Computing Progression of Knowledge, Skills & Vocabulary

COMPUTING IN EYFS

Computing is taught by integrating digital tools and computational thinking into play-based learning to develop digital literacy, problem-solving skills, and an understanding of basic e-safety. Children are aware of using technology technology for a specific purpose which prepares them for Key Stage 1.

Digital Literacy

AUTUMN TERM - CYCLE 1

Year 1 / Year 2				Year 3		Year 4		Year 5		Year 6	
Knowledge	Corresponding skill	Knowledge	Corresponding skill	Knowledge	Corresponding skill	Knowledge	Corresponding skill	Knowledge	Corresponding skill	Knowledge	Corresponding skill
Understand why we should keep personal information private.	Keep personal information private.	Understand what usernames and passwords are and why they are important.	Use usernames and passwords safely.	Understand how to use safely, respectfully and responsibly.	Demonstrate an ability to use technology safely, respectfully and responsibility.	Understand what is acceptable and unacceptable behaviour online.	Recognise acceptable and unacceptable behaviours online and act accordingly.	Understand what a digital footprint is and how it can impact your life.	Identify positive and negative digital footprints.	Understand what plagiarism and copyright means and its impact.	Find and use copyright free online content.
Understand what is inappropriate online content and know to report it to a trusted adult.	Recognise inappropriate online content.	Understand we can respond to inappropriate online content in different ways.	Respond appropriately to inappropriate online content.	Understand that there are a range of ways to report concerns online about content and contact.	Identify and report concerns appropriately about online content and contact.	Understand what scams, spams and hackers are and the corresponding dangers.	Recognise if a/my device has been scammed, spammed or hacked.	Understand that algorithms are used to track online activity in order to influence us (e.g. cookies = advertising).	Act on personal judgement to determine whether to allow/deny cookie usage.	Understand that we are all digital citizens and how we can impact and influence the wider world.	Be a responsible digital citizen (including social media usage).
Year 1 Crib Sheet		Year 2 Crib Sheet		Year 3 Crib Sheet		Year 4 Crib Sheet		Year 5 Crib Sheet		Year 6 Crib Sheet	
Year 1 Project Ideas		Year 2 Project Ideas		Year 3 Project Ideas		Year 4 Project Ideas		Year 5 Project Ideas		Year 6 Project Ideas	
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	

Computing Progression of Knowledge, Skills & Vocabulary

Information Technology

SPRING TERM – CYCLE 2

Year 1 Year 2				Year 3		Year 4		Year 5		Year 6	
Knowledge	Corresponding skill	Knowledge	Corresponding skill	Knowledge	Corresponding skill	Knowledge	Corresponding skill	Knowledge	Corresponding skill	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)
Understand how and why digital content can be changed.	Use technology purposefully to change pre-made digital content.	Understand how we can use technology to create, organise, store and retrieve digital content.	Use technology purposefully to create, organise, store and retrieve digital content.	Understand how to use search technologies effectively.	Use search technologies effectively.	To appreciate how results are selected and ranked using search technologies.	Use filters to find specific information.	To understand how we can evaluate digital content based on reliability and authenticity.	Evaluate digital content.	To understand what databases are and how they are used to store information.	Select, use and combine a variety of software to create a database for a specific goal.
Year 1 Crib Sheet		Year 2 Crib Sheet		Year 3 Crib Sheet		Year 4 Crib Sheet		Year 5 Crib Sheet		Year 6 Crib Sheet	
Year 1 Project Ideas		Year 2 Project Ideas		Year 3 Project Ideas		Year 4 Project Ideas		Year 5 Project Ideas		Year 6 Project Ideas	
Information technology, Computer, laptop, chromebook, tablet, mouse, touchpad, keyboard, website, click, scroll, type, enter, digital Names of devices in the wider world - fridge, TV, tills, cashpoint		(As before +) Organise, create, store, retrieve. Names of devices within school - printer, interactive whiteboard etc.		(As before +) Collect, present, select, combine, software, data, internet, search, search engine		(As before +) world wide web, collaborate, communicate, results, rank, filters, specific		(As before +) analyse, evaluate, digital content, reliability, authenticity		(As before +) compare, computer network, router, server, databases, storage, The Cloud	

etc.					

Computing Progression of Knowledge, Skills & Vocabulary

Control Systems

SUMMER TERM – CYCLE 3

Year 1 Year 2				Year 3		Year 4		Year 5		Year 6	
Knowledge	Corresponding skill	Knowledge	Corresponding skill	Knowledge	Corresponding skill	Knowledge	Corresponding skill	Knowledge	Corresponding skill	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.
Year 1 Crib Sheet		Year 2 Crib Sheet		Year 3 Crib Sheet		Year 4 Crib Sheet		Year 5 Crib Sheet		Year 6 Crib Sheet	
Year 1 Project Ideas		Year 2 Project Ideas		Year 3 Project Ideas		Year 4 Project Ideas		Year 5 Project Ideas		Year 6 Project Ideas	
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	