Computing Curriculum

School Vision

We seek to **inspire**…
a love for learning,
curiosity and creativity,
imagination and independence,
each other as individuals,
collaboration within our community and
awe and wonder for God's World.

This document outlines how we live out our school vision through our **computing** curriculum.

Aims

We believe that Computing helps our children to make sense of the fast-changing world that we live in. We want our children to imagine future possibilities as 'thinkers of the future' through a modern, ambitious and relevant education in computing. We aim to teach them a sense of place, belonging, identity, purpose, as well as awe and wonder at the possibilities of ever-changing technology in a digital world.

Objectives

Through high quality teaching, children will build their knowledge and skills year on year by:

- Computing through all three strands taught within the classroom.
- Continuity throughout the school to ensure that experience and skills are developed in a cohesive and consistent way.
- Access to computers, chromebooks and ipads within class or in designated communal areas.
- Experience of a variety of well-planned, structured and progressive activities.
- Experience cross-curricular links to widen children's knowledge of the capability of computing including safe
- use of the Internet and other digital equipment.
- Opportunities for children to recognize the value of computing and ICT in their everyday lives and their future
- working life as active participants in a digital world.

Intent	Implementation	Impact
We understand that our pupils have a variety and range of digital experiences already through everyday life. We see it as our responsibility to prepare our children for society and future job roles that are yet to have even been imagined. By the time they leave Arkholme Primary School, children will have gained key knowledge and skills in the three main areas of the computing curriculum: computer science (programming and understanding how digital systems work), information technology (using computer systems to store, retrieve and send information) and digital literacy (evaluating digital content and using technology safely and respectfully). The objectives within each strand support the development of learning across the key stages, ensuring a solid grounding for future learning and beyond.	A clear and effective, cross curricular scheme of work that provides coverage in line with the National Curriculum. This is provided by Purple Mash. Details of the scheme of work can be found here https://arkholme.lancs.sch.uk/wp-content/uploads/2022/11/Purple-Mash-Scheme-of-Work-Overview.pdf Teaching and learning should facilitate progression across all key stages within the strands of digital literacy, information technology and computer science Children will have access to the hardware (chrome books, ipads, programmable equipment) and software that they need to develop knowledge and skills of digital systems and their applications. A key part of implementing our computing curriculum is to ensure the safety of our pupils when being online. Children will have the opportunity to explore and respond to key issues such as digital communication, cyber-bullying, online safety, security, plagiarism and social media. Wider Curriculum links and opportunities for the safe use of digital systems are considered in wider curriculum planning. The importance of online safety is also addressed through our PSHEE curriculum. Parents are informed when issues relating to online safety arise and further information/support is provided if required.	Our approach to the curriculum results in a fun, engaging, and high-quality computing education. The quality of children's learning is evident in the pupil's books, folders and network. Evidence such as this is used to feed into teachers' assessment and future planning. The curriculum has been designed to allow teachers to revisit skills and knowledge and build upon it, ensuring progression and bridging gaps, when necessary. Pupils are assessed in key knowledge and understanding and this is logged on a tracking sheet. Much of the subject-specific knowledge developed in computing lessons equips pupils with experiences which will benefit them in secondary school, further education and future workplaces, as well as providing them with the tools to cope with the pressures of a fast-paced and ever-changing digital society. Children have the right to enjoy childhood online, to access safe online spaces and to benefit from all the opportunities that a connected world can bring them, appropriate to their age and stage.

SMSC

Spiritual

Computing supports spiritual development by looking at how ICT can bring rapid benefits to discussions and understanding and acceptance to an individual's beliefs. However, children are also exposed to the limitations and abuse of the internet where they question and justify the aims, values and principles of their own and others' belief systems.

Moral

Computing supports moral development by looking at how ICT developments have had an impact on the environment as technology has meant that old ways of working have been changed to help the environment

Social

Computing supports social development by completing of group work within lessons as well as practical tasks. Children are required to understand about social media and the advantages these sites have brought as well as the numerous problems such as cyber bullying.

Cultural

The development in technology has impacted different cultures and backgrounds in different ways. More developed countries are able to keep pace with the developments in technology whilst less developed ones can't.

2021-2022 2023-2024	Autumn term	Spring Term	Summer Term
Puffins	All about me	Growing	Under the sea
	Children in EYFS will access the computing curriculum via purple mini-mash. An overview of the EYFS computing skills can be found here. https://static.purplemash.com/mashcontent/applications/schemes_of_work/computing_schemes_of_work/computing_sow_eyfs_computing_skills/Early%20Computing%20Skills.pdf 30-50 months: Knows how to operate simple equipment, e.g. turns on CD player and uses remote control. Shows an interest in technological toys with knobs or pulleys, or real objects such as cameras or mobile phones. Shows skill in making toys work by pressing parts or lifting flaps to achieve effects such as sound, movements or new images. Knows that information can be retrieved from computers. 40-60 months: Completes a simple program on a computer. Uses ICT hardware to interact with age-appropriate computer software ELG: Technology Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes		
	From Year 1 to Year 6, we follow the Purple Mash Scheme of Work, which can be found here https://arkholme.lancs.sch.uk/wp-content/uploads/2022/11/Purple-Mash-Scheme-of-Work-Overview.pdf The overview below shows the units that are taught for the following areas; Digital literacy Computer Science Information		
Robins	Autumn Term	Spring Term	Summer Term
	Unit 1.1 Online Safety (4 lessons) Unit 2.5 effective Searching (3 lessons) Unit 1.4 Lego Builders (3 lessons)	Unit 1.9 Technology outside school (2 lessons) Unit 1.2 Grouping and Sorting (2 lessons) Unit 2.6 Creating pictures (5 lessons)	Unit 1.8 Spreadsheets (3 lessons) Unit 1.7 Coding (6 lessons) Unit 2.1 Coding (5 lessons)
Kingfishers	Autumn Term	Spring Term	Summer Term
	Unit 3.2 Online Safety (3 Lessons) Unit 3.3 Spreadsheets (3 lessons) Unit 3.1 Coding (6 lessons)	Unit 3.4 Touch Typing (4 lessons) Unit 3.5 Email (6 lessons)	Unit 3.6 Branching Databases (4 lessons) Unit 3.7 Simulations (3 lessons) Unit 3.8 Graphing (3 lessons)
Owls	Autumn Term	Spring Term	Summer Term
	Unit 5.2 Online Safety (3 lessons) Unit 5.1 Coding (6 lessons) Unit 5.3 Spreadsheets (6 lessons)	Unit 5.4 Databases (4 lessons) Unit 5.5 Game Creator (5 lessons)	Unit 5.6 3D Modelling (4 lessons) Unit 5.7 Concept Maps (4 lessons)
Year B	Autumn term	Spring Term	Summer Term

2022-2023 2024-2025			
Puffins	All about me	Growing	Under the sea
	Children in EYFS will access the computing curriculum via purple mini-mash. An overview of the EYFS computing skills can be found here https://static.purplemash.com/mashcontent/applications/schemes_of_work/computing_schemes_of_work/computing_sow_eyfs_computing_skills/Early%20Computing%20Skills.pdf 30-50 months: Knows how to operate simple equipment, e.g. turns on CD player and uses remote control. Shows an interest in technological toys with knobs or pulleys, or real objects such as cameras or mobile phones. Shows skill in making toys work by pressing parts or lifting flaps to achieve effects such as sound, movements or new images. Knows that information can be retrieved from computers. 40-60 months: Completes a simple program on a computer. Uses ICT hardware to interact with age-appropriate computer software ELG: Technology Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes		
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Robins	Autumn Term	Spring Term	Summer Term
	Unit 1.1 Online Safety (4 lessons) Unit 1.5 Maze Explorers (3 lessons) Unit 2.4 Questioning (5 lessons)	Unit 2.2 Online Safety (3 lessons) Unit 2.7 Making Music (3 lessons) Unit 1.6 Animated Story books (5 lessons)	Unit 2.3 Spreadsheets (4 lessons) Unit 1.3 Pictograms (3 lessons) Unit 2.8 Presenting Ideas
Kingfishers	Autumn Term	Spring Term	Summer Term
	Unit 4.2 Online Safety (4 lessons) Unit 4.1 Coding (6 lessons) Unit 4.3 Spreadsheets (6 lessons)	Unit 4.4 Writing for different audiences (5 lessons) Unit 4.5 Logo (4 lessons)	Unit 4.6 Animation (3 lessons) Unit 4.7 Effective searches (3 lessons) Unit 4.8 Hardware Investigators (2 lessons
Owls	Autumn Term	Spring Term	Summer Term
	Unit 6.2 Online Safety (2 lessons) Unit 6.1 Coding (6 lessons) Unit 6.3 Spreadsheets (5 lessons)	Unit 6.4 Blogging (4 lessons) Unit 6.5 text Adventures (5lessons)	Unit 6.6 Networks (3 lessons) Unit 7.7 Quizzing