Computing Skills Progression at Gayton

The table below show how Gayton School addresses the National Curriculum Objectives for Computing. The purpose of Gayton's curriculum is to provide a varied and engaging curriculum for all students. As well as this, we aim to build a progressively-widening range of skills that develop and increase in scope and complexity as children progress through the school. The table shows some of the examples where Gayton's Computing Curriculum hits curriculum objectives and shows how skills related to these objectives are subsequently developed over the course of the key stage.

COMPUTING Curriculum Overview

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 3	Basic Skills	Word Processing	Digital Presenting	Coding	Dance Mat Typing	Littleover and Beyond (Google Maps/Google Earth)
Year 4	Typing Club	Controlling Devices (Scratch)	Collecting and Presenting Data	Powerpoint	Powerpoint	Digital Storytelling
Year 5	Controlling Processes (Flowoll)	Graphical Modelling (Sketchup)	Digital Music (Soundation)	Digital Music (Soundation)	Controlling Devices (Scratch)	Independent Task
Year 6	Moving Images	Creating a Game	Controlling Devices (Pixl Art)	Multimedia Editing Photopea	Spreadsheets and Formulas	Spreadsheets and Formulas

KS2 Objective: **design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts**	
Y3	Work through the online coding course that introduces Y3 children to concept of coding and the children begin a sequence of learning based upon coding in order to provide a foundation for Scratch in Y4.
Y4	Children will be introduced to Scratch and will learn the basic functions of the programme with the goal of controlling and coding for a single Sprite. The purpose is to form a basis for Y5 scratch which is more complex.
Y5	Goals are more complex and the children return to Scratch with the aims being the coding and use of multiple Sprites and a myriad of parallel operations.
Y6	Children use Kodu to code for, design and test a game created by them. This builds on all the skills developed in the preceding years.
KS2 Objective: use sequence, selection, and repetition in programs; work with variables and various forms of input and output	
Y3	Children use sequences and selection in order to develop their coding skills in the Spring 2 coding unit. Children also apply basic skills and develop their digital presenting skills in Spring 1.
Y4	PowerPoint is taught at a more advanced level including the use of complex transitions for effect. Children are taught how to sequence and make work uniform in order to enhance digital storytelling and presenting skills. Children introduced to spreadsheets with a focus on excel
Y5	Children apply acquired selection, sequential and repetition skills in Soundation in order to create a music project that showcases skills taught in all year groups up to this point.
Y6	Children create and edit a video based on their Topic work. The video shows evidence of image manipulation, timeline edit and logical sequencing. Children use sequencing, selection and a varied input whilst creating a game on Kodu. Children input formulae and values to produce required outcomes.

KS2 Objective: use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs	
Y3	Children are encouraged with teacher support to identify errors and problems in their work. Children are taught what algorithms are and can articulate what computer coding is in basic terms.
Y4	Children debug a Scratch script with a small number of errors with some teacher support.
Y5	Children are expected to work with complex software that has multiple inputs in order to achieve teaching outcomes. As part of their learning, the children are encouraged to self-identify problems and errors and attempt to correct them both alone and with support.
Y6	Children use Kodu to code for, design and test a game created by them. By definition, this is achieved by both explaining and improving algorithms. Algorithms and formulae used in Excel.
KS2 Objective: 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	
Y3	Children are taught how to use and access the World Wide Web and the school's internal computer network during the Basic Skills units of study.
Y4	
Y5	
Y6	Classroom based learning whereby the children are taught the science and practical underpinnings of computer networks and how they have developed and improved overtime. Children are also shown how the internet has developed over time and the transition between Dial-up and Broadband is taught and demonstrated.

KS2 Objective: use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content	
Y3	All year groups use search technologies as part of their Computing lessons **and** as part of their wider curriculum exposure. Children are also encouraged to evaluate digital content both in terms of quality and validity – for example as part of the Y5 Independent Task.
Y4	
Y5	
Y6	

KS2 Objective: 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	
Y3	See curriculum overview.
Y4	See curriculum overview.
Y5	See curriculum overview.
Y6	See curriculum overview.