



## Computing at Littledean C of E Primary School

### INTENT

At Littledean C of E Primary School, we aim to instil a love of computing in our children. We aim to provide an interesting, varied curriculum that interests and intrigues our children whilst meeting the needs of all backgrounds, cultures and abilities. We believe that high-quality and well-resourced computing lessons will ignite children's curiosity about becoming the next generation of proficient, digitally literate, masters of technology. Technology is everywhere and will play a central part of our children's lives, and therefore we want to enable the children to build a positive and safe relationship with it, in all its uses and forms. We recognise the importance of children being equipped with the autonomy to keep themselves safe online. It is essential that as staff we are positive role models for the use of technology and that pupils are confident in the knowledge that with increased availability of technology, and associated online platforms, there is an element of choice. We intend to build a computing curriculum that develops pupil's learning and results in the acquisition of knowledge of the world around them that ensures all pupils can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems.

Through our question based approach to computing topics, children have opportunities to 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.

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It is our intent that our Computing teaching equips pupils for live in an increasingly digital society, following the 12 Pedagogical Principles:

- Leading teaching with concepts
- Unpacking new concepts and complex terms with unplugged activities
- Using project based learning to provide opportunities for pupils to consolidate knowledge and understanding
- Using formative questioning to uncover misconceptions and adapt teaching to address them as they occur
- Use supportive lesson structures such as PRIMM (Predict, Run, Investigate, Modify, Make) and ensure that differentiation can be build in at various stages of the lesson.
- Encourage collaborative working including pair programming, peer instruction and structured group tasks.

	<ul style="list-style-type: none"> <li>• Modelling the processes, providing scaffolding that can be gradually reduced as students increase their proficiency, confidence and independence.</li> <li>• Adding variety of structured and exploratory tasks as well as promoting active learning.</li> <li>• Bringing concrete concepts to life with contextual examples.</li> <li>• Reading, exploring and interpreting code so that pupils are able to trace and explain it first, before coming to write it themselves.</li> <li>• Use physical computing and making activities that offer tactile and sensory experiences to enhance learning.</li> <li>• Fostering program comprehension through a variety of activities to help secure understanding and build connections with new knowledge.</li> </ul>
<p style="text-align: center;"><b>IMPLEMENTATION</b></p>	<p><b>Planning</b></p> <ul style="list-style-type: none"> <li>• Long Term: National Curriculum following the Teach Computing Scheme of Work and Development Matters (EYFS). We have a 2 year rolling programme of topics, with links made between other subject areas where appropriate and meaningful.</li> <li>• Medium Term: Teachers plan units of work based on an initial stimulus question. This question is used at the start of a unit to elicit children’s prior knowledge and understanding and again at the end of the unit in order to ascertain the learning that has taken place. In our whole school computing overview document there is a thorough breakdown of the progression of computing skills and knowledge for each class.</li> </ul> <p><b>Teaching and Learning</b></p> <ul style="list-style-type: none"> <li>• Computing lessons follow a clear and consistent teaching sequence which builds children’s knowledge and skills in order to be able to answer their stimulus question.</li> <li>• Children are introduced to key vocabulary and its meaning and given opportunities to use this within the correct context.</li> <li>• Teaching and learning will facilitate progression across all key stages within the strands of digital literacy, information technology and computer science. Children will have the opportunity to explore and respond to key issues such as digital communication, cyber-bullying, online safety, security, plagiarism and social media.</li> <li>• Children have opportunities to present their learning in a variety of ways in order to communicate their computational skills, knowledge and understanding appropriately.</li> <li>• Homework grids will contain activities to build on children’s skills and knowledge related to their current computing topic where appropriate for the children to access at home.</li> </ul> <p><b>Assessment</b></p> <ul style="list-style-type: none"> <li>• Topic question, asked at the start and end of the unit of work.</li> </ul>

- Ongoing assessment during lessons (based on discussions and engagement), along with assessment of tasks completed in class.
- End of unit assessment where children will be assessed as either developing, expected or exceeding in relation to the learning objectives covered within the unit of work.
- Use of topic related quizzes to check knowledge and understanding.
- Monitoring of Subject Leader will include planning scrutinies, book looks, lesson observations and pupil conferencing to ensure appropriate coverage of the curriculum.

<b>Information Technology</b>	<b>Computer Science</b>	<b>Digital Literacy</b>
Word processing / typing	Computational Thinking	Self- image and Identity
Data Handling	Programming	Online Relationships
Presentations and eBooks	Computing Networks	Online Reputation
Animation		Online Bullying
Video Creation		Managing Information Online
Photography and Digital Art		Health, Wellbeing and Lifestyle
Sound		Privacy and Security

**IMPACT**

Through the high quality teaching of Computing taking place we will see the impact of subject in different ways.

- Through pupil voice children will be able to talk about the skills and knowledge they have acquired.
- Children will be observed to be engaged in Computing lessons and want to find out more.
- Children will complete research independently through projects and homework to further their own enjoyment about the subject or topic.
- Work will show that a range of topics are being covered, cross-curricular links are made (where appropriate) and differentiated work is set as needed.
- The school environment will be technology rich through everyday use across subjects, resources and use of specific vocabulary.

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|  | <ul style="list-style-type: none"><li>• Assessments and monitoring will show that standards in Computing are high and match the standards in other subject areas.</li></ul> |
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