

Swanton Morley VC Primary School

Computing Curriculum Overview ALDER Class

NAVIGATORS	<ul style="list-style-type: none"> • Know how to stay safe online. • Understand the basic structure and operation of networks, including the internet, and how information is created, stored and shared. • Be able to use previously learned skills to develop interactive multimedia presentations for different audiences. • Use formatting, publishing and presenting tools confidently to enhance context/purpose of the written word. • Be able to manage email contacts (groups) and organise messages into folders. • Be able to send and receive emails with attachments and recognise the purpose of different file types including using zipped folders to send multiple files. • Be able to use/set up surveys and questionnaires using IT collecting data to evaluate and display using graphs and charts (spreadsheets). • Be able to make a short video or still picture story combining audio with visual media. • Be able to upload and share media, files and documents using cloud-based storage such as Google classroom. • Use logical reasoning to explain how some simple algorithms (formulae) work and to detect and correct errors (spreadsheets). • Be able to design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems including working with variables and various forms of input and output. • Refine smart research techniques on the internet including refining queries and using advanced search tools. 	<ul style="list-style-type: none"> • To know how to use the internet to search safely, with an awareness of copyright/ownership, whilst finding resources to use • To understand that different colours can create different effects for a viewer • To know that typography is the practical art of arranging how the printed word appears on the page • To know that captions are words that describe a picture or graph • To know how to use tools within publishing software for different purposes • To know how to apply knowledge across different software to create visual effects for a given purpose • To know that some inputs indicate to the computer what we want it to do, while others provide data for the computer to process • To know that inputs don't have to be initiated by human beings • To know a variety of inputs and how to use these within block-based programming • To know that control blocks can be used to with a variety of inputs in coding (Scratch) • To know that a variable is a value that can change in a program • To know that selection allows you to choose whether to run a section of code • To know that selection allow you to choose to run code only IF/WHEN a certain condition is met • To know selection will most like include one of the words IF/THEN/WHEN/ELSE • To know that debugging is the process of finding and correcting errors in computer programs • To know how to find errors in a program when they arise and how to correct them
	<ul style="list-style-type: none"> • Refine word processing and publishing skills to cater for a wide range of contexts, purposes and audiences. • Be able to use spreadsheets and algorithms (formulae) to create interactive/adaptive models of scenarios. • Be able to use spreadsheets to perform calculations and work with finances (accounting). • Use coding, control and logic to create animations and interactive game content including understanding of logic gates. • Understand how a computer (or device) operates and its major internal components including the basics of the binary system and digital processing and communication. • Be able to sample, record and edit sound and video including merging media (video, sound, images and text) in presentations. • Understand the basic structure of web sites and pages including terminology, menus, page hierarchy and internal/external links. • Be able to design a simple web page using basic html coding for a specific purpose that includes a wide range of media/content. • Be able to confidently and independently use email to collaborate and communicate with peers in a purposeful/practical contexts. • Understand and use a variety of different platforms to safely share documents, files and media online including using Google Classroom to collaborate on group IT projects. • Be able to use online mapping and route planning applications in real life contexts. • Understand the importance of evaluating and interpreting information found from internet search including questioning its validity. 	<ul style="list-style-type: none"> • To know that broadcasting is sending information (such as television shows or music) electronically to an audience • To know how to record, manipulate and edit sound recordings • To know how to create a multimedia presentation including importing audio and synchronising timings • To know that a simulation is a way of seeing a thing happen without it actually taking place in reality • To know that physical systems include robotics, motors and sensors and be able to create a simulation of a system • To know that a sprite is an image that can be programmed to move, respond to events, and interact with other sprites • To know that a broadcast message is a signal which can be transmitted and received by all sprites and it is a way of creating programs such that the actions of one sprite affects the programs of other sprites • To know how to navigate the internet or a given website in order to read and extract relevant information to us in a presentation • To know how to change, format, add and edit a presentation's style, background, font, images, sounds • To know how to add animations and transitions to a presentation • To know how to apply knowledge across different software if using different presentation software from previous phases • To know the basic keyboard shortcuts including those for copy (ctrl+c) and paste (ctrl+v) • To know that newspapers are written in columns and how they can be used in word processing software by using tables • To know how to apply knowledge across different software if using different word processing software from previous phases • To know how to wrap and format images to match purpose • To know how to use page layout tools to for different purposes