

Year 1

Autumn : (Computing systems and networks-Technology around us)

- To identify technology
- To identify a computer and its main parts
- To use a mouse in different ways
- To use a keyboard to type on a computer
- To use the keyboard to edit text
- To create rules for using technology responsibly

Spring (creating media-digital painting)

- To describe what different freehand tools do
- To use the shape tool and line tool
- To make careful choices when painting a digital picture
- To explain why I used the tools I did
- To use a computer on my own to paint a picture

Summer: (Programming A-moving a robot)

- To explain what a given command will do
- To act out a given word
- To combine forwards and backwards commands to make a sequence
- To combine four direction commands to make sequences
- To plan a simple program
- To find more than one solution to a problem

Project Evolve (Across the year)

online safety discussion using Project Evolve. Teachers should work through objectives weekly but If a particular issue comes up in class or is flagged during Staff meeting safeguarding/E safety discussion they will do it that week.



Progression Map - Computing

NC Key stage 1

- understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions
- create and debug simple programs
- use logical reasoning to predict the behaviour of simple programs
- use technology purposefully to create, organise, store, manipulate and retrieve digital content
- recognise common uses of information technology beyond school
- use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies. (Project Evolve)

Year 2

Autumn (computing systems and networks-IT around us)

- To recognise the uses and features of information technology
- To identify information technology in the home
- To identify information technology beyond school
- To explain how information technology benefits us
- To show how to use information technology safely
- To recognise that choices are made when using information technology

Spring (creating media-digital photography)

- To know what devices can be used to take photographs
- To use a digital device to take a photograph
- To describe what makes a good photograph
- To decide how photographs can be improved
- To use tools to change an image
- To recognise that images can be changed

Summer (programming A-robot algorithms)

- To describe a series of instructions as a sequence
- To explain what happens when we change the order of instructions
- To use logical reasoning to predict the outcome of a program (series of commands)
- To explain that programming projects can have code and artwork
- To design an algorithm
- To create and debug a program that I have written
- To create a program using a given design
- To change a given design
- To create a program using my own design

Project Evolve (Across the year)

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Year 3

Autumn (computing systems and networks-connecting computers)

- To explain how digital devices function
- To identify input and output devices
- To recognise how digital devices can change the way we work
- To explain how a computer network can be used to share information
- To explore how digital devices can be connected
- To recognise the physical components of a network

Spring (creating media-desktop publishing)

- To recognise how text and images convey information
- To recognise that text and layout can be edited
- To choose appropriate page settings
- To add content to a desktop publishing publication
- To consider how different layouts can suit different purposes
- To consider the benefits of desktop publishing

Summer (programming A-sequencing sounds)

- To explore a new programming environment
- I can identify that each sprite is controlled by the commands I choose
- To explain that a program has a start
- To recognise that a sequence of commands can have an order
- To change the appearance of my project
- To create a project from a task description

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NC Key stage 2

- design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
- use sequence, selection, and repetition in programs; work with variables and various forms of input and output
- use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs
- understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration
- use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content
- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information
- use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Year 4

Autumn (computing systems and networks-The Internet)

- To describe how networks physically connect to other networks
- To recognise how networked devices make up the internet
- To outline how websites can be shared via the World Wide Web
- To describe how content can be added and accessed on the World Wide Web
- To recognise how the content of the WWW is created by people
- To evaluate the consequences of unreliable content

Spring (creating media-Audio production)

- To identify that sound can be digitally recorded
- To use a digital device to record sound
- To explain that a digital recording is stored as a file
- To explain that audio can be changed through editing
- To show that different types of audio can be combined and played together
- To evaluate editing choices made

Summer (programming B-repetition in games)

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

Project Evolve (Across the year)

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Year 5

Autumn computing systems and networks— systems and searching)

To explain that computers can be connected together to form systems

To recognise the role of computer systems in our lives

To recognise how information is transferred over the internet

To explain how sharing information online lets people in different places work together

To contribute to a shared project online

To evaluate different ways of working together online

Spring (creating media-introduction to vector graphics)

To identify that drawing tools can be used to produce different outcomes

To create a vector drawing by combining shapes

To use tools to achieve a desired effect

To recognise that vector drawings consist of layers

To group objects to make them easier to work with

To evaluate my vector drawing

Spring 1 (programming A-selection in physical computing)

To control a simple circuit connected to a computer

To write a program that includes count-controlled loops

To explain that a loop can stop when a condition is met, e.g. number of times

To conclude that a loop can be used to

Year 6

Autumn (computing systems and networks-communication and collaboration)

To explain the importance of internet addresses

To explain how data is transferred across the internet

To explain how sharing information online can help people work together

To evaluate different ways of working together online

To recognise how we communicate using technology

To evaluate different methods of online communication

Spring (creating media-webpage creation)

To review an existing website and consider its structure

To plan the features of a web page

To consider the ownership and use of images (copyright)

To recognise the need to preview pages

To outline the need for a navigation path

To recognise the implications of linking to content owned by other people

Summer (programming A-variables in games)

To define a 'variable' as something that is changeable

To explain why a variable is used in a program

To choose how to improve a game by using