



# Computing Progression in Domains of Knowledge

Information Technology		
EYFS	Year 1	Year 2
<ul style="list-style-type: none"><li>• Able to use different technologies in and out of school</li><li>• Know that information can be stored on technology</li></ul>	<ul style="list-style-type: none"><li>• Use paint tools to draw a picture</li><li>• Create using a digital device</li><li>• Create a placing game</li><li>• Create images to make a game</li><li>• Group and sort objects</li><li>• Understand and interpret data</li><li>• Create a digital book with images and sound</li><li>• Begin to make digital music</li></ul>	<ul style="list-style-type: none"><li>• Understand what the internet is and how to use it, recognising browsers and websites</li><li>• Use a digital art tool to create traditional art styles</li><li>• Begin to use spreadsheets to organise data and create graphs</li><li>• Investigate data, how it is collected and how it can be presented</li><li>• Create and use mind maps to organise and present ideas</li></ul>



# Computing Progression in Domains of Knowledge

Information Technology			
Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"><li>• Create branch databases using 2 questions, inc asking binary questions</li><li>• Using spreadsheets, using cell addresses and formula bars</li><li>• Use industry standard software to create presentations</li><li>• Develop touch typing skills</li></ul>	<ul style="list-style-type: none"><li>• Understand technology and computer systems in relation to hardware and software</li><li>• Know how systems work together</li><li>• Create digital animations</li><li>• Add narrative and sound effects to create audio books</li><li>• Explore and compose music digitally</li><li>• Understand what artificial intelligence is, how it can help and the ethics around its use</li></ul>	<ul style="list-style-type: none"><li>• Making effective quizzes, exploring types of questioning and effective presentation of a quiz</li><li>• Use table-based databases for collecting, presenting, searching and analysing data</li><li>• Spreadsheets – use formulae, numerical investigations, computational modes and measurement conversions</li><li>• Create concept maps inc collaborative concept maps</li></ul>	<ul style="list-style-type: none"><li>• Understand, create and use common graph types digitally.</li><li>• Use graphs to solve a problem</li><li>• Import and export files</li><li>• Understand and create blogs and how they engage an audience</li><li>• Work with large datasets to analyse complex data and answer questions</li><li>• Spreadsheets – perform calculations, enter and use formulae, present data and solve real life problems</li></ul>



# Computing Progression in Domains of Knowledge

Computer Science		
EYFS	Year 1	Year 2
<ul style="list-style-type: none"><li>• Know about cause and effect in technology</li><li>• Use technology to express creatively and constructively</li></ul>	<ul style="list-style-type: none"><li>• Understand simple algorithms</li><li>• Follow and create instructions</li><li>• Use blocks to code</li><li>• Understand objects, actions and events</li><li>• Plan and design a program</li></ul>	<ul style="list-style-type: none"><li>• Coding simple instructions to move a turtle along routes, create commands and build an algorithm</li><li>• Develop coding skills, algorithms, sequencing, interactions, use timers and being to debug</li></ul>



# Computing Progression in Domains of Knowledge

Computer Science			
Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"><li>• Create routes for screen turtles, coding using angles of turn and repetition, begin to write code</li><li>• Coding using flowcharts, timers, testing and debugging</li></ul>	<ul style="list-style-type: none"><li>• Use text-based logo coding language to create patterns, shapes, coding sequences, repetition and procedures</li><li>• Coding, introducing selection, design properties, loops and coding number variables</li></ul>	<ul style="list-style-type: none"><li>• Design and make a 3D maze adventure game</li><li>• Evaluate playability of games</li><li>• Coding – refine code, simulate a physical system</li><li>• Explore decomposition and abstraction</li></ul>	<ul style="list-style-type: none"><li>• Learn about networks and how they connect devices. Understand internet services, safety aspects of networks and collaboration</li><li>• Coding – using functions, flowcharts and control simulations, coding for user input</li><li>• Coding – Python, comparing and text code views, coding for text output, different datatypes</li></ul>



# Computing Progression in Domains of Knowledge

Digital Literacy		
EYFS	Year 1	Year 2
<ul style="list-style-type: none"><li>• Awareness of inputs and outputs of devices</li><li>• Know how different parts of a computer/ipad work</li></ul>	<ul style="list-style-type: none"><li>• Understand what technology is</li><li>• Recognise technology in the local environment and wider world</li></ul>	



# Computing Progression in Domains of Knowledge

Digital Literacy			
Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"><li>• Communicate electronically using email.</li><li>• Safety aspects of using email</li></ul>	<ul style="list-style-type: none"><li>• Explore how to effectively search the internet.</li><li>• Explore safety aspects of online information</li></ul>		<ul style="list-style-type: none"><li>• using industry standard software to create documents inc use images, enter/edit text, use tables and templates</li></ul>



# Computing Progression in Domains of Knowledge

Online Safety		
EYFS	Year 1	Year 2
<ul style="list-style-type: none"><li>• Recognising what to do when someone makes me sad/upset/uncomfortable</li><li>• How we use technology to communicate</li><li>• Know that others can be unkind in real life and using technology</li><li>• Know that the internet gives me information</li><li>• Rules for using technology</li><li>• Know some personal information and who it is ok to share that with</li><li>• Naming work that belongs to me</li></ul>	<ul style="list-style-type: none"><li>• People online can impact how I feel</li><li>• I know to speak to an adult if someone online upsets me</li><li>• Asking permission to do something online, using the internet safely</li><li>• Knowing what it is safe to put online</li><li>• Knowing importance of how to behave online to others</li><li>• Knowing how to safely access information online</li><li>• Rules for being safe on technology</li><li>• Understand importance of passwords</li><li>• Understanding when something online belongs to me</li></ul>	<ul style="list-style-type: none"><li>• Understand how people may look and act differently online</li><li>• Communicating safely, understanding about sharing information online</li><li>• Online information, how it is seen by others and lasts a long time</li><li>• I can discuss what online bullying is</li><li>• Understand how to safely get information online</li><li>• Using technology safely in different places</li><li>• Keeping personal information private</li><li>• Knowing that content on the internet belongs to other people</li></ul>



# Computing Progression in Domains of Knowledge

Online Safety	
Year 3	Year 4
<ul style="list-style-type: none"><li>• Understand what an online identity is and how people represent themselves</li><li>• Importance of what it means to 'know someone' online</li><li>• Understanding of sharing personal information about self/others online</li><li>• Knowing how to get support with online bullying</li><li>• Understanding accurate information online</li><li>• Understanding of how time online can impact health and lifestyle</li><li>• Strategies for keeping passwords safe</li><li>• Awareness of connecting devices with others and how information can be shared</li><li>• Explain understanding of copying work from the internet, what this means and problems it may cause</li></ul>	<ul style="list-style-type: none"><li>• Understand difference between online/offline identities and how people may present themselves differently and why</li><li>• Keeping safe in a range of online social environments, unhealthy and healthy online behaviours</li><li>• Online information could have been created/copied or shared by others</li><li>• Understand how people can be bullied through a range of media and what to do about this</li><li>• Analyse information I am given through technology, adverts, opinions/beliefs, impersonations, fake news</li><li>• Positives and negatives linked to time spent online and how to reduce this</li><li>• Digital age of consent, internet monitoring and online services</li><li>• Considering who owns internet content, rights to reuse it, seeking permissions</li></ul>



# Computing Progression in Domains of Knowledge

Online Safety	
Year 5	Year 6
<ul style="list-style-type: none"><li>• Understanding of how online identities can be modified/alterd – making responsible choices</li><li>• Technology specific forms of communication and how these can be used in different ways – how to make positive contributions/get support if used inappropriately (memes, GIFS, emojis)</li><li>• Online reputations, information gathering – how this can be used to make judgements – appropriateness</li><li>• Online bullying – difference between physical world, identifying, seeking support, reporting/blocking users, online help services</li><li>• Evaluating digital content, understanding targeted audiences, ‘stereotypes’ influencers and impact of this</li><li>• Apps/technology supporting health and well-being-balance in real life (awareness of in-app purchases)</li><li>• Understanding app / services and sharing of private information/permissions</li><li>• Understand and justify when it is acceptable to use the work of others</li></ul>	<ul style="list-style-type: none"><li>• Identify and critically evaluate online content relating to gender, race, religion, disability, culture etc – challenging and rejecting inappropriate representations online</li><li>• Consequences of sharing online – positive/negatives, boundaries, privacy (screen grabs/embarrassing images)</li><li>• Developing a positive online reputation, protecting ‘digital personality’, degrees of anonymity</li><li>• Capturing bullying content as evidence to seek support for self or others, reporting in different contexts</li><li>• Understanding of how search engines work</li><li>• Systems that regulate age-related content, pressures of technology, impact of technology on health and how to limit this</li><li>• Privacy and security settings, apps, online services- terms and conditions, increasing privacy settings – auto updates</li><li>• Using a range of search tools, referencing and acknowledging internet sources</li></ul>

