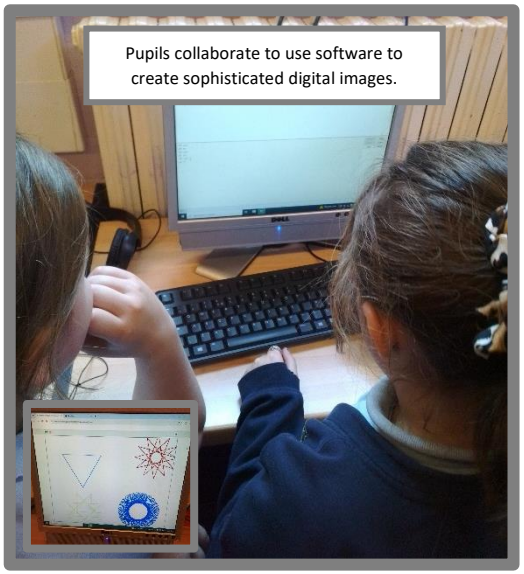
"They will soar on wings like eagles." Isaiah 40:31
Malvern Wyche C of E Primary School
Together We Soar

# Malvern Wyche C of E Primary School Computing

## 1 Computing Vision


Pupils collaborate to use software to create sophisticated digital images.

At the Wyche, our motto is 'Together we Soar', based on the verse from Isaiah "they will soar on wings like eagles". In Computing this means that we will develop pupils to be safe and efficient users of information & communication technology, with an ambitious and exciting curriculum underpinned by strong online safety practice and education. We are committed to pupils belong able to broaden their horizons and lift their hearts through the use of technology, opening a world of hobbies, learning, research and employment opportunities, yet ensuring that they are aware of risks and in good habits to stay safe, enjoy freedom and wellbeing and report issues. Computing will present children with opportunities across the curriculum, including reading, writing, calculation, computation, programming, creativity, the arts and research in a range of subjects.

### Computing at The Wyche will:

Give pupils a sound understanding of how to use digital devices and their applications safely and effectively, understanding computing's role in everyday life in communication, entertainment, commerce and design by:

1. Equipping pupils with the necessary computing knowledge and skills to prepare them for the next stages of education and employment.
2. Deepening understanding of computing uses and applications and processes by revisiting learning in a range of cross-curricular contexts (e.g. making PowerPoints in other subjects or animating stories they have read and written.)
3. Developing curiosity and knowledge about the digital technology and applications around us and the role computing and coding has played in these.
4. Developing respect for and skill with using digital technology, understanding the hazards, minimising risks and keeping themselves and others safe on- and off-line. and processes which are hazardous if the risks are not understood.
5. Developing a sense of responsibility as users of digital technology, understanding that it can be a force for good and for change.

### 1.2 Relevance of Christian Values in computing.

#### *Safety*

Online safety will be at the heart of our computing education offer, as well as part of the culture of the school. Children will be taught the specific risks and safe ways to use the software, hardware and techniques they are being taught, as well as the general principles of online safety being re-iterated throughout learning.

Children will be taught to use electrical devices safely and feel safe and supported to take learning risks and answer questions in a risk-taking environment, properly risk-assessed by staff.

#### *Trust*

Children will be able to trust that practical work and processes are safe and necessary to learning and that they can trust curriculum-themed trips and visitors; they should be able to put their trust in a culture of online safety and believe they can work safely on devices and online.

We will trust pupils and staff to abide by acceptable use agreements and behave appropriately online. We trust pupils to raise concerns about online access when they arise and trust we will handle them sensitively.

#### *Respect*

We will teach online respect, in social media and communications, and encourage pupils to treat the internet and digital applications with care, understanding their risks.

We will use computing and the internet to support our work on equality duty, allowing equity of access and presenting a range of good, balanced images and role models.

#### *Inspiration*

We will inspire pupils through great teaching, the best software, websites and applications and exciting opportunities.

We expect pupils to allow themselves to be excited and inspired and to be good role models, in classroom and learning behaviour, and in online safety and respect.

#### *Value*

We will treat digital applications, software and hardware with respect, understanding that they are privileges and need care and respect.

This means being taught and learning to operate, store and retrieve work and devices with care. Understanding that we are lucky to have such devices.

Pupils and adults will be mindful of the carbon footprint and environmental impact of electronic and digital devices and switch off when not in use and overnight.

#### *Engagement*

We will take part in computing lessons and discussions, including online safety assemblies and PSHE lessons, overcoming caution or reluctance to get the full benefit of what is being provided, working safely out of comfort zone, in the place where learning lifts off. We will work to overcome fear of failure (and try things we are not experts in) and begin to understand the opportunities in Computing to serve others, as well as make a living, and improve the lives of others as we code and communicate with the world around us.

# 2 Computing Curriculum

| *Computing Long Term Plan* EYFS & KS1 National Curriculum (Hedgehog & Fox Class) | | Reception, Year 1 & Year 2 |
|---|---|---|
| Year A | | |
| **Term** | **Substantive Knowledge:** "I know that" (*What we are learning about*) | **Disciplinary Knowledge** "I know how to" (*What we are learning that digital technology professionals do.*) [See *Computing progression of skills* for age-appropriate descriptors.] |
| Aut | Computing systems and networks – Technology around us<br>(See supporting document in SharePoint, not the Teach Computing unit)<br>• Technology is all around us to help us and can give examples<br>• A computer and a tablet are examples of technology<br>• A keyboard is used for typing characters such as letters, numbers and symbols and a mouse is used to select what I want<br>• A computer stores work in files<br>• I need to stay safe when using technology and can give examples of rules to keep me safe and healthy | **C1 Use & apply technology** choose what technology will be used; turn a computer on, log in, open a programme using a mouse, type my name using a keyboard and save my work onto Documents and PupilShare on PC / Files on a iPad<br>**C2 Networks & Internet** use technology purposefully to store, and retrieve digital content from Documents and PupilShare<br>**C4 Online Safety** Use technology safely and respectfully, keeping personal information private such as my log in details; ask for help when I am unsure about something I see on the computers |
| Aut 2 | Creating media – Digital painting<br>• Computers can be used to create a range of art<br>• Different tools will do different jobs<br>• Painting on a computer and on paper will have different advantages and disadvantages<br>untitled.png - PaintZ | **C1 Use & apply technology** Use technology purposefully to create and manipulate digital content by using a Paint based programme by using a range of tools and features including changing the brush size and colour, line thickness and colour, the fill tool and the undo button to correct mistakes<br>**C2 Networks & Internet** Use technology purposefully to organise, save and retrieve digital content to create an digital picture and save it to Documents and PupilShare<br>**C4 Online Safety** Use technology safely and respectfully |
| Spr 1<br>Spr 2 | Programming A – Moving a robot<br>• a programme is a series of instructions/commands<br>• Know that a series of instructions must be issued before they can be enacted<br>• To debug a program means to correct errors<br>Beebot app on Ipad | **C1 Use & apply technology** Use technology purposefully to create and manipulate digital content by planning and executing a program onto a floor robot<br>**C3 Coding & Programming** Implement programs on digital devices; Use precise instructions; Match a command to an outcome; predict the outcome of a sequence; debug a programme to correct errors<br>**C4 Online Safety** Use technology safely and respectfully |
| Sum 1<br>Sum 2 | Programming B - programming quizzes<br>• a programme is a series of instructions/commands<br>• Know that a sequence can be started using a variety of event blocks<br>• Know that a sequence has an outcome, and identify different programs that have the same outcome<br>Scratch Jnr (ipads) | **C1 Use & apply technology** Use technology purposefully to create and manipulate digital content to run a simple programme using Scratch Jr to create a quiz with at least 2 backgrounds which can switch<br>**C3 Coding & Programming** Write and run a simple program with a start block and an end block which changes the background ; Adapt a given design to create a program with multiple sprites and backgrounds which uses the blocks given in the example; Identify errors in their program, and debug them; Test a program created and evaluate how successful it has been<br>**C4 Online Safety** Use technology safely and respectfully; Identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies. |

| *Computing Long Term Plan* Key Stage 2 National Curriculum (Otter & Stoat Class) | | Year 3, 4 & 5 |
|---|---|---|
| Year A | | |
| Term | **Substantive Knowledge:** "I know that" (*What we are learning about*) | **Disciplinary Knowledge** "I know how to" (*What we are learning that scientists do.*) [See *Science progression of skills* for age-appropriate descriptors.] |
| Aut 1 | **Desktop publishing [Publisher or Canva]**<br>• Desktop publishing is the use of technology to make printed material (comics, magazines, books and posters).<br>• It combines text and images.<br>• Published work needs to be clear, accessible and informative.<br>• Like any writing it needs to be checked for accuracy.<br>• Placeholders are used to plan a text and image layout. | **C1 Use & apply technology** Select, use and combine text and images, formatting the text ○ Use placeholders appropriately to divide the page on a desktop or iPad to design and create a finished piece ○ Choose an appropriate layout for a given scenario ○ Evaluate how successful they were in meeting the task requirements<br>**C4 Online Safety** Use text, images and emojis with care, explaining how they can be misinterpreted; source images from the internet with care using appropriate search terms and search engine. |
| Aut 2 | **Creating media - Stop-frame animation (Wickeditor and imotion)**<br>• Animation is the creation of the illusion of movement using still images<br>• Animation can be physical (analogue) or using cameras and/or software (digital)<br>• The plan for a film is called a storyboard<br>• Like any story it needs a beginning, middle and end. | **C1 Use & apply technology** Use animation software to create own short films ○ develop a storyboard with a beginning, middle and end ○ create an animation which follows the storyboard ○ use technology effectively to produce smooth movement ○ review and improve my animation<br>**C4 Online Safety** Use iPads with care and respect ○ When adding additional media or images, use a reputable search engine, safe settings and appropriate search terms and get adult permission. |
| Spr 1 | 3. Programming A - Sequencing sounds (Scratch)<br>https://projects.raspberrypi.org/en/projects/rock-band<br>• Scratch is a programming system which uses block coding<br>• There are a range of blocks which are used for different purposes ie motion, sound and event<br>• Event blocks can be used to start a project in a variety of different ways The order of a sequence of coding is important<br>• Projects should be tested to see if they perform as expected. | **C1 Use & apply technology** Describe the purpose of the project, for example, to create sounds when keys are pressed □ Choose relevant backdrops and costumes<br>**C3 Coding & Programming** Explain what sequence means and demonstrate it in an algorithm ; Create an algorithm for each sprite ; Adapt the code for additional named sprites ; Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.<br>**C4 Online Safety** Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content □ Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. |
| Spr 2 | 6. Programming B – Repetition in games (Scratch)<br>• Repetition can be used to create a game in Scratch<br>• There's a difference between count-controlled and infinite loops<br>• A snippet of code can be modified to create a given outcome | **C1 Use & apply technology** Choose relevant sprites and backdrops for a game<br>**C3 Coding & Programming;** Create an algorithm that includes show, hide, and move blocks; Create an algorithm that includes relevant sound blocks; Create additional sprites and copy code over to those sprites; Run code and identify whether it meets the requirements of the task<br>**C4 Online Safety** Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content □ Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. |
| Sum 1 | 1. Computing systems and networks – Connecting computers<br>• A digital device has inputs, processes, and outputs<br>• Computer networks, including devices, make up a network's infrastructure, such as wireless access points, switches and servers.<br>• Computer networks include wireless access points, switches and servers.<br>• There are benefits of connecting devices in a network.<br>• There are different types of connections<br>• Messages are passed through multiple connections<br>• Information is passed between devices<br>• A secure password is essential | **C1 Use & apply technology choose** digital devices for different activities and select the most appropriate one.<br>**C2 Networks & Internet describe how a network works and how devices are linked; describe the** The role of a switch, server, and wireless access point work within a network<br>**C4 Online Safety** Create a secure password |
| Sum 2 | 4. Data and information – Branching databases (https://www.j2e.com/jit5#branch )<br>• A branching database is used to organise data/information<br>• Yes/no questions are used to gain an understanding of what the attributes are<br>• Branching databases can be physical and on-screen<br>• Branching data bases are used in the real world as an identification tool<br>• (Link to Science State of Matter learning, if possible) | **C1 Use & apply technology** use yes/no questions to sort groups of objects; design and create an identification tool using a branching database<br>**C4 Online Safety** Use websites and software safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. |

| *Computing Long Term Plan* Key Stage 2 National Curriculum (*Badger* Class) | | | Year 6 |
|---|---|---|---|
| | Year A | Year B | Year C |
| | **Substantive Knowledge:** "I know that" (*What we are learning about*) | | **Disciplinary Knowledge** "I know how to" (*What we are learning that digital technology professionals do.*) [See *Computing progression of skills* for age-appropriate descriptors.] |
| Aut 1 | 1. Computing systems and networks - Communication and collaboration<br>• Internet devices have addresses<br>• Data is transferred over networks in packets<br>• Recognised how to access shared files stored online<br>• We can work together online in different ways and it can be public and private<br>• There are many ways to communicate with people online<br>• Communication on the internet may not be private.<br><br>Microsoft 365- children should have logins. | | **C1 Use & apply technology-** access shared files stored online, work collaboratively on a shared file, communicate in different ways for a particular purpose.<br><br>**C2 Networks & Internet Access-** share files stored online, describe how computers use addresses to access websites, send information over the internet in different ways, use the internet to enable effective collaboration<br><br>**C4 Online Safety- Safely** communicate on the internet, select the method of communication to suit a particular purpose, decide when I should and should not share information online, report inappropriate content online, Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. |
| Aut 2 | 4. Data and information - Introduction to Spreadsheets<br><br>• Data can be inputted into a spreadsheet<br>• Formula can be used to calculate<br>• Changing inputs changes outputs<br>• Data can be presented<br><br>Spreadsheets- event idea enterprise week/ school disco? | | **C1 Use & apply technology –** collect data, enter data into a spreadsheet, choose an appropriate format for a cell, apply an appropriate format for a cell, explain which data types can be used in calculations,<br><br>**C2 Networks & Internet**<br><br>**C3 Coding & Programming**<br><br>**C4 Online Safety** Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content □ Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. |
| Spr 1 | 2. Creating media – Web page creation<br>• Layout contains multiple sections<br>• Layout relates to a relevant purpose/audience<br>• Images use copyright and I should only use copyright-free images<br>• The design will vary depending on the device<br>• Navigation paths are useful<br>• There are implication of linking to content owned by others | | **C1 Use & apply technology-** Explain the key requirement of the task of making a web page, use copyright-free images, ensure my design in clear and organised, add subpages, add internal and external hyperlinks, suggest improvements to mine and others web pages.<br>**C2 Networks & Internet**- save an image onto a network, insert hyperlinks into a web page, explain what a navigation paths is and why they are useful<br><br>**C4 Online Safety-** Use copyright-free images, add appropriate hyperlinks |
| Spr 2 | 1. Programming A – Variables in games<br>• A 'variable' is something that changes<br>• Variables can hold numbers or letters<br>• A variable has a name and a value<br>• The value of a variable can be used by a program<br>• Games can be shared with others | | **C1 Use & apply technology-** select the artwork for my project, create algorithms for my project, explain my design choices (colours/ background/ sprites), evaluate my game and identify ways to improve it<br><br>**C3 Coding & Programming-** define a variable, can change variables, change a variable in a program, make use of an event in a program to set a variable, create algorithms for my project, solve algorithm problems with my coding, extend my game with a range of variables, use if, then, but, <>= to create formula for scoring.<br><br>**C4 Online Safety-** Share games with others appropriately and safely, select backgrounds considering copy-right, use Scratch website appropriately. |
| Sum 1 | 5. Creating media – 3D Modelling (TinkerCAD- online/ FreeCAD- can be downloaded onto PC)<br>• Shapes are representations of a real-world object<br>• 3D shapes can be combined<br>• Changing perspective does not change the position of objects<br>• Grouping objects allows me to resize them as one object | | **C1 Use & apply technology-** create a 3D model of a building, position 3D objects to create a chosen artefact, accurately resize objects, create holes in objects, use and combine variations of one 3D shape, use guidelines to accurately resize 3D objects, duplicate and ungroup objects<br><br>**C4 Online Safety-** use technology safely and respectfully |
| Sum 2 | 6. Programming B - Sensing movement<br>• the micro:bit as an input, process, output device that can be programmed.<br>• The micro:bit can collect data from movement<br>• Selection can control the flow of a program<br>• The user will be able to see the display and will read information from it. | | **C1 Use & apply technology-** to create a step counter using a micro:bit<br><br>**C2 Networks & Internet-** write an algorithm and connect the micro:bit to execute the code<br><br>**C3 Coding & Programming** Choose an appropriate name for a variable, choose when and where to set a variable, create an algorithm to describe how the program will process each input, combine appropriate blocks to implement their algorithm, run their code on the emulator to test their program, propose a strategy to fix the code if it is not working, use a condition to change a variable, use an operand (<>=) in an if<br>**C4 Online Safety-** use technology safely and respectfully, create appropriate code names. |

## 3 Pedagogy: Learning & Teaching Computing

Pupils use Scratch to explore coding and sequential instructions as part of their Computing education.

3.1 Computing will be taught as a discrete subject, expressing the National Curriculums aims and programmes of study and the Early Years Learning Goals in termly themed planning. We will teach and assess the curriculum mapped above (2 Curriculum) and the progression of specifically computing behaviours outlined below (4 Assessment). Computing learning will be saved in a pupil digital file or where printed material is generated, form part of dedicated subject recording. Miscellaneous computing recording will be kept in a pupil file.

3.2 In addition to being taught as a discrete subject, Computing will form part of a rich, cross-curricular curriculum, and other subject disciplines will be strategically used to deepen understanding and widen the context of the subject, for example, producing presentations about Earnest Shackleton's leadership in History or making animations based on Greek Myths.

3.3 Above all, our pedagogical approach to Computing will allow children to answer the question "how do I create, communicate and work efficiently and safely, using the technology available to me?" They should learn about the commuting innovations and innovators of the past whilst being ready to enjoy and achieve with technology today and tomorrow.

3.4 Children will explore the computing knowledge they are learning through working alone, in pairs and in teams, evaluating and improving their programs, presentations and products. Children will develop the idea that safe, proportionate and informed use of information and computer technology can contribute towards a better quality of life, can be a viable career path and can shape a better world.

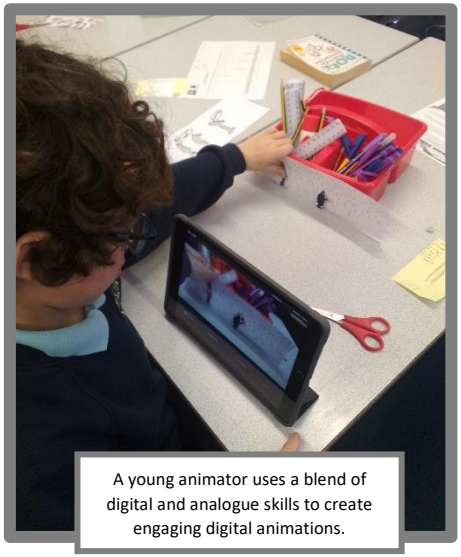
## 4 Assessment

Assessment in Computing will establish the extent to which children are gaining and retaining substantive knowledge about the uses and applications of digital technology and the safe and responsible use of them, and the disciplinary skills which they have been taught, and form part of the domain of computer science and digital technology.

This will be done through a range of techniques in line with our assessment policy, but which will include most, but not all of:

- Entry quizzes and assessment tasks.
- Exit quizzes and assessment tasks.
- Questioning in lessons, individual, group and class.
- Marking ongoing Computing work, products and recording where relevant, including coding, PowerPoints, publications, animations, flow charts etc.
- Observing computing and digital work in the classroom.
- Assessment of related content in other subject domains (e.g. animations of Greek Myths or presentations about Maya life).

Judgements will be made as a secure fit, and records kept of pupils who are working **below**, **at** or **above** their chronological year.



A young animator uses a blend of digital and analogue skills to create engaging digital animations.

# Malvern Wyche C *of* E Primary School *Computing* Progression *of* skills

| Document | EYFS | KS1 National Curriculum | | KS2 National Curriculum | | | |
|---|---|---|---|---|---|---|---|
| Phase | Reception, Year 1 & 2 | | | Year 3, 4 & 5 | | | Year 6 |
| Year | R | 1 | 2 | 3 | 4 | 5 | 6 |
| | *In an enabling environment* | *With support* | *Competently* | *With support* | *Competently* | *Reliably* | *Confidently* |
| **C1 Use & apply technology** | Recognise that technology is all around them.<br><br>Recognise that some devices are internet enabled and need to be used with care.<br><br>Recognise that digital devices are electric and need to be used with care.<br><br>Ask an adult for help if they have any concerns about digital devices.<br><br>Use digital devices as part of their creative and exploratory learning. | Use technology purposefully to create and manipulate digital content.<br><br>Recognise common uses of information technology beyond school. | | 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. | | | |
| **C2 Networks & Internet** | | Use technology purposefully to organise, store, and retrieve digital content. | | 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. | | | |
| **C3 Coding & Programming** | | Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.<br><br>Create and debug simple programs.<br><br>Use logical reasoning to predict the behaviour of simple programs. | | Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.<br><br>Use sequence, selection, and repetition in programs; work with variables and various forms of input and output<br><br>Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. | | | |
| **C4 Online Safety** | | use technology safely and respectfully, keeping personal information private.<br><br>identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies. | | Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content<br><br>Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. | | | |

| By the end of… | Progress Statement | The Wyche Way practical (disciplinary) knowledge descriptor for Computing<br>(pupils are successful when, by the end of the year …) |
|---|---|---|
| Reception | In an enabling environment | • Pupils develop skills, abilities and emergent awareness through formal and informal early learning.<br>• Pupils explore the world around them developing skills and abilities through trial and error.<br>• There are high levels of adult- and peer- interaction and exploratory and experiential learning. |
| Year 1 | With Support | • Pupils will demonstrate *many* of the end of Key Stage 1 Computing skills and processes *with support* from adults.<br>• They make many mistakes and are supported to recognise them and learn from them.<br>• They need repetition, re-iteration and reminders to achieve reliable results. |
| Year 2 | Competently | • Pupils will *use & apply* end of KS1 Computing skills and processes with *minimal support.*<br>• They make mistakes and are beginning to accept feedback and self-correct with support. |
| Year 3 | With Support | • Pupils demonstrate *some* KS1 & 2 Computing skills and processes with frequent support and supervision.<br>• They make frequent mistakes and are beginning to accept and respond to feedback. |
| Year 4 | Competently | • Pupils demonstrate *many* KS1 & 2 Computing skills and processes with occasional support and reminders.<br>• They are beginning to learn from their mistakes and accept and respond to feedback. |
| Year 5 | Reliably | • Pupils demonstrate *most* KS1 & 2 Computing skills and processes with *occasional* support and supervision.<br>• They achieve mostly reliable results and self-correct, frequently learning from mistakes.<br>• They begin to instruct and advise others with adult oversight. |
| Year 6 | Confidently | • Pupils demonstrate *all* primary Computing skills and processes with minimal support and supervision.<br>• They achieve consistent and predictable results, recognising and valuing their mistakes.<br>• They are confident to instruct and advise others. |

# 5 Computing Vocabulary

| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|---|---|---|---|---|---|---|
| **Use and apply technology** | technology, computer, mouse, trackpad, keyboard, screen, double-click, typing paint program, tool, paintbrush, erase, fill, undo, shape tools, line tool, fill tool, undo tool, colour, brush style, brush size, pictures, painting, computers 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. object, label, group, search, image, property, colour, size, shape, value, data set, more, less, most, fewest, least, the same | Information technology (IT), computer, barcode, scanner/scan music, quiet, loud, feelings, emotions, pattern, rhythm, pulse, pitch, tempo, rhythm, notes, create, emotion, beat, instrument, open, edit. device, camera, photograph, capture, image, digital, landscape, portrait, framing, subject, compose, light sources, flash, focus, background, editing, filter, format, framing, lighting, 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 | | | | |
| **Networks and Internet** | Computers, documents, organise, store, save, close, open | Computers, network, cloud organise, store, save, close, open | | | | |
| **Programming and Coding** | Bee-Bot, forwards, backwards, turn, clear, go, commands, instructions, directions, left, right, route, plan, algorithm, program. ScratchJr, command, sprite, compare, programming, area, block, joining, start, run, program, background, delete, reset, algorithm, predict, effect, change, value, instructions, design. | instruction, sequence, clear, unambiguous, algorithm, program, order, prediction, artwork, design, route, mat, debugging, decomposition sequence, command, program, run, start, outcome, predict, blocks, design, actions, sprite, project, modify, change, algorithm, build, match, compare, debug, features, evaluate, decomposition, code. | | | | |
| **E-safety** | Rules, safety, technology, trusted adult, safe/unsafe | Rules, safety, technology, trusted adult, safe/unsafe, digital footprint | | | | |