Computing

Intent

At Greenside, our aim in teaching computing is to provide a comprehensive education that encompasses Computer Science, Information Technology and Digital Literacy. Through Computer Science, pupils will delve into the fundamental principles of algorithms and programming, nurturing their problem-solving abilities. Information Technology will empower them to confidently use digital tools, create content and manage data effectively. Moreover, Digital Literacy will instil responsible and safe digital practices, equipping pupils with the skills needed to navigate the online world, critically evaluate digital information and protect their privacy. Our aim is to foster well-rounded digital citizens who are not only proficient in using a range of technology but also conscientious and informed in their digital interactions in an increasingly digitised world.

Implementation

Pupils will learn about and practise the skills involved in Computer Science, Information Technology and Digital Literacy. They will do so using Purple Mash on Google Chromebooks and iPad devices. Through a seamless integration of these tools into our educational practices (using Google Classroom to access learning, for instance), pupils will also be taught using the Purple Mash scheme of work, allowing for fully-encompassed curriculum coverage with access from any hardware, anywhere in the world.

Computer Science
Pupils will learn coding, where teachers and pupils will:

- Utilise coding apps and platforms suitable for both devices to introduce pupils to the world of algorithms and programming
- Encourage collaborative coding projects that can be easily shared and edited on these devices
- Foster logical reasoning by incorporating coding challenges and puzzles accessible on both iPad and Chromebook

Information Technology
Through a range of lessons in class, teachers and learners will:

- Equip pupils with essential digital skills by using both devices for word processing, data management and content creation
- Leverage cloud-based tools such as Google Workspace and Purple Mash to enable seamless file storage and

collaboration
- Emphasise effective document organisation and the creation of multimedia content, benefiting from the diverse capabilities of Chromebook and iPad

Digital Literacy
Through a range of lessons in class, teachers and learners will:
- Implement internet safety programs that are compatible with both devices, teaching pupils to use them responsibly and respectfully
- Utilise web-filtering and monitoring tools on Chromebooks to ensure a secure online environment
- Instil critical thinking skills by assessing online content and sources using browsers and apps available on iPad and Chromebook

Computing Professional Development
- Ensure external training is provided to teachers to ensure confidence with using the Purple Mash platform
- Continuous training and support for teachers to maximise the educational potential of iPad and Chromebook in delivering the computing curriculum
- Opportunities for cross-curricular use of computing to achieve the full potential of skills and tools

Learning the Computing Curriculum at Greenside will also be accessible and inclusive:
- Ensure that both Chromebook and iPad are configured to accommodate diverse SEND, such as assistive technology and accessibility features
- Offer alternatives and adapt curriculum materials to cater to pupils who may have varying levels of access to these devices

At Greenside we know that, within the context of SEND, personalisation and adaptation of the curriculum is key so that each individual's priorities can be considered in order to prepare them adequately for adulthood with the best possible quality of life. Our ambitious curriculum can be successfully adapted to meet the needs of pupils with SEND, developing their knowledge, skills and abilities to apply what they know with increasing fluency and independence. We believe that it is vital that our pupils are equipped with the tools needed to become independent, inquisitive learners in all subjects and that pupils with SEND achieve the very best outcome and reach their full potential.

Intended Impact

Assessing the impact of the computing curriculum will happen in a variety of ways. Teachers and leaders will:

- Regularly evaluate pupils' performance in Computer Science, Information Technology and Digital Literacy through learning evidence
- Analyse their coding proficiency, digital content creation skills and understanding of online safety principles
- Monitor the attainment of specific learning objectives outlined in the computing curriculum, measuring pupils' ability to create, problem-solve and critically evaluate digital content
- Assess pupils' engagement levels during computing lessons and their active participation in collaborative coding projects and digital content creation activities
- Evaluate the effective use of Chromebook and iPad devices as educational tools, considering their integration into classroom activities and the extent to which they enhance the learning experience
- Gauge pupils' grasp of digital citizenship principles, including responsible technology use and online safety
- Assess their ability to identify and report online concerns and inappropriate behaviour
- Monitor the progress of educators in integrating Chromebook and iPad devices into the curriculum and their ability to facilitate effective computing lessons
- Collect feedback from pupils regarding their experiences with the computing curriculum, the devices used and their perceived growth in computer skills and digital literacy
- Ensure that the impact assessment considers the accessibility and inclusivity of the computing curriculum for all pupils, including those with diverse learning needs
- Assess the long-term impact of the computing curriculum by tracking pupils' continued interest and proficiency in computing-related subjects as they progress through their education

The impact of the computing curriculum should be able to show that:

- Pupils are able to identify proper information technologies for specific uses
- Pupils are able to make connections between apps and coding scripts
- Pupils can employ increasingly sophisticated language to articulate computer science
- Pupils’ presentation of their computing learning and learning outcomes reflects an interest in the subject
- Pupils will leave primary school with the language and understanding needed to understand and navigate the technology

around them

- Pupils are curious to continue exploring computing on their own
- Pupils have high quality learning outcomes which reflect their understanding of computing
- Teachers are able to facilitate constructive and creative lessons using ICT
- Teachers are able to plan with well sequenced lessons that reflect the knowledge and skills below
- Teachers exhibit good subject knowledge
- Teachers' assessments and evaluations of pupils' computing progress are consistently accurate and insightful

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Computing Curriculum Long Term Overview

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS Note: Modules may be sequenced to suit the topics of each half term.	**General Computing Skills** Example Sorting and Sequencing Quiz	**Communication and Language (Speaking & Listening)** Simple City	**Expressive Arts & Design (and C&L)** 2 Create a Story 2 Explore	**Literacy** Alphabet Sound Slideshow Missing Sound Spelling Quizzes Fairytale Slideshows	**Maths** Number City 1 Toy Shop **Physical Development** 2Handwrite Jigsaws and 2Pairs	**Understanding the World** **(P, C & C)** About Me My Feelings Growing **(Past and Present)** People Who Help Us Toys from the Past **(Natural World)** Under the Sea Seasons Growing Baby Animals
Year 1	**Online Safety 1.1** (Weeks 1-4) **Grouping & Sorting 1.2** (Weeks 5-7)	**Animated Story Books 1.6** (Weeks 1-5)	**Pictograms 1.3** (Weeks 1-5)	**Lego Builders 1.4** (Weeks 1-4) **Technology outside school 1.9** (Weeks 5-7)	**Coding Unit 1.7** (Weeks 1-6)	**Spreadsheets 1.8** (Weeks 1-3) **Maze Explorers 1.5** (Weeks 4-6)
Year 2	**Online Safety 2.2** (Weeks 1-3) **Effective Searching 2.5** (Weeks 4-7)	**Coding 2.1 - Use Year 2 Coding Crash Course** (Weeks 1-7)	**Questioning 2.4** (Weeks 1-6)	**Creating Pictures 2.6** (Weeks 1-6)	**Spreadsheet** (Weeks 1-6)	**Making Music 2.7** (Weeks 1-3) **Presenting Ideas 2.8** (Weeks 4-7)

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Year 3	**Online Safety 3.2** (Weeks 1-3) **Graphing 3.8** (Weeks 4-7)	**Spreadsheets 3.3** (Weeks 1-3) **Touch Typing** (Weeks 4-7)	**Coding 3.1 - Use Year 3 Coding Crash Course** (Weeks 1-6)	**Presenting with Google Slides 3.9** (Weeks 1-6)	**Branching Databases 3.6** (Weeks 1-4) **Simulations 3.7** (Weeks 5-7)	**Email 3.5** (Weeks 1-6)
Year 4	**Online Safety 4.2** (Weeks 1-4) **Hardware Investigators 4.8** (Weeks 5-6)	**Coding 4.1 - Use Year 4 Coding Crash Course** (Weeks 1-6)	**Logo 4.5** (Weeks 1-6)	**Writing for Different Audiences 4.4** (Weeks 1-6)	**Effective Search 4.7** (Weeks 1-3) **Artificial Intelligence 4.10** (Weeks 4-7)	**Animation 4.6** (Weeks 1-3) **Making Music 4.9** (Weeks 4-7)
Year 5	**Online Safety 5.2** (Weeks 1-3) **Concept Maps 5.7** (Weeks 4-7)	**Spreadsheets 5.3** (Weeks 1-7)	**Coding 5.1 - Use Year 5 Coding Crash Course** (Weeks 1-6)	**Game Creator 5.5** (Weeks 1-6)	**Word Processing with Google Docs 5.8** (Weeks 1-7)	**3D Modelling 5.6** (Weeks 1-4) **Databases 5.4** (Weeks 5-7)
Year 6	**Online Safety 6.2** (Weeks 1-2) **Understanding Binary 6.8** (Weeks 3-7)	**Coding 6.1 - Use Year 6 Coding Crash Course** (Weeks 1-7)	**Quizzing 6.7** (Weeks 1-6)	**Text Adventures 6.5** (Weeks 1-6)	**Blogging 6.4** (Weeks 1-4) **Networks 6.6** (Weeks 5-7)	**Spreadsheets with Google Sheets 6.9** (Weeks 1-7)