



Whole School Curriculum Design: Computing INTENT – IMPLEMENTATION - IMPACT



Intent

We believe that an engaging and motivating Computing curriculum enables all learners to develop the knowledge, skills and confidence they need to participate successfully in an increasingly digital world.

Through Computing, we aim to develop pupils who can use **computational thinking, creativity and problem-solving** to understand and influence the world around them. Pupils will develop an understanding of how digital systems work and how technology can be used purposefully to create, communicate, organise and present information. This reflects the aims of the National Curriculum for Computing.

We want our pupils to:

Develop confidence and competence when using a range of digital technologies.

- Develop computational thinking, logical reasoning, problem-solving and programming skills.
- Understand the principles of **Computer Science, Information Technology and Digital Literacy**.
- Use technology creatively and purposefully across the curriculum.
- Develop independence, resilience and collaboration when solving problems and completing digital tasks.
- Understand how technology is used in the wider world and recognise its benefits and limitations.
- Become responsible, respectful and safe users of technology.
- Develop the skills to make informed choices about their use of technology and online activity.
- Have opportunities to use and explore a range of digital technologies and resources.
- We aim to ensure that Computing is accessible to all pupils. Where pupils have identified additional needs, appropriate adaptations, support and resources will be provided so that all pupils can participate and make progress.

Impact

We aim for pupils to develop a **secure and progressive understanding of Computing**, becoming confident, creative, responsible and resilient users of technology. Pupils will increasingly use technology independently and purposefully, applying computational thinking and problem-solving skills while understanding how to stay safe and responsible online.

The impact of our curriculum is measured through **ongoing assessment, pupil work and voice, Purple Mash assessment tools, curriculum monitoring and Computing Coordinator review**. This information is used to identify strengths, support pupils' needs and inform future planning and development.

Implementation

Our Computing curriculum follows the **National Curriculum Programme of Study** and is supported by the **Purple Mash Computing Scheme of Work**. The scheme provides a clear progression of knowledge and skills from EYFS through to KS2 and covers **Computer Science, Information Technology and Digital Literacy**.

The Purple Mash scheme provides teachers with lesson plans, resources, knowledge organisers, assessment tools and progression information. Teachers follow the planned sequence of learning while adapting lessons where necessary to meet the needs of their pupils.

EYFS

In EYFS, children develop an understanding of technology through purposeful play and everyday experiences. They have opportunities to explore technology such as tablets, computers, cameras and programmable toys alongside practical, physical and outdoor experiences. Children develop early skills including mouse and keyboard control, sequencing, problem-solving, communication and understanding cause and effect. Purple Mash and Mini Mash resources may be used where appropriate to support learning and development. This approach complements the current EYFS framework, where learning is primarily developed through play and across the seven areas of learning.

KS1

In Key Stage 1, pupils develop their understanding of how technology can be used to create, organise, store and retrieve digital content. Pupils develop early programming and computational thinking skills, including:

- Creating and following algorithms.
- Sequencing instructions.
- Creating and debugging simple programs.
- Using logical reasoning to predict outcomes.
- Using a range of digital tools to create and communicate.
- Developing an understanding of how technology is used beyond school.
- Learning how to use technology safely and respectfully.

These areas reflect the statutory KS1 Computing programme of study.

KS2

In Key Stage 2, pupils build on their previous knowledge and develop greater independence and confidence. They develop more advanced computational thinking and programming skills, including:

- Designing, writing and debugging programs.
- Decomposing problems into smaller parts.
- Using sequence, selection and repetition.
- Working with variables and different forms of input and output.
- Understanding computer networks and the internet.
- Using search technologies effectively and evaluating digital information.
- Selecting and combining appropriate software to create digital content.
- Collecting, analysing, evaluating and presenting data.
- Using technology safely, respectfully and responsibly.

Purple Mash provides opportunities for pupils to revisit and build upon these skills progressively across the key stages.

Online Safety

Online safety is an integral part of our Computing curriculum and is reinforced whenever pupils use technology. Purple Mash's online safety provision supports progressive learning around responsible digital behaviour, including privacy, communication, inappropriate content and seeking help. Online safety is also reinforced through **PSHE, worship and events such as Safer Internet Day**.

SMSC

Computing contributes to pupils' spiritual, moral, social and cultural development by providing opportunities to consider how technology affects individuals, communities and society. Pupils develop an understanding of **responsible digital citizenship**, including respect for others, online behaviour, privacy, communication and making appropriate choices when using technology. They are encouraged to think critically about the information they encounter and to recognise the opportunities and responsibilities that come with living in a digital world.