Highgate Primary
Year 4 Computing Curriculum

Understanding Technology/Digital Literacy	Programming	Digital Citizenship and e-safety
Pupils develop a basic understanding of how computers can be linked to form a local network such as those found in schools. Pupils recognise that there is a difference between the Internet and the World Wide Web. They can recognise and describe some of the services offered by the Internet, especially those used for communication and collaboration. With increasing levels of autonomy, pupils are becoming confident and creative users of technology. Within both specific computing lessons and cross curricular contexts, pupils are able to: • follow and expand on agreed lines of enquiry, using key words and phrases to effectively access digital content such as text, still images, video and audio • identify, collect and manipulate different types of data (e.g. numerical, research facts etc.) which they present as information, showing a greater awareness of purpose and audience. present and communicate their learning to others in a variety of ways using text, still images, video and audio. They combine digital tools to achieve specific goals and think carefully about the impact on their audience.	Pupils create and debug programs containing simple repetition (e.g. *'repeat x times'* and *'repeat forever'*) as well as more complex repetition (e.g. *'nested loops'*) Pupils increasingly use their programming capability to control or simulate a range of different outputs in physical systems. Pupils begin to explore and notice the similarities and differences between programming languages and use this knowledge to help them create and debug programs efficiently.	Pupils are able to identify a range of content, contact and conduct benefits and risks, describe how to manage them safely and respectfully and know where to go for help and support when they have concerns. They can explain what is meant by 'identity', how this might be represented differently in different situations and why others might mis-represent their identity. They develop their understanding of 'trust' and the importance of being careful about what is shared online and of giving and gaining consent. Pupils can describe positive and negative effects of online activity / behaviours and begin to understand how to make safer and healthier decisions, including considering the appropriateness of games and online content for different ages. Pupils can describe positive ways for someone to interact with others online and understand how this will positively impact on how others perceive them.

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Digital Literacy
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Digital Citizenship
Additional e-Safety

Autumn 1 **Masks and Minotaurs**	Autumn 2 **Sound and Vision**	Spring 1 **Londinium**	Spring 2 **Flight**	Summer 1 **Away from Home**	Summer **Active Planet**
The Acropolis • Children use Minecraft to collaborate and virtually recreate architecture from ancient Greece. Mazes and Minotours • Children use Scratch to create a maze. • Children program the maze so that a sprite must pass through without touching the walls. Your Rings of Responsibility • Digital Passport: Twalkers • The Adventures of Kara, Winston and the SMART Crew: Chapter 1 • KS2 E-Safety assembly	Data Logging • iPads used as data loggers to record light levels / sound levels in various places around school • Classroom sound monitor / burglar alarm - Variables • Children use scratch and computer mics to program a sound level meter that responds to the volume of the class The Power of Words • Digital Passport: E-volve • Band Runner: Like • E-Safety Jenga (LKS2)	Controlling Physical Systems • Children use Makey Makey and Scratch to create a control system that responds to external circuit completion. Is Seeing Believing? • Digital Passport: Mix-n-Mash • Real or fake: Pacific Tree Octopus Safer Internet Day • whole school focus and assemblies	Flappy Birds – Gaming • Scratch used to recreate Flappy Birds game. • If, when and forever blocks used • https://scratch.mit.edu/projects/editor/?tutorial=make-it-fly Password Power-Up • Digital Passport: Password Protect • Interland: Mindful Mountain Redesign the rules • Children look at HPS safety guidelines and illustrate a poster	Churchill lives! • Children use Morpho to animate a picture of Churchill or Chamberlain and record the famous speech using their own voice This Is Me • Digital Passport: Share Jumper • The Adventures of Kara, Winston and the SMART Crew: Chapter 4 • KS2 E-Safety assembly	Geomapping • Children use Google Earth and PPT to create a talking book about Volcanos Our Digital Citizenship Pledge • Band Runner: Chat • Minecraft Education: Becoming Digital Citizens