



Aintree Davenhill Planning Overview

Subject: Computing **Term:** Spring 1

	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Topic	Nursery Rhyme Coding (CS) Shape Hunt (Byte Size & Fun)	What is a Computer? (CS)	Making Games (CS)	Dancing Robot (CS)	Inventors & Designers (CS)	Lost in Space (CS)	Chicken Run – Crossy Roads (CS)
Lesson 1	Nursery Rhyme Coding (CS) Sequence events in a story and explain the importance of sequencing. (CS) Move objects on a screen to sequence events in a story. (IT) Save / Share work.	(IT/DL) To understand what a computer is and how it can be used. (CS/IT) To sort objects based on their properties. (IT) To add a photograph and text to a document.	(IT / CS) To understand, it is someone's job to create games, and it takes a team of people to make an app or game. (IT) To open an online game, play and discuss the various elements that make a game. (IT) To use a keyboard to type text and apply formatting. (IT) To use digital drawing tools.	(IT) To photograph, upload and animate a drawing. (IT) To improve the quality and presentation of their work by using text editing and formatting techniques. (CS) Understand that games, apps and software are created by writing programs and that coding is the act of writing those instructions to create programs.	(IT) To understand the skills required to design a new product. (IT) To brainstorm and use a digital drawing application to create concept artwork. (IT) To add images, text and audio to a digital document and present and idea. (IT) To use a rubric to evaluate a product.	(CS) To decompose a problem and sequence the steps required to solve it. (CS) To write a flowchart algorithm to create a program.	(IT) To independently locate, open and edit a digital journal. (CS) To use decomposition to identify various elements of a game. (CS) To use programming knowledge to produce a plan for game design. (DL) To create an online account.
Lesson 2	Nursery Rhyme Coding (CS) Sequence instructions to create an algorithm. (CS/IT) Move objects on a screen to sequence events in a story.	(CS) To understand that an app or computer game is called a program. (DL) To open and navigate a website. (DL) To use a search engine to find and save an image. (IT) To insert an image, text and audio into a document.	(CS) To open and use Scratch Jr (adding text and a background). (CS) To create a sequence of command blocks. (CS) To understand that a sequence of command blocks is called a program. (IT) To add a screenshot of their work to the journal.	(CS) To understand there are different types of commands used in programs. (CS) To know that a flow chart is a way of writing instructions (algorithms). (CS) To debug a simple flow chart. (CS) To use logical reasoning to predict what commands could be to achieve a desired effect.	(DL) To sign in to an online account. (IT) To use a 3D application and tools to create a key ring. (IT) To master basic 3D digital skills.	(CS) To use the internet to research and develop a set of questions and answers. (DL) To create a strong password and safe username for an online application.	(IT) To create a series of game graphics. (IT) To save work in a suitable digital format.
Lesson 3	Nursery Rhyme Coding (CS) Learn to follow an algorithm. (IT) Open an application and create a digital drawing. Use various drawing (IT) tools.	(IT) To find and open an app. (CS) To use logical reasoning to predict the outcome of actions/instructions. (CS) To debug instructions if required. (CS) To create a simple program.	(CS) To use logical reasoning and predict the outcome of programs. (CS) To create a simple program. (IT) To create a screenshot/screen recording.	(CS) To give a series of directional commands to create a program within a game. (CS) To identify bugs (errors) in programs and predict outcomes. (CS) To know that debugging means fixing errors.	(CS) To use decomposition skills to break a task/problem into smaller, more manageable tasks. (IT) To create a 3D model based on a 2D sketch. (IT) To share screenshots/screen recordings of 3D models.	(CS) To independently sign in to an online account. (CS) To choose sprites from the Scratch graphic library. (CS) To use an output program block. (CS) To set up a variable.	(DL) To sign in to an online account. (DL) Sign in and out of an online account and understand why this is important. (CS) To upload images and change the properties of a sprite in Scratch. (CS) To use the broadcast command to create buttons. (CS) To understand that games use X and Y coordinates.
Lesson 4	Nursery Rhyme Coding (CS) Learn to follow an algorithm. (CS) Experiment with controlling a range of 'toys' using remote controls and do this with purpose and direction. (CS) Give instructions to a programmable toy/robot.	(IT) To find and open an app. (CS) To use logical reasoning to predict the outcome of actions/instructions. (CS) To debug instructions if required. (CS) To create a simple program.	(CS) To understand algorithms means written instructions to solve a problem or complete a task. (CS) To turn an algorithm into a program using Scratch Jr. (CS) To write a simple algorithm and turn it into a program using Scratch Jr.	(CS) To know that a repeat command/loop is a sequence of instructions executed repeatedly. (CS) To be able to read an algorithm and turn it into a program. (CS) To turn a program into a series of instructions (written algorithm).	(CS) To discuss inputs and outputs on digital devices. (CS) To create a simple circuit with an input and an output. (CS) To create algorithms for completing a task.	(DL) To sign into an online account. (CS) To understand how a conditional statement can be used in a program. (CS) To change the value of a variable.	(CS) To use loops forever and if statements to detect collisions within a game. (CS) To debug a program.
Lesson 5	Nursery Rhyme Coding (CS) Use logical reasoning to predict the outcome of actions/instructions. (CS) Give instructions to a programmable toy to reach a destination.	(CS) To use logical reasoning to predict the outcome of actions/instructions. (CS) To debug instructions if required. (CS) To create a simple program with repeat blocks. (CS) To create a sprite (character).	(CS) To understand the term program means instructions written in a way a computer can understand. (CS) To create simple programs. (CS) To turn a program into a written algorithm.	(IT/CS) To use drawing tools and create a sprite in Scratch Jr. (CS) To use logical reasoning to try and re-create a program. (IT) To take screenshots of their work and share them.	(CS) To label the parts of a Micro:bit. (CS) To connect a Micro:Bit to a device. (CS) To create a Micro:Bit program and test with the simulator.	(DL) To sign into an online account. (CS) To debug a broken program. (CS) To independently add conditional statements and change a variable.	(CS) To know that a variable is used to store values in a program. (CS) To create a variable in a game. (CS) To add to and take away from a variable.
Lesson 6	Shape Hunt (Byte Size & Fun) (IT) To use digital devices safely in the classroom. (IT) To independently take photos. (IT) To independently choose an application for a particular purpose. E.g. use a camera to take photographs of appropriate objects. (IT) To move images on a screen and sort objects based on their properties.	(CS) To create a simple algorithm. (CS) To create a program based on an algorithm. (CS) To test and debug a program.	(CS) To understand the term bug is an error in an algorithm or program. (CS) To understand the term debugging is the process of fixing an error. (CS) To plan and create a simple program independently.	(CS) To create an input in a program (clickable button). (CS) To use send and receive commands within a program. (IT) To screenshot or screen record on a device and upload to a document.	(CS) To explain that the micro:bit is a tiny computer. (CS) To explain that computers need to be given sets of instructions (an algorithm) in the form of a program. (CS) To give the micro:bit instructions in code to make a name badge using the LED display output. (IT) To design and create a housing (holder) for the name badge.	(CS) To independently add improvements to a program. (CS) To program a programmable robot.	(CS) To independently plan improvements to a game program. (IT) To independently create graphics. (CS) To independently create programs. (IT) To share a screen recording or screenshots of the final game program.



Aintree Davenport Planning Overview

Subject: Computing **Term:** Spring 2

	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Topic	Technology and Me (DL) Beats & Rhythms (Byte Size & Fun)	Modern Tales (DL)	Introducing AI (DL)	Online Detectives (DL)	Fake or Real (DL)	You Tuber (DL)	Online Safety Dilemmas (DL)
Lesson 1	Technology & Me (DL) To look at examples of technology and think about how they can help us (DL) To understand the term 'digital technology.' (DL) To discuss using technology safely (IT/MS) To take photographs	(DL) To understand the term digital device and where they are used (DL) To understand that digital devices and apps can use the internet (online) (IT) To sort digital and non-digital items (DL) Do understand that technology can make us can sometimes make us unhappy and even sad	((DL/IT/CS) To understand the basic concept of AI. (DL) To identify examples of AI in the real world. (DL) To interact with an AI tool.	(DL) To use an online tool to create an avatar. (DL) To understand why it is essential to protect your identity online. (DL) To use a search engine for fact-checking.	(DL) To understand the concept of "fake news" and misleading information. (DL) To identify sources of information and question their reliability. (DL) To reflect on the importance of verifying online content and recognising trustworthy sources. (DL) To understand the importance of consulting trusted adults when in doubt about online content.	(DL) To explain what YouTube is. (DL) To explain what vlogging is. (DL) To understand the Online Safety Settings for Children Using YouTube.	(DL) To explore the terminology and vocabulary of online life. (DL) To use either advanced searching or an AI chat bot to research. (IT/DL) To create an interactive game based on online safety vocabulary.
Lesson 2	Technology & Me (IT) To discuss "What is a computer?" (Digital device) (IT) To explore what computers can do (IT/MS) To experience logging on to a computer and opening an app/application (IT) To move and sort items on a digital device	(DL/IT) To open a browser (DL) To use a search engine to find and save images (IT) To insert images into a document (DL) To understand that apps and games have age restrictions.	(DL/IT) To identify various applications of AI. (DL) To understand how AI impacts everyday activities. (DL) To use an AI tool for a practical activity.	(DL) To understand what a browser is and how they are used. (DL) To understand the three main inputs for a search engine. (DL) To use a reverse image search.	(DL) To identify various types of fake news and false information encountered online. (DL) To analyse and evaluate the visual features of news websites to identify potential indicators of fake news. (DL) To apply strategies, such as "Stop, Think, Check," to evaluate information and make informed choices about identifying fake news. (DL) I can evaluate information presented to me to make informed choices about what is Fake News.	(DL) To discuss the mechanics of YouTube. (DL) To understand the term influencer. (DL) To understand online advertising.	(DL) To explain how we communicate around the world and how communication has changed (DL) To understand why communication apps have age ratings. (DL) To explain the benefits and risks of online communication apps.
Lesson 3	Technology & Me (IT) To discuss how we can communicate with computers. (DL) To discuss the rules to keep us safe. Based on Digiduck's Big Decision story book. (IT) To discuss how we use digital devices at home. (IT) To use digital drawing tools.	(DL) To understand that not everyone online always tells the truth (DL) To give examples of personal information (DL) To explain whom we can trust and whom we can ask for can help	(DL/CS) To understand how AI recognises patterns and objects. (DL/CS) To learn about image recognition. (DL/IT) To use an AI tool to draw and interact.	(DL) To understand the term 'digital footprint'. (DL) To use a search engine and enter keywords. (DL/IT) To save an image from the internet and insert it into a document. (DL) To perform a reverse image search using Google Lens.	(DL) To utilise search engines effectively for fact-checking and verifying online information. (DL) To critically evaluate the credibility of online sources and information by cross-referencing and comparing information from multiple sources. (DL) I can use a search engine and I am aware that not everything I read online is correct.	(DL) To discuss online bullying and its various forms. (DL) To identify how to report online bullying. (IT) To create a still or animated digital logo.	(DL) To identify real or fake images online and explain the benefits and risks of AI being used on social media. (DL) To consider their own personal social media habits (oversharing). (DL) To explain personal information and the importance of keeping it safe.
Lesson 4	Technology & Me (IT/MS) To log on to a computer and open an app/application (DL) To use a search engine (Google).	(IT) To understand the term animation (IT) To use a digital device to take photographs (IT) To create and save a simple stop-frame animation	((DL/CS) To experience how AI can generate and respond to speech. (DL) To explore AI's language capabilities. (DL/IT) To interact with an AI tool that produces sound.	(DL) To improve online searches and use of keywords. (DL) To search for images and apply advanced filters. (DL) To understand why some images have copyright protection.	((DL) To define and identify clickbait techniques used in online media, including news websites and YouTube. (DL) To analyse and deconstruct clickbait headlines and thumbnails, identifying persuasive language, emotional triggers, and manipulative strategies. (DL) To create original clickbait headlines, demonstrating an understanding of the techniques and strategies used in creating compelling clickbait content. (IT) I can improve the quality and presentation of my work using editing and formatting techniques.	(DL) To understand the term 'fake news' and 'misinformation.' (DL) To understand the importance of fact-checking. (DL) To understand methods of analysing AI images. (IT) To create a script for a YouTube-style video.	(DL) To understand the different age ratings on games and other media. (DL) To understand the reasons for age ratings on games and other media (DL) To know what to do if they should experience something not designed for their age range.

Lesson 5	Beats & Rhythms (IT/MS) Learn to open and close apps. (IT/MS) Plug in headphones and control the volume on a device. (IT) Explore making sounds and music using a digital device. (IT/MS) Use a digital device safely and respectfully.	(IT/DL) To create a simple script for an animation (IT) To set up a digital device ready to photograph still frame animation (IT) To record audio on a digital device	(DL/IT) To discover how AI can create art and other creative works. (DL/IT) To learn about AI's role in the creative process. (DL/IT) To use an AI tool to create something unique.	(DL) To independently choose keywords to conduct internet searches. (DL) To independently conduct a reverse image search. (IT) To use a microphone and record audio clips.	DL) To understand clickbait's potential dangers and risks, including viruses, malware, exposure to inappropriate content, and scams. (DL) To identify and analyse the use of persuasive and emotive language, bold opinions, and made-up facts in clickbait articles. (DL) To compose a persuasive article using clickbait techniques, demonstrating an understanding of emotive language, exaggerated claims, and attention-grabbing strategies. (IT) I can create with technology. E.g. Video, animation, 3D	(DL) To explain short-form video. (DL) To explain social media and age requirements. (DL) To explain what to do if they encounter inappropriate content online. (IT) To create a storyboard.	(DL) To explain what fake news is and why people share it. (DL) To identify the features of fake news and how to spot it. (DL) To understand the dangers of sharing fake news and how to combat it.
Lesson 6	Beats & Rhythms (CS) Sequence events in a repeating dance routine / explain the importance of sequencing. (CS) Move objects on a screen to sequence events. (MS) Record a short video clip.	(IT/DL) To create a simple script for an animation (IT) To set up a digital device ready to photograph still frame animation (IT) To record audio on a digital device	(DL/CS) To understand how AI can be used to solve problems. (DL/CS) To understand the basics of machine learning. (DL/CS) To learn about different types of problems AI can solve. (DL) To use an AI tool to complete a problem-solving activity.	(DL) To conduct independent internet research. (DL) To gather text and images (copyright-free) from the web. (IT) To create a one-page slide and present facts and research creatively.	(DL) To define artificial intelligence (AI) and its role in generating realistic images and videos. (DL) To analyse and evaluate the authenticity of online images and videos, considering the potential for AI-generated content. (DL) To use search engines and fact-checking resources to verify the accuracy of information presented in online images and videos. (DL) I understand the impact technology can have on my health, well-being and lifestyle. (Health well being)	(DL/IT) To create a YouTube-style video based on a script and storyboard. (IT) To add audio/music to a video clip. (IT) To share the digital video with another application.	(DL) To address online dilemmas responsibly and maturely. (IT) To film high-quality shots. (IT) To edit my film shots to make my film look more professional.