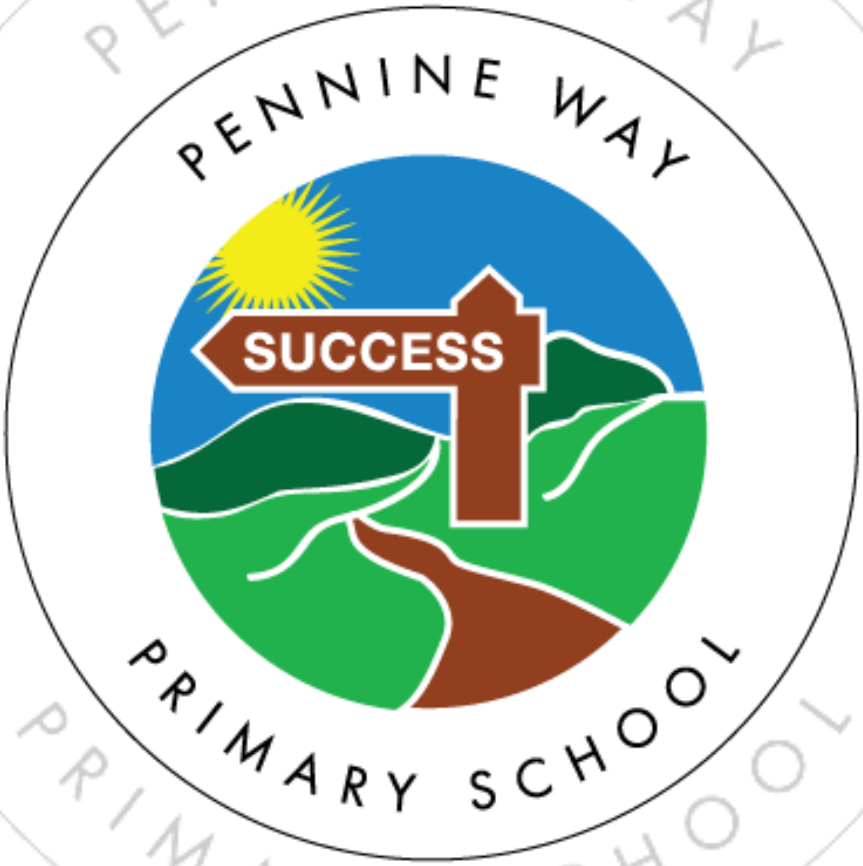
Pennine Way Primary School



Computing Policy

Contents:

1. Statement of intent

Mission Statement: Happiness is.....

Together as a team providing an exciting and challenging learning environment which maximises independence, resilience and potential for all; Being proud of who we are, celebrating the strengths and differences that we have, working together as responsible and caring members of society as we walk the Pennine Way Pathway to Success.

Curriculum Intent:

At Pennine Way the intent for our curriculum is for it to reflect our local area and community, whilst enabling pupils to understand how Carlisle and Cumbria fit into the national and international picture. All subjects at Pennine Way are given equal importance and are all underpinned by skills as well as knowledge to improve our pupils' long term memory. These skills are built upon throughout a pupil's pathway through our school in order for them to make meaningful connections between their life experiences and the experiences that they are learning about. At the end of their journey at Pennine Way, pupils will be able to utilise the skills and knowledge gained in a variety of contexts.

At Pennine Way Primary, we understand that a high-quality computing education is essential for pupils to understand modern information and communication technologies (ICT), and for them to use these skills to become safe, responsible, competent, confident and creative participants of an increasingly digital world.

The aim of the computing curriculum is to inspire pupils to continue to learn and apply the skills they have learnt at school and to use them as a foundation for the future.

Throughout this policy, we outline how we, as a school, will deliver the requirements of the key stage 1 (KS1) and key stage 2 (KS2) computing programmes of study, as well as developing the skills of the pupils in our Early Years to ensure that our pupils have the digital skills they need. We aim to inspire pupils to continue to learn and apply the skills they learn at secondary school, university, and beyond in the workplace.

Signed by:

_____ Headteacher Date: _____

_____ Chair of governors Date: _____

1. Legal framework

1.1 This policy is in regard to and compliant with the following statutory guidance:

- DfE (2013) 'Computing programmes of study: key stages 1 and 2'

1.2 This policy links in with the following other school policies:

- Primary Maths Policy
- Homework Policy
- Social Media Policy
- E-safety Policy

2. Roles and responsibilities

2.1 The headteacher will:

- Ensure that there is a Primary Computing Policy in place, and that it is regularly reviewed and updated to take into account new developments, both to the primary computing curriculum and to ICT.
- Ensure that the Primary Computing Policy, as written, is disseminated to the computing coordinator, teaching staff and parents, for implementation.
- Hold the computing coordinator to account for the effective implementation of the Primary Computing Policy, including budget expenditure.
- Intervene where it is apparent that the Primary Computing Policy is not being implemented according to its provisions.

2.2 The computing coordinator will:

- Secure and maintain computing resources, and advise staff on the correct use of digital technologies.
- Offer help and support to all members of staff in their planning, teaching and assessment of computing.
- Keep the headteacher and other stakeholders, such as parents, informed about Pennine Way's implementation of the primary computing curriculum.
- Keep up-to-date with new developments in computing and communicate such information and developments to colleagues, including, where necessary, through the creation and delivery of bespoke training programmes.
- Attend appropriate in-service training.

2.3 Teachers will:

- Plan and deliver the requirements of the KS1 and KS2 computing programmes of study to the best of their abilities through a modified Purple Mash Scheme.
- Set high expectations for all their pupils, including pupils with special educational needs and/or disabilities (SEND), pupils from various social, cultural and linguistic backgrounds, and academically more able pupils.
- Encourage pupils to apply their knowledge, skills and understanding of computers and ICT across the curriculum.
- Maintain up-to-date records of both formative and summative assessment.
- Tailor lesson delivery according to pupils' respective abilities.

3 Early years foundation stage (EYFS)

3.1 Although computing is not a statutory part of the EYFS, we will ensure that children of reception age receive a broad, play-based experience of computing through the use of new technologies and through Purple Mash.

4 Key stage 1

Pupils will be taught to:

- Understand what algorithms are, and how they are implemented.
- Create and debug simple programs.
- Predict the behaviour of simple programs.
- Create, organise, store, manipulate and retrieve digital content.
- Recognise common uses of ICT beyond school.
- Use technology safely and respectfully, keeping personal information private, and to identify where to go for help and support when they have concerns online.

5 Key stage 2

Pupils will be taught to:

- Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems, and solving problems.
- Use sequence, selection, and repetition in programs.
- Work with variables and various forms of input and output.
- Explain how some simple algorithms work, and how they can detect and correct errors.
- Understand computer networks, how they can provide multiple services, and the opportunities they offer for communication and collaboration.
- Use search technologies, understand how results are selected and ranked, and be able to critically evaluate digital content.
- Select, use and combine a variety of software on a range of devices to design and create programs, systems and content that accomplish specific goals.
- Use technology safely, respectfully and responsibly, recognise acceptable behaviour and identify a range of ways to report online concerns.

6 Teaching and learning

6.1 Teaching of digital literacy and ICT is largely delivered through cross-curricular subject links.

6.2 The core requirements of the KS1 and KS2 computing programmes of study, such as coding/programming, will be delivered through the modified (Purple Mash) scheme of work, during a dedicated fortnightly computer lesson.

6.3 We have acquired a range and variety of technology to support the delivery of the primary computing curriculum including iPads and laptops.

6.4 An audit of resources is taken on an annual basis to ensure that our computing provision remains appropriate to the latest requirements of the KS1 and KS2 primary computing programmes of study.

6.5 Web filters are kept up-to-date in order to ensure that pupils don't access inappropriate materials.

6.6 Obsolete or broken machines are sold, repaired or, where repair is not possible or cost-effective, scrapped in accordance with data protection requirements.

6.7 A service level agreement (SLA) with CSS is in place to support the computing leads to fulfil this role.

6.8 An SLA with Daisy Group is in place, and all computing-related devices and related applications have access to the internet. This SLA will be reviewed annually to ensure that the current package remains sufficient for purpose, and that it continues to represent the best value for money.

6.9 Online safety will be taught at the beginning of every lesson.

7 Differentiation

7.1 We provide suitable learning opportunities for all pupils by matching the challenge of the task to the individual needs and abilities of each pupil. We will achieve this in a variety of ways, including:

- Making reasonable adjustments to the way in which we deliver the computing curriculum, such as providing transcripts of online learning videos to pupils with hearing impairments, or making resources available in a pupil's first language where they use English as an additional language.
- Assigning classroom assistants to individual/groups of pupils, where appropriate, to enable greater one-to-one support.
- Providing extra learning opportunities through bespoke support groups (e.g. one for those with SEND and another for academically more able pupils), delivered during lunchtimes and/or after school.
- We will provide all children in KS1 and KS2 with access to their own iPad to add delivery of both the Computing Curriculum and the Curriculum as a whole.

7.2 Academically more able pupils may be asked to become 'digital leaders', mentoring and sharing their skills with others during computer lessons.

8 Planning

8.1 All relevant staff members are briefed on the school's planning procedures as part of staff training.

8.2 Throughout Pennine Way Primary School, computing is taught both as a discrete lesson and as part of or to aid learning in other lessons, where appropriate.

8.3 It is expected that staff plan for and teach the National Curriculum Objectives AND key skills identified for each year group.

8.4 Lesson plans will be provided for computing lessons from the Purple Mash scheme but will be adapted to suit the specific needs of our school, each class and cohort.

8.5 The computing curriculum map will be used to outline the units to be taught within each year group.

8.6 Computing vocabulary and definitions can be found on **Purple Mash in the Teaching Resources** and should be used regularly across the year groups when teaching computing.

8.7 Key ICT skills underpin all computing lessons.

9 Assessment

9.1 Pupils' knowledge and understanding of the primary computing curriculum will be assessed against our computing skills. This will be recorded on FFS for each pupil as each unit is complete.

9.2 Ongoing formative assessment monitors pupil performance and progress during learning; the outcomes of which we will use to ensure that work matches the individual needs and abilities of pupils.

9.3 Summative assessment reviews pupils' progress and abilities, and will be undertaken at the end of each unit, term and school year via a number of means, including but not limited to:

- Purple Mash task assessment.
- Teacher-child questioning.

9.4 Samples of work will be kept for groups of children and stored on Showbie and Purple Mash, within relevant class folders/Pupil Folders.

10 Staff training

10.1 The computing leads will be responsible for the identification and delivery of staff training requirements.

10.2 Staff training requirements will be met by:

Auditing staff skills and confidence in the use of computers and ICT on a yearly basis.
Arranging top-up training for individual staff members as and when required.

10.3 The computing leads will remain up-to-date with the latest developments in computing through subscriptions to relevant journals, attendance at relevant courses, etc., and will pass on any newly acquired knowledge/skills to staff members, where appropriate.

11 Monitoring and evaluation

11.1 We appreciate that computing and ICT are rapidly developing, with new uses and technology being created all the time.

11.2 We will review this policy on a bi-annual basis in line with our school's policy review schedule.

11.3 We will review our web filters on an annual basis in order to ensure that pupils continue to be protected from inappropriate content online.

Appendices 1 - Computing. Overview/Long Term Plan

Early Years

- All pupils will be given access to technology to ensure that they receive a broad, play-based experience of computing.

Years 1 to 6

- All pupils will have one specific computing lesson per fortnight following the below modified Purple Mash Plan.
- This will be supplemented by an expectation that technology is used and ICT skills are developed cross curricular with the use of iPads and other relevant technology to aid learning – Skills document details expectations for each year.
- All pupils will also regularly have internet safety assemblies and drop in sessions as well as questioning on previous internet safety topic at the beginning of each lesson.

Computing Curriculum Map

	Autumn		Spring		Summer	
EYFS	Child initiated play to support the development of early Computing skills + access to Mini Mash.					
Year 1	Purple Mash Unit 1.1 Online Safety and Introduction to Purple Mash	Purple Mash Unit 1.9- Technology outside school	Purple Mash Unit 1.7 Coding		Purple Mash Unit 1.5- Maze Explorers	Purple Mash Unit 1.5- Lego Builders
Year 2	Purple Mash Unit 2.1 - Coding		Purple Mash Unit 2.2 – Online Safety	Purple Mash Unit 2.5- Effective Searching	Purple Mash Unit 2.7- Making Music	Purple Mash Unit 2.3- Spreadsheets
Year 3	Purple Mash Unit 3.1 - Coding		Purple Mash Unit 3.5- Emails		Purple Mash Unit 3.2- Online Safety	Purple Mash Unit 3.6 – Branching Databases
Year 4	Purple Mash Unit 4.1 - Coding		Purple Mash Unit 4.2 – Online Safety	Purple Mash Unit 4.7 – Effective Search	Purple Mash Unit 4.6 – Animations	Purple Mash Unit 4.5 - Logo
Year 5	Purple Mash Unit 5.1 - Coding		Purple Mash Unit 5.2 – Online Safety	Purple Mash Unit 5.6 – 3D Modeling	Purple Mash Unit 5.5 – Game Creator	
Year 6	Purple Mash Unit 6.1 - Coding		Purple Mash Unit 6.2 – Online Safety	Purple Mash Unit 6.5 – Text Adventures	Purple Mash Unit 6.7 – Quizzing	

Each lesson should begin with internet safety questions linked to most recent taught internet safety module.

Appendices 2 - Computing and ICT Glossary

Computing language and terms should be used from KS1 upwards where appropriate and relevant to the computing teaching.

It is vitally important that the children not only learn how to do the computing tasks that they are learning but can also talk about what they have done using technical computing language.

Key Computing Vocabulary for each Year Group can be found on Purple Mash in Teaching Resources.