Upper KS2 Medium Term Computing Plan

Block	Year 4	Year 5
1 Program	Computing: Introduction to modelling – Students investigate the usage of computers to model adventure games.	Computing: Build and control a system using inputs and outputs such as a Lego MindStorm robot. Compete with your robot against classmates.
	E Safety: Have a secure understanding of the importance of secure user names. Be able to login securely and have strong password security.	E Safety: Create their own online profile and portfolio, and upload a range of files to it.
2 Control	Computing: To use a data logger and sensors to monitor and measure changes in environmental conditions. Using sensors to control devices and write sets of instructions to monitor and control the temperature in a refrigerator.	Computing: Use procedures in writing programs to investigate for example making shapes.
	E Safety: Understand netiquette and other abbreviations used in electronic messaging	E Safety: Understand the severity of the impact on the individual of sending or uploading unkind or inappropriate content.
3 Commun icate	Computing: Plan a film using either tablets or digital cameras. Student will record a music video, videoing themselves on the playground and then editing them.	Computing: Use a range of digital and online services to produce a presentation. Know about different file types and how pictures are created.
	E Safety: Ensure that pupils are polite and courteous when making posts. Know that they should never open unsolicited e mails and attachments.	E Safety: Understand the need to remain positive in all posts, know what is acceptable to post and behave responsibly. Learn how to use the cc facility on e mail and when to use it.

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Block	Year 5	Year 6
4 Share	Computing: To combine text and images from different sources. To create and format tables in order to organise and present data and use headers and footers to order pages.	Computing: Work with simple database and communicate findings in a digital way.
	E Safety: Extend understanding of the issue of copyright by acknowledging sources. That good research involves processing information and interpreting it for others not copying. Extend knowledge of privacy, that you should not publish other people's pictures or tag them without permission.	E Safety: Understand the need to check validity of websites and develop a range of strategies for identifying the origin of a website.
5 Search	Computing: Children will evaluate websites for bias and validity.	Computing: What is the internet? Search in more sophisticated ways.
	E Safety: Understand the validity of internet searches and that not all information is accurate or unbiased.	E Safety: Know how to do a safe search and what to do if they encounter inappropriate material. Understand the process and implications involved in reporting unacceptable sites or inacceptable behaviour – for example to a teacher, trusted adult or to CEOP or IWF.
6 Game	Computing: Scratch Project. – Develop an application in scratch. Students will develop a game using scratch. How to use loops and get user input.	Computing: Learn how to create 3d games using the Kodu Games Lab.
	E Safety: Children recognise their right to be protected from the inappropriate use of technology by others and the need to respect the rights of other users. Children use a range of online publishing tools and evaluate their own use and how the present themselves online.	E Safety: Understand and evaluate their online presence and their contributions including social networking, e mail, online gaming and mobiles. Decide which online communication tool to use to best suit the purpose.