Dishforth CE Primary School
Computing Vision Statement

At Dishforth C.E. Primary School, we know that a high-quality computing education equips our children to use computational thinking and creativity to understand and change the world. We understand that computing can enhance learning across the curriculum and has deep links with our teaching of mathematics, science, and design and technology, providing insights into both natural and artificial systems.

The core of our computing is computer science, in which our children are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. Building on this knowledge and understanding, our pupils are equipped to use information technology to create programs, systems and a range of content.

Through this subject, we enable our children become digitally literate. We give our children a firm foundation to express themselves and develop their ideas through information and communication technology at a level suitable for the future workplace and as active participants in an ever-changing digital world.

Key features of our Computing curriculum

Our Curriculum's Three Strands:

- **Computer Science (CS)**

  The core of our computing is **computer science**, in which pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. The main component of **computer science** is programming, where our children engage in practical, creative experiences. Within this, our children also learn about physical computer systems (**computers and networks**).

- **Information Technology (IT)**

  Building on their computing knowledge and understanding, we equip our children to use **information technology** to create programs, systems and a range of content. This strand involves the productive use of readymade computer applications to create content in a variety of forms (text, image, sound, video, animation, data gathering and processing, AR, VR) often supporting the whole curriculum.

- **Digital Literacy (DL)**

  We also ensure that our pupils become **digitally literate**, with skills to take an active part in an ever-changing digital world.

Aims of our Computing curriculum

At Dishforth C.E. Primary School, we aim that our children:

- can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation ***(CS)***
- can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems ***(CS)***
- can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems ***(IT)***
- are responsible, competent, confident and creative users of information and communication technology ***(DL)***

Organisation of teaching and learning

Early Years Foundation Stage

In the Early Years Foundation Stage (EYFS), teaching is planned through adult supported teaching and learning. Children in EYFS have access to a range of technology in the classroom to use during continuous provision. As part of 'Understanding of the World' teachers also plan focus tasks linked to the technology aspect of this strand.

Key Stage 1 and 2

In Key Stage 1 (KS1) and 2 (KS2), teaching follows the National Curriculum.

Each **term** focuses on one of:

- **Computer Science: Programming**
- **Computer Science: Programming + Computers & Networks computing**
- **Digital Literacy: Online safety**

Additionally, each **half term** focuses on one **Information Technology** strand from:

- **Text and design**
- **Image, film and sound**
- **Internet**
- **Spreadsheets and data**

Planning

The Early Years Foundation Stage section of the Sheffield Primary Computing Progression Framework details appropriate content to be used as a starting point for planning.

http://sheffieldclc.net/sheffield-primary-computing-progression-framework/

In Key Stage 1 (KS1) and 2 (KS2), teaching follows the National Curriculum and we use the Hertfordshire progression documents as starting points for planning

https://herefordshirecomputing.com/computing-progression/

Long term plans map out the computer science/digital literacy areas to be covered each term and the information technology strands to be taught alongside these each half term for each class.

Medium term plans identify learning objectives and outcomes for each term – showing how which of the 3 strands will be covered and in which order- as well as indicating the skills being taught and resources needed to be collected.

Short term plans highlight the skills and objectives of the lesson, identify resources and suggest appropriate differentiation.

Resources

Our children have access to a range of technology, including computers, iPads, kindles and interactive whiteboards, allowing them to practice and improve the skills they learn.

- Interactive whiteboards are in use in each KS2 classroom
- Laptops, iPads and kindles are available for all classes to use

An overview of software & apps available in Dishforth C.E. Primary School mapped to year groups:

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Programming	Bee Bots	Bee Bots	Pro Bots	Pro Bots			
	2Explore		Scratch Junior	Scratch	Scratch	Scratch	Scratch
	Simple City	2Go (simpledirection)	2GO (add turning)		FMS LOGO		
	Maths City						
Text/design		2Publish+	2Publish+	Word	Word	Word	Word
		2create a Story	2create a Story			(Optional Pages)	(Optional Pages)
			Adobe Voicebook creator	PowerPoint	Powerpoint	(Optional Key Note)	
Image/drawing	2Paint	2Paint a Picture	2 Paint a Picture	Paint			
	Drawing Pad	Drawing Pad					
Film/animation		2 Animate	2 Animate	I Can Animate	I can Animate	imovie	I movie
Data	2Count	2Count					
		2Graph	2Question	2Investigate	2Investiagte	Excel	Excel
Sound/music	2Explore	2Play	2Sequence	2Synthesise	2 Compose	Garage Band	Garage Band
Cross Curricular	Puppet Pals HD	Puppet Pals HD	Book Creator				
			Bible Mania				

Assessment

Due to the practical nature of Computing teacher's carry out ongoing assessment throughout the lesson. Subject leaders have a termly meeting with the class teacher to track progress.

Foundation Stage

- Photographs and observational notes are used to record children's progression of skills with technology. Progress is recorded in each child's Learning Journey and is monitored termly.

- Statutory assessments are made on exit of the EYFS.

KS1 and KS2

- Progress is discussed at parent consultations.
- A formal assessment is made in each child's individual annual report against our end of year expectations, taken from the Herefordshire Primary Computing Progression.

SIMPLE ASSESSMENT GRID			
	COMPUTER SCIENCE	INFORMATION TECHNOLOGY	DIGITAL LITEACY
1	• Understand what algorithms are • Create simple programs • Understand that algorithms are implemented as programs on digital devices • Recognise common uses of information technology beyond school	• Use technology purposefully to create digital content • Use technology purposefully to store digital content • Use technology purposefully to retrieve digital content	• Use technology safely • Keep personal information private
2	• Understand that programs execute by following precise and unambiguous instructions • Debug simple programs • Use logical reasoning to predict the behaviour of simple programs	• Use technology purposefully to organise digital content • Use technology purposefully to manipulate digital content	• Use technology respectfully • Identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies
3	• Write programs that accomplish specific goals • Use sequence in programs • Work with various forms of input • Work with various forms of output	• Use search technologies effectively • Use a variety of software to accomplish given goals • Collect information Collect data • Design and create content • Present information	• Use technology responsibly • Identify a range of ways to report concerns about contact
4	• Design programs that accomplish specific goals • Design and create programs • Debug programs that accomplish specific goals • Use repetition in programs • Control or simulate physical systems • Use logical reasoning to detect and correct errors in programs • Appreciate how search results are selected	• Select a variety of software to accomplish given goals • Select, use and combine internet services • Analyse information • Evaluate information • Present data • Understand the opportunities computer networks including the internet offer for communication	• Identify a range of ways to report concerns about content • Recognise acceptable/unacceptable behaviour
5	• Solve problems by decomposing them into smaller parts • Use selection in programs • Work with variables • Use logical reasoning to explain how simple algorithms work • Use logical reasoning to detect and correct errors in algorithms • Understand how computer networks can provide multiple services, such as the World Wide Web	• Combine a variety of software to accomplish given goals • Select, use and combine software on a range of digital devices • Design and create systems • Analyse data	• Be discerning in evaluating digital content
6	• Understand computer networks, including the internet • Appreciate how search results are ranked	• Understand the opportunities computer networks including the internet offer for collaboration • Evaluate data	• Be discerning in evaluating digital content

Monitoring procedures

The Head teacher and art and design subject leader play a central role in the monitoring and evaluation of the quality of teaching and learning of art across the school.

The monitoring strategy:

1. Children's work and planning scrutinies are conducted.

2. Lesson 'drop ins' take place in all classes.

The subject leader is responsible for monitoring attainment and progress, the outcomes of which are fed back to staff at an appropriate time.