Hart Side Curriculum 2022-23

Computing	Animation	Online Safety	Programming Turtle Logo	Scratch: Questions and Quizzes	Word Processing	Coding and Programming
Year 4	Autumn (1) 7 weeks	Autumn (2) 8 weeks	Spring (1) 6 weeks	Spring (2) 6 weeks	Summer (1) 5 weeks	Summer (2) 6 weeks
What We Will Learn	This unit teaches pupils the basic principles and techniques of simple animation. Beginning with the history of animation, pupils research some of the early animation techniques used before the use of computers. The lessons then compare a range of free animation software and pupils incorporate the different techniques into their own animation. After experimenting, pupils are then given the opportunity to evaluate their experiences.	In this unit, pupils learn about preventing and dealing with cyberbullying; how to use search engines efficiently; how to avoid plagiarism online; and how to be a good digital citizen. The unit ends with pupils applying their new knowledge to design a character to be displayed around school to promote online safety.	Pupils will learn how to create an algorithm to program a procedure. Lessons are designed to be used with online programs such as Turtle Logo/Logo Interpreter or MSWLogo. Pupils are reminded of the basic commands and how to repeat alongside a variable. In the concluding lesson they use the arc command to create patterns using different shapes and randomly selected colours, which they are encouraged to share with the rest of the class.	This unit follows up the earlier units on programming Scratch on a computer/tablet or Pyonkee with iPads. In this unit the pupils write quizzes by combining questions. While specific skills in Scratch are taught, the unit aims to teach pupils the wider programming skills of solving problems, testing, debugging, improving and evaluating.	In this unit pupils will learn about formatting images and organising content into and effective layout. The first lesson focuses on formatting images and making them suitable for a poster advertising a cake sale. Throughout the rest of the unit, pupils will learn new skills and techniques and apply them to creating a range of different word documents (posters, letters to parents, job rotas, recipe cards and e-vouchers) which they will use during the cake sale project.	In this unit of work pupils will build on prior knowledge all about coding and programming. They will be able to follow a set of instructions and be able to use a range of commands.
What We Will Do	The pupils will explain what is meant by animation. They will create a series of linked frames that can be played as a short animation. The pupils will control and adjust a time slider to locate a different point in a film clip. They will insert images to create a simple stop motion animation short film clip. The pupils will evaluate the advantages and disadvantages of some animation software.	The pupils will define cyberbullying. They will know how to respond to a hurtful message or comment online and they will access a trusted search engine. The pupils will understand that different search terms give different results. They will discuss what plagiarism is. They will identify which information to keep private online. The pupils will explain what digital citizenship is. They will tell someone else at least one way to stay safe online.	The pupils will write procedures using simple algorithms. The pupils are then shown how to program their own procedures, use colour and set the position of the turtle using coordinates. They will change the colour of the pen. The pupils will write text using the label command.	The pupils will write a program which accomplishes a specific goal. They will create a program that includes a logical sequence. They will debug a program they have written.	The pupils will select, edit and manipulate text in different ways, they will insert an image into a document. They will format an image using formatting tools to improve the layout; they will use the spellcheck tool. They will insert a simple table. Pupils will change the size of the page. They will change the layout by using the column tool. The pupils will change the orientation of the page and be able to copy the URL that they need.	The pupils will use logical thinking to solve an open-ended problems. They will write a program, putting commands into a sequence to achieve a specific outcome. They will be given a set of instructions to follow and predict what will happen. The pupils will keep testing a program and recognise when it needs to be debugged; They will use variables to create an effect, e.g. repetition, if, when, repeat, loop. They will use a range of key vocabulary to demonstrate their knowledge and understanding.
Skills Learned	Pupils will develop their analytic skills to be able to select, use and combine a variety of software including evaluating and presenting data and information in the context of comparing different animation software or techniques.	Pupils will develop prior internet safety skills already learned they will be able to use technology safely, respectfully and responsibly, they will identify a range of ways to report concerns about content and contact	Pupils will develop their problem solving skills using use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs, they will solve problems by decomposing them into smaller parts.	Pupils will develop their problem solving skills by decomposing problems into smaller parts.	Pupils will develop there writing skills using the word program to be able to structure and produce an information text using a variety of software (including internet services) on a range of digital devices.	Pupils will develop their skills to be able to problem solve using logical thinking to solve an open-ended problem by breaking it up into smaller parts.