

# Computing *on a Page*



**Intent:** *How Computing contributes to our school's vision*

At Lady Boswell's, our vision is that all children will have the vital life-skills in computing as a foundation for their continuing education and life beyond. Through teaching Computing, we equip children to participate in a rapidly changing world, where work and leisure activities are increasingly transformed by technology. We enable them to **develop a positive sense of self and well-being; confident to make the right choices in order to keep themselves safe online.** At the same time, we strive for children to be **responsible and tolerant global citizens.** Part of this includes developing their **resilience and resourcefulness** to use the internet and IT skills in a positive, efficient way.

We place a strong focus on developing the skills necessary for children to be able to use information in an effective way. We aim to develop children to be **effective communicators and collaborators. We also want them to be creative and confident problem solvers** when it comes to developing their competence to use and apply computer science learning, core ICT skills, and digital literacy skills.

Our current Computing scheme aims to instil a sense of enjoyment around using technology and to develop pupil's appreciation of its capabilities and the opportunities technology offers. Tinkering with software and programs forms a part of the ethos of the scheme as we want to develop pupils' confidence when encountering new technology, which is a vital skill in the ever evolving and changing landscape of technology.

## Golden Threads



Computer Science



Information Technology



Digital Literacy



Online Safety



## Implementation: *How the curriculum is organised*

Our current Scheme of work is designed with three strands which run throughout: Computer Science, Information technology and Digital Literacy. Children at Lady Boswell's receive a weekly Computing lesson (1 hour) that can either be in our dedicated Computing suite or within the classroom using iPads. This varies depending on the unit being studied. There are enough stand alone computers and ipads for a class of 32. We also have programmable 'BeeBots and Microbits that are used to support the children's understanding of algorithms at KS1 and coding using blocks at KS2. Units are organised in a way that build on the skills developed in previous years. Each term, class teachers provide a stand alone online safety lesson however aspects of online safety are continually visited throughout and as required in all subjects that use ICT.

### EYFS

Computing in EYFS ensures that pupils enter Year 1 with a strong foundation, builds problem-solving abilities, encourages resilience and supports other areas of learning. By integrating computing into EYFS, pupils also begin to build their digital literacy and their understanding of e-safety.

### Vocabulary

Carefully sequenced and explicitly taught vocabulary is essential in children building the schemas necessary to retain the subject knowledge required for Computing

Vocabulary is progressively organised, and present on unit Knowledge Organisers which are displayed in classrooms and revisited throughout each unit. The key vocabulary is referred to throughout the delivery and input of lessons

### Including all learners

At Lady Boswell's we believe that *all* pupils should have equal opportunity to access every subject and recognise that often pupils who can find reading and writing challenging can have high levels of interest or skill in knowledge rich subjects like Computing

Teachers are responsible for ensuring all pupils are supported and challenged in Computing. This will be through providing opportunities to develop and use skills taught in the lesson, practicing these skills and becoming confident problem solvers and collaborative thinkers. Subject Leaders are responsible for monitoring the inclusion of pupils with additional needs and high interest or skill and will work with teachers and our SENCO to make the necessary adjustments to the curriculum.





Units are arranged by year group and build on knowledge and skills acquired each year. **Aspects of Online Safety run throughout each year and are re-visited termly.**

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Early learning Goals</p> <ul style="list-style-type: none"> <li>-Recognising, experimenting and using technology for a purpose.</li> </ul>	<ul style="list-style-type: none"> <li>-Online safety</li> <li>Computer systems</li> <li>-Algorithms</li> <li>Programming</li> <li>- digital images</li> <li>-data handling</li> </ul>	<ul style="list-style-type: none"> <li>-Online safety</li> <li>-Inputs/outputs/ debugging</li> <li>-Algorithms</li> <li>- word processing</li> <li>- Coding-scratch Jr</li> </ul>	<ul style="list-style-type: none"> <li>-Online safety</li> <li>-Networks</li> <li>- emails</li> <li>- inside a computer</li> <li>-video trailers</li> <li>-databases</li> </ul>	<ul style="list-style-type: none"> <li>-Online safety</li> <li>-Collaborative learning– Google</li> <li>-Coding– Scratch</li> <li>-Web design– HTML</li> <li>-Computational thinking and data handling</li> </ul>	<ul style="list-style-type: none"> <li>-Online safety</li> <li>-Search engines</li> <li>-programming—music</li> <li>- Mars Rover– Binary</li> <li>- programming ‘Microbits’</li> <li>-Stop Motion Animation</li> </ul>	<ul style="list-style-type: none"> <li>-Online safety</li> <li>-Bletchley park Code breaking</li> <li>-Programming– python</li> <li>- data handling</li> <li>- inventing a product</li> <li>- Exploring AI</li> </ul>



Children are able to access technology such as iPads, desktop computers and VR headsets to support learning in the classroom as well as in a designated Computing suite.

Up to date iPads are available for a whole class and this enables effective teaching of computing lessons but also so they can be used in a cross curricular way. For example; to enhance Humanities learning. For research, to present information or as an assessment tool.

The VR headsets again provide opportunity for children to be immersed in to a topic and brings learning to life.

Outside speakers are often booked to deliver lessons on e-safety or aspects of coding.

We have local connections with schools that deliver experience days and workshops for the children.

Digital leaders are appointed to assist in class and meet to review, evaluate our technology provision as well as prepare assemblies and competitions. E.g safer internet day.

Coding club is offered as a lunchtime club.

## Assessment

Teachers will plan assessment activities that meet the underpinning pedagogy of retrieval practice, will run regular vocabulary checks and mini quizzes and will use task design if appropriate as a formative assessment tool. Teachers will continually assess how pupils have grasped key themes as well as key ICT skills and adapt accordingly where core ICT skills are missing or further retrieval activities are required.

## Ensuring Impact in Computing

Subject Leaders will work alongside Implementation Team Leaders to ensure that the Computing Curriculum is implemented in line with the policy and continues to meet the needs of our stakeholders. This will be through pupil voice activities, monitoring of planning, lesson visits and developmental observations. They will work with Curriculum Committee Governors to carefully review Computing and its impact.

## Impact of the curriculum



*Understand that technology helps to showcase their ideas and creativity*

*be critical thinkers and able to understand how to make informed and appropriate digital choices in the future*

*Be able to use technology both individually and as part of a collaborative team*



*understand the importance that computing will have going forward in both their educational and working life and in their social and*



*Be aware of online safety issues and protocols and be able to deal with any problems in a responsible and appropriate manner.*

**The Computing Curriculum will enable our pupils to...**



*Have an awareness of developments in technology and be able to deal with any problems in a responsible and appropriate manner*

