

# **Curriculum Area Overview Computing**

### The Vision for Computing

Computing is used as a means of addressing children's individual learning intentions and as a means of access and communication. Children follow the programmes of study from a developmentally relevant stage with links made to chronological age programmes of study where appropriate. The school uses the EYFS SENIT Developmental Journal. Computing is valued as a way of developing communication skills in all areas of the curriculum. Communication is central to learning across all areas of the curriculum.

Our Computing curriculum is delivered across our curriculum in primary and in secondary Formal pastoral and Formal it is taught as a discrete lesson. We aim to see the following progress:

Increasing independence and confidence.

- Increasing interactions and subsequent progress in communication.
- Increasing enthusiasm for learning demonstrated.
- Higher levels of engagement and motivation to engage with the learning opportunities on offer.
- An increase in self-directed learning.
- A consolidation of skills learnt.

Mathematics and English are heavily embedded throughout the strands of the Computing Curriculum and there are strong links between the PSHEC and Computing curriculum.

#### Our School Ethos and Values

Our school ethos is SURE and underpins all learning and values that parents, pupils and staff share and wish to promote and develop here. SURE, stands for 'Achieving Success through Understanding, Respect and Endeavour.'

## **Our School Mission Statement**

We provide the best education for all our children so that when they leave our school they have the skills, knowledge, and aspirations to lead fulfilling lives as adults.

## **Our Vision**

We believe that children thrive when encouraged and supported; they respond to being treated in a positive and nurturing manner. The principles that comprise SURE are valued by both children and staff. They reflect our desire to help children to understand their difficulties, support their wellbeing, develop respect for themselves and others and become successful in what they do and achieve throughout their time in school and into adulthood.

#### Mowbray Curriculum Intent

The intention of our curriculum is to create personalised learning opportunities based around individual EHCP outcomes and academic progress to successfully prepare our pupils for each stage of transition and life after school. At Mowbray School, we believe in providing our children with the best possible start to their education and that we establish the building blocks for their future learning from the moment they start with us. We have high expectations of all children and understand the vital role that early intervention has in providing aspirational outcomes into adulthood.





Primary Semi-Formal	Primary Formal Pastoral	Primary Formal	
<ul> <li>Our curriculum will <ul> <li>Enable all learners to move to the next stage of their lives.</li> <li>Support our young people to be able to influence and access the world around them.</li> <li>Equip all learners with the skills to begin to express themselves and communicate with others, using assistive technology.</li> <li>Provide opportunities to use technology for communication and access to learning.</li> <li>To equip young people for living and working in an increasingly digital world.</li> <li>Help our young people to have safe and positive experiences online.</li> <li>Provide access to progression frameworks for the use of cause-and-effect activities on tablets</li> <li>Allow our young people to access the curriculum through a theme – based approach, where Computing is delivered across the curriculum to enhance and support learning outcomes.</li> </ul> </li> </ul>	<ul> <li>Enable all learners to move to the next stage of their lives.</li> <li>Enable pupils to use computational thinking and creativity to understand and influence the world around them.</li> <li>Support children with their online wellbeing and to support them to have positive experiences online.</li> <li>Enable all learners to express themselves and communicate with others, using technology.</li> <li>To enable our pupils to improve English and Mathematical outcomes using technology or tablets.</li> <li>To provide in-class support for multimedia projects to promote student voice.</li> </ul>		





	across the curriculum to enhance and support learning outcomes.	across the curriculum to enhance and support learning outcomes.
Our curriculum will be broadened by	Our curriculum will be broadened by	Our curriculum will be broadened by
Teaching strategies/interventions:	Teaching strategies/interventions:	Teaching strategies/interventions:
Communication Supports	unplugged activities	Skill Building-
Skill Building- ChooseIt!Maker 3 (Switch)	Skill Building- ChooseIt!Maker 3 (Switch)	unplugged activities
Helpkizlearn	Helpkizlearn	Chooselt!Maker 3 (Switch)
Augmentative and Alternative Communication (AAC)	Augmentative and Alternative Communication (AAC)	Helpkizlearn
Clicker Communicator	Clicker Communicator	Augmentative and Alternative Communication (AAC)
Clicker writer	Clicker writer	Clicker Communicator
Clicker8	Clicker8	Clicker writer
Purplemash	Purplemash	Clicker8
Sumdog	Sumdog	Clicker writer
Reading Eggs	Reading Eggs	Clicker8
https://uk.ixl.com	https://uk.ixl.com	Purplemash
https://www.foodafactoflife.org.uk/	https://www.foodafactoflife.org.uk/	Sumdog
App.century.tech	App.century.tech	Reading Eggs
https://www.numeracywarmup.co.uk/	https://www.numeracywarmup.co.uk/	https://uk.ixl.com
Topmarks	Topmarks	https://www.foodafactoflife.org.uk/
Crickweb	Crickweb	App.century.tech
Learnenglishkids	Learnenglishkids	https://www.numeracywarmup.co.uk/
Wordwall	Wordwall	Topmarks
	Online Safety & Digital Literacy:	Crickweb
Online Safety & Digital Literacy:	https://www.bbc.com/ownit	Learnenglishkids





https://www.bbc.com/ownit <b>Enrichment:</b> Cross curricular links through use of a thematic approach	Enrichment: Cross curricular links through use of a thematic approach	Wordwall <u>Online Safety &amp; Digital Literacy:</u> https://www.bbc.com/ownit Enrichment: Cross curricular links through use of a thematic approach	
Secondary Semi-Formal	Secondary Formal Pastoral	Secondary Formal	
Our curriculum will Help our students to become:	Help our students to become:	Our curriculum will Help our students to become: Safe: to understand how to stay safe in a digital world	
Safe Awareness:	Safe Awareness:	Problem solvers: have the ability to analyse and solve problems and design, implement and deploy algorithms to solve real problems Logical thinkers: apply the concepts of abstraction, decomposition and	
to have an emerging awareness of how to stay safe in a digital world	to have an increased awareness of how to stay safe in a digital world, be able to talk about how to stay safe as well as applying it.	logic Digitally Creative: innovate, analyse and think critically in solving	
to have an emerging awareness of how technology impacts people and on the wider society	to have an increased awareness of how technology impacts people and on the wider society.	problems Aware: understand the impact that technology has on people and on the wider society ICT Capable: able to use computer software applications and programs with confidence and skill	
Problem solvers:	Problem solvers:		
to have an emerging awareness of how to analyse problems to have an emerging awareness of how to solve problems		Demonstrate knowledge and understanding and application of the key concepts and principles of Computer Science	
to have an emerging awareness of how to solve by design	to know that technology can solve by design	<ul> <li>Understand and fundamental principles and concepts of Computer Science</li> <li>Be able to apply key algorithms and data representation and</li> </ul>	
to have an emerging awareness of how to implement solutions		mathematical skills through practical and the second	
to have an emerging awareness of how to deploy algorithms to solve real problems	to have an increased awareness of how to deploy algorithms to solve real problems - explaining them and applying them.	<ul> <li>Understand the key components that make up digital systems and how they communicate</li> <li>Understand the impacts of digital technology to the individual, wider society, the ethical change s and</li> </ul>	
	Logical thinkers:	cultural impacts as well as the positive and negative impacts digital technology has had on the environment	





Logical thinkers:	to have an increased awareness of how-to decomposition to solve	<ul> <li>To equip learners with a range of creative media skills and provide opportunities</li> </ul>
o have an emerging awareness of how-to decomposition to solve problem	problems s	opportunities
Digitally Creative:	Digitally Creative:	Design, program, evaluate and refine solutions. • Plan and develop software using the software design life cycle • Use a range of software design techniques such as flowcharts, program and viewilication diagrams
o have an emerging awareness of how to use software tools to be digitally creative	digitally creative	program code and visualisation diagrams • Develop key problem-solving skills of abstraction, decomposition, and algorithmic thinking • Develop key skills and practical experience in script-based programming languages and be able to design,
ICT Capable:	ICT Capable:	write and debug programs to solve non-simplistic problems • To be able to think creatively, innovatively, analytically, logically, and
to have an emerging awareness of how to be able to use computer software applications and programs to be creative	to have an increased awareness of how to be able to use computer software applications and programs to be creative	critically when solving problems • Be able to make informed decisions on appropriate and efficient codin techniques such as sequence, selection, iteration and the use of functions • To be able to design, Program, evaluate and refine solutions to problems
		<ul> <li>Functional skills in Information Communication Technology Using ICT</li> <li>Interact with ICT and use an ICT system to meet given needs</li> <li>Store and retrieve information</li> <li>Follow safety and security practices</li> <li>Finding and selecting information</li> <li>Use searches to find information</li> <li>Select relevant information that matches requirements of given task Developing presenting and communicating information</li> <li>Enter and develop different types of information to meet given needs</li> <li>Bring together given types of information</li> <li>Bring together different types of information for a given purpose</li> <li>Use ICT-based information.</li> </ul>
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Our curriculum will be broadened by: Teaching strategies /interventions:	Our curriculum will be broadened by	Our curriculum will be broadened by



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	Having access to resources including ipads, desktop computers, cameras and apps.	
Connecting the learning in a topic based approach.		

Year	Autumn Term		Spring Term		Summer Term	
7	Staying safe in a	Computer Science:	Creative Digital	Computer Science:	Spreadsheets &	Desktop Publishing &
	digital world	<b>Software</b>	Media	<b>Theory</b>	Databases	Graphic Design
8	Staying safe in a	Computer Science:	Creative Digital	Computer Science:	Spreadsheets &	Desktop Publishing
	digital world	<b>Software</b>	Media	<b>Theory</b>	Databases	& Graphic Design
9	Staying safe in a	Computer Science:	Creative Digital	Computer Science:	Spreadsheets &	Desktop Publishing
	digital world	<b>Software</b>	Media	<b>Theory</b>	Databases	& Graphic Design
10	Entry Level					
	Functional Skills in					





		ICT or AQA IT	ICT or AQA IT	ICT or AQA IT	ICT or AQA IT Unit	ICT or AQA IT	ICT or AQA IT
		Unit Awards.	Unit Awards.	Unit Awards.	Awards.	Unit Awards.	Unit Awards.
		Entry Level					
		Functional Skills in					
		ICT or AQA IT	ICT or AQA IT	ICT or AQA IT	ICT or AQA IT Unit	ICT or AQA IT	ICT or AQA IT
1	1	Unit Awards.	Unit Awards.	Unit Awards.	Awards.	Unit Awards.	Unit Awards.
		OCR ICT Functional	OCR ICT Functional	OCR ICT Functional	OCR ICT Functional	OCR ICT	OCR ICT Functional
		Skills Level 1 or 2	Functional Skills	Skills Level 1 or 2			
						Level 1 or 2	

