

EYFS Building the foundations for Computing:		
Nursery		
<p>Computing plays a part in every aspect of the EYFS curriculum. Children explore a range of elements relating to the computing curriculum in Nursery and then continue to develop this understanding in Reception. The areas which cover elements of the computing curriculum are below:</p> <p>Personal, Social and Emotional Development, Communication and Language, Expressive Arts and Design, Physical Development and Knowledge and Understanding of the World.</p>		
Control Systems	Digital Literacy	Information Technology
<ul style="list-style-type: none"> Increasingly follow rules and understand why they are important. (PSED, C&L) Explore stories using the Toby box. (EAD, LIT) Use the touch screen smart board and Ipads for simple drawing games (PHY) 	<ul style="list-style-type: none"> Develop their small motor skills so that they can use a range of devices to make marks and express their ideas. (PD) Know that the internet is not always safe and appropriate. (PSED) 	<ul style="list-style-type: none"> Begin to talk about how we use technology and what we use it for. (C&L) I can show resilience when beginning to use technology in the classroom. (PSED)

Reception		
Control Systems	Digital Literacy	Information Technology
<ul style="list-style-type: none"> I can explain the reasons for rules (PSED, C&L). 	<ul style="list-style-type: none"> I know and talk about the different factors that support overall health and wellbeing including sensible amounts of 'screen time'. (PSED, PHY) Explore, use and refine a variety of artistic effects of technological devices to express their ideas and feelings. (EAD) 	<ul style="list-style-type: none"> Talk about how we use technology and what we use it for. (C&L) Explore how things work including; Beebots, Ipads, chrome books - VR headsets and interactive Whiteboards. (UTW) Show resilience when developing further use of technology in the classroom. (PSED)

<u>Control Systems</u>		
<u>KS1</u>	<u>LKS2</u>	<u>UKS2</u>

Cycle A		Cycle B		Cycle A		Cycle B		Cycle A		Cycle B	
STICKY Knowledge	Corresponding skill	STICKY Knowledge	Corresponding skill	STICKY Knowledge	Corresponding skill	STICKY Knowledge	Corresponding skill	STICKY Knowledge	Corresponding skill	STICKY Knowledge	Corresponding skill
Understand what algorithms are (& how they are implemented as programs on a digital device)	Write a simple program (including unplugged/ plugged)	Understand how we can use logical reasoning to predict the behaviour of a simple program.	Use logical reasoning to predict the behaviour of a simple program	Understand how programs can run using various forms of input and output (e.g. Bee bots/ micro bits).	Use various forms of input and output.	Understand how to break programs down into smaller parts (decomposition) and why that is useful.	Use decomposition (breaking things down) to solve problems linked to programs.	Understand how sequencing can be used within programs.	Use sequencing effectively within programs.	Understand how variables can impact programs.	Use variables purposefully within programs to achieve specific goals.
Understand that programs need precise instructions.	Write a simple program (which follows precise instructions)	Understand what debugging is and how it affects how a program runs.	Identify and debug a simple program.	Understand how programs are used to control everyday devices. (e.g. toys, drones, traffic lights etc.)	Create a program which can control/replicate everyday/real world devices. (e.g. toy/traffic lights).	Understand how to detect and correct errors in algorithms and programs (for various purposes).	Use logical reasoning to detect and correct errors in algorithms and programs (for various purposes).	Understand how repetition (loops) can be used within programs.	Use repetition (loops) effectively within programs.	Understand how selection can impact a program.	Use selection purposefully within programs.
KS1 Cycle A Crib Sheet		KS1 Cycle B Crib Sheet		LKS2 Cycle A Crib Sheet		LKS2 Cycle B Crib Sheet		UKS2 Cycle A Crib Sheet		UKS2 Cycle B Crib Sheet	
KS1 Cycle A Project Ideas		KS1 Cycle B Project Ideas		LKS2 Cycle A Project Ideas		LKS2 Cycle B Project Ideas		UKS2 Cycle A Project Ideas		UKS2 Cycle B Project Ideas	
Vocabulary											
Algorithms, programmes, move, precise instructions.		(As before +) Logical, reasoning, predict, debug,		(As before +) Create, specific, goals, sequence, input and output.		(As before +) decompose, control, design, write, detect, correct		(As before +) Combine, repetition, sequence		(As before +) Combine, selection, variables, purpose, impact	

<u>Information Technology</u>											
<u>KS1</u>				<u>LKS2</u>				<u>UKS2</u>			
Cycle A		Cycle B		Cycle A		Cycle B		Cycle A		Cycle B	
STICKY Knowledge	Corresponding skill	STICKY Knowledge	Corresponding skill	STICKY Knowledge	Corresponding skill	STICKY Knowledge	Corresponding skill	STICKY Knowledge	Corresponding skill	STICKY Knowledge	Corresponding skill
Understand how information technology beyond school can help us.	Recognise common uses of information technology beyond school (in the real world).	Understand how information technology is used within school to help us.	Recognise common uses of information technology within school.	Understand how software can be used to collect and present data.	Select, use and combine a variety of softwares to accomplish given goals (collecting and presenting data/information)	Understand how the internet and the world wide web can provide opportunities for collaboration and communication.	Collaborate and communicate effectively for a specific purpose.	Understand how software can be used to analyse and evaluate data.	Select, use and combine a variety of softwares to accomplish given goals (analyse and evaluate data/information)	Understand the difference between the internet and the world wide web and what they do.	Identify the parts within the schools computer network (eg. servers, router, ports)

Private, personal, information, inappropriate, report, trusted	(As Before +) username, password, respond, safely	(As Before +) respect, responsible, report, contact, stranger	(As Before +) Acceptable / unacceptable, scam, hackers, danger,	(As Before +) digital footprint, traceable, impact, track, online activity, cookies, advertisement, virus	(As Before +) plagiarism, copyright, free, digital citizen, influence, social media
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