Curriculum Map

Y4 - Robins Class

	At the end of each unit, children will be able to:					
	Lesson 1	**Lesson 2**	**Lesson 3**	**Lesson 4**	**Lesson 5**	**Lesson 6**
Computing Systems - The Internet	**Describe how networks physically connect to other networks** • describe the internet as a network of networks • demonstrate how information is shared across the internet • discuss why a network needs protecting	**Recognise how networked devices make up the internet** • describe networked devices and how they connect • explain that the internet is used to provide many services • recognise that the World Wide Web contains websites and web pages	**Outline how websites can be shared via the World Wide Web (WWW)** • explain the types of media that can be shared on the WWW • describe where websites are stored when uploaded to the WWW • describe how to access websites on the WWW	**Describe how content can be added and accessed on the World Wide Web (WWW)** • explain what media can be found on websites • recognise that add content to the WWW • explain that internet services can be used to create content online	**Recognise how the content of the WWW is created by people** • explain that websites and their content are created by people • suggest who owns the content on websites • explain that there are rules to protect content	**Evaluate the consequences of unreliable content** • explain that not everything on the World Wide Web is true • explain why some information I find online may not be honest, accurate, or legal • explain why I need to think carefully before I share or reshare content
Creating Media - Audio Production	**Identify that sound can be recorded** • identify the input and output devices used to record and play sound • use a computer to record audio • explain that the person who records the sound can say who is allowed to use it	**Explain that audio recordings can be edited** • re-record my voice to improve my recording • inspect the sound-wave view to know where to trim my recording • discuss what sounds can be added to a podcast	**Recognise the different parts of creating a podcast project** • explain how sounds can be combined to make a podcast more engaging • save my project so the different parts remain editable • plan appropriate content for a podcast	**Apply audio editing skills independently** • record content following my plan • review the quality of my recordings • improve my voice recordings	**Combine audio to enhance my podcast project** • open my project to continue working on it • arrange multiple sounds to create the effect I want • explain the difference between saving a project and exporting an audio file	**Evaluate the effective use of audio** • listen to an audio recording to identify its strengths • suggest improvements to an audio recording • choose appropriate edits to improve my podcast

Programming A - Repetition in Shapes	**Identify that accuracy in programming is important** • program a computer by typing commands • explain the effect of changing a value of a command • create a code snippet for a given purpose	**Create a program in a text-based language** • use a template to draw what I want my program to do • write an algorithm to produce a given outcome • test my algorithm in a text-based language	**Explain what 'repeat' means** • identify repetition in everyday tasks • identify patterns in a sequence • use a count-controlled loop to produce a given outcome	**Modify a count-controlled loop to produce a given outcome** • identify the effect of changing the number of times a task is repeated • predict the outcome of a program containing a count-controlled loop • choose which values to change in a loop	**Decompose a task into small steps** • identify 'chunks' of actions in the real world • use a procedure in a program • explain that a computer can repeatedly call a procedure	**Create a program that uses count-controlled loops to produce a given outcome** • design a program that includes count-controlled loops • make use of my design to write a program • develop my program by debugging it
Data and Information - Data Logging	**Explain that data gathered over time can be used to answer questions** • choose a data set to answer a given question • suggest questions that can be answered using a given data set • identify data that can be gathered over time	**Use a digital device to collect data automatically** • explain what data can be collected using sensors • use data from a sensor to answer a given question • identify that data from sensors can be recorded	**Explain that a data logger collects 'data points' from sensors over time** • recognise that a data logger collects data at given points • identify the intervals used to collect data • talk about the data that I have captured	**Recognise how a computer can help us analyse data** • view data at different levels of detail • sort data to find information • explain that there are different ways to view data	**Identify the data needed to answer questions** • propose a question that can be answered using logged data • plan how to collect data using a data logger • use a data logger to collect data	**Use data from sensors to answer questions** • interpret data that has been collected using a data logger • draw conclusions from the data that I have collected • explain the benefits of using a data logger
Creating Media - Photo Editing	**Explain that the composition of digital images can be changed** • improve an image by rotating it • explain why I might crop an image • use photo editing software to crop an image	**Explain that colours can be changed in digital images** • explain that different colour effects make you think and feel different things • experiment with different colour effects • explain why I chose certain colour effects	**Explain how cloning can be used in photo editing** • add to the composition of an image by cloning • identify how a photo edit can be improved • remove parts of an image using cloning	**Explain that images can be combined** • experiment with tools to select and copy part of an image • use a range of tools to copy between images • explain why photos might be edited	**Combine images for a purpose** • describe the image I want to create • choose suitable images for my project • create a project that is a combination of other images	**Evaluate how changes can improve an image** • review images against a given criteria • use feedback to guide making changes • combine text and my image to complete the project

Programming B - Repetition in Games	**Develop the use of count -controlled loops in a different programming environment** • list an everyday task as a set of instructions including repetition • predict the outcome of a snippet of code • modify a snippet of code to create a given outcome	**Explain that in program-ming there are infinite loops and count-controlled loops** • modify loops to produce a given outcome • choose when to use a count-controlled and an infinite loop • recognise that some programming languages enable more than one process to be run at once	**Develop a design that includes two or more loops which run at the same time** • choose which action will be repeated for each object • explain what the outcome of the repeated action should be • evaluate the effectiveness of the repeated sequences used in my program	**Modify an infinite loop in a given program** • identify which parts of a loop can be changed • explain the effect of my changes • re-use existing code snippets on new sprites	**Design a project that includes repetition** • evaluate the use of repetition in a project • select key parts of a given project to use in my own design • develop my own design explaining what my project will do	**Create a project that includes repetition** • refine the algorithm in my design • build a program that follows my design • evaluate the steps I followed when building my project
E-safety	Know the rules around safe gaming online, including not sharing personal information. Know that there are options, such as reporting and blocking people, when things go wrong. Understand how to use tools such as Hector and TAG to report issues.		Know the rules around safe gaming online, including not sharing personal information. Know that there are options, such as reporting and blocking people, when things go wrong. Understand how to use tools such as Hector, CEOP and TAG to report issues.		Use Smartie the Penguin resources (https://www.childnet.com/resources/smartie-the-penguin/) to begin to explore safety issues around in-app purchasing, cyberbullying, unreliable information and talking to strangers online - Y2 stories A and B. Understand that people sometimes pretend to be someone they are not online.	
Vocab	**Unit 1 -** Website Wi-Fi World Wide Web Network Content - reliable / unreliable	**Unit 2 -** Audio Podcast Editing Enhance Export	**Unit 3 -** Text-based Code snippet Repeat / repetition Count controlled loop	**Unit 4 -** Data logger Data Points Sensor Analyse Conclusion	**Unit 5 -** Composition Crop Rotate Clone	**Unit 6 -** Count-controlled / infinite loop Modify