Y3/4			Cycle B		
Autumn 1	Spring 1	Summer 1	Autumn 1	Spring 1	Summer1
Connecting systems and networks **Connecting Computers (3)**	**Programming** **Sequencing Sounds (3)**	**Creating Media** **Audio Production (4)**	**Connecting systems and networks** **The internet (4)**	**Programming** **Repetition in Shapes (4)**	**Creating Media** **Photo editing (4)**
What devices have inputs, processes, and outputs? Identifying that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks **(Painting program)**	**How can we use programming language to make music?** Creating sequences in a block-based programming language to make music **(Scratch)**	**How can we capture and edit audio produce a podcast?** Capturing and editing audio to produce a podcast, ensuring that copyright is considered. **(Laptops-audacity)**	**What is the internet and why should we evaluate content?** Recognising the internet as a network of networks including the WWW, and why we should evaluate online content. **(Various websites)**	**How can we use programming language for controlled loops when drawing shapes?** Using a text-based programming language to explore count-controlled loops when drawing shapes. **(FMSLogo/Turtle academy)**	**How can we manipulate images to fulfil a purpose?** Manipulating digital images and reflecting on the impact of changes and whether the required purpose is fulfilled. **(Laptops-Paint.NET)**
1.I can explain how digital devices function 2.I can identify input and output devices 3.I can recognise how digital devices can change the way we work 4.I can explain how a computer network can be used to share information 5.I can explore how digital devices can be connected 6.I can recognise the physical components of a network	1.I can explain that animation is a sequence of drawings or photographs 2.I can relate animated movement with a sequence of images 3.I can plan an animation 4.I can identify the need to work consistently and carefully 5.I can review and improve an animation 6.I can evaluate the impact of adding other media to an animation	1.I can identify that sound can be digitally recorded 2.I can use a digital device to record sound 3.I can explain that a digital recording is stored as a file 4.I can explain that audio can be changed through editing 5.I can show that different types of audio can be combined and played together 6.I can evaluate editing choices made	1.I can describe how networks physically connect to other networks 2.I can recognise how networked devices make up the internet 3.I can outline how websites can be shared via the World Wide Web (WWW) 4.I can describe how content can be added and accessed on the World Wide Web (WWW) 5.I can recognise how the content of the WWW is created by people	1.I can identify that accuracy in programming is important 2.I can create a program in a text based language 3.I can explain what 'repeat' means 4.I can modify a count-controlled loop to produce a given outcome 5.I can decompose a task into small steps 6.I can create a program that uses count-controlled loops to produce a given outcome	1.I can explain that digital images can be changed 2.I can change the composition of an image 3.I can describe how images can be changed for different uses 4.I can make good choices when selecting different tools 5.I can recognise that not all images are real. 6.I can evaluate how changes can improve an image

			6.I can evaluate the consequences of unreliable content		
Digital device, input, process output, Program, digital, nondigital, Connection, network, network switch, Server, wireless, access point, Network cables, network sockets	Stop–frame, animation, frame sequence, image, photograph, Setting, character, events, stopframe, onion skinning, consistency, Evaluation, delete frame, media, import transition	Audio, microphone, speaker, headphones, input device, output device, sound, podcast, edit, trim, align, layer, import, record, playback, edit, selection, load, import, save, export, MP3	Information technology (IT) computer, Network switch, server, wireless access point (WAP), router, Website, web page, web address, routing, web browser, World Wide Web, internet, content, links, files, content, download, sharing, ownership, permission, Information, sharing, accurate, honest, content, adverts	Program, Turtle, arrow, Commands, code snippet, Algorithm, Design, Debug, pattern, repeat, repetition, count-controlled loop, algorithm, value, Repeat, repetition, count controlled loop, trace, value, Decompose, Procedure	Image, edit, digital, crop, rotate, undo, save, adjustments, effects, colours, hue, saturation, sepia, vignette, retouch, clone, select, copy, paste, combine, made up, real, composite, cut, copy, paste, alter, background, foreground, Rotate, crop, zoom, clone, select, copy, paste, undo, font
Natterhub E-Safety focus

Year 4

Feel It: Lesson 1

To identify some online technologies where bullying might take place.

Balance It: Lesson 1

To consider how time spent on technology can affect other activities.

Chat It: Lesson 1

To know how to communicate what I am doing online and explain why I have chosen to do so.

Question It: Lesson 1 | Natterhub E-Safety focus

Year 4

Think It: Lesson 1

To understand how online and offline identities are different

Mind It: Lesson 1

To describe how others can find out information about me by looking online.

Secure It: Lesson 2

To understand how personal information can be used by others.

Learn It: Lesson 1

We use technology to help us in different ways. | Natterhub E-Safety focus

Year 4

Feel It: Lesson 3

To understand the effect an online post can have.

Chat It: Lesson 2

To know how to create a safe screen name.

Question It: Lesson 2

To understand that not all information online is factual.

Balance It: Lesson 2

To understand the importance of sleep for our physical and mental health. | Natterhub E-Safety focus

Year 3

Feel it – Lesson 1

To explore cyberbullying and describe how our actions online affect others.

Balance – Lesson 1

To identify and consider why a balance is needed when using screens.

Chat it – Lesson 1

To understand the risks associated with meeting and talking to people that I don't know.

Question it – Lesson 2

To understand that the internet can be used to buy and sell things. | Natterhub E-safety focus

Year 3

Think it – Lesson 1

To identify and describe safe online sharing through the exploration of real-life and online identities.

Mind it – Lesson 1

To understand that information about people is stored online.

Secure it – Lesson 1

To understand what information to safely share with trusted people.

Learn it – Lesson 1

To understand that other people's work belongs to them. | Natterhub E-safety focus

Year 3

Feel it – Lesson 2

To recognise different situations that are bullying.

Question it – Lesson 3

To explain the difference between a belief, an opinion and a fact.

Think it – Lesson 3

To identify strategies to help solve problems.

Chat it – Lesson 3

To know what to do when we feel uncomfortable or upset by familiar or unfamiliar people. |

To understand the differences between opinions, beliefs and facts.					
Autumn 2	**Spring 2**	**Summer 2**	**Autumn 2**	**Spring 2**	**Summer 2**
Creating Media **Desktop Publishing (3)** **How can we create documents for a specific purpose?** Creating documents by modifying text, images, and page layouts for a specified purpose. **(Canva.com)**	**Data and information** **Data logging (4)**	**Programming** **Events and actions in programs (3)**	**Creating Media** **Stop frame animation (3)** **How can we use images to produce an animation?**	**Data and information** **Branching databases (3)**	**Programming** **Repetition in games (4)**
How can we create documents for a specific purpose? Creating documents by modifying text, images, and page layouts for a specified purpose. **(Canva.com)**	**How can we collect data over time and why is it useful?** Recognising how and why data is collected over time, before using data loggers to carry out an investigation. **(Data logger or similar)**	**How can we write programs for a sequence of actions?** Writing algorithms and programs that use a range of events to trigger sequences of actions. **(Scratch)**	Capturing and editing digital still images to produce a stop-frame animation that tells a story. **(iMotion)**	**How can we use a branching database to group objects?** Building and using branching databases to group objects using yes/no questions. **(j2data Branch and Pictogram)**	**How can we create infinite loops using block-based programming language?** Using a block-based programming language to explore count-controlled and infinite loops when creating a game. **(Scratch)**
1.I can explain how a sprite moves in an existing project 2.I can create a program to move a sprite in four directions 3. I can adapt a program to a new context 4.I can develop my program by adding features	1.I can explain that data gathered over time can be used to answer questions 2.I can use a digital device to collect data automatically 3.I can explain that a data logger collects 'data points' from sensors over time	1.I can explain how a sprite moves in an existing project 2.I can create a program to move a sprite in four directions 3.I can adapt a program to a new context 4.I can develop my program by adding features	1. I can explain that animation is a sequence of drawings or photographs 2.I can relate animated movement with a sequence of images 3. can plan an animation 4. I can identify the need to work consistently and carefully	1. I can create questions with yes/no answers 2.I can identify the object attributes needed to collect relevant data 3.I can create a branching database 4.I can explain why it is helpful for a database to be well structured 5.I can identify objects using a branching database	1.I can develop the use of countcontrolled loops in a different programming environment 2.I can explain that in programming there are infinite loops and count controlled loops 3.I can develop a design that includes two or more loops which run at the same time

5.I can identify and fix bugs in a program 6.I can design and create a maze-based challenge	4.I can use data collected over a long duration to find information 5.I can identify the data needed to answer questions 6.I can use collected data to answer questions	5.I can identify and fix bugs in a program 6.I can design and create a maze-based challenge	5.I can review and improve an animation 6.I can evaluate the impact of adding other media to an animation	6.I can compare the information shown in a pictogram with a branching database	4.I can modify an infinite loop in a given program - I can design a project that includes repetition 5.I can create a project that includes repetition
Motion, event, sprite, algorithm, logic, Move, resize, algorithm, Extension block, pen up, set up, Pen, design, event, action, algorithm, Debugging, errors, setup, Design, code, setup, test	Data, table, layout, Input device, sensor, data logger, logging, data point, interval, Analyse, data set, import, export, collection, Analyse, review, conclusion	Motion, event, sprite, algorithm, logic, Move, resize, algorithm, Extension block, pen up, set up, Pen, design, event, action, algorithm, Debugging, errors, setup, Design, code, setup, test	Stop–frame, animation, frame sequence, image, photograph, Setting, character, events, stopframe, onion skinning, consistency, Evaluation, delete frame, media, import transition	Attribute, value, questions, table, objects, branching database, database value, questions, objects, equal, even, seperate, attribute, question, structure, compare, organise, order, decision tree	Scratch, programming, sprite, blocks, code, loop, repeat, value, forever, infinite loop, count-controlled loop, costume, Repetition, animate, costume, event block, duplicate, modify, design, design, algorithm, debug, refine, evaluate