



Aintree Davenhill Planning Overview

Subject: Computing **Term:** Summer 1

	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Animal Safari (IT) Pretty Pictures (IT)	News Presenter (IT)	Story Land (IT)	Rainforests (IT)	Dinosaurs (IT)	Binary Messages (IT)	Money (IT)
Lesson 1	Animal Safari (IT) To use digital devices safely in the classroom. (IT) To open apps and scan QR codes. (IT) To sort data.	(DL) To understand what is 'news' and where it can be found. (DL) To understand the terms 'online' and 'offline'. (IT) To add an image/selfie to a document. (IT) To add text to a document.	(IT) To understand what the term 'multimedia' means. (IT) To understand the different media types that can be combined. (IT) To create a digital drawing. (IT) To record a short audio clip.	(IT) To add text to a document and apply text formatting. (IT / DL) To use Google Earth to search for specific places. (IT) To take screenshots and insert images into a document.	(IT) To add text to a document and apply text formatting. (IT) To film using the camera on an iPad or similar device (IT) To film high-quality film shots.	(CS) To understand what binary is and how computers use it (CS) To convert binary into decimal. (IT) To independently add various forms of digital media to a document.	(IT/DL) To understand the evolution of money and the move to digital currency. (IT) To save an image of a historical figure to a device. (IT) To create an illustration (or apply filters to an image) based on an image and insert it into a document.
Lesson 2	Animal Safari (IT) To use digital devices safely in the classroom. (IT) To open apps and scan QR codes. (IT) To record data.	(DL) To identify logos in the world around us. (IT) To use a paint application and various paint tools. (IT) To export and save an image.	(IT) To sort data to determine the outcome of a class vote. (IT) To brainstorm ideas for a sequel to the selected book and produce a paper-based layout. (IT) To use the internet to find an image and insert the image into a document. (IT) To photograph a paper-based plan and insert it into a document.	(IT) To use a digital device to scan QR codes (IT/DL) To understand what is meant by 360° (degree) video (IT) To explore an AR (Augmented Reality) scene	(IT) To film more high-quality shots. (IT) To use a selection of filming and movie-making techniques. (IT) To direct an actor to give a great performance.	(CS) To understand how information (data) can be sent as binary numbers. (CS) To convert a binary message into text. (CS) To convert a text message into binary code.	(IT/DL) To use an online currency exchange tool. (IT) To document research and data. (IT/DL) To use a Reverse Image Search tool.
Lesson 3	Animal Safari (IT) To independently find and open an application for a particular purpose. E.g. drawing a picture.	(IT) To understand there are different types of applications on a computer. (IT) To use a keyboard to type a short story. (IT) To format text, changing size, colour and font.	(IT) To explore basic digital drawing tools and techniques. (IT) To export and save a digital drawing. (IT) To create a front cover design with, text and an illustration that is related to their sequel story.	(IT) To record data in a tally chart. (IT) To record data in a bar chart. (IT) To use digital tools to present and analyse data.	(IT) To film high-quality shots (IT) To edit shots into a scene (IT) To use editing software to add effects to your scene.	(IT/CS) To create a script that explains binary and acts as a tutorial for others. (IT) To create a screen recording guide using Seesaw or an alternative application. (IT) To generate a QR code that links to a digital piece of work.	(IT) To add text to a document, use a consistent size, colour and font. (IT) To create a digital drawing to show a future career. (IT) To record a short audio clip within a document.
Lesson 4	Pretty Pictures (IT) To understand how various devices and apps can be used in the classroom. (IT) To use a camera safely and respectfully. (IT) To learn to take photographs on a device. (IT) To learn to delete unwanted photographs on a device.	(IT) To locate and use a camera on a digital device. (IT) To record a short video clip. (IT) To save a video clip and import it into a document.	(IT) To understand the term animation. (IT) To use frames to create movement. (IT) To export a video file. (IT) To import a video into a document.	(IT) To create a simple poster using an unfamiliar application (IT) To use text and image formatting tools (IT/DL) To advanced image search tools to refine an image search	(IT) To Explain what a film storyboard is. (IT) To create a storyboard for my film. (IT) To explain how I will film the shots in my storyboard	(IT) To plan and layout a poster, including text, images and a QR code. (IT/DL) To source copyright-free images to use in a digital document. (IT) To create and save a QR code that links to a digital video.	(DL) To understand the risk of online scams. (IT/DL) To create images using AI - text-to-image prompts. (IT/DL) To produce a poster outlining the risk of an online scam.
Lesson 5	Pretty Pictures (IT) To take a photograph of the work (IT) To share a photograph with the teacher. (IT) To use a camera safely and respectfully.	(DL) To practice inference skills. (IT) To use multiple tools in a paint application. (IT) To use a microphone to record voice.	(IT) To independently create an illustration. (IT) To export a digital drawing. (IT) To insert a digital drawing into a digital book. (IT) To use a microphone to add narration in a digital book.	(DL) To use online tools that can improve our writing skills (IT / DL) To download and save digital media (IT) To write a digital script (voice-over) (IT) To use a microphone to record audio	(IT) To film and act against a green screen. (IT) To use green screen software to add special effects to my film.	(IT) To create rows and columns in a spreadsheet with title text (IT) To enter data into a spreadsheet (IT) To explain how a spreadsheet can help organise and analyse data	(IT) To use a device's in-built calculator. (IT) To create a spreadsheet with columns and rows. (IT) To input data into a spreadsheet.
Lesson 6	Pretty Pictures (IT) To take photographs using Zoom features and filters. (IT) To insert pictures into a document. (IT) To add text to a document.	(IT) To understand data is information on a computer. (IT) To move objects on a screen to sort data. (DL) To post a positive comment on a classmate's online work.	(IT) To create a short video clip. (IT) To insert a video clip into a digital book. (IT) To share their finished multimedia creation	(IT) To import a video clip into a video editing application (IT) To record an audio clip on a video timeline	(IT) To edit shots together to create a movie trailer. (IT) To use green screen software to add special effects to my film. (IT) To choose titles, filters and soundtracks to make my movie trailer look more professional. (IT) To review my movie trailer and suggest improvements.	(IT) To enter data into a spreadsheet. (IT) To perform basic calculations using formulas. (IT) To create and interpret graphs based on data.	(IT) To assess data. (IT) To input additional data into a spreadsheet within columns and rows. (IT) To calculate profile or loss based on data. (IT) To use functions within a spreadsheet (extension activity).



Aintree Davenhill Planning Overview

Subject: Computing **Term:** Summer 2

	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Robots (CS)	My Friend the Robot (CS)	Code a Story (CS)	Programming with Robots (CS)	Games Designer (CS)	Web Designer (CS)	Fun with Code & Electronics (CS)
Lesson 1	(IT) To understand where can we find robots in the world around us. (IT) To create a painting or digital artwork of a robot, including printing and cutting out. (IT) To save/share work.	(CS) To understand what robots are and what jobs they do in the real world? (IT) To add a photograph and text to a document. (IT) To use various drawing features to create a digital drawing. (IT) To use a microphone to record voice narration.	(IT) I can find and open an application on a device. (CS) I can use commands to move a sprite. (CS) I can sequence instructions (programming blocks).	(CS/IT) To better understand robots and their use in the world around us. (IT) To use a paint application to create an illustration of a robot. (CS/IT) To create a list of features a robot could perform to help in daily life.	(DL) To be able to explain the purpose of age restrictions for video games. (DL) To be able to identify the different age ratings for video games in the UK. (DL) To be able to explain why it is important to follow age restrictions for video games.	(IT/DL) To discuss different types of technology and their benefits/negatives (IT/DL) To name and describe different websites and their purpose (IT/DL) To use a web browser and search engine to find answers to questions (IT) To use editing and formatting to improve the presentation of your work	(CS) To identify and describe the parts and functions of the BBC Micro:bit. (CS) To create a simple physical interface using cardboard and foil. (IT) To document the making process in a pupil journal.
Lesson 2	(MS/IT) Explore how can technology (microphone) be used to record audio and share ideas (MS/IT) Learn to take photographs (MS/IT) Use a device to scan a QR code	(CS) To understand that an algorithm is a set of instructions to solve a problem. (CS) To follow an algorithm and create an algorithm. (IT) To move objects on the screen. (IT) To add text to a digital document.	(CS) To identify a bug in a sequence of programming blocks. (CS) To debug a simple program. (CS) To create a simple program.	(CS) To understand that an algorithm is a detailed plan to solve a problem or complete a task. (CS) To understand that a program is a set of instructions for a computer, written in a way that a computer can understand (e.g. Command Blocks). (CS) To create and debug a program using Scratch command blocks.	(CS/IT) To be able to define the term "video game design." (CS) To be able to identify the different stages of the video game development process. (CS & IT) To be able to explain the role of the video game designer. (CS) To understand inputs and outputs on a digital device.	(CS) To name the equipment needed to access the Internet. (CS) To understand what a computer network is. (CS) To understand how browsers work. (CS) To find out the location of a computer using an IP address.	(CS) To use more advanced Micro:bit coding on the MakeCode platform. (CS) To write and test a program for the Micro:bit reaction game. (CS) To debug and iterate on their code based on testing results.
Lesson 3	(CS) Why sequencing is important (IT/MS) Learn to move objects on a screen (CS) Sequence instructions to solve a problem	(DL/IT) To work with a partner and take turns using a device. (CS) To use logical reasoning to predict the outcome of actions/instructions. (CS) To give instructions to a programmable toy to reach a destination.	(CS) To add a repeat command to a simple program. (CS) To understand how repeat programming blocks could be used. (IT) To use audio to explain the understanding of a concept.	(DL) To sign in to or create an online account safely. (CS/IT) To discuss the positives and negatives of technology (Automation/Driverless Cars) (CS) To use logical reasoning to predict outcomes and potential errors in algorithms and programs.	(IT) To be able to use a digital art program to create game graphics. (IT) To be able to design characters, backgrounds, and objects that are appropriate for their target audience. (IT) To be able to export their game graphics in a format that is compatible with Scratch. (IT) To label various digital file types.	(CS) To use the programming/markup language of HTML. (CS) To use and develop your programming skills using HTML. (CS/IT) To media to an HTML website.	(CS) To explore how the micro:bit can be used to produce sound. (CS) To design and create a cardboard guitar with touch sensors using foil. (IT) To document the design and making process in a pupil journal.
Lesson 4	(CS) What is an 'algorithm'? (CS) Sequenced instructions (understand that this is called an algorithm) (CS) Create a simple visual algorithm.	(DL/IT) To work with a partner and take turns using a device. (CS) To Use logical reasoning to predict the outcome of actions/instructions. (CS) To debug instructions if required. (CS) To give instructions to a programmable toy or app to reach a destination.	(CS) To record audio within Scratch Jr. (CS) To use the 'play audio' command block within a simple program. (CS) To write a simple algorithm that solves a problem. (IT) To record the screen of a device (screen recording).	(IT) To use a drawing application to create a car graphic with a transparent background. (DL) To sign-in with a username and password to an online account. (IT) To export an image file and upload it to an online site.	(DL) To create secure usernames and passwords for an online account. (DL) To be aware of the risks associated with sharing personal information such as passwords. (CS) To be able to import and use game graphics in their Scratch programs.	(IT/DL) To discuss and evaluate the features of a good website. (IT/DL) To understand basic icons used on websites. (CS/IT) To plan and create a basic site map for a website.	(CS) To understand how to use input and output functions in the MakeCode platform. (CS) To write a program that plays music on the Micro:bit when touch sensors are activated. (CS) To test and debug their musical instrument code.
Lesson 5	(CS) Use directional language as part of an algorithm (CS) Create a simple visual algorithm to move an object. (CS) Play with electronic robot toys/apps	(CS) To use logical reasoning to solve sequencing challenges (IT) To take screenshots of work and insert an image into a document. (IT/CS) To use a microphone/record audio tool to discuss sequencing/creating a program.	(CS) To use the 'say' block within a simple program. (CS) To use logical reasoning to predict the outcome of a program. (CS) To convert simple programs to written algorithms.	(CS) To understand how the skill of decomposition is used in computing. (CS) To debug programs. (CS) To work independently to solve problems and create a program to complete a task.	(DL) To sign into an online account. (CS) To be able to use Scratch and start to create a simple hero versus villain game. (CS) To be able to use block commands to control the movement and behaviour of their sprites. (CS) To be able to create a simple game loop.	(IT/DL) To sign in to an online web builder. (DL) To discuss different forms of content and copyright. (DL) To understand how to find copyright-free images. (IT/DL) To add webpages and understand the menu system. (IT) To add images and text to the home page.	(CS) To design a target game that incorporates simple electronics and coding. (CS) To create the physical components of the target game using cardboard, paper, and foil. (IT) To plan and document their design process in a pupil journal.
Lesson 6			(CS) To independently use previous learning and create a simple program. (CS) To revisit computer science vocabulary used and record understanding. (IT) To export and save a digital document.	(CS) To create a variable in a program. (CS) To use an IF Statement in a program. (CS) To use a Forever Loop in a program.	(CS) To create and manipulate game variables. (CS) To use repeat commands and IF/Then statements (CS) To be able to add finishing touches to their game, such as sound effects and music. (DL/CS) To be able to share their game with others.	(IT) To add various forms of content to web pages. (CS/IT) To review and change elements of a webpage to create a better user experience. (CS/IT) To evaluate your webpage. (IT) To review the previous vocabulary	(CS) To write a program that interacts with the target game interface (including a variable and boolean logic). (CS) To test and debug the target game code to ensure it works correctly. (CS, IT) To document the coding process and reflect on their learning in a pupil journal.