

Alloway Primary School and Early Years Centre



Technologies Policy (Including Digital Technologies)

Updated May 2024



Alloway Primary School and EYC



Technologies Policy (including Digital Technologies)

Rights Respecting Schools

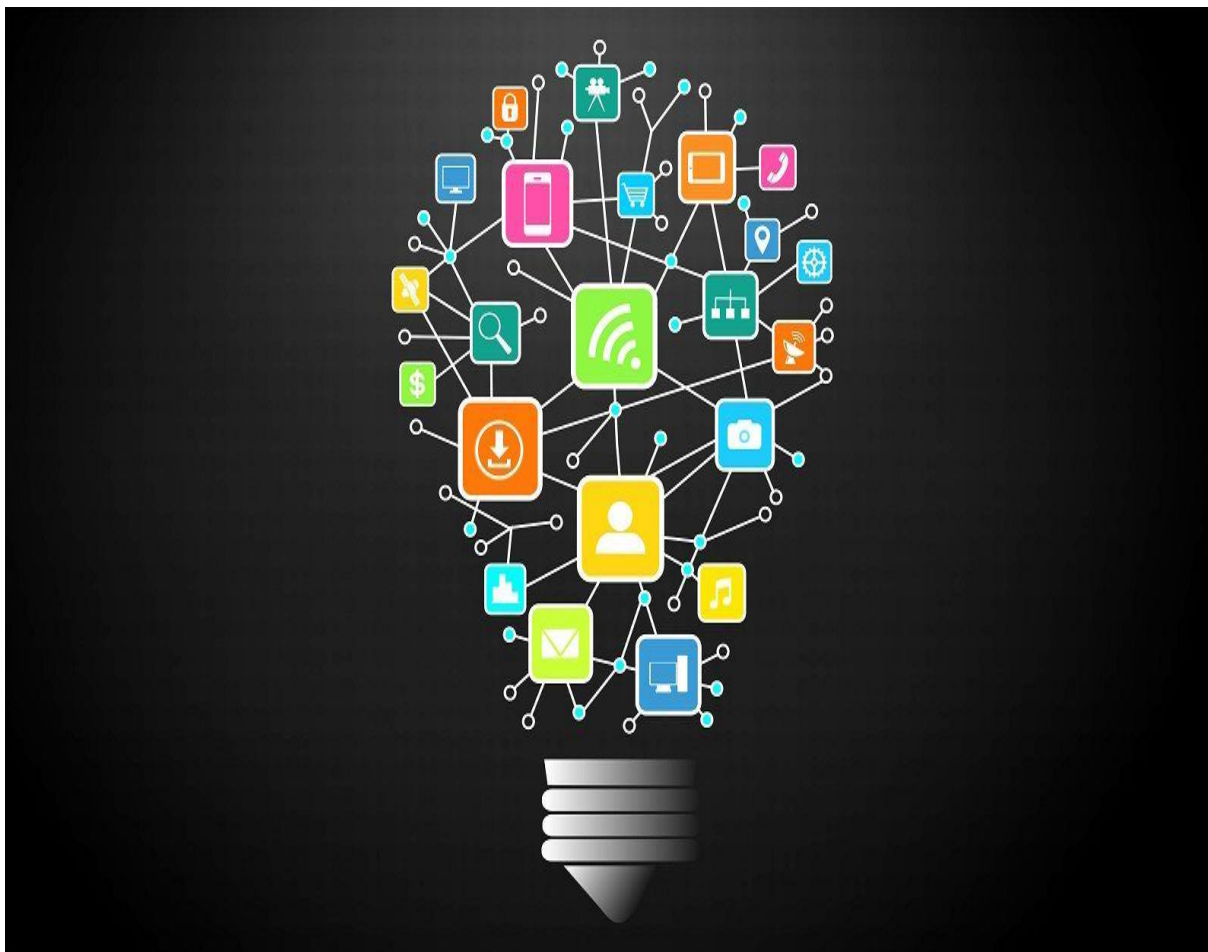
Article 28: Young people should be encouraged to reach the highest level of education they are capable of.

Article 29: Children's education should develop each child's personality, talents and abilities to the fullest. It should encourage children to respect others' human rights and their own and other cultures.



Contents

1. Introduction
2. Aims
3. Rationale
4. Technologies Framework
5. Digital Literacy
6. Food and Textile Technology
7. Technological Developments in Society and Business
8. Craft, Design, Engineering and Graphics (including STEM)
9. Computing Science
10. Staff Development in Technologies
11. Next steps



Introduction

"Within Curriculum for Excellence, the technologies curriculum area relates particularly to contexts that provide scope for developing technological skills, knowledge, understanding and attributes through creative, practical and work-related activities. For this reason, the framework provides experiences and outcomes which can be applied in business, computing science, food, textiles, craft, design, engineering, graphics and applied technologies. These experiences and outcomes offer a rich context for the development of all of the four capacities and for developing the life skills that are recognised as being important for success in the world of work. They also offer an excellent platform for a range of technology-related careers.

The technologies framework offers challenging activities which involve research, problem solving, exploration of new and unfamiliar concepts, skills and materials, and the rewarding learning which often results from creating products which have real applications. It provides progression in cognitive skills. Children and young people will develop their creativity and entrepreneurial skills and be encouraged to become innovative and critical designers of the future. These attributes are essential if, in the future, our children and young people are to play a major part in the global economy and embrace technological developments in the 21st century."
(Principles and Practice - Technologies page 1)

At Alloway Primary School and Early Years Centre we place can see the importance that Technologies hold as we enable children to develop into learners who are creative and innovative. We want to tap into the curiosity children have for technologies and equip them to be part of the global workforce. We are aware that we are preparing children for careers that in some cases have not been developed as yet. Most children at Alloway Primary and EYC are becoming increasingly skilled at utilising technologies to learn, communicate and have fun.

Aims

1. To ensure all teachers are confidently equipped with the appropriate skills to deliver the Technologies curriculum to enrich the learning experiences for all of our children at Alloway Primary School and EYC.
2. To empower leaders of change to drive innovation and investment in technologies for learning and teaching.
3. To ensure children build upon technology skills and are given opportunities to develop creativity and innovation skills
4. To ensure that digital technology is a central consideration in all areas of the curriculum and assessment delivery.
5. To develop the skills and confidence of staff in the appropriate and effective use of digital technology to support learning and teaching for in school learning and for the development of remote learning.
6. To improve access to digital technology for all learners.



Rationale

At Alloway Primary School and EYC we plan our Technologies experiences based on Curriculum for Excellence Experiences and Outcomes and Benchmarks.

Teachers plan using the South Ayrshire Council Technologies Framework which provides a coherent skills progression through the CfE Curriculum for Excellence, starting at Early level through to Second level with third level outcomes being used where appropriate.

In an increasingly digital age we ensure that our learning and teaching of technologies is strong and that our learning and teaching is enhanced by the use of digital technologies. Technologies can be used as a vehicle to access other areas of the curriculum but we recognise the need to explicitly teach technologies ensure progression of skills. We start in our Early Years Centre (EYC) at Early level and provide coherent opportunities throughout the school.

We teach technologies through the following organisers:

Subject	Organiser
Digital Literacy	<ul style="list-style-type: none">• Using digital products and services in a variety of contexts to achieve a purposeful outcome• Cyber resilience and internet safety
Food and Textile Technology	<ul style="list-style-type: none">• Food and Textiles
Technological Developments in Society and Business	<ul style="list-style-type: none">• Awareness of technological developments (Past, Present and Future), including how they work.• Impact, contribution, and relationship of technologies on business, the economy, politics, and the environment.
Craft, Design, Engineering and Graphics	<ul style="list-style-type: none">• Design and constructing models/product• Exploring uses of materials• Representing ideas, concepts and products through a variety of graphic media• Application of Engineering
Computing Science	<ul style="list-style-type: none">• Understanding the world through computational thinking• Understanding and analysing computing technology• Designing, building and testing computing solutions

We teach Technologies through the following key concepts:

- relate our knowledge and understanding of the key design concepts in set tasks.
- demonstrate curiosity, exploration and problem-solving skills
- develop our planning and organisational skills in a range of contexts
- develop our understanding of creativity and innovation
- improve our searching and retrieving information skills to inform our thinking
- select and apply skills in using tools, equipment, software, graphic media and materials
- demonstrate skills in collaborating, leading and interacting with others
- develop critical thinking skills through exploration and discovery within a range of learning contexts
- explore connections between specialist skills developed within learning and skills for work
- take part in discussion and debate to develop our understanding
- evaluate products, systems and services
- improve presentation and communication skills
- consider sustainability in a variety of contexts and situations



Technologies Framework

Framework Content

The framework is broken down in to Subjects. Each grid contains Organisers, Experiences and Outcomes, Benchmarks and Skills Progression. The skills progression in is broken down into two parts.

How to use the Framework?

- Staff should use the framework as part of their planning and should highlight using POGY what you plan to cover and tick off when achieved. Feel free to annotate. This framework should be passed on at point of transition for the next teacher to carry on.
- At times you will need to discretely teach Technologies outcomes but at other times these will be covered in a cross curricular way.
- Please inform DHT of any resources/training needed.
- Staff should ensure full coverage of all Technologies areas and organisers.
- Staff should ensure that children gain experiences to help them develop in their technologies skills.

Useful Websites:

CfE Technologies

<https://www.twinkl.co.uk/resources/curriculum-for-excellence/cfe-curriculum-browser-scotland-cfe/technologies-cfe-curriculum-browser-scotland-cfe> - This is a digital browser. Click on the level, organiser and find the related Twinkl resources.

<https://glowscotland.sharepoint.com/sites/PLC/technologies/SitePages/Home.aspx> - Glow Communities Technologies Support page

Food Technologies

<https://www.foodstandards.gov.scot/education-resources> - This is an excellent website for interactive resources. We will be receiving two sets of Food Cards but more can be downloaded from this website.

<https://glowscotland.sharepoint.com/sites/PLC/hwb/goodfoodskills/resources/SitePages/Home.aspx> - This is an invaluable resource that we will use as a school as we increase our use of Food technologies.

<https://education.gov.scot/improvement/learning-resources/hwb51-food-education-good-food-skills> - Some super videos that demonstrate core cooking skills

<https://education.gov.scot/improvement/learning-resources/hwb42-food-education-summary> - Food Education Webpage summary

Computing Science

<https://www.barefootcomputing.org/> - This is a super website for Computing Science. We ran training last session and I have some additional packs if anyone wants anything. I have saved all Barefoot resources onto the Shared Area. I hope to go through the training presentation again for staff who didn't attend the training.

Craft, design and engineering

<https://education.gov.scot/improvement/learning-resources/STEM%20Central>
- STEM Central website from Education Scotland



Digital Literacy

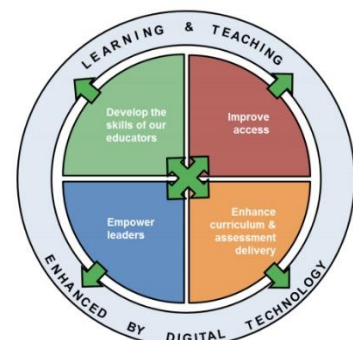
In Digital Literacy we teaching under the following organisers:

- Using digital products and services in a variety of contexts to achieve a purposeful outcome
- Cyber resilience and internet safety

Digital Literacy in the Curriculum

The importance of our learners being able to use a variety of digital technologies and possessing a range of digital skills in today's world is clear, with this in mind we will:

- Use the SAC Technologies Framework to ensure Digital Literacy skills are progressively taught across the curriculum.
- Embed digital technologies throughout the curriculum to enhance all areas.
- Utilise digital technology to enhance assessment and feedback across the curriculum.
- Ensure that the use of digital technology across the curriculum is clear in planning.
- Provide opportunities for children to lead learning in digital literacy.
- Ensure children are cyber resilient and have follow a robust internet safety programme.
- The internet safety experiences that we deliver will be responsive to current internet trends and experiences.
- Ensure that children can access digital technologies in order to maintain education in times of school closures or self-isolation.
- Ensure all children have access to digital technologies at home.



Responsibilities in Digital Literacy

<p>Senior Leadership Team</p> <ul style="list-style-type: none"> • SLT will ensure that training opportunities are available for staff to complete. • Digital technologies will be discussed and observed as part of our Quality Assurance calendar through forward planning discussions and classroom observations. • SLT will ensure that digital literacy is part of all school experiences. • SLT will ensure that ICT resources are up to date and refreshed as part of our budget allocation. • SLT ensure that staff, parents and pupils are aware of expected uses of digital technologies and platforms. • SLT will ensure that there are opportunities to engage with parents using digital technologies. • Any incidents or concerns should be reported to SLT. • SLT will ensure that new members of staff have access to the technology they need in order to do their job. 	<p>Teaching staff</p> <ul style="list-style-type: none"> • Ensure digital literacy is a central consideration to planning, assessment and delivery of CfE. • Ensure children have experiences in all areas of Digital Literacies and are building upon their skills through explicit teaching of Digital Literacy skills. • Provide a range of experiences across the curriculum to support the development of Digital Literacy. • To continue digital methods of sharing information and progress with parents and families. • To participate in CLPL for digital technologies to ensure they are skilled to deliver appropriate experiences in Digital Literacy. • To use appropriate software and hardware to support learners in a variety of ways including assessments through using digital profiles.
<p>ICT co-ordinator/Web Champion</p> <ul style="list-style-type: none"> • Inventory of all ICT/digital equipment • Link to local authority for updates and training • Report issues • Maintenance of equipment • Administrator for specific website such as Glow 	<p>Pupils</p> <ul style="list-style-type: none"> • To access and use all equipment in an appropriate and safe manner. • To look after and be respectful of their own and others digital equipment. • To work together with their peers to share appropriate knowledge and skills development in Digital Literacies. • To follow all instructions regarding safe and appropriate use of the internet. • To actively engage in Digital Literacy experiences.
<p>Office staff</p> <ul style="list-style-type: none"> • Maintain school website by adding admin letters etc. • Issue school passwords • Maintain school systems and liaise with SLT 	<p>Parents/carers</p> <ul style="list-style-type: none"> • To give consent for their child to use digital platforms • To actively engage with Learning Journals and follow the rules provided for this platform ensuring appropriate use. • To check all digital school communication and provide accurate email addresses/mobile numbers. • To engage with their child regarding safe and appropriate use of the internet at home.

Digital Literacy Resources

At Alloway Primary School and EYC we invest in digital technologies resources to ensure children have access to appropriate technologies to help them develop in their digital skills.

We ensure all pupils have fair access to a range of digital resources.

We have a range of digital technologies resources including:

<i>Technologies</i>	<i>Communication Applications</i>
Laptops Desktop computers Micro:bits Interactive whiteboards Active Panels Digital cameras and video cameras iPads Kindle Fires Chromebooks Easi speak microphones and sound buttons Bugclub Online website Sumdog Access to South Ayrshire Council Digital Lending Library	Websites Email Learning Journals Twitter Teams Skype Blogs Video streaming

Resources are regularly identified to help support pupils with ASN - including Reading Wise, Memory Booster, Read and Write Gold and Clicker.

Security and Maintenance

- It is the role of all adults within the school to ensure there is good practice in place for the use of all ICT equipment. Children should be trained in how to use, clean and tidy away ICT equipment.
- Please ensure all ICT equipment is stored correctly.
- Please report any faults to ICT helpdesk and DHT.

Internet Safety and Cyber Resilience

Working together with parents we aim to provide a robust internet safety programme to ensure all children and young people are confident in using the internet in a safe way. We will teach them about their roles and responsibilities, safe and appropriate usage and how to become cyber resilient. We will ensure that we respond to current internet safety issues when we are made aware of them either locally or nationally.

We will teach internet safety throughout the school year but will take part in Safer Internet Day each year.

Pupils and parents will be reminded of the acceptable use policy and any breaches will be reported to and dealt with by SLT. (Appendix A and B)

Useful Internet Safety Websites:

Think U Know	http://www.thinkuknow.co.uk
Respect Me	http://www.respectme.org.uk/
Chat Danger	http://www.chatdanger.com
Kidsmart	http://www.kidsmart.org.uk
The Internet Safety Resource	http://www.fkbko.co.uk/
Get Safe Online	http://www.getsafeonline.org/
Parents Online	http://www.parentsonline.gov.uk
Be Safe Online	http://www.besafeonline.org
Digizen	http://www.digizen.org/
Childnet International	http://www.childnet-int.org
Have Fun – Stay Safe	http://www.havefunstaysafe.info/cms/
Cyber Cafe	http://www.thinkuknow.co.uk/8_10/cybercafe/Cyber-Cafe-Base/
Know IT All	http://www.childnet-int.org/kia/



Food and Textiles Technologies

In Food and Textiles Technologies we teaching under the following organiser:

- Food and textiles

Food and Textiles in the Curriculum

The importance of our learners being able to use a variety of food and textiles life skills in today's world is clear, with this in mind we will:

- Use the SAC Technologies Framework to ensure Food and Textiles skills are progressively taught across the curriculum.
- Embed food and textiles throughout the curriculum to enhance all areas, in particular interdisciplinary learning.

Responsibilities in Food and Textiles

<p>Senior Leadership Team</p> <ul style="list-style-type: none">• SLT will ensure that training opportunities are available for staff to complete.• Food and textiles will be discussed and observed as part of our Quality Assurance calendar through forward planning discussions and classroom observations.• SLT will ensure that food and textiles is part of all school experiences.• SLT will ensure that resources are current• Any incidents or concerns should be reported to SLT.	<p>Teaching staff</p> <ul style="list-style-type: none">• Ensure children have experiences in all areas of Food and Textiles and are building upon their skills• Provide a range of experiences across the curriculum to support the development of Food and Textiles• To participate in Food and Textiles CLPL.
<p>Pupils</p> <ul style="list-style-type: none">• To access and use all equipment in an appropriate and safe manner.• To look after and be respectful of their own and others equipment.• To follow all instructions regarding safe and appropriate use of equipment and hygiene	

Food and Textile Resources

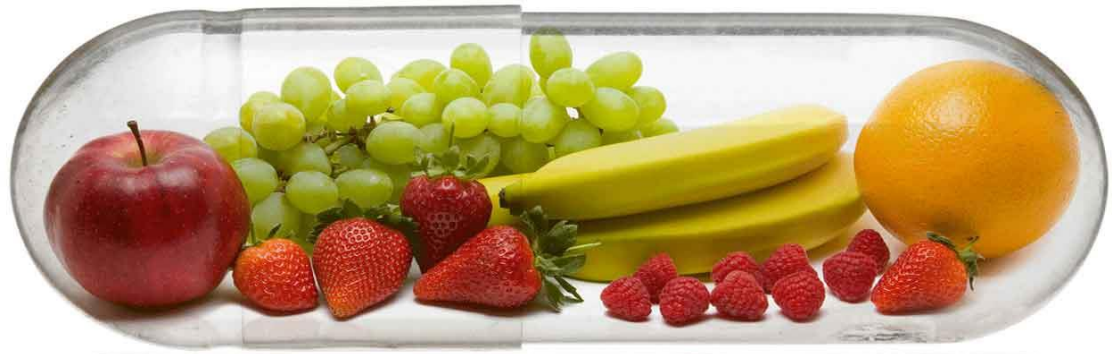
At Alloway Primary School and EYC we have invested in Food Technologies resources through the creation of a cooking space. We received funding from Food for Thought in order to do this. This area has been resourced with appropriate food technologies resources.

Good Food Skills - <https://education.gov.scot/improvement/learning-resources/hwb51-food-education-good-food-skills/>

This is an excellent resource for skills development.

Textile resources

- There are a variety of textile resources within school in order for children and young people to develop their skills progressively.
- Children should to use a range of tools and equipment safely when working with textiles.





Technological Developments in Society and Business

In Technological Developments in Society and Business we teaching under the following organisers:

- Awareness of technological developments (Past, Present and Future), including how they work.
- Impact, contribution, and relationship of technologies on business, the economy, politics, and the environment.

Technological Developments in Society and Business in the Curriculum

The importance of our learners being able to identify technological developments in society and business in today's world is clear, with this in mind we will:

- Use the SAC Technologies Framework to ensure Technological Developments in Society and Business are progressively taught across the curriculum.
- Ensure links are made to real life examples and current affairs.
- Ensure children have an understanding of the technologies they use at home, school and in the community.
- Ensure children have an understanding of technological developments in the past, present and future.
- Make links with Eco Schools and conservation
- Make direct links to Developing the Young Workforce.



Responsibilities in Technological Developments in Society and Business

Senior Leadership Team

- SLT will ensure that training opportunities are available for staff to complete.
- Technological Developments in Society and Business will be discussed and observed as part of our Quality Assurance calendar through forward planning discussions and classroom observations.
- SLT will ensure that food and textiles is part of all school experiences.
- SLT will ensure that resources are current
- Any incidents or concerns should be reported to SLT.

Teaching staff

- Ensure children have experiences in all areas of Technological Developments in Society and Business and are making links to real life experiences and the world of work.
- Provide a range of experiences across the curriculum to support the development of Technological Developments in Society and Business
- To participate in Technological Developments in Society and Business CLPL opportunities.

Pupils

- To access and use all equipment in an appropriate and safe manner.
- To look after and be respectful of their own and others equipment.
- To follow all instructions regarding safe and appropriate use of equipment.

Technological Developments in Society and Business Resources

At Alloway Primary School and EYC staff will make natural links to interdisciplinary learning, developing the young workforce, eco schools and current affairs when looking at technological developments in society and business.



Craft, Design, Engineering and Graphics

In Craft, Design, Engineering and Graphics we teaching under the following organisers:

- Design and constructing models/product
- Exploring uses of materials
- Representing ideas, concepts and products through a variety of graphic media

Craft, Design, Engineering and Graphics and the Curriculum

The importance of our learners being able to develop in Craft, Design, Engineering and Graphics skills in today's world is clear, with this in mind we will:

- Use the SAC Technologies Framework to ensure Craft, Design, Engineering and Graphics are progressively taught across the curriculum.
- Embed Craft, Design, Engineering and Graphics throughout the curriculum to enhance all areas, in particular interdisciplinary learning.
- Make direct links to Developing the Young Workforce.



Responsibilities in Craft, Design, Engineering and Graphics

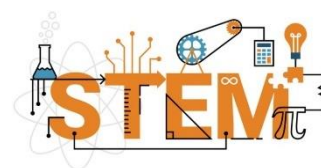
<p>Senior Leadership Team</p> <ul style="list-style-type: none"> • SLT will ensure that training opportunities are available for staff to complete. • Engineering Craft, Design, Engineering and Graphics will be discussed and observed as part of our Quality Assurance calendar through forward planning discussions and classroom observations. • SLT will ensure that Engineering Craft, Design, Engineering and Graphics is part of school experiences. • SLT will ensure that resources are current and safe. • Any incidents or concerns should be reported to SLT. 	<p>Teaching staff</p> <ul style="list-style-type: none"> • Ensure children have experiences in all areas of Craft, Design, Engineering and Graphics and are building upon their skills. • Ensure children engage in the planning process. • Provide a range of experiences across the curriculum to support the development of Craft, Design, Engineering and Graphics. • To participate in Craft, Design, Engineering and Graphics CLPL.
<p>Pupils</p> <ul style="list-style-type: none"> • To access and use all equipment in an appropriate and safe manner. • To look after and be respectful of their own and others equipment. • To follow all instructions regarding safe and appropriate use of equipment. 	

Craft, Design, Engineering and Graphics Resources

At Alloway Primary School and EYC staff will make natural links to interdisciplinary learning, developing the young workforce when looking at Craft, Design, Engineering and Graphics. We use a range of practical tools and materials in order to help children with the planning and creating process.

S.T.E.M. (Science, Technologies, Engineering, Maths)

- We made explicit links to STEM and STEM is embedded into the curriculum and interdisciplinary learning. All classes take part in planned STEM activities
- STEM is embedded into improvement plan on the maintenance agenda
- Strong business links with Chamber of Commerce and local businesses such as Spirit Aerosystems.
- Very supportive parents who have come in to share about their career in STEM through our Developing the Young Workforce focus.
- Gender Balance is integrated through STEM and DYW
- Classes take part in STEM related competitions.



Responsibilities in Computing Science

Senior Leadership Team <ul style="list-style-type: none">• SLT will ensure that training opportunities are available for staff to complete.• Computing Science will be discussed and observed as part of our Quality Assurance calendar through forward planning discussions and classroom observations.• SLT will ensure that computing science is part of all school experiences.• SLT will ensure that ICT resources are up to date and refreshed as part of our budget allocation.• Any incidents or concerns should be reported to SLT.	Teaching staff <ul style="list-style-type: none">• Ensure computing science is well planned and assessed.• Ensure children have experiences in all areas of Computing Science and are building upon their skills through explicit teaching of Computing Science skills.• Provide a range of experiences across the curriculum to support the development of Computing Science.• To participate in CLPL for computing science.
Pupils <ul style="list-style-type: none">• To access and use all equipment in an appropriate and safe manner.• To look after and be respectful of their own and others digital equipment.• To work together with their peers to share appropriate knowledge and skills development in computing science• To follow all instructions regarding safe and appropriate use of the internet.• To actively engage in Computing Science experiences.	

Computing Science Resources

At Alloway Primary School and EYC we invest in computing Science resources to ensure children have access to appropriate technologies to help them develop in their digital skills and computational thinking skills.

We ensure all pupils have fair access to a range of computing science resources.

We have a range of Computing Science resources including:

- Micro:bits
- Spheros
- Beebots and robots
- Lego Mindstorms
- Directional toys
- Barefoot Computing Science Resources
- Online coding such as Scratch and Hour of Code

Barefoot Computing - <https://www.barefootcomputing.org/>

This is a super resource that we use for teacher CLPL and for resources and lesson plans. This is being constantly reviewed and updated and has good resources for online learning and unplugged resources for the development of computational thinking.

The Computational Thinkers

concepts

- Logic**
Predicting & analysing
- Evaluation**
Making judgements
- Algorithms**
Making steps & rules
- Patterns**
Spotting & using similarities
- Decomposition**
Breaking down into parts
- Abstraction**
Removing unnecessary detail

approaches

- Tinkering**
Changing things to see what happens
- Creating**
Designing & making
- Debugging**
Finding & fixing errors
- Persevering**
Keeping going
- Collaborating**
Working together

The infographic features two cartoon children, a girl and a boy, standing in front of a globe. The girl is wearing a green dress with a white star and a backpack. The boy is wearing a green shirt, red pants, and a backpack. They are surrounded by various icons representing the concepts and approaches listed.

We're all computational thinkers here!

When you think about it, whether we're parents, pupils or teachers - we're all natural computer scientists, capable of computational thinking.

Our brains, like computers, process, debug and make simple algorithms every day!

CAS Barefoot
Supported by **BT**

Staff developments in Technologies

At Alloway Primary School and EYC we encourage staff to share their expertise with others. Our Teacher Lead in Technologies has qualified as a Promethean Expert in June 2024 and willingly shares her skills and expertise with others.

Staff are encouraged to attend relevant CLPL in Technologies.

Staff are encouraged to lead areas of the curriculum and be part of School Improvement Planning groups.

We have established strong links with Amanda Pickard our Digital Learning officer in the local authority.

Next steps

The world of Technologies is ever changing and we will be responsive to the needs of the school and curriculum.

At Alloway Primary School and EYC we will continue to include Technologies in our School Improvement Planning cycle in order to strive for continuous improvement.

We aim to empower young digital leaders to take a lead role to in supporting the development of digital technologies within the school.

We will encourage staff to continue to share information and training with one another.

We have achieved our Equitable Creative Coding Award in June 2024 and strive towards achieving the Digital Schools Award.

