Computing			
	Term 1	Term 2	Term 3
Years 4, 5 and 6	**Creating media – Introduction to vector graphics** In this unit, children start to create vector drawings. They learn how to use different drawing tools to help them create images. Children recognise that images in vector drawings are created using shapes and lines, and each individual element in the drawing is called an object. Children layer their objects and begin grouping and duplicating them to support the creation of more complex pieces of work. This also supports our work in art where we study the digital art work of David Hockney.	**Creating Media – Video Production** This unit gives children the opportunity to learn how to create short videos in groups. As they progress through this unit, they will be exposed to topic-based language and develop the skills of capturing, editing, and manipulating video. Children are guided with step-by-step support to take their idea from conception to completion. At the conclusion of the unit, Children have the opportunity to reflect on and assess their progress in creating a video.	**Databases and information - flat- file – databases** This unit looks at how a flat-file database can be used to organise data in records. Children use tools within a database to order and answer questions about data. They create graphs and charts from their data to help solve problems. They use a real-life database to answer a question, and present their work to others.
	Computing systems and networks – The Internet Children will apply their knowledge and understanding of networks, to appreciate the internet as a network of networks which need to be kept secure. They will learn that the World Wide Web is part of the internet, and will be given opportunities to explore the World Wide Web for themselves in order to learn about who owns content and what they can access, add, and create. Finally, they will evaluate online content to decide how honest, accurate, or reliable it is, and understand the consequences of false information. Chrome Music Lab is used in one lesson to demonstrate content which can be produced on the World Wide Web.	**Programming A – Selection in physical computing** In this unit, children will use physical computing to explore the concept of selection in programming through the use of the Crumble programming environment. Children will be introduced to a microcontroller (Crumble controller) and learn how to connect and program components (including output devices- LEDs and motors) through the application of their existing programming knowledge. Children are introduced to conditions as a means of controlling the flow of actions and make use of their knowledge of repetition and conditions when introduced to the concept of selection (through the, if, then structure).	**Programming B – Repetition in games** This unit explores the concept of repetition in programming using the Scratch environment. It begins with a Scratch activity similar to that carried out in Logo in Programming units, where learners can discover similarities between two environments. Learners look at the difference between count-controlled and infinite loops, and use their knowledge to modify existing animations and games using repetition. Their final project is to design and create a game which uses repetition, applying stages of programming design throughout.