



Computing statement of intent

Technology is changing the lives of everyone. Through teaching Computing Churcham Primary School equip children to participate in a rapidly-changing world where work and leisure activities are increasingly transformed by technology. It is our intention to enable children to find, explore, analyse, exchange and present information. We also focus on developing the skills necessary for children to be able to use information in a discriminating and effective way. Computing skills are a major factor in enabling children to be confident, creative and independent learners and it is our intention that children have every opportunity available to allow them to achieve this.

In Key Stage 1, children will have been given a solid grounding in the basics of computing, including understanding algorithms, creating simple programs and learning how to stay safe online. In Key Stage 2, children will build on these skills and extend their mastery of computers, as both user and creator. The computing curriculum aims to make children computationally aware, teaching them concepts (how to predict and analyse results, how to break a problem down into parts, how to spot and use similarities and how to evaluate) and approaches to help them problem-solve.

How do we teach Computing at Ashleworth C of E & Churcham Primary School?

At both schools, we teach stimulating and engaging Computing lessons using a range of resources including BeeBots, Purple Mash, laptops, iPads and interactive whiteboards. In Class 1 (R, Y1 & Y2) we teach Computing weekly; using an hour in the afternoon. In Class 2 (Y3, Y4, Y5 & Y6) we teach Computing fortnightly – using the whole afternoon. KS1 and KS2 have a rolling program each (developed by the Computing lead) that is followed by teachers in order to ensure that all objectives are taught over the course of the key stage.

At both schools, we recognise the fact that the effectiveness of any resource is dependent upon how and why it is being used. We are aware that clear objectives, direct teaching and good class management are the key elements of an effective Computing lesson. However, we believe that the appropriate use of good quality resources will enhance good teaching. Whilst we are aware of the limitations of any resource, the resources used have been developed to enable children and teachers to participate fully in all Computing teaching. At both schools, we teach using a scheme called 'Purple Mash'.

Purple Mash

Purple Mash is our main scheme of work; teachers follow (and edit if necessary) the lesson plans on Purple Mash to teach specific objectives in the Computing curriculum. Purple Mash then provides a range of activities and tasks which the children enjoy to complete - including varied levels to ensure that the tasks are differentiated and accessible to all pupils. Purple Mash supports teachers who are less confident in teaching Computing as it provides the children with examples, audio tips, video instructions and challenges to deepen knowledge and understanding.

Purple Mash focusses on specific objectives in the KS1 and KS2 Computing National Curriculum – it offers online activities for children which are differentiated for each year group. The Purple Mash objectives and units taught, link specifically to the National Curriculum (appendix 1). This way, we ensure that the children are getting full coverage of the Computing Curriculum.

E-safety

E-safety plays such an important part in the Computing Curriculum and the children's lives. The skills learnt at school about how to stay safe online will be used at home when the children are exposed to technology. At Ashleworth C of E & Churcham Primary Schools, we understand that our pupils are excited about technology and use it a lot at home. The children use technology at home to support them with homework, to play online games and to watch videos or listen to music. Because we know our children are excited about using technology and use it lots at home, we ensure that we teach e-safety constantly throughout the year. We do this by delivering a Computing assembly every half term by the Computing lead. We celebrate e-safety day every year and during every Computing lesson, we discuss e-safety and how to stay safe online. As well as teachers and the Computing lead delivering e-safety lessons, we arrange for visitors from the community to visit the children and teach them about the dangers of the internet and give security advice about their social media accounts.

Pupil acceptable use agreements have been created and given to children to ensure that they understand how to use technology safely in school and at home (appendix 2). This agreement was created by the Computing lead and differentiated for EYFS/KS1 and KS2 in order for the document to be child-friendly. This agreement is referred to during Computing lessons to ensure that the children have these agreements embedded. The pupil acceptable use agreements have also been sent out to parents so that they understand what is expected from their child when using technology at home and at school – this helps us to achieve consistency and gain support from home.

It has become a concern in KS2, with the amount of children that have a social media account. These social media accounts are only supposed to be accessed by children who are 13 years or older. Teachers became aware of this after a policeman came in and spoke to the children about PEGI (suitable ages for social media, videos and games). The children were engaged during the lesson and contributed to discussion; exposing that they use social media accounts when they are advised not to until they are 13. The teachers and the police worked together to teach the children how to stay safe when using these social media accounts and ensure that their privacy settings on these accounts are secure. Following this session, letters were sent out by the Computing lead to all parents to ensure that they know how to change their child's privacy settings also (appendix 3). The letter included advice to give to parents, including acceptable 'screen time'. During parents evening, teachers also made parents aware of this concern to ensure that parents understand the dangers that can arise from certain online games.

How does the curriculum link in with our overview for Computing?

The KS1 and KS2 overview has been set up by the Computing lead who worked carefully to ensure that all objectives in the Computing Curriculum were covered, using Purple Mash units (appendix 4)

Our Computing working walls

Computing walls are in each classroom. The working wall in the classrooms include a SMART poster (safe, meet, accepting, reliable, tell someone) to ensure that children are being SMART when using the internet (at school and at home). In KS2, the Computing National Curriculum objectives are shared, along with the overview so the children know what our objective is this term and what we will be moving onto next term. The children's work is shared on our walls to celebrate their achievements and understanding of Computing. In the main hall, there is a large e-safety board where parents can keep up to date with the latest e-safety notices. The board also includes work from our e-safety days and lessons (KS1 and KS2 work).

How do we assess Computing?

For Computing, we assess our pupils understanding against the Computing curriculum objectives. The overview, National Curriculum and assessment objectives are all the same to ensure consistency. Assessments are given to the Computing lead at the end of every term (Autumn, Spring and Summer). This helps to identify any children or cohorts that are struggling with a specific objective. We would use this assessment and information to put in place interventions so that the children are achieving their objective. This will be done through: offering CPD to the teachers, taking a small group of children out for intervention support or the Computing lead offering to teach a specific objective to a class or cohort to address misconceptions.

The assessment criteria that we use is filled out electronically on Purple Mash. Each year group has a different assessment sheet and we assess from Year 1 – Year 6. We use the language 'emerging', 'expected' and 'exceeding' to identify where a child is at (appendix 5).

Constraints

After assessments are handed into the Computing lead, the lead then identifies any cohorts or classes that need extra support on certain objectives and identifies any specific constraints. As well as using the assessments to identify constraints, they are also identified from teachers throughout each Computing lesson. These concerns are then passed on to the Computing lead so that the constraint can be dealt with effectively by both teacher and lead.

A constraint that has become apparent to all members of staff is that the children lack basic keyboard skills. We believe that this is due to the amount of 'iPad' time that children get at home and they are not exposed to a laptop or computer with a keyboard. We are dealing with this constraint as a whole school by allowing the children more time on the computers at school and teaching them the skills they need in order to understand how to use a keyboard efficiently. Allowing the children more time using

the computers will give the children more experience with using a keyboard and progress their basic keyboard skills.

As well as keyboard skills, the lack of experience using a computer also means that they are not able to use a mouse effectively. After the Computing lead attending a CPD course at Newent Community School, it became apparent that when children start KS3 in Year 7, they struggle to use the computers at Newent and understand how to use a mouse. The advice given from Newent to Year 6 teachers is to give the experience using a mouse. Therefore, we have bought in resources to support the Year 6 cohort with using a mouse correctly and to support them in becoming 'secondary school ready'.

Appendix 1 – Purple Mash links to the National Curriculum

Year 1:

Strand	National Curriculum Objectives	Purple Mash Units
Computer Science	Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.	1.4
		1.5
		1.7
	Create and debug simple programs.	1.5
		1.7
	Use logical reasoning to predict the behaviour of simple programs.	1.5
	1.7	
Information Technology	Use technology purposefully to create, organise, store, manipulate and retrieve digital content.	1.2
		1.3
		1.6
		1.7
		1.8
Digital Literacy	Recognise common uses of information technology beyond school.	1.9
	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.	1.1

Year 2:

Strand	National Curriculum Objectives	Purple Mash Units
Computer Science	Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.	2.1
	Create and debug simple programs.	2.1
	Use logical reasoning to predict the behaviour of simple programs.	2.1
Information Technology	Use technology purposefully to create, organise, store, manipulate and retrieve digital content.	2.3
		2.4
		2.5
		2.6
		2.7
2.8		
Digital Literacy	Recognise common uses of information technology beyond school.	2.5 and in other units when appropriate
	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.	2.2 and in all units when appropriate

Year 3:

Strand	National Curriculum Objectives	Purple Mash Units
(Click for Guidance)		
Computer Science	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into	3.1
	Use sequence, selection and repetition in programs; work with variables and various forms of input and output.	3.1
	Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.	3.1
	Understand computer networks, including the Internet; how they can provide multiple services, such as the World Wide Web; and the opportunities they offer for communication and collaboration	3.5
Information Technolo	Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital	See units 2.5 and 4.7
	Select, use and combine a variety of software	3.4
	(including internet services) on a range of	3.3
	digital devices to design and create a range of	3.5
	programs, systems and content that	3.6
	accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	3.7 3.8
Digital Literacy	Use technology safely, respectfully and responsibly; recognise	3.2
	acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	3.5

Year 4:

Strand	National Curriculum Objectives	Purple Mash Units
Computer Science	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into	4.1
	Use sequence, selection and repetition in programs; work with variables and various forms of input and output.	4.5
	Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.	4.1
	Understand computer networks, including the Internet; how they can provide multiple services, such as the World Wide Web; and the opportunities they offer for communication and collaboration.	4.5
	Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital	4.1
	Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	4.5
	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact	4.2
	Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital	4.7
	Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	4.7
Information Technology	Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital	4.7
	Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	4.1
	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact	4.3
	Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital	4.4
Digital Literacy	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact	4.6
	Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital	4.2 and discussed in other units

Year 5:

Strand	National Curriculum Objectives	Purple Mash Units
(Click for Guidance)		
Computer Science	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into	5.1
		5.5
	Use sequence, selection and repetition in programs; work with variables and various forms of input and output.	5.1
	Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.	5.1
	Understand computer networks, including the Internet; how they can provide multiple services, such as the World Wide Web; and the opportunities they offer for communication and collaboration.	5.2
Information Technology	Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.	See Unit 4.7
	Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	5.1
		5.3
		5.4
		5.5
		5.6
5.7		
Digital Literacy	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	5.2 and discussed in other units

Year 6:

Strand	National Curriculum Objectives	Purple Mash Units
(Click for Guidance)		
Computer Science	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into	6.1
		6.5
	Use sequence, selection and repetition in programs; work with variables and various forms of input and output.	6.1
		6.5
	Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.	6.1
		6.5
	Understand computer networks, including the Internet; how they can provide multiple services, such as the World Wide Web; and the opportunities they offer for communication and collaboration.	6.2
		6.4
	6.6	
Information Technology	Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital	6.2
	Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	6.1
		6.3
		6.4
		6.5
		6.7
Digital Literacy	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about	6.2
		6.4 and discussed in other units

Appendix 2 – Pupil agreements KS1 and KS2

Pupil Acceptable Use Agreement (Foundation / KS1)

Staff Name:

Class Name:



This is how we stay safe when we use computers:

- I will ask a teacher or suitable adult if I want to use the computers/iPads.
- I will only use activities that a teacher or suitable adult has told or allowed me to use.
- I will take care of the computer and other ICT equipment.
- I will ask for help from a teacher or suitable adult if I am not sure what to do or if I think I have done something wrong.
- I will tell a teacher or suitable adult if I see something that upsets me on the screen.
- I know that if I break the rules I might not be allowed to use a computer / tablet.

Signed:

Date:

Rules for Responsible Internet Use – KS2 Pupils

The school has laptops and iPads with internet access to help you with your learning. These rules below need to be signed before you use the internet and will help you to keep safe and be fair to others.

Using the laptops:

- I will only access the school network with the login I have been given.
 - I will not try to access files in other people's folders.
- I will close all programs and log out before shutting down the laptop.
- I will respect the laptops and not walk around the classroom with them.

Using the internet:

- I will ask permission from a teacher before using the internet.
- I will only search the internet in ways that my teacher has approved.
- I understand that not everything I see or read on the internet is true.
- I will minimise the web page if I find any unpleasant material and will report this to my teacher immediately because this will help protect other pupils and myself.
- I understand that the school may check my computer files, and may monitor the internet sites that I visit.

E-safety:

- I will not give my full name, date of birth, home address or telephone number on any website.
 - I will not share anyone else's personal information online.
- I will not use the internet to arrange to meet someone outside school hours.
- I will ask permission from a teacher before sending any messages on the internet and will only send messages to people/sites that my teacher has approved.
 - I will immediately report any unpleasant messages sent to me.

Signed _____

Date: _____

