Computing and iMedia Curriculum Map

COMPUTING

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Stop-frame Animation	Connecting Computers	Branching Databases	Sequencing Sounds	Desktop Publishing	Events and Actions in Programs
YEAR 3	• Learners will use a range of techniques to create a stop-frame animation using tablets. • They will apply those skills to create a story-based animation. • This unit will conclude with learners adding other types of media to their animation, such as music and text.	• Learners will develop their understanding of digital devices, with an initial focus on inputs, processes, and outputs. • They will also compare digital and non-digital devices. • Next, learners will be introduced to computer networks, including devices that make up a network's infrastructure. • Finally, learners will discover the benefits of connecting devices in a network.	• Learners will develop their understanding of what a branching database is and how to create one. • They will use yes/no questions to gain an understanding of what attributes are and how to use them to sort groups of objects. • Learners will create physical and on-screen branching databases. • To conclude the unit, they will create an identification tool using a branching database, which they will test by using it.	• Using Scratch • Learners will be introduced to a selection of motion, sound, and event blocks which they will use to create their own programs, featuring sequences. • The final project is to make a representation of a piano.	• During this unit, learners will become familiar with the terms 'text' and 'images' and understand that they can be used to communicate messages. • They will use desktop publishing software and consider careful choices of font size, colour and type to edit and improve premade documents. magazine front cover. They will start to add text and images to create their own pieces of work using desktop publishing software.	• Learners will begin by moving a sprite in four directions • They will then explore movement using design to choose an appropriately sized sprite. • Learners use programming extensions, through the use of pen blocks. They draw lines with sprites and change the size and colour of lines. • The unit concludes with learners designing and coding their own maze tracing program.
	Extra Events: E-safety lessons are taught throughout the year and covered during national Safer Internet Day					

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	COMPUTING				
	Autumn 1	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer**
YEAR 4	We are Game Designers	We are Presenters	We are Stop Motion Animators		We are Programmers 2
	Create on screen graphics Create a game concept involving related concepts with a clear aim Create catching and maze games	Open Microsoft Word and PowerPoint Save and retrieve work Modify text Insert images Create presentations including animations	Understand the difference between onscreen and stop motion animation Develop a short story, including characters and a story board Find and manipulate images to create backgrounds Create characters in modelling clay Create stop motion animations using smooth transitions Add voiceovers and effects to animations		Know the term algorithm Enter algorithms in the correct sequence Know what 'debugging' means Be able to debug an algorithm Know what a loop is Be able to use loops within algorithms
	Extra Events: E-safety lessons are taught throughout the year and covered during national Safer Internet Day				

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COMPUTING						
	Autumn 1	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
YEAR 5	3D Design	Introduction to Vector Graphics	Flat File Databases	Video Production	Using crumbles	Computer Systems and Networks
	Difference between 2D and 3D design

Putting together designs on paper and transferring them to computer

Desiging rooms and houses using preset restraints and ideas | Introduction to tools of Google Drawings

Changing shapes by using duplication, rotation, groupings and layers

Creating own shapes using technicques taught | Creating a paper based database

Using paper based database for sorting, searching etc

Creating a database as a class on the computer

Using it to search and sort information | Learning about different camera angles

Creating a storyboard for a video advert

Creating and editing a finished video | Learning about crumbles and how they work

Creating different activities such as traffic lights, spinning wheels and how to control LED lights and motors. | Learn how information is transferred between systems and devices

How search engines work

What influences searching |
| | Extra Events: E-safety lessons are taught throughout the year and covered during national Safer Internet Day | | | | | |

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COMPUTING						
	Autumn 1	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
YEAR 6	Word Processing	Photo Manipulation	Scratch	Excel	Lego WeDo	Tinkercad
	Using basic typographical features to layout work effectively Combing text and graphics to produce eye catching posters and other printed work Use of headers and footers in documents Use of tables to layout information effectively	Use of filters to change the appearance of photographs Cropping and cloning tools to change the focus of a photograph Combining different photographs to make a new one	Introduction to the Scratch visual programming environment Use of loops and repeats How to manipulate and interact with sprites Different methods of controlling sprites	What a spreadsheet is and how to use it Ordering and sorting data Basic calculations using Excel Producing charts from data within excel	Controlling lego models using the computer STEM applications using Lego – using gears etc Solving 'real life' problems using Lego and the WeDO software	Introduction to 3D Printing Creating and manipulating 3D objects Joining objects and creating spaces within them
	Extra Events: E-safety lessons are taught throughout the year and covered during national Safer Internet Day					

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COMPUTING						
	Autumn 1	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
	Flowcharting	Using computers effectively, safely and responsibly	Programming using Scratch	Databases	Kodu	Desktop Publishing
YEAR 7	Use of Flowol to model real life situations Use of decisions and loops to create solutions Use of subroutines, inputs and outputs	Folder structures and how to store work Safe use of the internet Use of passwords and what makes a good password Use of email Internet searching techniques	Use of variables to enhance programming skills Use. of sound effects and music within scripts How to create interactive games effectively.	What a database is Records and Fields How to search databases; the difference between AND and OR Creating your own database on a subject of your interest	Introduce the Kodu game creation environment Creating landscapes and new worlds Controlling characters Interaction between characters and objects	Examples of good layouts for desk top publishing Effective use of white space Use of Microsoft Publisher to create their own brochure about the school
	Extra Events: E-safety lessons are taught throughout the year and covered during national Safer Internet Day					

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COMPUTING

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer
YEAR 8	Graphics	Computer Crime and Cyber Security	Creating a Video	Understanding Computers	Using a microbit	App Development
	Explain that bitmap images are made up of individual pixels Create and manipulate a simple group of objects to form a logo design Use a graphics package to create an artwork; for example, a movie poster	Identify common types of computer crime Recognise the signs of fraudulent emails Understand what is meant by hacking Understand what is meant by malware Learn ways to protect yourself from malware & hacking	Work as part of a team to complete an appropriate advertisement or movie Work collaboratively on editing and giving feedback on the work of others Show discrimination in selecting accompanying material such as still images, sound effects and background music Use a range of digital devices Use video transitions and video effects to improve their movie	Distinguish between hardware and software Give examples of computer hardware and software Draw a block diagram showing CPU, input, output and storage devices Name different types of permanent storage device Suggest appropriate input and output devices for a simple scenario	Basic programming using the microbit Using the different input and outputs on the microbit Attaching external sensors and inputs to the microbit to create solutions to 'real life' problems	Evaluate a simple GUI (Graphical User Interface) Create a simple GUI within a web application Explain the process in building an app Understand the term 'Home Screen' Build a photo gallery Understand the importance of navigation bars and tabs Create a quiz within the app

Computing and iMedia Curriculum Map

iMEDIA

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	RO81 – Studying Pre-production Documents	RO81– Designing Pre-production Documents	RO82 – Creating a Digital Graphic	RO82 – Creating a Digital Graphic (cont.)	RO85 – Creating a Multipage Website	RO85 – Creating a Multipage Website (cont.)
YEAR 9	Understand the purpose, content and uses for: – moodboards (e.g. – mind maps/spider diagrams – visualisation diagrams – storyboards – scripts	Pupils will be taught how to create a: – moodboard – mind map – visualisation diagram – storyboard Analyse a script Understanding the importance of identifying the target audience and how they can be categorised	LO1: Understand the purpose and properties of digital graphics LO2: Be able to plan the creation of a digital graphic	LO3: Be able to create and save a digital graphic LO4: Be able to review the digital graphic	LO1: Understand the properties and features of multipage websites	LO1: Understand the properties and features of multipage websites (cont.)

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iMEDIA						
	Autumn 1	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
YEAR 10	RO85 – Creating a Multipage Website (cont.)	RO85 – Creating a Multipage Website (cont.)	RO85 – Creating a Multipage Website (cont.)	RO87 – Creating Interactive Multimedia Products	RO87 – Creating Interactive Multimedia Products	RO87 – Creating Interactive Multimedia Products (cont.)
	LO2: Be able to plan a multipage website to client brief	LO3: Be able to create a multipage website using multimedia components	LO4: Be able to review the final website against the client brief	LO1: Understand the uses and properties of interactive multimedia products.	LO1: Understand the uses and properties of interactive multimedia products (cont.)	LO2: Be able to plan the interactive multimedia product

iMEDIA						
	Autumn 1	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
YEAR 11	RO87 – Creating Interactive Multimedia Products (cont.)	RO87 – Creating Interactive Multimedia Products (cont.)	RO81 – Revision	RO81 – Revision	RO81 – Examination	
	LO3: Be able to create interactive multimedia products	LO4: Be able to review interactive multimedia products	LO1: Understand the purpose of content of Pre-Production LO2: Be able to plan Pre-Production Documents	LO3: Be able to produce Re-Production Documents LO4: Be able to review Pre-Production Documents		