Phase	Cycle	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS		Computing isn't in the EYFS curriculum Teachers to go by a needs met approach, using technology where it fits in with their current areas of learning.					
KS1	**A**	**Connecting systems and networks** **Technology around us (Y1)** **What technology do we find in school and how do we use it responsibly?** Recognising technology in school and using it responsibly **(Paintz.app)**	**Creating Media** **Digital painting (Y1)** **How can we create art digitally and how does it compare with non-digital art?** Choosing appropriate tools in a program to create art and making comparisons with working non-digitally. **(Microsoft Paint or similar)**	**Creating Media** **Digital Photography (2)** **How can you change photographs for different purposes** Capturing and changing digital photographs for different purposes **(iPads and pixlr.com)**	**Data and information** **Grouping Data (1)** **How can we sort and group objects?** Exploring object labels, then using them to sort and group objects by properties	**Programming** **Moving a robot (1)** **How can we write an algorithm to make a floor robot move?** Creating and debugging programs and using logical reasoning to make predictions. **(Bee-bot, Blue-bot)**	**Programming** **Robot algorithms (2)** **How can we create and debug programs?** Creating and debugging programs and using logical reasoning to make predictions. **(Bee-bot, Blue-bot)**
KS1	**B**	**Connecting systems and networks** **Technology around us (2)** **How can IT improve our world in school and beyond?** Information technology around us Identifying IT and how its responsible use improves our world in school and beyond. **(PowerPoint)**	**Creating Media** **Digital writing (1)** **How can we use a computer to create text and how is this different from non-digital text?** Using a computer to create and format text, before comparing to writing non-digitally. **(Microsoft Word)**	**Creating Media** **Digital music (2)** **How can we use a computer to explore rhythms and melodies?** Using a computer as a tool to explore rhythms and melodies, before creating a musical composition. **(Chrome Music Lab)**	**Data and information** **Pictograms (2)** **How can we collect and organize data on a computer?** Collecting data in tally charts and using attributes to organise and present data on a computer. **(j2data pictogram)**	**Programming** **Introduction to animations (1)** **How can we program a character to tell a story?** Designing and programming the movement of a character on screen to tell stories. **(Laptops - Scratch Jnr)**	**Programming** **Programming quizzes (2)** **How can we design a program to create an interactive quiz?** Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz. **(Laptops – Scratch Jnr)**
LKS2	**A**	**Connecting systems and networks** **Connecting Computers (3)** **What devices have inputs, processes, and outputs?** Identifying that digital devices have inputs, processes, and outputs, and how	**Creating Media** **Desktop Publishing (3)** **How can we create documents for a specific purpose?**	**Programming** **Sequencing Sounds (3)** **How can we use programming language to make music?**	**Data and information** **Data logging (4)** **How can we collect data over time and why is it useful?** Recognising how and why data is collected over time, before using	**Creating Media** **Audio Production (4)** **How can we capture and edit audio produce a podcast?**	**Programming** **Events and actions in programs (3)** **How can we write programs for a sequence of actions?**

		devices can be connected to make networks **(Painting program)**	Creating documents by modifying text, images, and page layouts for a specified purpose. **(Canva.com)**	Creating sequences in a block-based programming language to make music **(Scratch)**	data loggers to carry out an investigation. **(Data logger or similar)**	Capturing and editing audio to produce a podcast, ensuring that copyright is considered. **(Laptops-audacity)**	Writing algorithms and programs that use a range of events to trigger sequences of actions. **(Scratch)**
LKS2	**B**	**Connecting systems and networks** **The internet (4)** **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)**	**Creating Media** **Stop frame animation (3)** **How can we use images to produce an animation?** Capturing and editing digital still images to produce a stop-frame animation that tells a story. **(iMotion)**	**Programming** **Repetition in Shapes (4)** **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)**	**Data and information** **Branching databases (3)** **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)**	**Creating Media** **Photo editing (4)** **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)**	**Programming** **Repetition in games (4)** **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)**
UKS2	**A**	**Connecting systems and networks** **Systems and searching (5)** **What IT systems are around the world and how do they help us search the internet?** Recognising IT systems in the world and how some can enable searching on the internet. **(PowerPoint)**	**Programming** **Selection in physical computing (5)** **How can we program a microcontroller?** Exploring conditions and selection using a programmable microcontroller. **(Crumble controller)**	**Creating Media** **3D modelling (6)** **How can we develop a 3D computer model of a physical object?** Planning, developing, and evaluating 3D computer models of physical objects. **(Tinkercad)**	**Data and information** **Flat file databases (5)** **How can we use a database to answer questions?** Using a database to order data and create charts to answer questions. **(j2data Database)**	**Creating Media** **Introduction to vector graphics (5)** **How can use layers to create digital images?** Creating images in a drawing program by using layers and groups of objects. **(Google Drawings/Publisher)**	**Programming** **Selection in quizzes (5)** **How can we design and code an interactive quiz?** Exploring selection in programming to design and code an interactive quiz. **(Scratch)**
UKS2	**B**	**Connecting systems and networks** **Communication and collaboration (6)** **How is data transferred to allow us to work collaboratively?** Exploring how data is transferred by working collaboratively online.	**Creating Media** **Website creation (6)** **How can we design and create a webpage?** Designing and creating webpages, giving consideration to copyright, aesthetics, and navigation.	**Programming** **Variables in Games (6)** **How can we create variables to code a game?** Exploring variables when designing and coding a game.	**Programming** **Sensing Movement (6)** **How can we code a project that uses inputs from a physical device?**	**Data and information** **Introduction to spreadsheets (6)** **How can we use a spreadsheet to organise and calculate data?** Answering questions by using spreadsheets to organise and calculate data.	**Creating Media** **Video Production (5)** **How can we produce a short film?** Planning, capturing, and editing video to produce a short film.

		(PowerPoint)	**(Google sites)**	**(Scratch)**	Designing and coding a project that captures inputs from a physical device **(microbits)**	**(Excel)**	**(Microsoft Photos)**

Sequence of Lessons:

Phase	**Cycle**	**Autumn 1**	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
EYFS		Computing isn't in the EYFS curriculum Teachers to go by a needs met approach, using technology where it fits in with their current areas of learning.					

KS1	A	Connecting systems and networks	Creating Media	Creating Media	Data and information	Programming Block A	Programming Block B
		Technology around us (Y1)	**Digital painting (Y1)**	**Digital Photography (2)**	**Grouping Data (1)**	**Moving a robot (1)**	**Robot algorithms (2)**
		What technology do we find in school and how do we use it responsibly?	**How can we create art digitally and how does it compare with non-digital art?**	**How can you change photographs for different purposes**	**How can we sort and group objects?**	**How can we write an algorithm to make a floor robot move?**	**How can we create and debug programs?**
		Recognising technology in school and using it responsibly (Paintz.app)	Choosing appropriate tools in a program to create art and making comparisons with working non-digitally. (Microsoft Paint or similar)	Capturing and changing digital photographs for different purposes iPads and pixlr.com	Exploring object labels, then using them to sort and group objects by properties	Creating and debugging programs and using logical reasoning to make predictions. (Bee-bot, Blue-bot)	Creating and debugging programs and using logical reasoning to make predictions. (Bee-bot, Blue-bot)
		Sequence of learning 1. To identify technology 2. To identify a computer and its main parts 3. To use a mouse in different ways 4. To use a keyboard to type on a computer 5. To use the keyboard to edit text 6. To create rules for using technology responsibly	**Sequence of learning** 1. To describe what different freehand tools do 2. To use the shape tool and the line tools 3. To make careful choices when painting a digital picture 4. To explain why I chose the tools I used 5. To use a computer on my own to paint a picture 6. To compare painting a picture on a computer and on paper	**Sequence of learning** 1. To use a digital device to take a photograph 2. To make choices when taking a photograph 3. To describe what makes a good photograph 4. To decide how photographs can be improved 5. To use tools to change an image 6. To recognise that photos can be changed	**Sequence of learning** 1. To label objects 2. To identify that objects can be counted 3. To describe objects in different ways 4. To count objects with the same properties 5. To compare groups of objects 6. To answer questions about groups of objects	**Sequence of learning** 1. To explain what a given command will do 2. To act out a given word 3. To combine forwards and backwards commands to make a sequence 4. To combine four direction commands to make sequences 5. To plan a simple program 6. To find more than one solution to a problem	**Sequence of learning** 1. To design an algorithm 2. To create and debug a program that I have written 3. To describe a series of instructions as a sequence 4. To explain what happens when we change the order of instructions 5. To use logical reasoning to predict the outcome of a program 6. To explain that programming projects can have code and artwork
		Vocabulary technology, computer, mouse, trackpad,	**Vocabulary** paint program, tool, paintbrush, erase, fill, undo, shape tools, line tool, fill tool, undo tool, colour, brush style, brush size, pictures, painting, computers	**Vocabulary** paint program, tool, paintbrush, erase, fill, undo, shape tools, line tool, fill tool, undo tool, colour, brush style, brush size, pictures, painting, computers	**Vocabulary** object, label, group, search, image, property, colour, size, shape, value, data set, more, less, most, fewest, least, the same	**Vocabulary** Bee-Bot, forwards, backwards, turn, clear, go, commands, instructions, directions, left, right, route, plan, algorithm, program.	**Vocabulary** ScratchJr, command, sprite, compare, programming, area, block, joining, start, run, program, background, delete, reset, algorithm, predict, effect, change, value, instructions, design.

		keyboard, screen, double-click, typing.					

KS1B		**Connecting systems and networks** **Technology around us (2)** **How can IT improve our world in school and beyond?** Information technology around us Identifying IT and how its responsible use improves our world in school and beyond. (PowerPoint) **Sequence of learning** 1. To recognise the uses and features of information technology 2. To identify the uses of information technology in the school 3. To identify information technology beyond school	**Creating Media** **Digital writing (1)** **How can we use a computer to create text and how is this different from non-digital text?** Using a computer to create and format text, before comparing to writing non-digitally. (Microsoft Word) **Sequence of learning** 1. To use a computer to write 2. To add and remove text on a computer 3. To identify that the look of text can be changed on a computer 4. To make careful choices when changing text 5. To explain why I used the tools that I chose	**Creating Media** **Digital music (2)** **How can we use a computer to explore rhythms and melodies?** Using a computer as a tool to explore rhythms and melodies, before creating a musical composition. (Chrome Music Lab) **Sequence of learning** 1. To say how music can make us feel 2. To identify that there are patterns in music 3. To experiment with sound using a computer 4. To use a computer to create a musical pattern 5. To create music for a purpose	**Data and information** **Pictograms (2)** **How can we collect and organize data on a computer?** Collecting data in tally charts and using attributes to organise and present data on a computer. (j2data pictogram) **Sequence of learning** 1. To recognise that we can count and compare objects using tally charts 2. To recognise that objects can be represented as pictures 3. To create a pictogram 4. To select objects by attribute and make comparisons 5. To recognise that people can be described by attributes 6. To explain that we can present information using a computer	**Programming Block B** **Introduction to animations (1)** **How can we program a character to tell a story?** Designing and programming the movement of a character on screen to tell stories. (Laptops - Scratch Jnr) **Sequence of learning** 1. To choose a command for a given purpose 2. To show that a series of commands can be joined together 3. To identify the effect of changing a value 4. To explain that each sprite has its own instructions 5. To design the parts of a project	**Programming Block B** **Programming quizzes (2)** **How can we design a program to create an interactive quiz?** Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz. (Laptops – Scratch Jnr) **Sequence of learning** 1. To explain that a sequence of commands has a start 2. To explain that a sequence of commands has an outcome

		4. To explain how information technology helps us 5. To explain how to use information technology safely 6. To recognise that choices are made when using information technology **Vocabulary** Information technology (IT), computer, barcode, scanner/scan	6. To compare typing on a computer to writing on paper **Vocabulary** word processor, keyboard, keys, letters, type, numbers, space, backspace, text cursor, capital letters, toolbar, bold, italic, underline, mouse, select, font, undo, redo, format, compare, typing, writing.	6. To review and refine our computer work **Vocabulary** music, quiet, loud, feelings, emotions, pattern, rhythm, pulse, pitch, tempo, rhythm, notes, create, emotion, beat, instrument, open, edit.	**Vocabulary** more than, less than, most, least, common, popular, organise, data, object, tally chart, votes, total, pictogram, enter, data, compare, objects, count, explain, attribute, group, same, different, conclusion, block diagram, sharing	6. To use my algorithm to create a program **Vocabulary** instruction, sequence, clear, unambiguous, algorithm, program, order, prediction, artwork, design, route, mat, debugging, decomposition	3. To create a program using a given design 4. To change a given design 5. To create a program using my own design 6. To decide how my project can be improved **Vocabulary** sequence, command, program, run, start, outcome, predict, blocks, design, actions, sprite, project, modify, change, algorithm, build, match, compare, debug, features, evaluate, decomposition, code

LKS2A	**Connecting systems and networks** **Connecting Computers (3)** **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) **Sequence of learning** 1. To explain how digital devices function	**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) **Sequence of learning** 1. To recognise how text and images convey information	**Programming Block A** **Sequencing Sounds (3)** **How can we use programming language to make music?** Creating sequences in a block-based programming language to make music (Scratch) **Sequence of learning** 1. To explore a new programming environment	**Data and information** **Data logging (4)** **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) **Sequence of learning** 1. To explain that data gathered over time can be used to answer questions	**Creating Media** **Audio Production (4)** **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) **Sequence of learning** 1. To identify that sound can be recorded	**Programming Block B** **Events and actions in programs (3)** **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) **Sequence of learning**

		2. To identify input and output devices 3. To recognise how digital devices can change the way we work 4. To explain how a computer network can be used to share information 5. To explore how digital devices can be connected 6. To recognise the physical components of a network **Vocabulary** digital device, input, process, output, program, digital, non-digital, connection, network, switch, server, wireless access point, cables, sockets	2. To recognise that text and layout can be edited 3. To choose appropriate page settings 4. To add content to a desktop publishing publication 5. To consider how different layouts can suit different purposes 6. To consider the benefits of desktop publishing **Vocabulary** text, images, advantages, disadvantages, communicate, font, style, landscape, portrait, orientation, placeholder, template, layout, content, desktop publishing, copy, paste, purpose, benefits.	2. To identify that commands have an outcome 3. To explain that a program has a start 4. To recognise that a sequence of commands can have an order 5. To change the appearance of my project 6. To create a project from a task description **Vocabulary** Scratch, programming, blocks, commands, code, sprite, costume, stage, backdrop, motion, turn, point in direction, go to, glide, sequence, event, task, design, run the code, order, note, chord, algorithm, bug, debug, code.	2. To use a digital device to collect data automatically 3. To explain that a data logger collects 'data points' from sensors over time 4. To recognise how a computer can help us analyse data 5. To identify the data needed to answer questions 6. To use data from sensors to answer questions **Vocabulary** ata, table, layout, input device, sensor, logger, logging, data point, interval, analyse, dataset, import, export, logged, collection, review, conclusion.	2. To explain that audio recordings can be edited 3. To recognise the different parts of creating a podcast project 4. To apply audio editing skills independently 5. To combine audio to enhance my podcast project 6. To evaluate the effective use of audio **Vocabulary** audio, microphone, speaker, headphones, input device, output device, sound, podcast, edit, trim, align, layer, import, record, playback, selection, load, save, export, MP3, evaluate, feedback.	1. To explain how a sprite moves in an existing project 2. To create a program to move a sprite in four directions 3. To adapt a program to a new context 4. To develop my program by adding features 5. To identify and fix bugs in a program To design and create a maze-based challenge **Vocabulary** motion, event, sprite, algorithm, logic, move, resize, extension block, pen up, set up, pen, design, action, debugging, errors, setup, code, test, debug, actions.

UKS2B		**Connecting systems and networks**	**Creating Media**	**Programming**	**Programming**	**Data and information**	**Creating Media**

Communication and collaboration (6)

How is data transferred to allow us to work collaboratively?

Exploring how data is transferred by working collaboratively online.

(PowerPoint)

Sequence of learning

1. To explain the importance of internet addresses
2. To recognise how data is transferred across the internet
3. To explain how sharing information online can help people to work together
4. To evaluate different ways of working together online
5. To recognise how we communicate using technology
6. To evaluate different methods of online communication

Vocabulary

Communication, protocol,

data, address, Internet

Protocol (IP), Domain Name

Server (DNS), packet,

header, data payload, chat,

explore, slide deck, reuse,

remix, collaboration,

internet, public, private, oneway, two-way, one-to-one,

Website creation (6)

How can we design and create a webpage?

Designing and creating webpages, giving consideration to copyright, aesthetics, and navigation.

(Google sites)

Sequence of learning

1. To review an existing website and consider its structure
2. To plan the features of a web page
3. To consider the ownership and use of images (copyright)
4. To recognise the need to preview pages
5. To outline the need for a navigation path
6. To recognise the implications of linking to content owned by other people

Vocabulary

Ideo, audio, camera, talking

head, panning, close up,

video camera, microphone,

lens, mid-range, long shot,

moving subject, side by side,

angle (high, low, normal),

static, zoom, pan, tilt,

storyboard, filming, review,

Variables in Games (6)

How can we create variables to code a game?

Exploring variables when designing and coding a game.

(Scratch)

Sequence of learning

1. To define a 'variable' as something that is changeable
2. To explain why a variable is used in a program
3. To choose how to improve a game by using variables
4. To design a project that builds on a given example
5. To use my design to create a project
6. To evaluate my project

Vocabulary

variable, change, name,

value, set, design, event,

algorithm, code, task,

artwork, program, project,

code, test, debug, improve,

evaluate, share, assign,

declare

Sensing Movement (6)

How can we code a project that uses inputs from a physical device?

Designing and coding a project that captures inputs from a physical device

(microbits)

Sequence of learning

1. To create a program to run on a controllable device
2. To explain that selection can control the flow of a program
3. To update a variable with a user input
4. To use a conditional statement to compare a variable to a value
5. To design a project that uses inputs and outputs on a controllable device
6. To develop a program to use inputs and outputs on a controllable device

Vocabulary

micro:bit, MakeCode, input,

process, output, flashing,

USB, trace, selection,

condition, if then else,

variable, random, sensing,

accelerometer, value,

Introduction to spreadsheets (6)

How can we use a spreadsheet to organise and calculate data?

Answering questions by using spreadsheets to organise and calculate data.

(Excel)

Sequence of learning

1. To create a data set in a spreadsheet
2. To build a data set in a spreadsheet
3. To explain that formulas can be used to produce calculated data
4. To apply formulas to data
5. To create a spreadsheet to plan an event
6. To choose suitable ways to present data

Vocabulary

data, collecting, table,

structure, spreadsheet, cell,

cell reference, data item,

format, formula, calculation,

spreadsheet, input, output,

operation, range, duplicate,

sigma, propose, question,

data set, organised, chart,

Video Production (5)

How can we produce a short film?

Planning, capturing, and editing video to produce a short film.

(Microsoft Photos)

Sequence of learning

1. To explain what makes a video effective
2. To identify digital devices that can record video
3. To capture video using a range of techniques
4. To create a storyboard
5. To identify that video can be improved through reshooting and editing
6. To consider the impact of the choices made when making and sharing a video

Vocabulary

website, web page, browser,

media, Hypertext Markup

Language (HTML), logo,

layout, header, media,

purpose, copyright, fair use,

home page, preview,

evaluate, device, Google

		one-to-many. **Composite Outcome:**	import, split, trim, clip, edit, reshoot, delete, reorder, export, evaluate, share. **Composite Outcome:**	**Composite Outcome:** Space Game	compass, direction, navigation, design, task, algorithm, step counter, plan, create, code, test, debug. **Composite Outcome:** Light sensor	evaluate, results, sum, comparison, software, tools **Composite Outcome:** Travelling to America data	Sites, breadcrumb trail, navigation, hyperlink, subpage, evaluate, implication, external link, embed. **Composite Outcome:** Film about KS2 Show
UKS2A		**Connecting systems and networks** **Systems and searching (5)** **What IT systems are around the world and how do they help us search the internet?** Recognising IT systems in the world and how some can enable searching on the internet. (PowerPoint) **Sequence of learning** 1. To explain that computers can be connected together to form systems 2. To recognise the role of computer systems in our lives 3. To experiment with search engines 4. To describe how search engines select results 5. To explain how search results are ranked	**Programming 5A** **Selection in physical computing (5)** **How can we program a microcontroller?** Exploring conditions and selection using a programmable microcontroller. (Crumble controller) **Sequence of learning** 1. To control a simple circuit connected to a computer 2. To write a program that includes count-controlled loops 3. To explain that a loop can stop when a condition is met 4. To explain that a loop can be used to repeatedly check whether a condition has been met 5. To design a physical project that includes selection	**Creating Media** **3D modelling (6)** **How can we develop a 3D computer model of a physical object?** Planning, developing, and evaluating 3D computer models of physical objects. (Tinkercad) **Sequence of learning** 1. To recognise that you can work in three dimensions on a computer 2. To identify that digital 3D objects can be modified 3. To recognise that objects can be combined in a 3D model 4. To create a 3D model for a given purpose 5. To plan my own 3D model	**Data and information** **Flat file databases (5)** **How can we use a database to answer questions?** Using a database to order data and create charts to answer questions. (j2data Database) **Sequence of learning** 1. To use a form to record information 2. To compare paper and computer-based databases 3. To outline how you can answer questions by grouping and then sorting data 4. To explain that tools can be used to select specific data 5. To explain that computer programs can be used to compare data visually	**Creating Media** **Introduction to vector graphics (5)** **How can use layers to create digital images?** Creating images in a drawing program by using layers and groups of objects. (Google Drawings/Publisher) **Sequence of learning** 1. To identify that drawing tools can be used to produce different outcomes 2. To create a vector drawing by combining shapes 3. To use tools to achieve a desired effect 4. To recognise that vector drawings consist of layers 5. To group objects to make them easier to work with	**Programming 5B** **Selection in quizzes (5)** **How can we design and code an interactive quiz?** Exploring selection in programming to design and code an interactive quiz. (Scratch) **Sequence of learning** 1. To explain how selection is used in computer programs 2. To relate that a conditional statement connects a condition to an outcome 3. To explain how selection directs the flow of a program 4. To design a program which uses selection

		6. To recognise why the order of results is important, and to whom **Vocabulary** system, connection, digital, input, process, storage, output, search, search engine, refine, index, bot, ordering, links, algorithm, search engine optimisation (SEO), web crawler, content creator, selection, ranking.	6. To create a program that controls a physical computing project **Vocabulary** microcontroller, USB, components, connection, infinite loop, output component, motor, repetition, count-controlled loop, Crumble controller, switch, LED, Sparkle, crocodile clips, connect, battery box, program, condition, Input, output, selection, action, debug **Composite Outcome:**Countdown timer	6. To create my own digital 3D model **Vocabulary** inkerCAD, 2D, 3D, shapes, select, move, perspective, view, handles, resize, lift, lower, recolour, rotate, duplicate, group, cylinder, cube, cuboid, sphere, cone, prism, pyramid, placeholder, hollow, choose, combine, construct, evaluate, modify **Composite Outcome:** DT monitoring device	6. To use a real-world database to answer questions **Vocabulary** atabase, data, information, record, field, sort, order, group, search, value, criteria, graph, chart, axis, compare, filter, presentation. **Composite Outcome:** Classifying animals from previous half term	6. To apply what I have learned about vector drawings **Vocabulary** ector, drawing tools, object, toolbar, vector drawing, move, resize, colour, rotate, duplicate/copy, zoom, select, align, modify, layers, order, copy, paste, group, ungroup, reuse, reflection **Composite Outcome:** Create an image of Viking's armour	5. To create a program which uses selection 6. To evaluate my program **Vocabulary** Selection, condition, true, false, count-controlled loop, outcomes, conditional statement, algorithm, program, debug, question, answer, task, design, input, implement, test, run, setup, operator **Composite Outcome:** Create a quiz link to change

LKS2	B	Connecting systems and networks	Creating Media	Programming Block A	Data and information	Creating Media	Programming Block B

The internet (4)

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)

Sequence of learning

1. To describe how networks physically connect to other networks
2. To recognise how networked devices make up the internet
3. To outline how websites can be shared via the World Wide Web (WWW)
4. To describe how content can be added and accessed on the World Wide Web (WWW)
5. To recognise how the content of the WWW is created by people
6. To evaluate the consequences of unreliable content

Vocabulary

nternet, network, router, security, switch, server, wireless access point (WAP), website, web page, web address, routing, web browser, World Wide Web,

Stop frame animation (3)

How can we use images to produce an animation?

Capturing and editing digital still images to produce a stop-frame animation that tells a story.

(iMotion)

Sequence of learning

1. To explain that animation is a sequence of drawings or photographs
2. To relate animated movement with a sequence of images
3. To plan an animation
4. To identify the need to work consistently and carefully
5. To review and improve an animation
6. To evaluate the impact of adding other media to an animation

Vocabulary

nimation, flip book, stopframe, frame, sequence, image, photograph, setting, character, events, onion skinning, consistency, evaluation, delete, media, import, transition

Repetition in Shapes (4)

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)

Sequence of learning

1. To identify that accuracy in programming is important
2. To create a program in a text-based language
3. To explain what 'repeat' means
4. To modify a count-controlled loop to produce a given outcome
5. To decompose a task into small steps
6. To create a program that uses count-controlled loops to produce a given outcome

Vocabulary

Logo (programming environment), program, turtle, commands, code snippet, algorithm, design, debug, pattern, repeat, repetition, count-controlled

Branching databases (3)

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)

Sequence of learning

1. To create questions with yes/no answers
2. To identify the attributes needed to collect data about an object
3. To create a branching database
4. To explain why it is helpful for a database to be well structured
5. To plan the structure of a branching database
6. To independently create an identification tool

Vocabulary

Attribute, value, questions, table, objects, branching, database, objects, equal, even, separate, structure, compare, order, organise, selecting, information, decision tree

Photo editing (4)

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)

Sequence of learning

1. To explain that the composition of digital images can be changed
2. To explain that colours can be changed in digital images
3. To explain how cloning can be used in photo editing
4. To explain that images can be combined
5. To combine images for a purpose
6. To evaluate how changes can improve an image

Vocabulary

image, edit, digital, crop, rotate, undo, save, adjustments, effects, colours, hue, saturation, sepia, vignette, image, retouch, clone, select, combine, made up, real, composite, cut, copy, paste,

Repetition in games (4)

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)

Sequence of learning

1. To develop the use of count-controlled loops in a different programming environment
2. To explain that in programming there are infinite loops and count controlled loops
3. To develop a design that includes two or more loops which run at the same time
4. To modify an infinite loop in a given program
5. To design a project that includes repetition
6. To create a project that includes repetition

Vocabulary

Scratch, programming, sprite, blocks, code, loop, repeat, value, infinite loop, count-controlled loop, costume, repetition, forever, animate, event block,

		content, links, files, use, download, sharing, ownership, permission, information, accurate, honest, content, adverts		loop, value, trace, decompose, procedure.		alter, background, foreground, zoom, undo, font.	duplicate, modify, design, algorithm, debug, refine, evaluate.