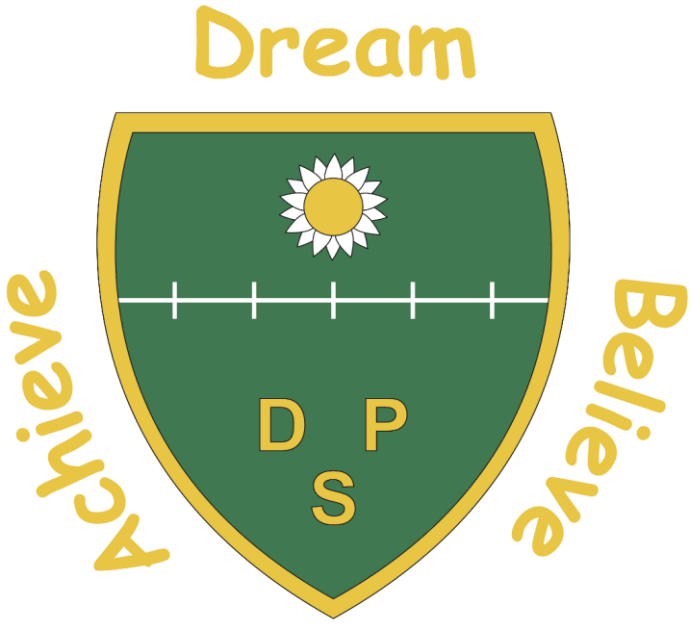
Daisyfield Primary School



Computing Policy

June 2023-24

Intent

At Daisyfield Primary School, we understand the immense value that technology plays not only in supporting the Computing and whole school curriculum but overall, in the day-to-day life of our school. Our aims are to fulfil the requirements of the National Curriculum for Computing whilst also providing enhanced collaborative learning opportunities, engagement in rich content and supporting pupil's conceptual understanding of new concepts which support the needs of all our pupils.

"A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world…core of 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. Building on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content."

National Curriculum, Department for Education (2013) *The national curriculum in England: key stages 1 and 2 framework document.*

Our Computing curriculum aims to develop the heart and mind of every child as per our motto; ***"Dream, Believe, Achieve".*** Computing teaching at Daisyfield Primary School has deep links with Mathematics, Science and Design Technology and other foundation subjects, and our aim is to provide a broad and balanced curriculum whilst ensuring that pupils become digitally literate and digitally resilient. Technology is in constant evolution and we aim to develop pupils who can use it to express themselves and develop their ideas through using information technology, at a suitable level for the future workplace and as active participants in a digital world.

Aims of Computing

At Daisyfield Primary School our aims of teaching Computing are:

- To provide a high-quality computing education which equips children to use computational thinking and creativity to understand and change the world.
- To help children become responsible, competent, confident and creative users of information and communication technology.
- To help children know how to keep themselves safe whilst using technology and on the internet and be able to minimise risk to themselves and others.
- To help children become responsible, respectful and competent users of data, information and communication technology.
- To help children to be able to evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems.
- To help children to be able analyse problems in computational terms, and have repeated practical experience writing computer programs in order to solve such problems.
- Can understand and apply the fundamental principles and concepts of computer science, including logic, algorithms and data representation.
- Become digitally literate and are active participants in a digital world and be equipped with the capability to use technology throughout their lives.
- Understand the importance of governance and legislation regarding how information is used, stored, created, retrieved, shared and manipulated.
- Have a 'can do' attitude when engaging with technology and its associated resources.
- Utilise computational thinking beyond the Computing curriculum.
- Understand, follow and use the Acceptable Use Agreement when online
- Understand the Online safety messages can keep them safe online.
- Know who to contact if they have concerns.
- Apply their learning in a range of contexts, e.g. at school and at home.

Implementation

Our Computing Overview

At Daisyfield Primary School we provide a curriculum that uses a thematic approach to delivering the National Curriculum (2014). Computing is taught through these thematic units over a two-year rolling program which we call cycle A and B.

Below you will find how we have mapped out our programmes of study to cover the statutory and non-statutory requirements for Computing in the National Curriculum.

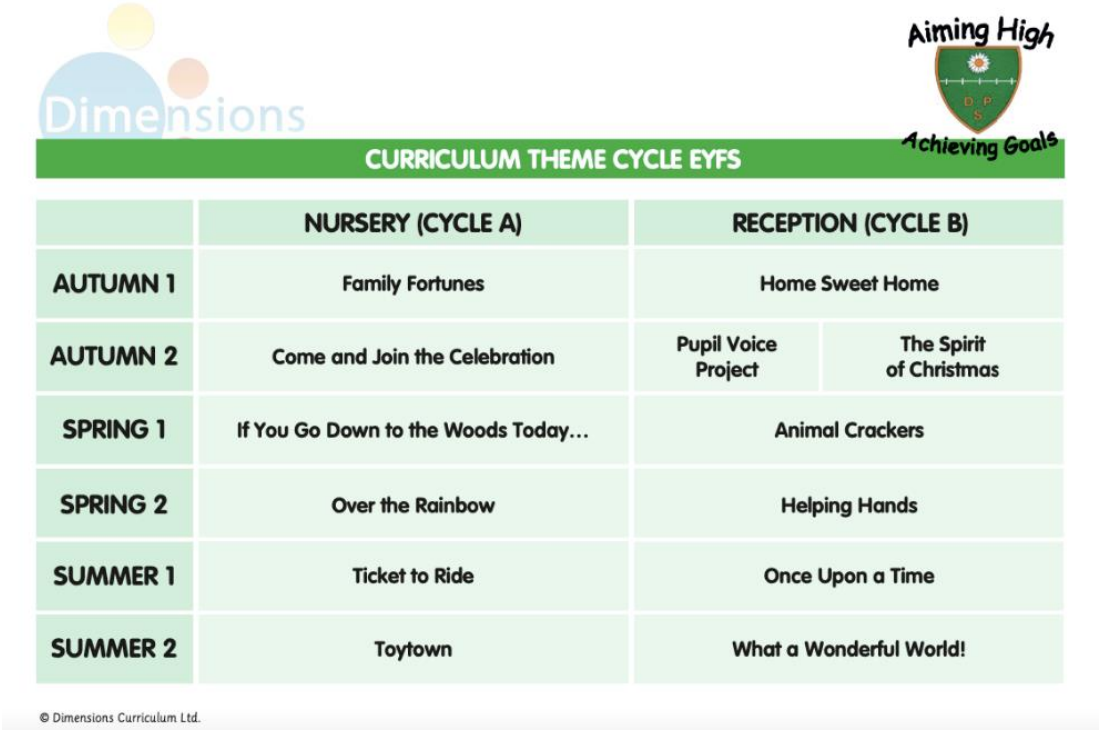
Daisyfield Primary School Computing Curriculum Coverage 2022-2024 Digital Literacy Computer Science Information Technology

	KS1		LKS2		Hazel	UPKS2	
	Cycle A Year 1	Cycle B Year 2	Cycle A Year 3	Cycle B Year 4	Only Cycle	Cycle A Year 5	Cycle B Year 6
Aut 1	Digital literacy Online safety and exploring purple Mash Unit 1:1(4)	Computer science Coding Unit 2.1 (6)	Computer science Coding: Using flowcharts Unit 3.1 (6)	Computer science Coding: Unit 4.1 (6)	Computer science Coding: Unit 5.1 (6)	Computer science Coding: Unit 5.1 (6)	Computer Science Coding Unit 6.1 (6)
Online Safety	Managing Online Information	Managing Online Information	Managing Online Information	Managing Online Information	Managing Online Information	Managing Online Information	Managing Online Information
Aut 2	Computer science Lego Builders Unit 1.4 (3)	Digital literacy Unit 2.5 effective searching Programs (3)	Information technology Spreadsheets Unit 3.3 (3)	Computer Science Logo Unit 4.5 (4)	Information Technology Spreadsheets Unit 5.3 (6)	Information Technology Spreadsheets Unit 5.3 (6)	Information Technology Blogging Unit 6.4 (4)
Online Safety	Health, Well-being and Lifestyle	Health, Well-being and Lifestyle	Health, Well-being and Lifestyle	Health, Well-being and Lifestyle	Health, Well-being and Lifestyle	Health, Well-being and Lifestyle	Health, Well-being and Lifestyle
Spr 1	Computer Science Maze Explorers Unit 1.5 (3)	Information Technology Creating Pictures Unit 2.6 (5)	Information Technology Touch Typing Unit 3.4 (4)	Information technology Animation Unit 4.6 (3)	Information Technology Databases Unit 5.4 (4)	Information Technology Databases Unit 5.4 (4)	Computer Science Text Adventures Unit 6.5 (5)
Online Safety	Online Bullying	Online Bullying	Online Bullying	Online Bullying	Online Bullying	Online Bullying	Online Bullying
Spr 2	Information Technology Animated Story Books Unit 1.6 (5)	Information Technology Spreadsheets Unit 2.3 (4)	Information technology Simulations Unit 3.7 (3)	Computer Science Hardware Investigators Unit 4.8 (2)	Computer Science Game creator Unit 5.5 (5)	Computer Science Game creator Unit 5.5 (5)	Computer Science Networks Unit 6.6 (3)
Online Safety	Online Relationships	Online Relationships	Online Relationships	Online Relationships	Online Relationships	Online Relationships	Online Relationships
Sum 1	Computer Science Coding Unit 1.7 (6)	Information Technology Presenting Ideas Unit 2.8 (4)	Information Technology Presenting Unit 3.9 (6) Microsoft Powerpoint	Information technology Making Music Unit 4.9 (4)	Information technology 3D modelling Unit 5.6 (4)	Information technology 3D modelling Unit 5.6 (4)	Computer science Understanding binary Unit 6.8 (4)
Online Safety	Privacy and Security	Privacy and Security	Privacy and Security	Privacy and Security	Privacy and Security	Privacy and Security	Privacy and Security
Sum 2	Information Technology Spreadsheets Unit 1.8 (3)	Information Technology Making Music Unit 2.7 (3)	Digital literacy Unit 3.5 Email (6)	Information technology Effective Search Unit 4.7 (3)	Information Technology Word Processing Unit 5.8 (8) Microsoft Word	Information Technology Word Processing Unit 5.8 (8) Microsoft Word	Information Technology Spreadsheets Unit 6.9 (8) Microsoft Excel
Online Safety	Self-Image and Identity	Self-Image and Identity	Self-Image and Identity	Self-Image and Identity	Self-Image and Identity	Self-Image and Identity	Self-Image and Identity

- Copyright and Ownership + Online Reputation needs to be covered at some point in the academic year!!!

Foundation Stage

Despite computing not being explicitly mentioned within the Early Years Foundation Stage (EYFS) statutory framework, which focuses on the learning and development of children from birth to age five, there are many opportunities for young children to use technology to solve problems and produce creative outcomes. In particular, many areas of the framework provide opportunities for pupils to develop their ability to use computational thinking effectively. In EYFS, we also follow the Dimensions Curriculum. Some of the topics that are covered can be found below.



Dimensions

Aiming High

Achieving Goals

CURRICULUM THEME CYCLE EYFS

	NURSERY (CYCLE A)	RECEPTION (CYCLE B)	
AUTUMN 1	Family Fortunes	Home Sweet Home	
AUTUMN 2	Come and Join the Celebration	Pupil Voice Project	The Spirit of Christmas
SPRING 1	If You Go Down to the Woods Today...	Animal Crackers	
SPRING 2	Over the Rainbow	Helping Hands	
SUMMER 1	Ticket to Ride	Once Upon a Time	
SUMMER 2	Toytown	What a Wonderful World!	

It is important in the Foundation Stage to give children a broad, play-based experience of Computing in a range of contexts, including outdoor play. Computing is not just about computers. Early years learning environments should feature Computing scenarios based on experience in the real world; such as role play. Children gain confidence, control and language skills through opportunities to explore using non-computer based resources such as remotely controlled cars, controllable traffic lights and walkie-talkie sets. Recording devices can support children to develop their communication skills. This is particularly useful with children who have English as an additional language.

Aims

The National Curriculum for computing aims to ensure that all pupils:

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

Key Stage 1 and Key Stage 2

The table below organises the subject content for computing into 3 key strands:

- Digital Literacy
- Computer Science
- Information Technology

Through teaching the Computing curriculum across both cycles and revisiting key skills, all this content is to be covered by the end of each key stage.

For example, in Spring Term 2, Cycle A, KS1 the unit is 'Animated Story Books' and the Computing element of the unit is based around Information Technology. The skills to be covered in this unit are:

	National Curriculum (Content)	Skills	
Prior Knowledge Children will be able to safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function Intent To create an e-book using animation, sound effects and voice recordings	In this unit, the children will: • To sort, collate, edit and store simple digital content e.g. children can name, save and retrieve their work and follow simple instructions to access online resources, use Purple Mash 2Quiz example (sorting shapes). • 2Code design mode (manipulating backgrounds) or using pictogram software such as 2Count.	Year 1 Information Technology Animated Story Books Unit 1.6 • Children can use the 'My Story' aspect of 2Create a Story to create an interactive story. They can manipulate the properties of their story by changing the images, adding animations and sound as well as typing, copying and pasting pages. • Children are taught the importance of saving their work, overwriting saved files and retrieving their saved work. • Children can include their name and date within the text of their e-books. • Children demonstrate their understanding by discussing e-books and by sharing their own book with others on a class display board. • Children make valid comparisons between paper book and e-books. They can apply their knowledge of paper book when developing their e-books. • Most children will be able to save their animated story files, using a memorable file name, to their own personal space on Purple Mash and understand that this can be retrieved later Unit 1.6 Lesson 1.	Year 2 • Children can use the 'My Story' aspect of 2Create a Story to create a detailed interactive story. This demonstrates their ability to combine all the aspects available within the software e.g. recording their own sounds and importing backgrounds, to enhance their narrative. • Children are taught the importance of saving their work, overwriting saved files and retrieving their saved work Furthermore, they can publish this to a class display board.

These skills have been further broken down into simple, child-friendly, statements for each year group.

Vocabulary	Knowledge/Objectives
Animation Background Clip-art Gallery Sound Sound effect Font E-book Edit Text	• To explore the tools of 2Create a Story's My Simple Story level. • To add animation to a picture. • To add created music to the picture. • To demonstrate a good understanding of all the tools they have used in 2Create a Story and use these successfully to create their own story. • To use the copy and paste feature to create additional pages

Through the teaching of this unit, teachers will be able to cover the National Curriculum subject content for KS1 by working with the children on the designated skills. These skills will be revisited in subsequent units throughout the year too.

Teaching and Learning

Computing teaching at Daisyfield is practical and engaging and a variety of teaching approaches and activities are provided based on teacher judgement and pupil ability. We have a wide range of resources to support our computing teaching including but not limited to, iPads, laptops, bee-bots and the use of Purple Mash. Pupils may use laptops or iPads independently, in pairs, alongside a TA or in a group with the teacher. Teachers and pupils are also aware of the importance of health and safety and pupils are always supervised when using technology and accessing the internet.

Pupils at Daisyfield are fully encouraged to engage with ICT and technology outside of school. Each teacher and pupil at Daisyfield have their own unique Purple Mash login and password. Computing work can be stored and saved using pupil log in details and homework or '2do's' can also be set for pupils to access and complete tasks at home that link with their current class learning. Each class has a display board that can be used to display a range of computing/ICT related work. Parents at Daisyfield are also encouraged to support the implementation of ICT and computing where possible by encouraging use of ICT and computing skills at home during homework tasks and support pupils beyond the classroom. Children also have personalised accounts and online access to Time Table Rockstars, MyMaths and EdShed which they use to supplement their learning in Maths.

Not all computing lessons need to use technology as the children need to learn that computing is not only limited to using technology. Online safety is also an important area of the computing curriculum and all the children will be constantly reminded about their rights and responsibilities about this. Online safety is taught explicitly each half term through the use of Project Evolve and links to other subjects. For example PSHE.

When teaching Computing, children should be made explicitly aware of the Learning Objective – especially when the lesson is cross-curricular. For example, when teaching Data Handling in Maths through the medium of technology, the children should be made aware of the Computing Skills being covered, i.e: To interpret the data I collect and present the data I collect in an appropriate way.

SEND, Inclusion and Equal Opportunities

At Daisyfield Primary School, teachers are committed to providing an engaging and interactive education that is accessible to all our pupils. We provide equal opportunities to all children, irrespective of ability, race, religion or gender.

We endeavour to do this by providing learning opportunities matched to the needs of pupils with learning difficulties. We also have the targets that have been set for specific children in their Individual Learning Plan's, at the forefront of *all* planning. There may be occasions when the resources may be different from those of the class but these will be in keeping with the pupil's needs.

More able and talented pupils will be identified and their work challenged and differentiated accordingly. Teachers take account of the three principles of inclusion, set out in the National Curriculum, which relate to:

- Setting suitable learning challenges
- Responding to the diverse learning needs of pupils
- Overcoming potential barriers to learning and assessment for individuals and groups of pupils

Most able and talented

At Daisyfield we meet the needs of these children by planning for specific questioning opportunities which require Higher Order Thinking Skills. In Computing we have identified 4 characteristics of the most able which are as follows:

- Learn and apply new information and communication technology techniques quickly.
- Transfer and apply information technology skills and techniques confidently in new contexts.
- Explore independently beyond the given breadth of a computing topic.
- Initiate ideas and solve problems, use computing effectively and creatively, develop systems that meet personal needs and interests.

Safeguarding

At Daisyfield, through our curriculum we support children to…

- predict risks and take appropriate action to keep yourself safe online
- take responsibility for what you say and do - links to social media
- respect other people's experiences, thoughts and be prepare to reflect and challenge appropriately
- develop a healthy digital attitude, recognising the impact of excessive use on mental and physical wellbeing
- follow a set of instructions and reflect on the effectiveness of those choices

Please also see links to key documents below:
https://www.gov.uk/government/publications/teaching-onlinonline safety-in-schools
https://www.lancashire.gov.uk/youthzone/need-to-know/online-safety/
https://projectevolve.co.uk/

Assessment

At Daisyfield Primary School we understand that assessment is a fundamental part of the teaching and learning cycle. Assessment is used to inform planning and to facilitate differentiation. The assessment of children's work is on-going to ensure that understanding is being achieved and that skills progression is being made. Verbal and written feedback is provided to the children regularly in line with the school's assessment policy.

In addition to this, children will complete a 'quiz' at the end of each unit to show their understanding. Children learning will be tailored for those working below and above year group expectations.

Roles and Responsibilities

Computing will be monitored by the subject leader. Their role is to support colleagues in the teaching of Computing, being informed about current developments in the subject, and providing a strategic lead and direction for the subject in the school as well as making its own distinctive contribution to the school curriculum as Computing contributes to the wider aims of primary education.

The subject leader aims to:

- Provide support to fellow teachers by sharing relevant information at staff meetings regularly.
- Ensure that resources are readily available for teachers to access for their pupils and guide them to the wealth of online resources that are also available to them.
- Carry out learning walks across the key stages to monitor coverage and content of the Computing curriculum at Daisyfield and to ensure that this policy is put into practise.
- Develop the teaching and learning of Computing by taking on board thoughts and ideas from the pupils themselves through pupil conferencing.
- Critically analyse the progression of Computing across the different Key Stages.

The monitoring of teaching and learning of Computing across the school will also include members of the Senior Leadership Team (SLT).

Review Date: July 2024