

## What should I already know?

In EYFS, children will have seen technology being used in school and home environments. They have used basic skills with technology.

### Key vocabulary

Local community  
Technology  
Online safety  
Avatar  
Template  
Website  
Icon  
Log in  
Log Out  
Save, print, open, new  
Online safety.  
Pictogram  
Data  
Illustrate  
Discuss  
Record  
Program  
Instruction  
Algorithm  
Direction key  
Debug  
Coding  
Sort  
Group  
E-book  
Traditional book  
Animation  
Text  
Music  
Voice recording  
Drawing tools  
Display board  
Font

### Autumn 1 Basic skills and technology outside school 1.9 Knowledge:

Children will walk around the local community and find examples of where technology is used. They will know how to record examples of technology and understand what is meant by 'technology'. Children will consider types of technology used in school and out of school. They will record four examples of where technology is used away from school.

### Autumn 2 Internet safety and pictograms : 1.3 and 1.1 Knowledge

**Online Safety (Unit 1.1)** Children know how to login safely, find saved work, teacher comments and search for resources on Purple Mash. They can add pictures and text to a digital document, explore tools on Purple Mash, explore games on Purple Mash, learn to log out when finished and understand the importance

**Pictograms (Unit 1.3)** Children contribute to a class pictogram and use a pictogram to record the results of an experiment

### Skills and enquiry

**Basic skills** Children can recognise common uses of information technology outside of school, name a range of technologies and devices within the home and explain how these make life easier.

**Online Safety (Unit 1.1)** Login safely - Save work - Understand privacy - Use creative tools - Follow and create simple instructions - Use templates - Use save, print, open and new icons - Logout successfully

**Pictograms (Unit 1.3)** Contribute to a class pictogram - Discuss and illustrate data - Collect data

### FLIC Objectives:

Combine text and images. Create simple programs. Format and edit text. Take digital photographs and video. Understand that computers can be used to create simulated environments. Understand what algorithms are (sequences of commands) Use a computer to sort information. Use basic painting tools to create a design / picture.

### Spring Lego builders: 1.4 Knowledge:

**Lego Builders (Unit 1.4)** Children will follow and create simple instructions on the computer. They will consider how the order of instructions affects the results and know that by following the instructions correctly, they will get the correct result. Children will explain the effect of carrying out a task with no instructions and know that an algorithm written for a computer to follow is called a program.

### Spring 2 Coding and spreadsheets 1.7 1.8 Knowledge:

**Coding (Unit 1.5 and 1.7)** Children will understand the functionality of the basic direction keys and understand the functionality of the basic direction keys. They will understand how to create and debug a set of instructions and understand what coding means in computing. Pupils should create unambiguous instructions and use the 2Code Program.

### Skills and enquiry

**Lego Builders (Unit 1.4)** Children will organise instructions for a simple recipe and correct errors in an algorithm or program with support.

**Coding (Unit 1.5 and 1.7)** Children should create simple algorithms and debug an algorithm. They will change the background images and create unambiguous instructions. Pupils will use Design Mode to add and change backgrounds. They will change the appearance of objects and explore the uses of commands. Children will program using sound and design a scene for a program. They will be able to explain what coding means.



### Summer 1 Animated stories 1.6 Knowledge:

**Animated stories 1.6:** Children will be introduced to e-books and 2Create a story. They will continue a previously saved story and add animation to a story. Pupil will add sound to a story including voice recording and music that the children have created. They will be able to work on a more complex story including adding backgrounds and copying and pasting pages. Children should also know how to share their work on a class display board.

### Summer 2 Grouping and sorting 1.2 Knowledge:

**Grouping and sorting 1.2:** Children will understand how to sort items using a range of criteria and sort items on the computer using the 'grouping' activities in Purple Mash.

### Skills and enquiry

**Animated stories 1.6:** Children will explain the difference between a traditional book and an e-book. They will use different drawing tools to create a picture on a page, add an animation to their picture and add text to a page. They will also change the colour, font and size of the text. Pupils should open work that has been saved in a previous lesson, add sound to their page, add a background to the page and copy and paste a page in the book. Children will share a storybook on a class story book display board and enhance features of their book.

**Grouping and sorting 1.2:** Pupils will be able to sort items using a range of criteria on the carpet as a class and in pairs. They will be able to use Purple Mash to sort items online.

## What should I already know?

Pupils know how to log on safely and what is meant by the term "technology". They have begun to develop basic skills of logging on, viewing comments and saving work.

### Key vocabulary

Search tool  
 Communicate  
 Connect  
 Online Locally  
 Digital technology  
 Email  
 Personal data  
 Hardware  
 Secure  
 Online safety  
 Webpage  
 Search  
 Cell  
 Copying  
 Pasting  
 Block graph  
 Data  
 Tools  
 Column  
 Row  
 Story  
 Characters  
 Set  
 Props  
 App  
 Sequence  
 Movement  
 Smooth  
 Focus  
 Monet  
 Dejas  
 Renoir  
 Painting Software  
 Impressionist  
 Story  
 Software  
 2Connect  
 Clipart  
 Appropriate  
 Presentation  
 Extract  
 Algorithm  
 Repeat command  
 Timer command  
 Test  
 Debug  
 Specific action  
 Button object  
 Coding  
 Complex  
 Story  
 Software  
 2Connect  
 Clipart  
 Appropriate  
 Presentation  
 Extract  
 Fact file  
 quiz

### Autumn 1: Internet safety 2.2. Creating pictures 2.6

#### Knowledge:

**Online safety (Unit 2.2)** Children know how to refine a search using the Search tool and understand how to communicate and connect with others locally. Children should have some knowledge and understanding about sharing more globally on the internet. They should know how to communicate through Email and understand how to open and send simple online communications in the form of email. They will identify the steps that can be taken to keep personal data and hardware secure.

#### Creating Pictures (Unit 2.6)

Pupils are introduced to painting software (including Purple Mash). They should look at impressionist style of artists (e.g. Monet, Dejas, Renoir) and explore surrealism and e-collage.

### Autumn 2: Stop motion and spreadsheets 2.3

#### Knowledge:

**Spreadsheets (Unit 2.3)** - Copy and pasting tools - Know how to use codes for addition - Know how to create a table and block graph for data.

**Stop Motion (Bespoke)** Children should take photographs and sequence them into a 'movie'. Children will understand the role framing in photography plays in stop motion. They will understand that the App orders the photographs into a sequence.

### Skills and enquiry

**Online safety (Unit 2.2)** Use technology safely to store information and share work we have created. Communicate and connect with others. Explain what a digital footprint is and give examples of what they would not like to be shown on their digital footprint.

**Spreadsheets (Unit 2.3)** Children will use the copying and pasting tools to help make spreadsheets and use tools in spreadsheet to automatically total rows and columns. They will create a table and block graph. Children will explain what rows and columns are and use images in a spreadsheet.

**Creating Pictures (Unit 2.6)** Use 2Paint to create a picture, explain Pointillism and describe the main features of Piet Mondrian's work. Children should combine more than one effect in 2Paint to enhance their pattern and use the eCollage function in 2Paint. They should create surrealist art using drawing and clipart.

**Stop Motion (Bespoke)** Children will be able to focus a photograph and use a tablet to take a photograph. They will analyse the sequence of photographs so that movement looks 'smooth'.

### FLIC Objectives:

Create simple presentations. Debug simple programs. Publish my work using word processing features. Take digital photos and combine them in a movie. Understand that algorithms are implemented as programs on digital devices. Understand that programs execute by following precise and unambiguous instructions. Use a computer to sort information and present data. Use art package tools to create a picture / pattern. Use logical reasoning to predict the behaviour of simple programs. Use the internet to find information.

### Spring 1: Coding 2.1

#### Knowledge:

**Coding (Unit 2.1)** Children will understand what an algorithm is. They will understand how to use the repeat command. Pupils will know how to use the timer command. They will know what debugging means and understand the need to test and debug a program repeatedly. Children will know how different objects can have different behaviours which are limited to specific actions

### Spring 2: Effective searching and presenting ideas 2.8

#### Knowledge:

**Effective Searching and Presenting Ideas (Unit 2.8)** Children will explore how a story can be presented in different ways. They will know how to present information using a variety of software. Pupils will understand how to extract information from a 2Connect file and know how to add clipart and what is appropriate.

### Skills and enquiry

**Coding (Unit 2.1)** Children will create a computer program using simple algorithms and use the button object. They will explain what an algorithm is and know how to debug simple programs. Pupils will use a design document to start a debugging program. They will create a computer program using different objects. Children will plan and use algorithms in programs successfully to achieve a result. They will use coding knowledge learnt to create a more complex program that tells a story.

**Effective Searching and Presenting Ideas (Unit 2.8)** Children will make a quiz about a story or a class topic using 2Quiz. They will talk about work completed and make improvements to solutions based on feedback received. Pupils will make a fact-file on a non-fiction topic and make a presentation to the class. Children will collect, organise and present data and information in digital content. They will extract information from a 2Connect file to make a publisher fact-file on a non-fiction report.



### Summer 1 Presenting ideas and Effective searching (word processing skills)

#### Knowledge:

**Effective Searching and Presenting Ideas (Unit 2.8)** Children will explore how a story can be presented in different ways. They will know how to present information using a variety of software. Pupils will know how to extract information from a 2Connect file. They will understand how to add clipart and what is appropriate.

### Summer 2: Questioning 2.4

#### Knowledge:

**Questioning 2.4** Children should understand that the information on pictograms cannot be used to answer more complicated questions. They should use YES/NO questions to separate information. Pupils should construct a binary tree to separate different items and use 2 Question (a binary tree) to answer questions. They should understand what is meant by a database and use a database to answer questions.

### Skills and enquiry

**Effective Searching and Presenting Ideas (Unit 2.8)** Pupils will make a quiz about a story or class topic. They will make a fact-file on a non-fiction topic and make a presentation to the class. Children will be able to extract information from a 2Connect file to make a publisher fact-file on a non-fiction report. They will add clipart to a fact-file. Pupils will collect, organise and present data and information in digital content.

**Questioning 2.4** Pupils should be able to design a binary tree to sort pictures of children. They should match 2Simple Avatar pictures to names using a binary tree. Children should use a search tool to find information and answer more complex search questions using a database.

**What should I already know?**

Children understand how to send emails as basic communication. They can create tables and diagrams for data. Pupils are able to take a photographs and sequence them into a 'movie'. They understand the role framing in photography plays in stop motion.

**Key vocabulary**

Password  
 Secure  
 Communicate  
 Appropriate Website  
 Spoof  
 Mock up  
 Touch  
 Top row  
 Bottom row  
 Home row  
 Space bar  
 Correct fingering  
 Speed  
 Accuracy  
 Efficiency  
 Respond  
 Address book  
 Attachment  
 CC  
 Format  
 Role  
 Framing  
 Movie  
 App  
 Sequence  
 Evaluate  
 Wider features  
 Focus  
 Smooth  
 Movement  
 Pie chart  
 Bar chart  
 More than  
 Less than  
 Equals  
 Coordinates  
 Data  
 Graph  
 Investigation  
 Present  
 Object  
 Action  
 Output  
 Control  
 Event  
 Variable  
 Debugging  
 X and Y properties

**FLIC Objectives:**

Create presentations. Publish my work using more advanced word processing features. Take digital photos and/or video and combine them in a movie. Use a computer to sort information and present data as graphs. Use more advanced features of painting programs. Use sequence in programs. Use the internet to find information. Work with various forms of input and output. Write programs that accomplish specific goals.

**Autumn 1: Internet safety 3.2 and typing 3.4****Knowledge:**

**Online Safety (Unit- 3.2)** Children will know what makes a safe password and how to keep passwords safe. They will understand how the internet can help us to communicate and consider the reliability of web pages. Children will learn the meaning of age restrictions, symbols on digital media and devices.

**Touch Typing (Unit-3.4)** Children will be introduced to typing terminology and will work to improve speed and efficiency of typing skills

**Autumn 2: Email (inc simulations) and stop motion 3.5 3.7****Knowledge:**

**Email (Unit 3.5)** - Know how to open and respond to an email - Write an email using an address book - Learn how to email safely - Know how to add an attachment - Know what CC means

**Stop Motion**-Children will take photographs and sequence them into a 'movie'. They will understand the role framing in photography plays in stop motion and understand that the app orders the photographs into a sequence. Children will evaluate the sequence. They will use the wider features of the app to edit and improve.

**Skills and enquiry**

**Online Safety (Unit- 3.2)** Children should create a good password and explain the key features of a secure password. They will recognise how accurate a website is and explain the key features of a 'spoof' website as well as creating their own. They will outline strategies for dealing with online bullying

**Touch Typing (Unit-3.4)** Use top row, home row, bottom row and space bar effectively. Use two hands when typing. Type full words using the correct fingering

**Email (Unit 3.5)** - Children use 2Connect to identify strengths and weaknesses - Attach work to an email - Read and respond to a series of emails - Attach files appropriate - Apply the format of an email when writing on

**Stop motion** Children will focus a photograph using a tablet. They will analyse the sequence of photographs so that movement looks 'smooth'. Children will edit a sequence of photographs to achieve a given aim.

**Spring 1: Graphing 3.8 and spreadsheets 3.3****Knowledge:**

**Spreadsheets (Unit 3.3)** Children will understand how to create a pie chart and bar graph. They will understand the purpose of the 'more than', 'less than' and 'equals' tools

Children will understand the purpose of the Advanced Mode of 2 Calculate and use coordinates.

**Graphing (Unit 3.8)** Children will understand how to enter data into a graph and understand how to pull answers from data to solve an investigation and present the results in graphic form.

**Spring 2: Coding 3.1****Knowledge:**

**Coding (Unit 3.1)** Children will understand a range of vocabulary relating to object, action, output, control and event. They will understand what a variable is in programming and know how one might be used. Children will know what debugging means and understand the need to test and debug a program repeatedly. They will understand the importance of saving periodically as part of the code development process.

**Skills and enquiry**

**Spreadsheets (Unit 3.3)** Children will create a table of data on a spreadsheet and use a spreadsheet program to create graphs and charts. They will compare data using tools. Pupils will describe a cell location in a spreadsheet and find specified locations in a spreadsheet.

**Graphing (Unit 3.8)** Children will enter data for a graph and solve problems using the data. They will present data in a range of graphical formats.

**Coding (Unit 3.1)** Children will create a design that represents a sequential algorithm and use a flowchart design to create the code. They will explain what object, action, output, control and event are. Pupils will explain how their program simulates a physical system, i.e. my vehicles move at different speeds and angles. Children will make use of the X and Y properties of objects in their coding. They will create an "if" statement in their program and explain what a variable is in programming. Pupils will explain how they made objects repeat actions. They will explain why it is important to save their work after each function.

**Summer 2: Branching databases 3.6****Knowledge:**

**Branching databases 3.6:** Children will know how to sort objects using YES/NO questions. They will be able to create a branching database. They will be able to choose a suitable topic for a branching database, select and save images and know how to debug their own database.

**Skills and enquiry**

**Branching databases 3.6** Children will be able to use YES/NO questioning to play a simple game with a friend. They will contribute to a class branching database and be able to complete a branching database about vegetables.

**What should I already know?**

Children will know what makes a safe password and how to keep passwords safe. They will understand how the internet can help us to communicate and consider the reliability of web pages. Children will learn the meaning of age restrictions, symbols on digital media and devices. Children have been introduced to typing terminology and have worked to improve speed and efficiency of typing skills. Children know how to open and respond to an email. When using stop motion, children will take photographs and sequence them into a 'movie'.

**Key vocabulary**

Phishing  
Digital footprint  
Identity theft  
Plagiarism  
Behaviour  
Influences  
Consequence  
Search  
Locate  
Reliable  
Query  
Question and  
Answer  
Simple instructions  
Build  
feature  
Shape  
Logo  
Format  
Purpose  
Assess  
Suitability  
Audience  
Campaign  
Onion skin  
Animation  
Save  
Share  
Stop motion

**Autumn 1 Internet safety 4.2 and effective searching 4.7****Knowledge:**

**Online Safety (Unit 4.2)** Pupils will understand how children can protect themselves from online identity theft and understand that the information put online leaves a digital footprint. They will identify the risks and benefits of installing software and understand that copying work of others and presenting it as your own is called plagiarism. Children will identify the positive and negative influences of technology on health and the environment.

**Effective Searching (Unit 4.7)** Locate information from the search results page, search effectively and assess whether information source is true and reliable.

**Autumn 2 Logo 4.5****Knowledge:**

**Logo (Unit 4.5)** Learn the language of Logo Input and simple instructions.

**Skills and enquiry**

**Online safety (4.2)** Children will identify the consequences of plagiarism and identify the difference between copyright and using information for research. They should identify appropriate behaviour, select appropriate websites and identify positive and negative influences of technology.

**Effective searching (4.7)** Children should structure search queries and answer a series of questions. They will be able to create search questions for friends.

**Logo (Unit 4.5)** - Use the repeat function to create shapes - Use the build feature in Logos - Predict what shapes will be made - Follow simple instructions - Identify the consequences of plagiarism. - Identify the difference between copyright and using information for research - Identify appropriate behaviour - Select appropriate websites. - Identify positive and negative influences of technology - Generate ideas, considering the purposes for which they are designing - Make labelled drawings from different views showing specific features - Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making, if the first attempts fail - Evaluate products and identify criteria that can be used for their own designs

**FLIC Objectives:**

Control or simulate physical systems. Create presentations with hyper-linked pages. Design and create programs that achieve specific goals. Publish my work using more advanced word processing features. Record multi-layered music parts using ICT. Take and edit digital photos and/or video and combine them in a movie. Understand the potential computer networks have for communication. Use a computer to input data into a database and sort and filter information. Use more advanced features of painting programs. Use the internet to find information.

**Spring 1 Writing for Different Audiences Unit 4.4****Knowledge:**

**Writing for Different Audiences (+word processing skills) (Unit 4.4)** Children will understand how font size and style can affect the impact of a text. They will know how to write for a community campaign.

**Spring 2: Hardware investigators 4.8****Knowledge:**

**Hardware Investigators (Unit 4.8)** Children will understand the different parts that make up a computer. They will recall the different parts that make up a computer and name the different parts of a desktop computer. Pupils will know the function of the different parts of the computer.

**Skills and enquiry**

**Writing for Different Audiences (+word processing skills) (Unit 4.4)** Children will format text to make a piece of writing fit for a purpose and interpret a variety of incoming communications and use these to build detail. They will assess a text using criteria to judge the suitability of an intended audience

**Hardware Investigators (Unit 4.8)** Children will create a leaflet to show the function of computer parts.

**Summer 1: Animation and stop motion 4.6****Knowledge:**

**Animation and stop motion 4.6** Children will learn how animations are created by hand. They will also find out how 2Animate can be created in a similar way using the computer. Pupils will learn about onion skinning in animation and add backgrounds and sounds. They will be introduced to stop motion animation and share animation on the class display board and by blogging.

**Summer 2: Coding 4.1****Knowledge:**

**Coding 4.1** Children will review coding vocabulary. They will know how to use sketches or storyboards to create a program. Pupils will be able to create a program which responds to the If/else statement. Children will create a program with a character that repeats actions. They will make timers and counting machines using variables to print a new number to the screen every second. They will explore how 2 Code can be used to investigate control by creating a stimulation. Pupils will know what decomposition and abstraction are in computer science and design a decomposed feature of a real-life situation.

**Skills and enquiry**

**Animation and stop motion 4.6** Children will be able to put together a simple animation using paper to create a flick book. They will have an understanding of animation 'frames' and make simple animations. Children will understand what the Onion Skin tool does and use it to create an animated image. They will use backgrounds and sounds to make more complex and imaginative animations. Pupils will use ideas from existing stop motion films to recreate their own animations. They will know how to share and comment on work.

**Coding 4.1** Children will use sketching to design a program and reflect upon their design. They will explain what a variable is when used in programming and create a timer that prints a new number to the screen every second. Pupils will be able to use an algorithm when making a stimulation of an event on the computer. They will make good attempts to break down their aims for a coding task into smaller achievable steps.

purple  
mash



What should I already know?

Children understand how they can protect themselves from online identity theft and understand the information put online leaves a digital footprint. They can identify the risks and benefits of installing software and understand that copying work of others and presenting it as your own is called plagiarism. Children can locate information from the search results page, search effectively and assess whether information source is true and reliable. Children have learnt the language of Logo Input.

Key vocabulary

Digital footprint  
SMART  
3D Modelling  
3D Printing  
2D  
Polygon  
Viewpoints  
Sprite  
Physical system  
Program Command  
Value  
Button  
Code  
Sequence  
Photograph  
Movie  
Framing  
Stop motion  
Onion skin  
Evaluate  
Program  
Animation  
Commentary  
Web-based  
Narrate  
Sound effect  
Soundtrack  
Design  
Evaluate  
Game quest  
analyse

FLIC Objectives:

Choose and use appropriate features of presentations (including hyperlinks where appropriate) Choose and use appropriate word processing features to publish my work. Create simple stop motion animations. Know how computer networks provide services such as email and the internet. Record multi-layered music parts using ICT. Take and edit digital photos and/or video and combine them in a movie with audio commentary. Use a computer to input data into a database/spreadsheet and create graphs. Use logical reasoning to detect and correct errors in programs. Use more advanced features of painting programs. Use repetition in programs.

Autumn 1: Online safety and 3D modelling 5.2 5.6Knowledge:

**Online Safety (Unit 5.2)** - Children will know the impact of sharing digital content and know how to secure passwords. They will understand digitally altering images and be aware of inappropriate and appropriate online activity. They should ensure reliability through different methods of communication.

**3D Modelling (Unit 5.6)** - Pupils will be introduced to 3D Modelling. They will explore the effects of moving points when designing and understand designing for a purpose. Children will understand printing and making and be introduced to 2 Design and Make.

Autumn 2: Coding 5.1Knowledge:

**Coding (Unit 5.1)** - Review coding vocab - Sketch or storyboard a program and use the design to create a program - Design and write a program that simulates a physical system - Explore text variables - Create a playable, competitive game.- Combine the use of variables to achieve a desired effect in code - Read code so it can be adapted, personalised and improved - Explore command and use buttons - Create a program to inform others

Skills and enquiry

**Online Safety (Unit 5.2)** - Identify areas of help if something happens when online - Recognise features of a secure password - Develop the skill of recognising inappropriate and appropriate online activity - Think critically about the information shared by Childnet SMART CREW.

**3D Modelling (Unit 5.6)** - Explore how to edit the polygon 3D models to design a 3D model for a purpose - Refine a design to prepare it for printing - Explore the possibilities of 3D printing - Explore the different viewpoints in 2 Design and Make whilst designing a building

Create code that conforms to design - Select relevant features using decomposition and abstraction - Set/change variable values appropriately - Create a game with a timer and score pad - Use variables to control the objects in the game- Create loops using times and if/else statements - Include buttons and objects that launch to websites and programs - Code a program that informs others

**Coding (Unit 5.1)** Children will create code that conforms to design and select relevant features using decomposition and abstraction. They will set/change variable values appropriately and create a game with a timer and score pad. Pupils use variables to control the objects in the game and create loops using times and if/else statements. They should include buttons and objects that launch to websites and programs. They will code a program that informs others.

Spring 1 Spreadsheets 5.3Knowledge:Spreadsheets (Unit 5.3)

Know how to convert measurement- Understand how to use the count tool- Understand how to use text variables to perform calculations- Know how to use a spreadsheet to plan an event

Spring 2 Databases 5.4 and multilayered musicKnowledge:Database (Unit 5.4)

Children will know how to search for information on a database and understand how to contribute to a class database. They will understand the different ways to search a database and how to word questions so that they can be effectively answered using a search of their database. Pupils will know what a database field is and correctly add field information.

Multi-layered Music (Bespoke)

Children will take a photographs and sequence them into a 'movie'. They will understand the role framing in photography plays in stop motion and know that 2Animate orders the photographs into a sequence using onion skin. Pupils will evaluate the sequence as well as use the wider features of PurpleMash to edit and improve using onion skin. Children will use a range of programs to achieve a given aim. They will add auditory commentary including sound features and evaluate the methods for animation.

Skills and enquiry

**Spreadsheets (Unit 5.3)** Create a formula in a spreadsheet to convert m to cm or miles to km - Create simple formulae that use different variables - Solve real-life problems

Database (Unit 5.4)

Search a database in order to answer questions correctly- Create their own database on a chosen topic- Add records to their database- Search a database in order to answer questions correctly.

Multi-layered Music (Bespoke)

Focus a photograph using a tablet- Analyse the sequence of photographs so that movement looks 'smooth'- Edit a sequence of photographs to achieve a given aim- Transfer the skills learned in the previous years onto a web-based program- Narrate a story- Choose an appropriate sound effect and/or soundtrack to enhance the sequence.

Summer 2: Game creator 5.5Knowledge:

Children will know how to describe the elements that make a successful game and begin the process of designing their own game. They will create the game environment- designing the setting for their game so that it fits with the select theme. Pupils will create the game quest, finish and share the game. They will also evaluate their own and their peers' game.

Skills and enquiry

**Game creator 5.5** Children will review and analyse a computer game. They will also begin the process of designing their own game. Pupils will use the drawing tools to create walls, a floor and a roof. They will design characters for their game. Children will decide upon and change the animations and sounds that the characters make. They will make their game more unique by selecting the appropriate options to maximise the playability. Pupils will write informative instructions so that other people can play the game..

**What should I already know?**

Children know the impact of sharing digital content and how to secure passwords. They understand digitally altering images. Children have been introduced to 3D Modelling, 2 Design and Make. Children have sketched and used the design to create a program. When using stop motion, children will evaluate the sequence. They will use the wider features of the app to edit and improve.

**Key vocabulary**

Broadcasting  
location  
Secure sites  
Risk and benefit  
Screen time  
Informed ownership  
Audience  
Visual property  
Blog  
Network  
Purposes  
Networks  
WWW  
LAN  
WAN  
Internet  
Cell Formula(e)  
Copy  
Paste  
Sort  
Filter  
Programs  
2Animate  
Evaluate  
Onion Skin  
Auditory  
Commentary  
Animation  
Impact  
Society  
Focus  
Web-based program  
Narrate  
Sequence  
Smooth  
Instrument  
Music  
Criteria  
Audience  
Instrument  
Singing  
enhance

**Autumn 1:Internet safety 6.2, networks 6.6. Blogging 6.4****Knowledge:**

**Online Safety (Unit 6.2)** - Identify benefits and risks of mobile devices, broadcasting location (app) - Identify secure sites - Know the benefits and risks of giving personal information - Understand the importance of balancing game and screen time

**Blogging (Unit 6.4)** - Identify the features of successful blog writing - Consider the effects on an audience (visual properties) - Understand the importance of updating contents

**Networks (Unit 6.6)** - Find out what LAN and WAN are - Research and find out about the age of the internet

**Autumn 2: Spreadsheets and stop motion 6.3****Knowledge:**

**Spreadsheets (Unit 6.3)** - Exploring Probability - Use of spreadsheets in 'real life' - Creating a computational model - Use a spreadsheet to plan pocket money spending - Plan a school event

**Stop Motion (Bespoke)** Children take photographs and sequence them into a movie. They should understand the role framing in photography plays in stop motion. Children will understand that 2Animate orders the photographs into a sequence using onion skin. They will evaluate the sequence and use the wider features of PurpleMash to edit and improve using onion skin. They will use a range of programs to achieve a given aim and be able to add auditory commentary including sound features. Pupils should understand the history of animation and its impact upon society as well as evaluating the pros and cons of methods for animation.

**Skills and enquiry**

**Online Safety (Unit 6.2)** - Children revise the features of online safety and take more informed ownership of the way they choose to spend their free time

**Blogging (Unit 6.4)** - Work collaboratively to plan, design, create and write a blog - Create a blog for a specific purpose - Consider audience - Peer assess by commenting on and responding to other blogs

**Networks (Unit 6.6)** - Predict what you think the future might hold for the internet - Know the difference between the WWW and the internet

**Spreadsheets (Unit 6.3)** - Create a spreadsheet to answer a mathematical question relating to probability. - Take copy and paste shortcuts. - Problem solve using the count tool. - Create a machine to help work out the price of different items in a sale. - Use the formula wizard to create formulae. - Use a spreadsheet to solve a problem. - Use a spreadsheet to model a real-life situation and come up with solutions. - Make practical use of a spreadsheet to help plan actions - Use a spreadsheet to model a real-life situation and come up with solutions that can be applied to real life.

**Stop Motion (Bespoke)**

Children will focus a photograph using a tablet. They will analyse the sequence of photographs so that movement looks 'smooth' and edit a sequence of photographs to achieve a given aim. Pupils will transfer the skills learned in the previous years onto a web-based program and narrate a story. Pupils will choose an appropriate sound effect and/or soundtrack to enhance the sequence and choose a preferred method for animation.

**FLIC Objectives**

Create simple stop motion animations with voice-over / backing track. Evaluate information found on the internet effectively. Record multi-layered music parts using ICT. Solve problems by decomposing into smaller parts. Take and edit digital photos and/or video and combine them in a movie with audio commentary. Use different presentation software to create an online presentation. Use a spreadsheet to carry out calculations using formulae. Use logical reasoning to explain how algorithms work, and detect and correct errors. Use object based drawing packages. Use online documents to collaborate with others. Use selection and variables in programs.

**Spring 1:Quizzing 6.7****Knowledge:****Quizzing (Unit 6.7)**

Children will know how to use the question types within 2 Quiz. They will know to use question types within 2 Quiz and understand the different question types.

**Spring 2: Coding 6.1****Knowledge:**

**Coding (Unit 6.1)** Children will review good planning skills and know how to use variables within a game to keep track of the properties. They will know how to use functions and understand why they are useful in 2 Code.

**Skills and enquiry**

**Quizzing (Unit 6.70)** Children will consider the audience's ability level and interests when setting the quiz. They will design their own quiz based on one of the 2Investigate example databases. Pupils should consider the audience's ability level and interests when setting the quiz, share their quiz and responded to feedback.

**Coding (Unit 6.1)** Pupils will plan a program before coding to anticipate variables. They will debug when things do not run as expected and explain what functions are and how they can be created and labelled in 2 Code. Children will code programs that take text input from the user and use this in the program. They will create flow charts for algorithms and adapt an existing text adventure to make it unique to their requirements.

**Summer 2: Multi Layered music**

**Knowledge:** Children will understand that the skills learned when sequencing code can be applied onto multi-layered music. They will also understand the purpose of a piece of music and know how to meet the criteria. Pupils will know how music is layered. They will understand that a beat is the first layer when sequencing music and how layering of music is used in context.

**Skills and enquiry****Summer 1: Internet searching and creating skills (+word processing)**

**Summer 2: Multi Layered music:** Children will use a beat as a first layer. They will listen to music and make an informed decision regarding which instrument and sound will enhance the sequence. Children will edit a piece music and reorder to enhance the sequence. They will be able to meet the purpose and wants of the audience and use more layers (including singing).