycle 1)	I can save work on the school network, on the Internet and on individual devices Autumn 1 (cycle 2)
	I can use appropriate tools to collaborate and communicate online (Emails) Spring 1 (cycle 2)
	I can use simple search tools and find appropriate websites Throughout (Safe internet search engines, both cycles)

Area of Computing	YEAR 5 & 6
E-Safety Autumn 1 (cycle 1) **E-SAFETY DAY 8TH FEBRUARY** Autumn 1 (cycle 2)	I can follow the e-safety rules when using any technology in school and at home.
	I can demonstrate how to be as safe as possible, for my own personal use of the Internet and choices I make
	I can discuss the importance of keeping an adult informed about what I am doing online, and how to report concerns
	I am aware of how safe individuals need to be when using online communication tools e.g. blogs, messaging
	I can take steps to protect devices from virus threats
Programming Summer 1 & 2 (cycle 1) Autumn 2 (cycle 2)	I can record in some detail the steps (the algorithm) that is required to achieve an outcome
	I can predict the outputs for the steps in an algorithm
	I can plan, program, test & review a program
	I can write a program which follows an algorithm to solve a problem for a floor robot
	I can write a program which follows an algorithm to achieve a planned outcome for appropriate programming software
	I can control on screen mimics & physical devices using one or more input
	I can create variables to provide a score/trigger an action in a game
	I can link errors in a program to problems in the original algorithm
Multimedia Autumn 2 (cycle 1)	I can select an appropriate on-line tool to support different tasks Spring 1 (cycle 2)
	I can consider the audience, atmosphere and structure of my presentation or video Summer 1 (cycle 2)
	I can collect and use information and media from a range of sources (considering copyright issues)and add the information to a presentation for a specific audience Summer 1 (cycle 2)
	I can add sound, images, text, transitions, hyperlinks and HTML code effectively in presentations Spring 1 (cycle 2)
	I can evaluate the effectiveness of my own work and the work of others Spring 1 (cycle 2)
Technology in Our Lives. Throughout (both cycles)	I can describe different services provided by the Internet (Emails and researching) Summer 1 & 2 (Cycle 1)
	I can describe different parts of a computing device & how it connects to the Internet. Connect a computing device to a keyboard, mouse or printer
	I can screen share within a safe environment
	I understand how to use search engines safely Summer 1 & 2 (Cycle 1)
	I know the best way of being specific in my research, to gain the information I need. Summer 1 & 2 (Cycle 1)
	I can use search engines as part of an effective research strategy Summer 1 & 2 (Cycle 1)