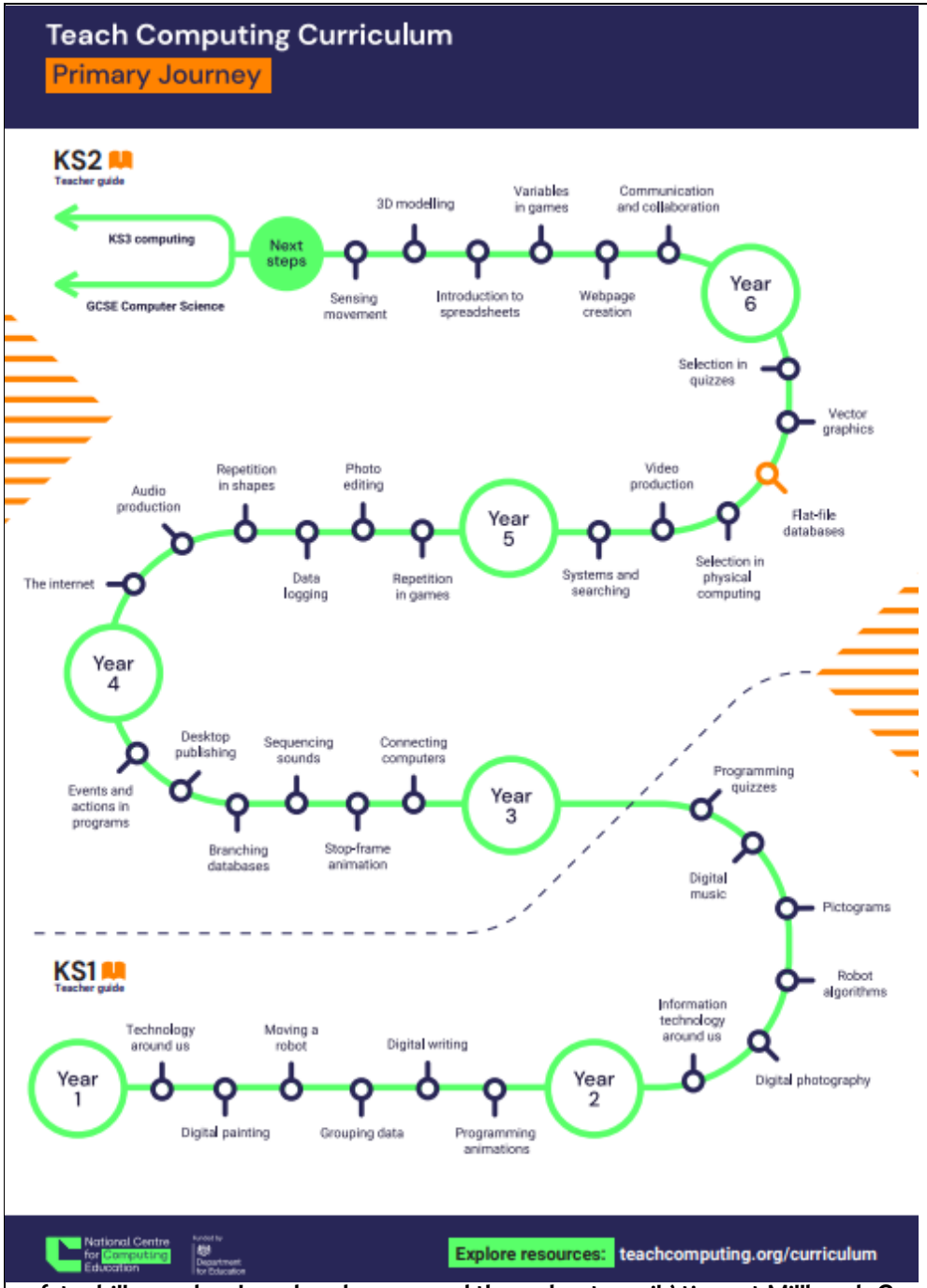
MILLBROOK PRIMARY SCHOOL COMPUTING 2025/26			
By the end of their time at Millbrook Community Primary School our Year 6 children will: • use computational thinking and creativity to understand and change the world; • think and work creatively, analytically and solve problems; • be digitally literate; • use a variety of software and hardware; • understand how to use technology safely and appropriately.			
Early Years Foundations Stage Framework and National Curriculum Coverage			
EYFS	**Key Stage 1**	**Key Stage 2**	
Reception	**Year 1 and Year 2**	**Year 3 and Year 4**	**Year 5 and Year 6**
First and foremost, it is important to recognise that there will be no statutory requirement to use and learn about technology in the EYFS. Since the new Early Years Foundation Stage curriculum commenced in September 2021, the 'Technology' strand has been removed from 'Understanding the World' and has not been replaced with any updated guidance. At Millbrook we believe computing and technology are still vitally important subjects to deliver to Reception children. Not only will teaching a well-planned Computing curriculum ensure that children enter Year 1 with a strong foundation of knowledge, but Computing lessons in the EYFS also ensure that children develop listening skills, problem-solving abilities and thoughtful questioning — as well as improving subject skills across the seven areas of learning. We live in a technological world and there is no escape from the reality that technology is integrated into the lives of young children. Technology is now, and, in all likelihood, will always be in some form or other, a significant part of children's lives. Just as we ensure the children in our care are ready for the adult world by teaching them maths and literacy, we should also make sure that they are fluent in computer literacy and all-important e-safety. Life is very digital. In reception much of what happens is about helping children to develop their understanding of the world around them and their place within it. At Millbrook we spend time with children exploring relationships, emotion, behaviour and culture in a bid to help them relate to others and understand what happens around them. We feel it is important to help them to understand how technology is used both in school and in their wider lives. It is important that we still talk about the technology we are using with children, answer their questions about technology and continue to include technology within role play areas.	Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. Create and debug simple programs use logical reasoning to predict the behaviour of simple programs. Use technology purposefully to create, organise, store, manipulate and retrieve digital content. Recognise common uses of information technology beyond school. Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration. Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	



Our school has adapted the Department for Education's 'Teach Computing Curriculum for KS1 and KS2' (https://teachcomputing.org/) to reflect our mixed age class structure and need for a two-year rolling computing curriculum (Cycle A Data & Information progression Cycle B Computing & Information Systems).Each unit has a knowledge organiser that will be shared with parents and children. KS1 and KS2 teacher's use the 'Teach Computing' lesson plans to inform their computing planning and meet the needs of the pupils in their class. Lessons have clear learning objectives and key vocabulary is identified. Every lesson includes formative assessment. Summative assessment opportunities are built in across the year. EYFS follow Knowsley Computing Scheme. The Knowsley Computing Scheme is a curriculum that meets the needs and interests of all learners. It contains a range of fun, exciting and creative activities, all based on the essential requirements of the computing program of study. EYFS, KS1 and KS2 have two afternoon sessions per year with a Learning Technologies Officer which cover the three areas of Computing: Computer Science, Information Technology and Digital Literacy. The Teach Computing Curriculum is a progressive learning curriculum with a recommended, but not prescriptive, teaching order that is structured in units. For these units to be coherent, **the lessons within a unit must be taught in order**. However, across a year group, the units themselves do not need to be taught in order, with the exception of 'Programming' units, where concepts and skills rely on prior learning and experiences. Every unit of work in the Teach Computing Curriculum contains: a unit overview; a learning graph, to show the progression of skills and concepts in a unit; lesson content — including a detailed lesson plan, slides for learners, and all the resources you will need; and formative and summative assessment opportunities. The units for key stages 1 and 2 are based on a spiral curriculum. This means that each of the themes is revisited regularly (at least once in each year group), and pupils revisit each theme through a new unit that consolidates and builds on prior learning within that theme. This style of curriculum design reduces the amount of knowledge lost through forgetting, as topics are revisited yearly. It also ensures that connections are made even if different teachers are teaching the units within a theme in consecutive years. The Teach Computing Curriculum has been developed by the National Centre for Computing Education's (NCCE). All learning outcomes can be described through a high level taxonomy of ten strands, ordered alphabetically as follows: • Algorithms — Be able to comprehend, design, create, and evaluate algorithms • Computer networks — Understand how networks can be used to retrieve and share information, and how they come with associated risks • Computer systems — Understand what a computer is, and how its constituent parts function together as a whole • Creating media — Select and create a range of media including text, images, sounds, and video • Data and information — Understand how data is stored, organised, and used to represent real-world artefacts and scenarios • Design and development — Understand the activities involved in planning, creating, and evaluating computing artefacts • Effective use of tools — Use software tools to support computing work • Impact of technology — Understand how individuals, systems, and society as a whole interact with computer systems • Programming — Create software to allow computers to solve problems • Safety and security — Understand risks when using technology, and how to protect individuals and systemsThe curriculum also links with the Education for a Connected World Framework to ensure a high level of online safety skills are developed and progressed throughout pupils' time at Millbrook Community Primary School.

Using the Chris Quigley Essentials Curriculum as a starting point, we have identified progress milestones across the key stages for computing. Teachers use these as a working document that supports their planning through the year and enables them to make teacher judgements about children who have met, not met or exceeded the expected standard for each year group. Where appropriate, children may be made aware of a specific milestone they are working towards. Progress milestones are identified at the planning stage. Teachers note progress towards these milestones. Leaders use the progress milestones when looking at children's work, talking to children or observing lessons. Each July when the curriculum is reviewed, the curriculum leader takes a snap shot of the attainment across all subjects and identifies strengths and areas for development. This information then informs the curriculum for the coming year.

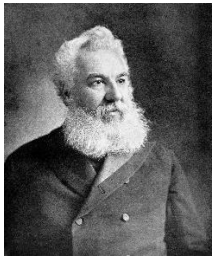
		Milestone 1 (Y1 & Y2)	Milestone 2 (Y3 & Y 4)	Milestone 3(Y5 & Y6)
To code (using Scratch)	Motion	• Control motion by specifying the number of steps to travel, direction and turn.	• Use specified screen coordinates to control movement.	• Set IF conditions for movements. Specify types of rotation giving the number of degrees.
	Looks	• Add text strings, show and hide objects and change the features of an object.	• Set the appearance of objects and create sequences of changes.	• Change the position of objects between screen layers (send to back, bring to front).
	Sound	• Select sounds and control when they are heard, their duration and volume.	• Create and edit sounds. Control when they are heard, their volume, duration and rests.	• Upload sounds from a file and edit them. Add effects such as fade in and out and control their implementation.
	Draw	• Control when drawings appear and set the pen colour, size and shape.	• Control the shade of pens.	• Combine the use of pens with movement to create interesting effects.
	Events	• Specify user inputs (such as clicks) to control events.	• Specify conditions to trigger events.	• Set events to control other events by 'broadcasting' information as a trigger.
	Control	• Specify the nature of events (as a single event or a loop).	• Use IF THEN conditions to control events or objects.	• Use IF THEN ELSE conditions to control events or objects.
	Sensing	• Create conditions for actions by waiting for a user input (such as responses to questions like: What is your name?).	• Create conditions for actions by sensing proximity or by waiting for a user input (such as proximity to a specified colour or a line or responses to questions).	• Use a range of sensing tools (including proximity, user inputs, loudness and mouse position) to control events or actions.
	Variables and lists	• From Year 3 onwards.	• Use variables to store a value. • Use the functions define, set, change, show and hide to control the variables.	• Use lists to create a set of variables.
	Operators	• From Year 3 onwards.	• Use the Reporter operators to perform calculations. () + () | () - () | () * () | () / ()	• Use the Boolean operators to define conditions. () < () | () = () | () > () | ()and() | ()or() | Not()

2. Computing milestones

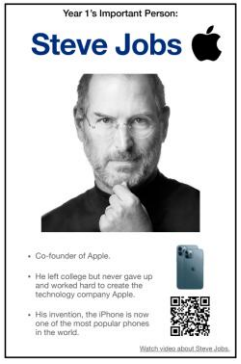
To code (using scratch)	Operators			• Use the Reporter operators to perform calculations. () + () | () - () | () * () | () / ()
To connect		• Understand online risks and the age rules for sites.	• Give examples of the risks posed by online communications. • Understand the term 'copyright'. • Understand that comments made online that are hurtful or offensive are the same as bullying. • Understand how online services work.	• Collaborate with others online on sites approved and moderated by teachers. • Give examples of the risks of online communities and demonstrate knowledge of how to minimise risk and report problems. • Understand and demonstrate knowledge that it is illegal to download copyrighted material, including music or games, without express written permission, from the copyright holder. • Understand the effect of online comments and show responsibility and sensitivity when online. • Understand how simple networks are set up and used.
To communicate		• Use a range of applications and devices in order to communicate ideas, work and messages.	• Use some of the advanced features of applications and devices in order to communicate ideas, work or messages professionally.	• Choose the most suitable applications and devices for the purposes of communication. • Use many of the advanced features in order to create high quality, professional or efficient communications.
To collect		• Use simple databases to record information in areas across the curriculum.	• Devise and construct databases using applications designed for this purpose in areas across the curriculum.	• Select appropriate applications to devise, construct and manipulate data and present it in an effective and professional manner.
		Milestone 1 (Y1 & Y2)	Milestone 2 (Y3 & Y 4)	Milestone 3(Y5 & Y6)

At the start of the year each year group will look at an important person:
SEPTEMBER 2025

EYFS
Alexander Graham Bell



Year 1

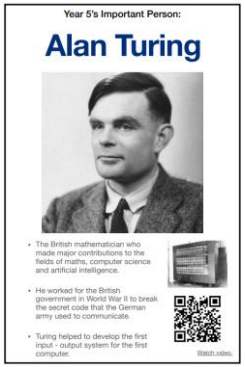


Year 2

Year 3

Year 4

Year 5



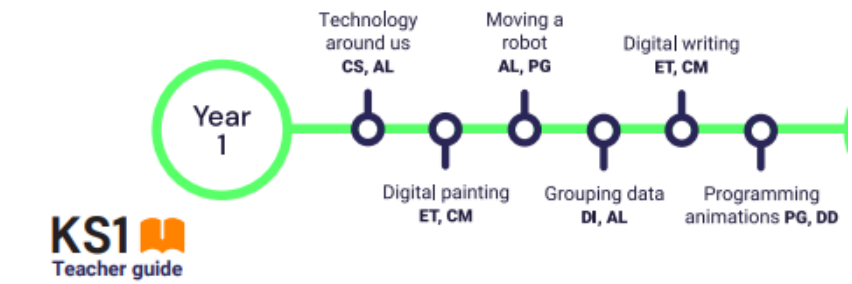
Year 6

	Autumn1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Reception - Elm	**My Online Life** My Online Life Planning - Reception (knowsleyclcs.org.uk)	**Technology & Me** Technology & Me Planning - Reception (knowsleyclcs.org.uk)	**Pretty Pictures** Pretty Pictures Planning - Reception (knowsleyclcs.org.uk)	**Talking Technology** Talking Technology Planning - Reception (knowsleyclcs.org.uk)	**Nursery Rhyme Coding** Nursery-Rhyme-Coding-Planning-Reception.pdf (knowsleyclcs.org.uk)	**Beats & Rhythms** Beats & Rhythms Planning - Reception (knowsleyclcs.org.uk)
Online Safety Book Focus	Smartie the Penguin | Childnet EYFS Story A	Smartie the Penguin | Childnet EYFS Story B	Digiduck's Big Decision | Childnet	Digiduck's Famous Friend | Childnet	Chicken Clicking by Jeanne Willis and Tony Ross #Safer Internet day - YouTube	Detective Digiduck | Childnet
Reception - Pine	**My Online Life** My Online Life Planning - Reception (knowsleyclcs.org.uk)	**Technology & Me** Technology & Me Planning - Reception (knowsleyclcs.org.uk)	**Pretty Pictures** Pretty Pictures Planning - Reception (knowsleyclcs.org.uk)	**Talking Technology** Talking Technology Planning - Reception (knowsleyclcs.org.uk)	**Nursery Rhyme Coding** Nursery-Rhyme-Coding-Planning-Reception.pdf (knowsleyclcs.org.uk)	**Beats & Rhythms** Beats & Rhythms Planning - Reception (knowsleyclcs.org.uk)
Online Safety Book Focus	Smartie the Penguin | Childnet EYFS Story A	Smartie the Penguin | Childnet EYFS Story B	Digiduck's Big Decision | Childnet	Digiduck's Famous Friend | Childnet	Chicken Clicking by Jeanne Willis and Tony Ross #Safer Internet day - YouTube	Detective Digiduck | Childnet

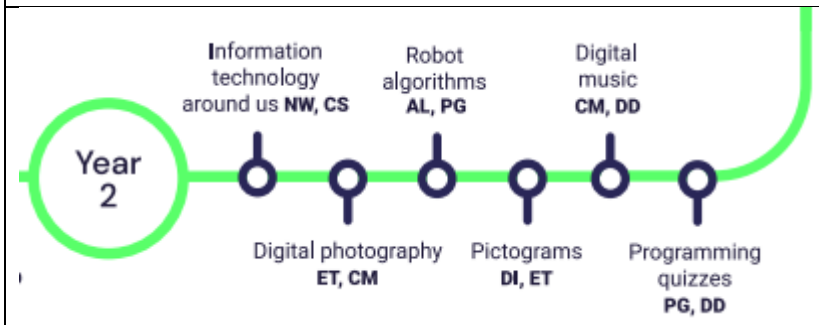
Mandatory Skills	**Computer Science** (Computational Thinking)	**Computer Science** (Coding)	**Computer Science** (Logical Reasoning)	**Digital Literacy** (Online Safety)	**Digital Literacy** (Technology in the Real World)	**Information Technology** (Online)
Reception The children learn: about types of technology both in and outside of school. how to use classroom technology safely and responsibly, including the basic use of a camera and going online.	**Reception** The children learn: that an algorithm is a list of instructions that solves a problem. to sequence a series of events and explain the importance of sequencing.	**Reception** The children learn: to experiment controlling a range of 'toys' using remote controls and do this with purpose and direction.	**Reception** The children learn: through play about action/reaction and will be asked "what do you think will happen?" when using technology or attempting to solve a problem. (Networking) **Reception** The children learn: how to access the web on a classroom device.	**Reception** The children learn: the Internet can be used to communicate with others. simple online safety rules. people create online content such as video and websites.	**Reception** The children learn: to recognise and discuss common uses of information technology in school and outside of school. (Media & Content) **Reception** The children learn: that there are many different types of media content including; sound, images, books, podcasts/ audiobooks and video via the web.	**Reception** The children learn: to type keywords in a search engine (Google). (Harnessing Technology) **Reception** The children learn: how various devices and apps can be used in the classroom. to independently choose an application for a particular purpose. E.g drawing a picture.

Breadth of Study EYFS	These activities are to support EYFS practitioners in providing a range of Computing/ICT opportunities and experiences for children in the Foundation Stage that provide continuity and stepping stones into the KS1 curriculum. Early Years Computing assessment is based on pupils having the initial skills in place to progress them to the expected attainment at the end of KS1. The 'My Online Life' activity supports one of the key aims of the government's Internet Safety Strategy (Digital Literacy) of supporting children to stay safe and make a positive contribution online, as well enabling teachers to develop effective strategies for understanding and handling online risks. The framework has been produced by the UK Council for Child Internet Safety (UKCCIS). **Understanding the World: People and communities, the world and technology.** Practitioners should support children in experiencing a range of technologies – using cameras, photocopiers, CD players, tape recorders and programmable toys, in addition to computers. Essential (MS): Age appropriate skills for the use of core devices and applications within their setting. Computer Science (CS): Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. Create and debug simple programs. Use logical reasoning to predict the behaviour of simple programs. Information Technology (IT): Use technology purposefully to create, organise, store, manipulate and retrieve digital content. Digital Literacy (DL): Recognise common uses of information technology beyond school. Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.

Online Safety Book Focus	Smartie the Penguin | Childnet EYFS Story A	Digiduck's Big Decision | Childnet	Smartie the Penguin | Childnet Year 1 Book B	Digiduck's Famous Friend | Childnet	Chicken Clicking by Jeanne Willis and Tony Ross #Safer Internet day - YouTube	Detective Digiduck | Childnet
	Autumn1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1 Cedar Teach Computing curriculum National Centre for Computing Education	Computing systems and networks – Technology around us (teachcomputing.org)	Creating media – Digital painting (teachcomputing.org)	Programming A – Moving a robot (teachcomputing.org)	Data and information – Grouping data (teachcomputing.org)	Creating media – Digital writing (teachcomputing.org)	Programming B - Programming animations (teachcomputing.org)

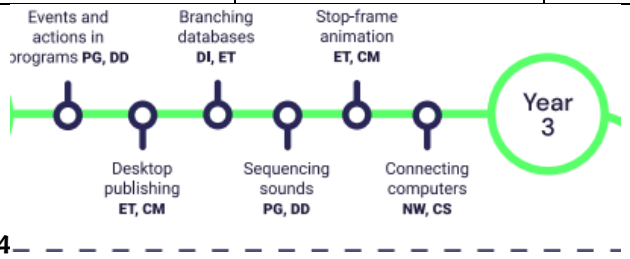
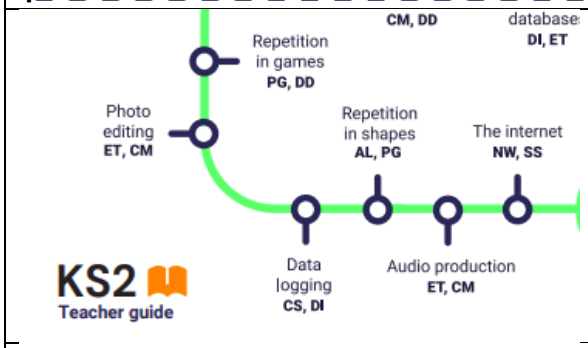
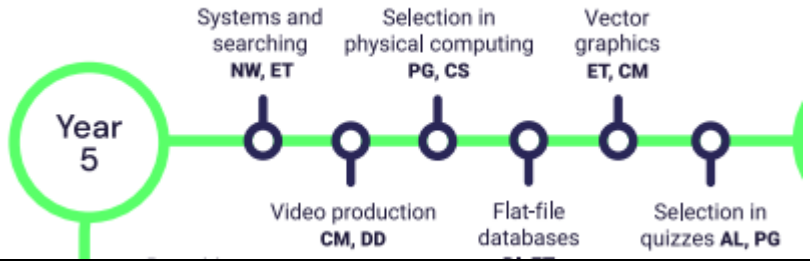


Year 1 Online Safety Book Focus:
Smartie the Penguin | Childnet
Year 1 Book A
Smartie the Penguin | Childnet
Year 1 Book B
Digiduck and the Magic Castle | Childnet
Digiduck Saves the Day | Childnet
Troll Stinks
Troll Stinks.pdf



Year 2 Online Safety Book Focus:
Smartie the Penguin | Childnet Year 2 Book A
Smartie the Penguin | Childnet Book B
Troll Stinks.pdf
Once Upon a Time ONLINE By David Bedford - YouTube
Discover how exploring the online world affects young people - Own It - BBC
goldilocks.pdf
Jessie Friends videos (thinkuknow.co.uk)
Watching videos
Sharing pictures
Playing games

Year 1/2 Willow	Autumn1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Computing systems and networks – Technology around us (teachcomputing.org) YEAR 1 -WATCH PPPTS FIRST Computing systems and networks – IT around us (teachcomputing.org)	Creating media – Digital photography (teachcomputing.org)	Programming A – Robot algorithms (teachcomputing.org)	Data and information – Pictograms (teachcomputing.org)	Creating Media- Digital Writing (teachcomputing.org)	Programming B - Programming quizzes (teachcomputing.org)
Year 2 Cherry	Autumn1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Computing systems and networks – IT around us (teachcomputing.org)	Creating media – Digital photography (teachcomputing.org)	Programming A – Robot algorithms (teachcomputing.org)	Data and information – Pictograms (teachcomputing.org)	Creating Media- Digital Music (teachcomputing.org)	Programming B - Programming quizzes (teachcomputing.org)
Year 3 Maple	Autumn1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Computing systems and networks – Connecting computers (teachcomputing.org)	Creating media - Stop-frame animation (teachcomputing.org)	Sequencing Sounds (teachcomputing.org)	Data and information – Branching databases (teachcomputing.org)	Creating media – Desktop publishing (teachcomputing.org)	Programming B - Events and actions in programs (teachcomputing.org)
Year 3 Rowan	Autumn1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2

	Computing systems and networks – Connecting computers (teachcomputing.org)	Creating media - Stop-frame animation (teachcomputing.org)	Sequencing Sounds (teachcomputing.org)	Data and information – Branching databases (teachcomputing.org)	Creating media – Desktop publishing (teachcomputing.org)	Programming B - Events and actions in programs (teachcomputing.org)
			Year 3 Online Safety Book Focus: Read Out Loud | TEK: THE MODERN CAVE BOY - YouTube Band Runner 8-10s | CEOP Education (thinkuknow.co.uk)			
			Year 4 Online Safety Book Focus: Band Runner 8-10s | CEOP Education (thinkuknow.co.uk) Teachers - online safety teaching resources for 7-11s - Own It - BBC Online Relationships Online Bullying			
			Year 5 Online Safety Book Focus: Teachers - online safety teaching resources for 7-11s - Own It - BBC Managing Online Information Online Reputation			
Year 4 – Holly	Autumn1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2

	Computing systems and networks – The Internet (teachcomputing.org)	Audio production - (teachcomputing.org)	Programming A – Repetition in shapes (teachcomputing.org)	Data logging – (teachcomputing.org)	Creating media – Photo editing (teachcomputing.org)	Programming B – Repetition in games (teachcomputing.org)
Year 4/5 -Hazel	Autumn1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Computing systems and networks – The Internet (teachcomputing.org) Computing systems and networks – Systems and searching (teachcomputing.org)	Creating media – Audio production (teachcomputing.org)	Data logging – (teachcomputing.org)	Data and information – Flat-file databases (teachcomputing.org)	Vector graphics (teachcomputing.org)	Video production (teachcomputing.org)

				Year 6 Online Safety Book Focus: Teachers – online safety teaching resources for 7-11s – Own It – BBC Self-image & Identity Privacy & Security Health, Wellbeing & Lifestyle		
Year 5 /6 Chestnut	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Computing systems and networks - Systems and searching (teachcomputing.org)	Creating media - Video production (teachcomputing.org)	Data and information – Flat-file databases (teachcomputing.org)	Repetition in shapes (teachcomputing.org)	Programming A – Selection in physical computing (teachcomputing.org)	Programming B – Selection in quizzes (teachcomputing.org)
Year 6 Sycamore	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Programming A – Variables in games (teachcomputing.org)	Creating media – 3D Modelling (teachcomputing.org)	Creating media – Web page creation (teachcomputing.org) Throughout the year due to SATs		Using the micro:bit For primary to secondary transition (teachcomputing.org)	Data and information - Introduction to Spreadsheets (teachcomputing.org)