Nunthorpe Primary Academy	Subject Overview: Computing

Computing Intent

Within our curriculum pupils are taught the principles of information and computation, how digital systems work, and how to p ut this knowledge to use through programming in applications such as Scratch Jr and Scratch. Building on this knowledge and understanding, pupils are equipped to use informa tion technology to create programs on microprocessors such as Crumble. Computing also ensures that pupils become digitally literate – able to use, and express themselves and develop their ideas through information and communication technology – at a level suitable for the future workplace and as active and responsible participants in a digital world.

KS1	Digital Literacy	Computer Science	Information Technology
Year 1	**Online safety** Children understand what technology means and give examples of its use. They make a list of rules to keep people safe and discuss being kind.	**Bee-bot** Children learn the term algorithm. They follow and make a set of instructions to make a bee-bot move. They debug simple mistakes and predict outcomes.	**Computing Skills** Children learn parts of the computer, learn to log on and off and use a mouse. **2Simple** Children use Simple tools in paint. They write a sentence using the keyboard and can save and retrieve work.
Year 2	**Online safety** Children use search engines to find age appropriate websites. They know what to do if they see anything which makes them uncomfortable.	**Scratch Junior** Children use algorithms to create a program that achieves a purpose. They debug simple mistakes and predict outcomes.	**Computing Skills** Children name, save and retrieve work. **Publisher** Children use Publisher to create posters and fact sheets which include text and pictures given. They insert text and pictures and format to alter size, font and colour.

KS2	Digital Literacy	Computer Science	Information Technology
Year 3	**Online safety** Children learn different ways to report unacceptable content and contact. They learn about keeping information safe: what to share and the use of strong passwords. They look at adverts and their target.	**Code.org** Children predict what will happen in a program and edit and solve problems by breaking them down into smaller parts. They predict the impact of changes in a sequence and use repetitions.	**Word** Children use word to create posters and fact sheets which include text and pictures retrieved from simple searches. They use cut and paste and format to alter size, font and colour.
Year 4	**Online safety** Children learn about hurtful comments and how to be kind online. They create safe online profiles and use avatars. They learn about search engines and the ranking of search results. **Emails** Children learn to create and email and how to attach a file.	**Scratch- Questions and Quizzes** Children use repetition and 'if' statements and combine them in their programming. They design and debug their own programs which are created in logical steps.	**PowerPoint** Children create PowerPoints for presentations. They experiment with PowerPoint features.
Year 5	**Online safety** Children learn about online safety rules in real life scenarios and how identities and photographs can be copied and modified. **Emails** Children learn how to identify an email that they shouldn't open and what to do with spam.	**Scratch- Game Creator** Children review and analyse computer games. They design their own appropriate settings and characters. **Understanding Networks** Children learn about networks and there multiple services.	**Spreadsheets** Children enter text and numbers into a spreadsheet using cells, rows and columns. They use SUM formulae. They create graphs from the data entered.
Year 6	**Online safety** Children learn how media shapes ideas about society. They learn about online reputations and the impact for the future. They learn about popular online activities and keeping themselves safe whilst using them.	**Crumble** Children evaluate programming. They use programming language and make predictions. They put together separate parts of a complex algorithms which uses inputs (button clicks) and outputs (sound and movement).	**Animation- 2Animate** Children plan for an animation. They take a series of pictures, with items moving, to create an animation on playback.