Westfields JUNIOR SCHOOL

Computing Long Term Overview

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 3	**Digital Literacy** **Self-image and online reputations** Identifying what identify is and exploring how this can be shown safely online. **Computer Science** **Key concept: Simple sequences** Looking at sequences in everyday life then using the idea of following instructions to complete an Animal Challenge on Scratch.	**Digital Literacy** **Online relationships** Recognising different forms of communication, identifying some risks of using them and explaining the difference between knowing someone online and offline. **IT Skills** **Word processing** Understanding how to log onto laptops and save learning in folders, as well as developing Level 2 touch typing. Beginning to explore Microsoft Word, learning how to change font, align text and insert text boxes. Using Microsoft Word to insert tables, images, shapes and screenshots.	**Digital Literacy** **Online bullying** Explaining what bullying is and describing rules about how to behave online. **Computer Science** **Key concept: Timed sequences** Exploring fast and slow coding blocks before applying to a conversation task on Scratch.	**Digital Literacy** **Health, well-being and lifestyle** Explaining why spending too much time on technology can be negative and recognising activities on technology that can be easy to spend a lot of time on. **IT Skills** **Exploring apps** Recognising how learning can be presented on I Can Animate, Do Ink Green Screen, iMovie and Chrome Music Lab.	**Digital Literacy** **Privacy and security & copyright and ownership** Explaining why copying someone else's work can cause problems, giving examples of what they might be. **Computer Science** **Ladybug Munch** Completing the application of simple sequences and timed sequences to complete the task Ladybug Munch.	**Digital Literacy** **Manging online information** Recognising why information should only be shared with trusted people, giving reasons why passwords are important and describing how connected devices can get personal information. **IT Skills** **PowerPoint presentations** Creating title pages and changing the style of PowerPoint slides. **Web research** Understanding the difference between factual websites and blogs.
Year 4	**Digital Literacy** **Self-image and online reputations** Describing the ways online and offline identity can vary, explaining that this can be used to find out information about themselves. **IT Skills** **App skills** Recognising how learning can be presented on Explain Everything, Pages and iMovie Trailer.	**Digital Literacy** **Online relationships** Describing ways of staying safe and having fun online by showing respect. **Computer Science** **Key concept: Counted loops** Being introduced to what a controlled loop is and where it can fit into an algorithm before then applying it to the 2D shape challenge on Scratch.	**Digital Literacy** **Online bullying** Identifying where bullying can take place online, thinking why people need to think carefully about what they post online. **IT Skills** **Web research** Learning how to use shortcuts on Google to find unknown information. **Publisher** Using Microsoft Publisher to create posters, inserting images and fonts.	**Digital Literacy** **Health, well-being and lifestyle** Identifying how technology can distract people from other things, suggesting strategies to help limit time on it. **Computer Science** **Key concept: Indefinite loops** Exploring forever loops and how they impact algorithms and sequences before then completing the Fish Tank task.	**Digital Literacy** **Privacy and security & copyright and ownership** Recognising who owns content on the internet and whether people have the right to use it. **IT Skills** **PowerPoint presentation** Creating multiples slides on PowerPoints using a range of animations and transitions.	**Digital Literacy** **Managing online information** Explaining what a strong password is, understanding that others might pretend to be others online and why they might do this. **Computer Science** **MicroBit Boards** Using MicroBit software to code lights and the pushing of buttons on MicroBit boards.

Year 5	**Digital Literacy** **Self-image and online reputations** Recognising that online identity can be copied or modified, demonstrating responsible choices about how to create a positive online reputation that others might make judgements on. **IT Skills** **Manipulating images** Using software to manipulate images and recognising how and why people may do this online. **Computer Science** **Crumble moon buggy** Using Crumble software to code a physical output (motor) to get a moon buggy to move around a given course.	**Digital Literacy** **Online relationships** Recognising that some people online may want to cause harm to people and how we can contribute positivity in online communities. **IT Skills** **Spreadsheets** Understanding what a cell is, using formula to calculate cells, exploring conditional formatting, inserting graphs and applying knowledge to a real-life problem of manging money and data.	**Digital Literacy** **Online bullying** Recognising how someone is feeling through what they post online and how to report, block and use helpline services to share any concerns. **IT Skills** **Leaders Award** Participating in a STEM challenge to explore the world of engineers, considering problems and design solutions that could solve them using a range of scientific knowledge, design skills as well as a variety of software.	**Digital Literacy** **Health, well-being and lifestyle** Exploring ways that technology can impact sleep and describe some strategies, advice and tips to promote a healthy balance to aid good sleep patterns. **Computer Science** **Key concept: Condition starts action in a loop and switches between actions** Applying the knowledge of flow charts to the software Flowol to control a programme such as traffic lights or a lighthouse.	**Digital Literacy** **Privacy and security & copyright and ownership** Creating strong passwords, recognising how free apps use personal information and why some apps may request payment which we should seek permission from a trusted adult for. **Computer Science** **Key concept: Making choices** Applying a knowledge of conditional coding to create a game on Scratch where you catch the fish and save them from the pollution in the game 'Ocean Pollution'.	**Digital Literacy** **Managing online information** Evaluating content online and distinguishing between information, mis-information and dis-information. **IT Skills** **Computer networks** Learning what a network is and how it is used in school. **Email** Learning how to send emails, replying to emails, sending attachments and recognising spam.
Year 6	**Digital Literacy** **Self-image and online reputations** Recognising how media can shape ideas about gender, identifying how these can make people feel offline and how they feel they have to present themselves online. **Computer Science** **Key concept: Basic procedures** Beginning to explore incorporating 'define' details into basic procedures before then writing their own algorithms.	**Digital Literacy** **Online relationships** Explore interactions online including trolling and ghosting before then learning about what AI is and how it learns information. **IT Skills** **LeoCAD** Using CAD software to create 3D computer aided designs. **Computer Science** **Crumble shop windows** Using Crumble software to code physical outputs simultaneously (lights and motor) to light their DT pulley creation.	**Digital Literacy** **Online bullying** Explaining how to capture evidence of cyberbullying and how to use these to support people in reporting problems. **Computer Science** **Key concept: Nested loops** Understanding and applying the knowledge of inner loops and outer loops within nests to repeat parts of algorithms when drawing shapes.	**Digital Literacy** **Health, well-being and lifestyle** Understanding age-regulated content, how technology can impact lifestyle and explaining the importance of self-regulation and the impact of not following this. **IT Skills** **Web publishing** Designing and publishing a website that reflects a knowledge of what is safe to post online.	**Digital Literacy** **Privacy and security & copyright and ownership** Using a range of strong passwords, understanding how to manage these, explaining permissions that certain apps require and how some companies target specific online content to gain money illegally. **IT Skills** **Databases** Understanding how to information is stored online and have databases can be sorted through using different filters.	**Digital Literacy** **Managing online information** Explaining how search engines work, defining the terms 'influence', 'manipulation' and 'persuasion', identifying how these can be a problem online. **IT Skills** **PowerPoint vs. Prezi** Using the software PowerPoint and Prezi software to create presentations, evaluating which is preferred and why.