Computing at Orchard Academy – YEAR 4

Autumn Term	**Unit 4.1 - We are software developers** *The pupils start by playing and analysing educational computer games, identifying those features that make a game successful. They then plan and design a game, with a clear target audience in mind. They create a working prototype, and then develop it further to add functionality and improve the user interface. They test their game and make any necessary changes* • Develop an educational computer game using selection and repetition • Understand and use variables • Start to debug computer programs • recognise the importance of user interface design, including consideration of input and output	Programming Technology in our Lives
	Unit 4.2 We are toy designers *The children work together to design a simple toy that incorporates sensors and outputs and then create an on-screen prototype of their toy in Scratch. Finally, they pitch their toy idea to a Dragons' Den-style panel.* • Design and make an on-screen prototype of a computer-controlled toy. • Understand different forms of input and output (such as sensors, switches, motors, lights and speakers. • Design, write and debug the control and monitoring program for their toy.	Programming Technology in our Lives Multimedia
Spring Term	**Unit 4.3 We are musicians** *The children produce music suitable for any purpose they choose, such as music inspired by the sounds of the Rainforest.* • Use one or more programs to edit music • Create and develop a musical composition, refining their ideas through reflection and discussion • Develop collaboration skills • develop an awareness of how their composition can enhance work in other media	Multimedia Technology in our lives ICT Skills
	Unit 4.4 We are html editors *The children learn about the history of the web, before studying HTML (hypertext mark-up language), the language in which web pages are written. They learn to edit and write HTML, and then use this knowledge to create a web page.* • Understand some technical aspects of how the internet makes the web possible • Use HTML tags for elementary mark up • Use hyperlinks to connect ideas and sources • Code up a simple web page with useful content • Understand some of the risks in using the web	E-safety Technology in our lives ICT Skills
Summer Term	**Unit 4.5 We are co-authors** *In this unit, the pupils collaborate to create a 'mini Wikipedia'. They then go on to add or amend content on the real Wikipedia* • Understand the conventions for collaborative online work, particularly in wikis • Be aware of their responsibilities when editing other people's work • Become familiar with Wikipedia, including potential problems associated with its use • Practise research skills • Write for a target audience using a wiki tool • Develop collaboration skills	E-safety Multimedia Technology in our lives
	Unit 4.6 We are meteorologists *This unit brings together data measurement, analysis and presentation, as the children take on the role of meteorologists and weather presenters.* • Understand different measurement techniques for weather, both analogue and digital • Use computer-based data logging to automate the recording of some weather data • Use spreadsheets to create charts • Analyse data, explore inconsistencies in data and make predictions • Practise using presentation software and, optionally, video	Data Handling Multimedia Technology in our lives ICT Skills