Computing		Year 4
Autumn Term	**Spring Term**	**Summer Term**

Writing for a different audience (English link – newspaper reports)
(N.C. Ref: 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 search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.)

Read / evaluate newspaper reports & extract information from books / internet to produce report style writing. Investigate presentation techniques – how colour, font, headings, subheadings influence the reader. Insert images (discuss safe searching and copyright) and align text. Save, reopen, edit and refine reports.
(Software – Pages for iPad; J2e J2 Office writer.)

Coding 1 - Introduction to variables
(N.C. Ref: use sequence, selection, and repetition in programs; work with variables and various forms of input and output.)

Children learn how computers use 'variables' to count things and keep track of what is going on.
Introduced to creating a 'score' or method of counting which is dependent on an input or event that they have coded
Children will create simple apps and games, which use a score variable.
Children will recap the importance of debugging a set of instructions, using logic and reasoning to work out what is wrong when an app doesn't work as it should
(Software – Espresso Coding – Year 4a)

Coding 2 - Repetition and loops
(N.C. Ref: use sequence, selection, and repetition in programs; work with variables and various forms of input and output.)

Children will learn how computers use repetition and loops to do things over and over again without the need to create a long sequence of instructions to do so. Children will learn how objects are animated, and how loops are used to animate these objects continuously until another input is detected. They will also begin to think about cross platform compatibility, creating an app for a smart phone.
(Software – Espresso Coding – Year 4b)

Presenting & evaluating information
(N.C. Ref: 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 technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.)

Children will focus on safe searching using 'Swiggle' safe search engine. Discuss safe search settings and that not all searches can be 100% 'safe'. Discuss what to do when faced with inappropriate content – what to do and who to tell / how to report to site administrators. Focus on the importance of using multiple sources of information to check accuracy of information and that sites such as Wikipedia rely on public contribution and moderation. Also discuss the difference between fact and opinion. Set quizzes for the children to find information – include information that may change depending on the date or reply on opinion.
(Software – Internet browser, 'Swiggle' safe search engine www.swiggle.org.uk)

e-Safety – Play.Like, Shere & Band Runner (from Ceop)
(N.C. Ref: 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)

Children will learn to: distinguish between safe and unsafe behaviours online; feel more confident to seek help from a trusted adult when they need it; understand how they can seek advice and support on staying safe online

Play, Like, Share & Band Runner provide clear and practical safety advice in the following areas:

Play – playing games online
Like – being kind to others online
Share – sharing videos and photos online
Chat – talking to others online
Lock – keeping information private
Explore – exploring the internet
(Software – "Play, Like, Share" & "Band Runner" Ceop e-safety resources)

Coding 3 – Scratch Jr.
(N.C. Ref: 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)

Children will apply the repetition skills they learned to create a simple sequence of instructions for a game or scene of their own design. They will code so that objects move based on an input, interact with each other or repeat until an input is detected. Activity resource cards available.
(Software – Scratch Jr)