



# GLEBE PRIMARY SCHOOL UNITED LEARNING ACADEMY

## Computing Policy 2023-2024

**Updated: Autumn 2023**  
**New Review: Autumn 2024**

Approved by the Local Governing Board on 6<sup>th</sup> February 2024

A handwritten signature in black ink, appearing to read "J. Dempster", is written in a cursive style.

Signed by: Mr. James Dempster  
Position: Chair of the Local Governing Body

**Computing Policy**  
**Last updated: Autumn 2023**

**Computing at Glebe: Intent Statement**

At Glebe Primary School, we recognise and embrace the technology-rich world we live in. Through a layer-based computing curriculum, we offer our learners opportunities to develop their computational thinking and creativity. We teach with the aim of inspiring future ambitious creators, innovative problem solvers, and nurturing consumers of technology. We aim to provide a curriculum with clear progression that considers prior knowledge and future learning, allowing skills and knowledge to be built on and revisited. At Glebe, we acknowledge that the core of computing is computer science, the importance that learners are equipped to use information technology, and that all learners become digitally literate while adopting an e-safety conscious attitude. Our curriculum has been researched and organised to provide engaging and challenging learning opportunities. Our computing units have been selected from Purple Mash's computing scheme to ensure that our learners are provided with relevant, engaging, and challenging units that allow for a balanced coverage of computer science, information technology, and digital literacy-focused learning. Vocabulary is a focus so that our learners can verbalise and articulate their understanding. We ensure that vocabulary is taught at the beginning of each unit and remains a focus throughout the sequence of learning.

**How we teach Computing at Glebe**

As a school, we have chosen the Purple Mash Computing Scheme of Work from Reception to Year 6. The scheme of work supports our teachers in delivering fun and engaging lessons that help raise standards. We are confident that the scheme of work more than adequately meets the national vision for computing. It provides immense flexibility and strong cross-curricular links, and it provides excellent supporting material for less confident teachers.

We aim to provide a curriculum that ensures clear and effective progression. To do so, teachers are provided with knowledge organisers and progression documents that clearly identify specific prior and future learning. Units have been selected with consideration and research to allow children to revisit and build on their prior learning. Children are given opportunities to build on their skills and knowledge in computer science, information technology, and digital literacy.

We recognise that e-safety is an integral part of computing teaching and each year group is taught an online safety unit which is recapped and revisited throughout the year, every year. Children are taught and reminded to 'Zip it - don't give out your personal information, Block it – block people or sites that are harmful or upsetting and Flag it – tell someone if you see anything worrying.'

**Computing in the Early Years**

We aim to provide our pupils with a broad, play-based experience of computing in a range of contexts. Including opportunities to use and learn with Mini Mash. Mini Mash is an online resource that supports teaching and learning in the early years. It is an interactive virtual classroom that allows children in nursery and reception to explore, learn, and create in a safe online space.

**Computing within KS1**

In Key Stage 1, children are taught 4 units per year that have been selected from Purple Mash's computing scheme to ensure that our learners are provided with relevant, engaging, and challenging

units that allow for a balanced coverage of computer science, information technology, and digital literacy-focused learning. Learning opportunities include creating animated story books and representing data in pictograms.

By the end of Key Stage 1, children should be able to:

- Understand what algorithms are.
- How they are implemented as programs on digital devices, and that programs execute by following a sequence of instructions.
- Write and test simple programs.
- Organise, store, manipulate, and retrieve data in a range of digital formats. Communicate safely and respectfully online, keeping personal information private, and recognise common uses of information technology beyond school.

### **Computing within KS2**

In Key Stage 2, children are taught 4 units per year that have been selected from Purple Mash's computing scheme to ensure that our learners are provided with relevant, engaging, and challenging units that allow for a balanced coverage of computer science, information technology, and digital literacy-focused learning. Learning opportunities include animation, game creation and using software to make music.

By the end of Key Stage 2, children should be able to:

- Design and write programs that accomplish specific goals, including controlling or simulating physical systems;
- Solve problems by decomposing them into smaller parts.
- Describe how Internet search engines find and store data; use search engines effectively; be discerning in evaluating digital content; respect individuals and intellectual property; and use technology responsibly, securely, and safely.
- Use sequence, selection, and repetition in programs; work with variables and various forms of input and output; generate appropriate inputs and predicted outputs to test programs.
- Select, use and combine a variety of software (including internet services) on a range of digital devices to accomplish given goals, including collecting, analysing, evaluating and presenting data and information.
- Use logical reasoning to explain how a simple algorithm works and to detect and correct errors in algorithms and programs.
- Understand computer networks, including the internet; how they can provide multiple services, such as the worldwide web; and the opportunities they offer for communication and collaboration.

### **Computing modifications**

We are committed to creating an inclusive classroom across all subjects, including computing. Resources used from Purple Mash are modified to reflect and meet the needs of the learners in each class. Teachers are provided with support with suggested scaffolds to challenge and support, which may include targeted tasks or visuals. Modifications may also include equipment support, for example, a mouse or headphones.


Scaffolding	Task type	Examples of how to provide these opportunities
Most scaffolded  Least scaffolded	Copying code	By giving children examples of code to copy.
	Targeted tasks	<ul style="list-style-type: none"> <li>• Read and understand code</li> <li>• Remix code to achieve a particular outcome.</li> <li>• Debugging.</li> <li>• Use printed code snippets so that children can't run the code but must read it.</li> <li>• Include unplugged activities and 'explaining' tasks e.g. 'how do variables work?'</li> </ul>
	Shared coding	<ul style="list-style-type: none"> <li>• Sharing Challenge activities as a class or group on the whiteboard.</li> <li>• Complete guided activity challenges as a class.</li> <li>• After completing challenges; share methods to create a class version of the challenge.</li> <li>• Free coding as a class</li> </ul>
	Guided exploration	<ul style="list-style-type: none"> <li>• Exploring a limited repertoire of commands</li> <li>• Remixing code</li> <li>• Explore commands in free code before being taught what they do.</li> <li>• Use questioning to support children's learning.</li> <li>• PRIMM approach; Predict – Run – Investigate – Modify - Make</li> </ul>
	Project design and code	<p><b>Projects (imitate, innovate, invent, remix)</b></p> <p>There are different ways to scaffold learning in projects. This process can be applied to programming projects;</p> <ul style="list-style-type: none"> <li>• Using example projects e.g. the Guided 2Code activities.</li> <li>• Completing the challenges at the end of each guided activity.</li> <li>• Free code ✓</li> <li>• Create a project that imitates a high-quality exemplar.</li> <li>• Remixing ideas.</li> <li>• Independently creating a brand-new program.</li> </ul>
	Tinkering	<ul style="list-style-type: none"> <li>Use Free code Gorilla to access the full suite of 2Code objects and commands ✓</li> <li>Use Free code to play and explore freely.</li> </ul>

Figure 1: Scaffolding Support Example from Purple Mash Y3 Coding Lesson Plan

### Assessment and Monitoring within Computing

At Glebe, we understand that assessment is an important part of effective computing teaching. Within class, teachers use a range of assessment strategies to enable them to assess learners' computing skills and knowledge. Including the use of 'AFL sheets' to record in-the-moment observations and reflections. This strategy then supports teachers in identifying learners who may need further support and challenge. At the end of the unit, teachers use these 'AFL sheets' and evidence from outcomes created by the learners to make informed assessments on the learner's current attainment level. Teachers will then use these judgements to inform future planning, including selecting appropriate modifications and challenges for their class. In computing, the subject leader monitors the learning by looking at children's work, pupil voice, and lesson visits.

### Extra opportunities within Computing

At Glebe, children are given the opportunity to apply to be a digital leader in KS2. Digital leaders are children with a passion for technology who want to share their knowledge with others and promote the use of all things digital throughout the school. Being a digital leader is a fantastic opportunity to take on responsibility, learn new skills, and develop and demonstrate leadership skills. Digital leaders take part in fortnightly meetings and take part in Purple Mash termly challenges.

Whole-school competitions are organised to promote computing and e-safety across the school and provide opportunities for all children to participate. Computing is taught across the curriculum, and children are given opportunities to use technology in other subjects.