St Joseph's Catholic Voluntary Academy, Leicester

KEY:	Computer Science	Information Technology	Digital Literacy

Medium Term Planning 2024/25

Year	Nursery		Subject	Computing	Academic Year 2024/25
Prior Knowledge Anticipates repeated sounds, sights and actions, e.g. when an adult demonstrates an action toy several times Shows interest in toys with buttons, flaps and simple mechanisms and begins to learn to operate them			End Point • Seeks to acquire basic skills in turning on and operating some digital equipment. • Operates mechanical toys, e.g. turns the knob on a wind-up toy or pulls back on a friction car • Plays with water to investigate "low technology" such as washing and cleaning • Uses pipes, funnels and other tools to carry/ transport water from one place to another		Key Vocabulary iPad, photograph, screen, app, button, screen, keyboard

Nursery	I wonder what is so special about me?	I wonder why we celebrate?	I wonder what changes in winter?	I wonder how plants grow?	I wonder who lives there?	I wonder why trees are green?
	Sequence of Learning	Sequence of Learning	Sequence of Learning	Sequence of Learning	Sequence of Learning	Sequence of Learning

General learning throughout the year in Continuous Provision

A range of technology is available within the classroom and outside for the children to access, both independently and with an adult.

Tablets, Computers, games / activities linked to the topic or maths being covered each week, Remote control toys – cars, Battery operated toys, CD players, Interactive white boards, Phonics Play / Topmarks / Google Earth / Digimap., iPads, Purple Mash (mini mash) – drawing, sorting, information gathering, exploring old typewriters / computers / mechanical toys.

Technology roleplay in the home corner

Using technology in cooking – using the microwave to make porridge

Year	Reception	Subject	Computing	Academic Year 2024/25
Prior Knowledge • Seeks to acquire basic skills in turning on and operating some digital equipment • Operates mechanical toys, e.g. turns the knob on a wind-up toy or pulls back on a friction car • Plays with water to investigate "low technology" such as washing and cleaning • Uses pipes, funnels and other tools to carry/ transport water from one place to another		End Point • Knows how to operate simple equipment, e.g. turns on CD player, uses a remote control, can navigate touch-capable technology with support • Shows an interest in technological toys with knobs or pulleys, real objects such as cameras, and touchscreen devices such as mobile phones and tablets • Shows skill in making toys work by pressing parts or lifting flaps to achieve effects such as sound, movements or new images • Knows that information can be retrieved from digital devices and the internet		Key Vocabulary Computer, iPad, tablet, App, button, mouse, screen, keyboard, Google, information, control, instruction, internet, robot, save, sequence,

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						instructions, search, safety, online, password

Reception	I wonder what is so special about me?	I wonder why we celebrate?	I wonder what changes in winter?	I wonder how plants grow?	I wonder who lives there?	I wonder why trees are green?
1	To recognise that a range of technology is used in places such as homes and schools	To know how to open an app to play a game of my choice	To use the iPads to take photographs on a winter walk	To control a mouse to play a simple game	To input a simple code into a Bee-Bot	To write own name using keyboard.
2	To follow the rules on using school technology equipment safely	To manage a device by correctly closing websites or apps and safely turning on and off.	To know why it is important to be kind online (8.2 Safer Internet Day)	To know how and when to ask for help when using the computer	To know how to close a program when I see something I do not like	To know that I should keep my information private.

General learning throughout the year in Continuous Provision

A range of technology is available within the classroom and outside for the children to access, both independently and with an adult.

Tablets, Computers, games / activities linked to the topic or maths being covered each week, Remote control toys – cars, Battery operated toys, CD players, Interactive white boards, Phonics Play / Topmarks / Google Earth / Digimap., iPads, Purple Mash (mini mash) – drawing, sorting, information gathering, exploring old typewriters / computers / mechanical toys.

Technology roleplay in the home corner

Using technology in cooking – using the microwave to make porridge

Year 1	Subject: Computing	Academic Year 2024/25

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Prior Knowledge	End Point	Key Vocabulary
• Knows how to operate simple equipment, e.g., turns on CD player, uses a remote control, can navigate touch-capable technology with support • Shows an interest in technological toys with knobs or pulleys, real objects such as cameras, and touchscreen devices such as mobile phones and tablets • Shows skill in making toys work by pressing parts or lifting flaps to achieve effects such as sound, movements or new images • Knows that information can be retrieved from digital devices and the internet	• Recognise common uses of information technology beyond school. • Understand the rules and responsibilities outlined by the school's acceptable use policy and begin to understand where to go for help when they have concerns. • Develop an understanding of how to keep their personal information private and understand they need to use technology safely and respectfully. • Use technology with support, to create, store and retrieve digital content such as text and images. • Use a simple search to find information or files. • Develop understanding of how simulations work through exploring simple examples. • Understand what algorithms are and develop strategies to help find bugs in them. • Make very simple programs.	Year 1 Computing Vocabulary 1. **Computer Skills**: The ability to use a computer for different tasks. 2. **Pictograms**: Simple pictures that represent words. 3. **Digital Research**: Searching for information online. 4. **Presentation Skills**: Creating engaging digital presentations. 5. **Digital Image**: Creating and editing images using technology. 6. **Coding**: Writing instructions for computers. 7. **Computational Thinking**: Problem-solving using logical thinking. 8. **E-safety**: Staying safe online. 9. **Self-Image and Identity**: Protecting personal information online. 10. **Online Relationships**: Interacting with others online. 11. **Online Bullying**: Hurtful behaviour online. 12. **Health and Well-being**: Understanding technology's impact on health. 13. **Privacy and Security**: Keeping personal information safe online. 14. **Information Security**: Protecting data from unauthorized access. 15. **Social media**: Platforms to connect and share online. 16. **Data Privacy**: Ensuring personal data isn't misused online. 17. **Personal Data**: Information specific to an individual. 18. **Cybersecurity**: Protecting computer systems from attacks.

YR 1	Sequence of Learning: Robots	Sequence of Learning: Fire, Fire	Sequence of Learning: Family Album	Sequence of Learning: Penguins, Possums and Pigs	Sequence of Learning: The Great Outdoors

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Project Evolve	Self Image and Identity	Online Relationships	Online Bullying	Health, Well-being and Lifestyle	Privacy and Security
	To show that if something happens that makes me feel sad, worried, uncomfortable or frightened I can give examples of when and how to speak to an adult I can trust and how they can help.	To explain why it is important to be considerate and kind to people online and to respect their choices.	To describe how to behave online in ways that do not upset others and can give examples.	To explain rules to keep myself safe when using technology both in and beyond the home.	To recognise more detailed examples of information that is personal to someone (e.g where someone lives and goes to school, family names).
	Computer/Word Processing Skills and pictograms.	**Digital Research and Presentation skills.**	**Digital image creation and manipulation.**	**Coding.**	**Computational Thinking**
1 Yr1	To use a track pad/mouse. How to Teach Computer Skills to Children | Twinkl (youtube.com) Using a Trackpad (youtube.com) (for ideas) Dragon Drop | Computer Mouse Practice Game for Kids (roomrecess.com) (activity)	To use a search engine and a browser to find websites and know the difference between the two.	To use a range of digital devices to capture and save both still and moving images.	To understand that computer programs work by following instructions called code. (Coding: PM U1.7)	To understand the importance of following instructions. (Lego builders: PM U1.4)
2 Yr1	To begin to understand how to enter text on MS Word. (including use of space bar, delete/backspace, return key, basic punctuation and upper and lowercase letters).	To use the internet to find information for a specific purpose.	To upload images or movies from cameras and other digital devices to a computer with support.	To use code to make a computer program involving objects and actions. (Coding: PM U1.7)	To follow and create simple instructions on the computer. (Lego builders: PM U1.4)
3 Yr1	To log in to Purple Mash, save some work and create an avatar.	To create a new presentation and add text to a single slide in MS PowerPoint.	To begin to make changes to (crop, annotate etc) and save images.	To use an event to control an object. (Coding: PM U1.7)	To consider how the order of instructions affects the result. (Lego builders: PM U1.4)

4 Yr1	To understand that data can be represented in picture format. (Pictograms: PM U1.3)	To add an image (including insert clip art/copy paste an image) to a single slide presentation in MS PowerPoint.	To create a sequence of images to form a short animation/storyboard/comic strip.	To begin to understand how code executes when a program is run. (Coding: PM U1.7)	To be able to use direction keys to complete challenges successfully. (Maze Explorers: PM U1.5)
5 Yr1	To contribute to a class pictogram. (Pictograms: PM U1.3)	To think logically to sort items using a range of criteria. (Grouping and sorting: PM U1.2)	To find and understand examples of where technology is used in the local community. (Tech outside of school: PM U1.9)	To use backgrounds and scale objects. (Coding: PM U1.7)	To understand how to create and debug an algorithm. (Maze Explorers: PM U1.5)
6 Yr1	To use a pictogram to record the results of an experiment. (Pictograms: PM U1.3)	To start to use algorithms to sort objects. (Grouping and sorting: PM U1.2)	To record examples of technology outside school. (Tech outside of school: PM U1.9)	To plan and make a computer program. (Coding: PM U1.7)	To create a longer algorithm for an activity. (Maze Explorers: PM U1.5)
Unit E-Safety considerations		Safer Searching Copyright and ownership	Using and sharing data Protecting personal data		

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Year 2	Subject	Computing	Academic Year 2024/25
Prior Knowledge	End Point		Key Vocabulary [Year 2 Computing Vocabulary](#) 1. **Computer/Word Processing Skills**: The ability to use a computer effectively, including typing, formatting text, and saving documents. 2. **Pictograms**: A type of graphical representation of data using symbols or icons. 3. **Spreadsheets**: Computer software used for organizing, analyzing, and presenting data in tabular form. 4. **Coding**: The process of creating instructions for a computer to execute using programming languages. 5. **Questioning**: The act of asking questions to seek information or clarification. 6. **Making music**: Creating music using digital tools and software. 7. **Self Image and Identity**: How one sees themselves and the characteristics that define them. 8. **Online Relationships**: Interactions between individuals over the internet. 9. **Online Bullying**: Harassment, intimidation, or abuse that takes place online. 10. **Health, Well-being, and Lifestyle**: The state of one's physical, mental, and social health in relation to technology use.

		11. **Privacy and Security**: Protecting personal information and data from unauthorized access or disclosure.
		12. **Data Entry**: Entering information into a computer system.
		13. **Graphics**: Visual images or designs displayed on a computer.
		14. **Algorithms**: A set of rules to be followed in calculations or problem-solving operations.
		15. **Debugging**: Finding and correcting errors in a computer program.
		16. **Copyright**: Legal protection of original work from being copied or used without permission.
		17. **Firewall**: A security system that controls incoming and outgoing network traffic.
		18. **Backup**: Making a copy of data to prevent loss in case of system failure.
		19. **Browser**: Software used to access and navigate the internet.

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- Knows how to operate simple equipment, e.g., turns on CD player, uses a remote control, can navigate touch-capable technology with support
- Shows an interest in technological toys with knobs or pulleys, real objects such as cameras, and touchscreen devices such as mobile phones and tablets
- Shows skill in making toys work by pressing parts or lifting flaps to achieve effects such as sound, movements or new images
- Knows that information can be retrieved from digital devices and the internet

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- Know their responsibilities from their school's acceptable use policy and how to report any concerns they have.
- Recognise situations using technology and the internet involving content and contact that are not safe and know where to go for help.
- Begin to develop an understanding of the importance of computers and the internet to communicate.
- Develop their knowledge of the technology used in everyday life in a range of situations and be able to discuss their ideas.
- Use technology with purpose to create, store, organise, retrieve and manipulate digital content.
- Learn to make a range of simple digital assets such as presentations, movies, audio files and graphs.
- Navigate the web and carry out simple searches using suitable search engines and begin to understand that not everything on the internet is true.
- Use simple simulations and understand how they work.
- Use algorithms and know that they can be implemented as programs on devices.
- Know what debugging is and find errors in their programs.
- Understand that programs execute by following a precise set of instructions.
- Create simple programs and further develop their strategies and logical thinking to find bugs and predict outcomes in their algorithms and programs.

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Year 2 Computing Vocabulary

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YR 2	Sequence of Learning: The Place Where I Live	Sequence of Learning: Fighting Fit	Sequence of Learning: Explorers	Sequence of Learning: Farm Shop	Sequence of Learning: The Wind in the Willows
Project Evolve	Self Image and identity. To give examples of issues online that might make someone feel sad, worried, uncomfortable or frightened; And to give examples of how they might get help.	Online Relationships To identify who can help me if something happens online without my consent.	Online bullying To explain what bullying is, how people may bully others and how bullying can make someone feel.	Health, Well-being and Lifestyle To explain simple guidance for using technology in different environments and settings e.g. accessing online technologies in public places and the home environment.	Privacy and Security To describe and explain some rules for keeping personal information private (e.g. creating and protecting passwords).
1	To use a trackpad/mouse and know the difference between	To present a story three ways.	To understand a spreadsheet. (Spreadsheets: PM U1.8)	To create a computer program using an algorithm.	To show that the information provided on pictograms is of

	a left and right click. (include highlighting text). How to Teach Computer Skills to Children	Twinkl (youtube.com) Using a Trackpad (youtube.com) (for ideas) Dragon Drop	Computer Mouse Practice Game for Kids (roomrecess.com) (activity)	(Presenting Ideas: PM U2.8)	*yr1 lesson	(Coding: PM U2.1)	limited use beyond answering simple questions. (Questioning: PM U2.4)
2	To enter text at a sentence level on MS Word (including use of space bar, delete/backspace, return key, basic punctuation and upper and lowercase letters).	To make a quiz about a story or class topic. (Presenting Ideas: PM U2.8)	To use a range of tools and add images. ('move cell', 'lock', 'speak' and 'count' tools). (Spreadsheets: PM U1.8) *yr1 lesson	To create a program using collision detection. (Coding: PM U2.1)	To use yes/no questions to separate information. (Questioning: PM U2.4)
3	To begin to format text in MS Word. (including font, size, colour, bold, underline, italic).	To make a fact file on a non-fiction topic. (Presenting Ideas: PM U2.8)	To use 'copying', 'pasting' and 'totalling' tools. (Spreadsheets: PM U2.3)	To design an algorithm that follows a timed sequence. (Coding: PM U2.1)	To construct a binary tree to separate different items. (Questioning: PM U2.4)
4	To explore, edit and combine sounds. (Making Music: PM U1.7)	To begin to create a simple multi-slide presentation using MS PowerPoint and save it. (give slides titles, use pictures and text – bullet points?)	To use a spreadsheet to add amounts. (Spreadsheets: PM U2.3)	To create a program using different events and objects. (Coding: PM U2.1)	To use a binary tree to answer questions. (Questioning: PM U2.4)
5	To think about how music can be used to express feelings and create tunes which depict feelings. (Making Music: PM U1.7)	To retrieve and finish a multi-slide presentation in MS PowerPoint.	To create and save an MS Excel document, entering some simple data. (Note: before beginning this lesson, it might be best to generate some class data – Walk to School? Favourite explorers?)	To create a computer program that includes a button object. (Coding: PM U2.1)	To use a database to search for information and answer questions. (Questioning: PM U2.4)

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6	To record and upload a sound. (Making Music: PM U1.7)	To make a presentation to the class. (Presenting Ideas: PM U2.8)	To retrieve an MS Excel document and create a chart or graph based on data.	To debug simple programs. (Coding: PM U2.1)	
Unit E-Safety Considerations					

Year 3			Subject	Computing	Academic Year 2024/25
Prior Knowledge			End Point		Key Vocabulary

Prior Knowledge

- Know their responsibilities from their school's acceptable use policy and how to report any concerns they have.
- Recognise situations using technology and the internet involving content and contact that are not safe and know where to go for help.
- Begin to develop an understanding of the importance of computers and the internet to communicate.
- Develop their knowledge of the technology used in everyday life in a range of situations and be able to discuss their ideas.
- Use technology with purpose to create, store, organise, retrieve and manipulate digital content.
- Learn to make a range of simple digital assets such as presentations, movies, audio files and graphs.
- Navigate the web and carry out simple searches using suitable search engines and begin to understand that not everything on the internet is true.
- Use simple simulations and understand how they work.
- Use algorithms and know that they can be implemented as programs on devices.
- Know what debugging is and find errors in their programs.
- Understand that programs execute by following a precise set of instructions.

End Point

- Use technology safely and respectfully and have an understanding of how to keep information secure.
- Realise the importance of reporting any concerns they have using the internet and other communication technologies and know some ways in which they can do it.
- Develop an understanding of what is acceptable and unacceptable online behaviour.
- Realise that not all information on the internet is trustworthy and there is a need to verify its reliability.
- Use a variety of software and devices to create digital assets such as programs, graphs and multimedia content for a defined purpose.
- Develop their search strategies further by refining their use of keywords and starting to use appropriate key phrases and questions.
- Use more complex simulations and understand the effects of changing variables.

Key Vocabulary

Year 3 computing vocabulary

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- ► Create simple programs and further develop their strategies and logical thinking to find bugs and predict outcomes in their algorithms and programs.

- ► Plan and write algorithms and programs using sequence and repetition and further develop their computational thinking strategies to solve problems and errors in their algorithms and programs.
- ► Have knowledge and experience of using a range of different inputs and outputs.
- ► Describe some of components of a computer network and some of the ways in which computer networks can be used.

YR 3	Sequence of Learning: There's No place Like Home	Sequence of Learning: Healthy Humans	Sequence of Learning: Rock and Roll	Sequence of Learning: The Iron Man	Sequence of Learning: What the Romans did for us
Project Evolve	Self Image and identity. To explain what is meant by the term 'identity' and to explain how people can represent themselves in different ways online.	Online Relationships To explain what is meant by 'trusting someone online', why this is different from 'liking someone online', and why it is important to be careful about who to trust online including what information and content they are trusted with.	Online Bullying To describe appropriate ways to behave towards other people online and why this is important and to give examples of how bullying behaviour could appear online and how someone can get support.	Health, Well-being and Lifestyle To explain why spending too much time using technology can sometimes have a negative impact on anyone; I can give some examples of both positive and negative activities where it is easy to spend a lot of time engaged.	Privacy and Security To give reasons why someone should only share information with people they choose to and that they can trust. I can explain that if they are not sure or feel pressured then they should tell a trusted adult.
1	To learn how to use the home, top and bottom row keys. (Touch Typing: PM U3.4 L1)	To create pie charts and bar graphs. (Spreadsheets: PM U3.3)	To identify and discuss the main elements of music: (Pulse, Rhythm, Tempo, Pitch, Texture). (Making Music: PM U4.9)	To use a flowchart. (Coding: PM U3.1)	To learn to use another coding language. (Logo: PM U4.5)
2	To practice and improve typing for home, bottom, and top rows. (Touch Typing: PM U3.4 L2)	To use 'more than', 'less than' and 'spin' tools. (Spreadsheets: PM U3.3)	To understand and experiment with rhythm and tempo. (Making Music: PM U4.9)	To use timers in a code. (Coding: PM U3.1)	To use code to create letter shapes. (Logo: PM U4.5)
3	To insert tables, images and word art in MS Word.	To use 'advanced mode' and understand cell addresses. (Spreadsheets: PM U3.3)	To create a melodic phrase. (Making Music: PM U4.9)	To use the repeat command in a code. (Coding: PM U3.1)	To use the repeat command. (Logo: PM U4.5)

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4	To format text including font and paragraph justification and alter page orientation in MS Word.	To understand cells, rows and columns in MS Excel and enter a range of data. This lesson will incorporate what the children have learned in '2calculate' and apply it to the more widely used MS Excel.	To compose a piece of electronic music. (Making Music: PM U4.9)	To code, test and debug. (Coding: PM U3.1)	To use and build procedures. (Logo: PM U4.5)
5	To add media to a presentation. (Presenting with PowerPoint: PM U3.9 L2)	To produce a range of graphs and charts appropriate to the data/task with support.	To produce and share graphs. (Graphing: PM U3.8)	To design and create an interactive scene. (Coding: PM U3.1)	To practice the keys typed with the left hand. (Touch Typing: PM U3.4 L3)
6	To add animation to a presentation. (Presenting with PowerPoint: PM U3.9 L3)	To work through and evaluate a simulation. (Simulations: PM U3.7 L3) Stand alone simulations lesson teacher led with class discussion.	To carry out an investigation using graphs. (Graphing: PM U3.8)	To design and create an interactive scene. (Coding: PM U3.1)	To practice the keys typed with the right hand. (Touch Typing: PM U3.4 L4)
Unit E-Safety Considerations					

Year 4	Subject Computing	Academic Year 2024/25
Prior Knowledge	End Point	Key Vocabulary

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For Year 3:
- Know their responsibilities from their school's acceptable use policy and how to report any concerns they have.
- Recognise situations using technology and the internet involving content and contact that are not safe and know where to go for help. Begin to develop an understanding of the importance of computers and the internet to communicate.
- Develop their knowledge of the technology used in everyday life in a range of situations and be able to discuss their ideas.
- Use technology with purpose to create, store, organise, retrieve and manipulate digital content. Learn to make a range of simple digital assets such as presentations, movies, audio files and graphs.
- Navigate the web and carry out simple searches using suitable search engines and begin to understand that not everything on the internet is true.
- Use simple simulations and understand how they work.
- Use algorithms and know that they can be implemented as programs on devices.
- Know what debugging is and find errors in their programs.
- Understand that programs execute by following a precise set of instructions.
- Create simple programs and further develop their strategies and logical thinking to find bugs and predict outcomes in their algorithms and programs.

For Year 4:

Year 3:
- Use technology safely and respectfully and understand how to keep information secure.
- Realise the importance of reporting any concerns they have using the internet and other communication technologies, and know some ways in which they can do it.
- Develop an understanding of what is acceptable and unacceptable online behaviour.
- Realise that not all information on the internet is trustworthy and there is a need to verify its reliability.
- Use a variety of software and devices to create digital assets such as programs, graphs and multimedia content for a defined purpose.
- Develop their search strategies further by refining their use of keywords and starting to use appropriate key phrases and questions.
- Use more complex simulations and understand the effects of changing variables.
- Plan and write algorithms and programs using sequence and repetition and further develop their computational thinking strategies to solve problems and errors in their algorithms and programs.
- Have knowledge and experience of using a range of different inputs and outputs.
- Describe some of components of a computer network and some of the ways in which computer networks can be used.

Year 4:
- Use technology respectfully, responsibly and safely, knowing how to keep their information and passwords secure.
- Know different ways of reporting concerns about content and contact involving the internet and other communication technologies.
- Have a greater understanding of what is acceptable and unacceptable online behaviour.

Year 4 computing vocabulary

- Use technology safely and respectfully and have an understanding of how to keep information secure.
- Realise the importance of reporting any concerns they have using the internet and other communication technologies, and know some ways in which they can do it.
- Develop an understanding of what is acceptable and unacceptable online behaviour.
- Realise that not all information on the internet is trustworthy and there is a need to verify its reliability.
- Use a variety of software and devices to create digital assets such as programs, graphs and multimedia content for a defined purpose.
- Develop their search strategies further by refining their use of keywords and starting to use appropriate key phrases and questions.
- Use more complex simulations and understand the effects of changing variables.
- Plan and write algorithms and programs using sequence and repetition and further develop their computational thinking strategies to solve problems and errors in their algorithms and programs.
- Have knowledge and experience of using a range of different inputs and outputs.
- Describe some of components of a computer network and some of the ways in which computer networks can be used.

- Start to develop strategies to verify the reliability and accuracy of information on the internet and develop an awareness of copyright.
- Use and combine a variety of software and devices with increasing independence, to create a range of digital assets such as programs, databases, systems and multimedia content.
- Understand how Boolean operators can change searches and select appropriate information for their tasks.
- Use models and simulations to produce graphs and explore patterns and relationships.
- Design and write more complex algorithms and programs using sequence, repetition and selection.
- Further develop their computational thinking to help debug their programs and design and solve problems and tasks.
- Have a simple understanding of how search engines work.
- Develop their understanding of inputs and outputs further, demonstrating how they can use programs to control external devices such as sensors, motors and robots.
- Understand the difference between the internet and World Wide Web

YR 4	Sequence of Learning: Sparks Might Fly	Sequence of Learning: The Great Plague	Sequence of Learning: Hunted	Sequence of Learning: Water, Water Everywhere	Sequence of Learning: Passport to Europe

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Project Evolve	Self Image and identity. To explain how my online identity can be different to my offline identity and to describe positive ways for someone to interact with others online and understand how this will positively impact on how others perceive them.	Online Relationships To describe strategies for safe and fun experiences in a range of online social environments (e.g. livestreaming, gaming platforms) and to give examples of how to be respectful to others online and describe how to recognise healthy and unhealthy online behaviours.	Online Bullying To recognise when someone is upset, hurt or angry online and to describe ways people can be bullied through a range of media (e.g. image, video, text, chat).	Health, Well-being and Lifestyle To explain how using technology can be a distraction from other things, in both a positive and negative way and to identify times or situations when someone may need to limit the amount of time they use technology e.g. To suggest strategies to help with limiting this time.	Privacy and Security To describe strategies for keeping personal information private, depending on context and to explain that internet use is never fully private and is monitored, e.g. adult supervision.
1	To independently insert tables, images and word art in MS Word.	To use Yes/No questions. (Branching Databases: PM U3.6)	To look at and evaluate different forms of animation. (Animation: PM U4.6)	To design, code, test and debug. (Coding: PM U4.1)	To add formulae and format cells. (Spreadsheets: PM U4.3)
2	To independently format text including font and paragraph justification.	To complete a branching database. (Branching Databases: PM U3.6)	To understand 'onion skinning' in an animation. (Animation: PM U4.6)	To understand 'IF Statements'. (Coding: PM U4.1)	To use tools to make number games. (Spreadsheets: PM U4.3)
3	To create a fact file using MS Word. Using all elements of word processing progression skills from KS1-LKS2.	To produce a branching database for a purpose. (Branching Databases: PM U3.6)	To animate an object in a stop motion animation app. 'Animator' app on all school iPads.	To understand and use co-ordinates in programs. (Coding: PM U4.1)	To create and understand line graphs. (Spreadsheets: PM U4.3)
4	To create multiple slides as part of a slideshow in MS PowerPoint. Element of electricity	To use the shift key and the space bar. 2Type	To create a stop motion animation.	To use repeat UNTIL and IF/ELSE Statements. (Coding: PM U4.1)	To use a spreadsheet for budgeting. (Spreadsheets: PM U4.3)
5	To add animation to slides in MS PowerPoint.	To type letters and numbers. 2Type	To add backgrounds and sounds to an animation.	To understand and use number variables. (Coding: PM U4.1)	To explore place value using a spreadsheet. (Spreadsheets: PM U4.3)
6	To understand and use transitions in MS PowerPoint.	To type vowels and consonants. 2Type	To finish and evaluate work.	To make a playable game. (Coding: PM U4.1)	To understand the different parts that make up a desktop computer.

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				(Hardware Investigators: PM U4.8)
Unit E-safety Considerations				

Year 5		Subject		Computing	Academic Year 2024/25
Prior Knowledge		End Point			Key Vocabulary
Year 4: ▶ Use technology safely and respectfully and have an understanding of how to keep information secure.		Year 4 End Point/Year 5 Prior Knowledge ▶ Use technology respectfully, responsibly and safely, knowing how to keep their information and passwords secure. ▶ Know different ways of reporting concerns about content and contact involving the internet and other communication technologies.			Year 5 computing vocabulary

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- Realise the importance of reporting any concerns they have using the internet and other communication technologies, and know some ways in which they can do it.
- Develop an understanding of what is acceptable and unacceptable online behaviour.
- Realise that not all information on the internet is trustworthy and there is a need to verify its reliability.
- Use a variety of software and devices to create digital assets such as programs, graphs and multimedia content for a defined purpose.
- Develop their search strategies further by refining their use of keywords and starting to use appropriate key phrases and questions.
- Use more complex simulations and understand the effects of changing variables.
- Plan and write algorithms and programs using sequence and repetition and further develop their computational thinking strategies to solve problems and errors in their algorithms and programs.
- Have knowledge and experience of using a range of different inputs and outputs.
- Describe some of components of a computer network and some of the

- Have a greater understanding of what is acceptable and unacceptable online behaviour.
- Start to develop strategies to verify the reliability and accuracy of information on the internet and develop an awareness of copyright.
- Use and combine a variety of software and devices with increasing independence, to create a range of digital assets such as programs, databases, systems and multimedia content.
- Understand how Boolean operators can change searches and select appropriate information for their tasks.
- Use models and simulations to produce graphs and explore patterns and relationships.
- Design and write more complex algorithms and programs using sequence, repetition and selection.
- Further develop their computational thinking to help debug their programs and design and solve problems and tasks.
- Have a simple understanding of how search engines work.
- Develop their understanding of inputs and outputs further, demonstrating how they can use programs to control external devices such as sensors, motors and robots.
- Understand the difference between the internet and World Wide Web

Year 5:
- Use technology safely, respectfully and responsibly and continue to develop skills to identify risks involved with contact and content including developing an understanding of digital footprints.
- Know a range of ways of reporting concerns about content and contact involving the internet and other communication technologies. Understand what acceptable and unacceptable online behaviour is.
- Use strategies to verify the reliability and accuracy of information on the internet and understand copyright.
- Select, use and combine a range of software and use a wider range of devices to create a variety of digital assets such as programs, systems, databases, spreadsheets and multimedia content for a defined purpose.
- Understand about the use of operators in searching and continue developing their effective search techniques by using Boolean operators in their searches.

ways in which computer networks can be used.	- Create simple spreadsheet models to investigate real life problems. - Design and write programs using sequence, repetition, selection and variables. Develop greater understanding of how to use selection and repetition in more complex programs. - Understand how search engines work. - Further develop their computational thinking showing they can plan and decompose tasks; explain how the algorithms they write work and correct errors in their programs. Plan and write programs to control external devices such as sensors and motors and explain about the inputs and outputs used. Have an understanding of how a computer network works and the opportunities that it offers for communication and collaboration.	

YR 5	Sequence of Learning: Food, Glorious Food: MS Word and PowerPoint	Sequence of Learning: Faster Higher, Stronger: Spreadsheets (inc MS Excel)	Sequence of Learning: Earthlings: Coding	Sequence of Learning: Inventor and Inventions: Game Creator/3-D Modelling	Sequence of Learning: A Kingdom United – Leicester: 3-D Modelling/Databases
Project Evolve	Self Image and identity. To explain how identity online can be copied, modified or altered and to demonstrate how to make responsible choices about having an online identity, depending on context.	Online Relationships To explain that there are some people I communicate with online who may want to do me or my friends harm. I can recognise that this is not my/our fault.	Online Bullying To recognise online bullying can be different to bullying in the physical world and can describe some of those differences and to describe how what one person perceives as playful joking and teasing (including 'banter') might be experienced by others as bullying.	Health, Well-being and Lifestyle To describe ways technology can affect health and well-being both positively (e.g. mindfulness apps) and negatively and to explain how and why some apps and games may request or take payment for additional content (e.g. in-app purchases, loot boxes) and explain the importance of seeking permission from a trusted adult before purchasing.	Privacy and Security To explain what a strong password is and demonstrate how to create one.

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1	To use cut, copy and paste in MS Word.	To use formulae within a spreadsheet to convert measurements of length and distance. (Spreadsheets: PM U5.3)	To begin to simplify code in order to create a playable game. (Coding: PM U5.1)	To begin planning a game. (Game Creator: PM U5.5)	To explore the effect of moving points when designing. (3-D Modelling: PM U5.6)
2	To use spell check & thesaurus functions in MS Word. Use AI to create a document which pupils can edit.	To use the count tool to answer hypotheses about common letters in use. (Spreadsheets: PM U5.3)	To program a simulation using. (Coding: PM U5.1)	To design the game environment. (Game Creator: PM U5.5)	To design a 3D model to fit certain criteria. (3-D Modelling: PM U5.6)
3	To format a specific area of text and pictures within an MS Word document. (text wrapping, crop, resize, highlight, move & edit according to task).	To use formulae to calculate area and perimeter of shapes and solve problems. (Spreadsheets: PM U5.3)	To use decomposition to make a plan of a real-life situation. (Coding: PM U5.1)	To design the game quest to make it a playable game. (Game Creator: PM U5.5)	To refine and print a model. (3-D Modelling: PM U5.6)
4	To add music to slides in MS PowerPoint.	To create formulae that use text variables. (Spreadsheets: PM U5.3)	To understand how 'friction' and 'functions' work in code. (Coding: PM U5.1)	To finish and share the game. (Game Creator: PM U5.5)	To search for information in a database. (Databases: PM U5.4)
5	To insert hyperlinks into an MS PowerPoint presentation.	To use a spreadsheet to help plan a school cake sale. (Spreadsheets: PM U5.3)	To understand how to create a 'string'. (Coding: PM U5.1)	To self- and peer evaluate. (Game Creator: PM U5.5)	To contribute to a class database. (Databases: PM U5.4)
6	To understand and use the 'Slideshow' tab – including 'timings'.	To sort and filter data for a given purpose and use cell formatting in MS Excel. (including number, alignment, font, border and fill)	To begin to explore text variables and concatenation when coding. (Coding: PM U5.1)	To explore 3-D modelling software. (3-D Modelling: PM U5.6)	To create a database around a chosen topic. (Databases: PM U5.4)

Year	Year 5/6	Subject		Computing	Academic Year 2024/25
Prior Knowledge		End Point			Key Vocabulary
Year 5 Prior Knowledge		Year 5 End Point / Year 6 Prior Knowledge			

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Use technology respectfully, responsibly and safely, knowing how to keep their information and passwords secure.

Know different ways of reporting concerns about content and contact involving the internet and other communication technologies.

Have a greater understanding of what is acceptable and unacceptable online behaviour.

Start to develop strategies to verify the reliability and accuracy of information on the internet and develop an awareness of copyright.

Use and combine a variety of software and devices with increasing independence, to create a range of digital assets such as programs, databases, systems and multimedia content.

Understand how Boolean operators can change searches and select appropriate information for their tasks.

Use models and simulations to produce graphs and explore patterns and relationships.

Design and write more complex algorithms and programs using sequence, repetition and selection. Further develop their computational thinking to help debug their programs and design and solve problems and tasks. Have a simple understanding of how search engines work.

Develop their understanding of inputs and outputs further, demonstrating how they can use programs to control external devices such as sensors, motors and robots.

Understand the difference between the internet and World Wide Web.

Use technology safely, respectfully and responsibly and continue to develop skills to identify risks involved with contact and content including developing an understanding of digital footprints.

Know a range of ways of reporting concerns about content and contact involving the internet and other communication technologies. Understand what acceptable and unacceptable online behaviour is.

Use strategies to verify the reliability and accuracy of information on the internet and understand copyright.

Select, use and combine a range of software and use a wider range of devices to create a variety of digital assets such as programs, systems, databases, spreadsheets and multimedia content for a defined purpose.

Understand about the use of operators in searching and continue developing their effective search techniques by using Boolean operators in their searches.

Create simple spreadsheet models to investigate real life problems.

Design and write programs using sequence, repetition, selection and variables. Develop greater understanding of how to use selection and repetition in more complex programs.

Understand how search engines work.

Further develop their computational thinking showing they can plan and decompose tasks; explain how the algorithms they write work and correct errors in their programs. Plan and write programs to control external devices such as sensors and motors and explain about the inputs and outputs used.

Have an understanding of how a computer network works and the opportunities that it offers for communication and collaboration.

Year 6 End Points

Be competent users of technology using it safely, respectfully and responsibly and know about digital footprints and 'strong' passwords.

Demonstrate that they can identify the risks involved with content and contact and they know a wide range of ways of reporting any concerns they have. Understand what acceptable and unacceptable online behaviour is.

Use strategies to verify and evaluate the reliability and accuracy of information on the internet and understand what copyright and plagiarism is and how it relates to their work., Independently select, use and combine a wide range of software on a variety of devices. Design and create a range of digital assets such as programs, systems and multimedia content for a defined purpose and audience.

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<table>
<tr>
<td colspan="2">Use advanced searches including the use of operators.
Create spreadsheet models to investigate real life problems, using their knowledge to make predictions.
Know how search engines work and what 'ranking' is when related to search engines.
Design and create more complex programs using sequence, repetition, selection and variables appropriately. Develop their computational thinking can demonstrate that they can decompose and evaluate their tasks and correct errors in their algorithms and programs. Be confident in their knowledge of inputs and outputs and plan and write programs to solve tasks to control external devices such as sensors and motors.
Know how different computer networks work, including the roles of the components and the opportunities and benefits that they offer for communication and collaboration. Understand the difference between the internet and internet services.</td>
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	Sequence of Learning: A kingdom United P.MASH Year 5 – Unit 5.4 Databases	Sequence of Learning: Food Glorious Food P.MASH Year 6 – Unit 6.4 Blogging Anti-Bullying Week	Sequence of Learning: Earthlings P.MASH Year 5 – 5.3 Spreadsheets Internet Safety Day	Sequence of Learning: Inventors and Inventions P.MASH Year 5 – 5.1 Coding	Sequence of Learning: Amazon Adventure P.MASH Year 6 – 6.7 Quizzing
1	LO: To know what to do if I find something inappropriate online.	LO: To understand the dangers of online communication.	LO: To understand what information to trust online.	LO: To begin to simplify code.	LO: To create a picture-based quiz for young children.
2	LO: To know how to conduct myself appropriately online.	LO: To identify the purpose of writing a blog.	LO: To use formulae within a spreadsheet to convert measurements of length and distance.	LO: To understand what a simulation is.	LO: To learn how to use the question types as part of 2Quiz.
3	LO: To learn how to search for information in a database.	LO: To plan the theme and content for a blog.	LO: To use the count tool to answer hypotheses about common letters in use.	LO: To know what decomposition and abstraction are in Computer Science.	LO: To learn how to use the question types as part of 2Quiz.
4	LO: To contribute to a class database.	LO: To understand how to write a blog and a blog post.	LO: To use a spreadsheet to model a real-life problem.	LO: To understand how to use friction in code.	LO: To explore the grammar quizzes.

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5	LO: To create a database round a chosen topic.	LO: To understand the importance of commenting on blogs.	LO: To create formulae that use text variables.	LO: To understand what the different variable types are and how they are used differently.	LO: To make a quiz which requires the player to search a database.
6	LO: To create a database round a chosen topic.	LO: To know the difference between suitable and unsuitable blog posts.	LO: To use a spreadsheet which presents information based on the planets in the solar system.	LO: To begin to explore text variables when coding.	LO: To make a quiz which tests your teachers or parents.

Year	Year 6		Subject	Computing	Academic Year 2024/25	
Prior Knowledge			End Point		Key Vocabulary	

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Use technology safely, respectfully and responsibly and continue to develop skills to identify risks involved with contact and content including developing an understanding of digital footprints. Know a range of ways of reporting concerns about content and contact involving the internet and other communication technologies. Understand what acceptable and unacceptable online behaviour is. Use strategies to verify the reliability and accuracy of information on the internet and understand copyright. Select, use and combine a range of software and use a wider range of devices to create a variety of digital assets such as programs, systems, databases, spreadsheets and multimedia content for a defined purpose. Understand about the use of operators in searching and continue developing their effective search techniques by using Boolean operators in their searches. Create simple spreadsheet models to investigate real life problems. Design and write programs using sequence, repetition, selection and variables. Develop greater understanding of how to use selection and repetition in more complex programs. Understand how search engines work. Further develop their computational thinking showing they can plan and decompose tasks; explain how the algorithms they write work and correct errors in their programs. Plan and write programs to control external devices such as sensors and motors and explain about the inputs and outputs used. Have an understanding of how a computer network works and the opportunities that it offers for communication and collaboration.	Be competent users of technology using it safely, respectfully and responsibly and know about digital footprints and 'strong' passwords. Demonstrate that they can identify the risks involved with content and contact and they know a wide range of ways of reporting any concerns they have. Understand what acceptable and unacceptable online behaviour is. Use strategies to verify and evaluate the reliability and accuracy of information on the internet and understand what copyright and plagiarism is and how it relates to their work. Independently select, use and combine a wide range of software on a variety of devices. Design and create a range of digital assets such as programs, systems and multimedia content for a defined purpose and audience. Use advanced searches including the use of operators. Create spreadsheet models to investigate real life problems, using their knowledge to make predictions. Know how search engines work and what 'ranking' is when related to search engines. Design and create more complex programs using sequence, repetition, selection and variables appropriately. Develop their computational thinking can demonstrate that they can decompose and evaluate their tasks and correct errors in their algorithms and programs. Be confident in their knowledge of inputs and outputs and plan and write programs to solve tasks to control external devices such as sensors and motors. Know how different computer networks work, including the roles of the components and the opportunities and benefits that they offer for communication and collaboration.	Year 6 computing vocabulary Assessment Questions

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	Understand the difference between the internet and internet services.		

YR 6	Sequence of Learning: Survival	Sequence of Learning: Britten's got talent	Sequence of Learning: Heroes and Villains	Sequence of Learning: Super Sleuth	Sequence of Learning: Oh I do like to be beside the seaside
Project Evolve	**Self Image and identity.** To identify and critically evaluate online content relating to gender, race, religion, disability, culture and other groups, and explain why it is important to challenge and reject inappropriate representations online.	**Online Relationships** To describe how to be kind and show respect for others online including the importance of respecting boundaries regarding what is shared about them online and how to support them if others do not.	**Online Bullying** To describe how to capture bullying content as evidence (e.g. screengrab, URL, profile) to share with others who can help me and to explain how someone would report online bullying in different contexts.	**Health, Well-being and Lifestyle** To assess and action different strategies to limit the impact of technology on health (e.g. night-shift mode, regular breaks, correct posture, sleep, diet and exercise) and to recognise features of persuasive design and how they are used to keep users engaged (current and future use).	**Privacy and Security** To describe effective ways people can manage passwords (e.g. storing them securely or saving them in the browser) and to explain what to do if a password is shared, lost or stolen.
1	To independently use cut, copy and paste in MS Word.	To identify and fully understand the main elements of music: Pulse, Rhythm, Tempo, Pitch, Texture (Making Music: PM U4.9)	To understand the difference between The World Wide Web and the Internet. (Networks: PM U6.6)	To plan a program which includes a timer and a score. (Coding: PM U6.1)	To introduce some basic data formulae in Excel. (Spreadsheets: PM U6.9 L2)
2	To independently use spell check & thesaurus functions in MS Word. Use AI to create a document which pupils can edit.	To understand and create with rhythm and tempo. (Making Music: PM U4.9)	To understand our school network and accessing the internet. (Networks: PM U6.6)	To create a program that makes use of functions. (Coding: PM U6.1)	To use a spreadsheet to model a situation. (Spreadsheets: PM U6.9 L3)
3	To independently format a specific area of text and pictures within an MS Word document. (text wrapping, crop, resize, highlight, move & edit according to task).	To independently create a melodic phrase. (Making Music: PM U4.9)	To research the history and future of the internet. (Networks: PM U6.6)	To follow flowcharts to create and debug code. (Coding: PM U6.1)	To organise data. (Spreadsheets: PM U6.9 L4)
4	To independently add music to slides in MS PowerPoint.	To independently compose a piece of electronic music. (Making Music: PM U4.9)	To explore 'stop motion' animation.	To code programs that take text input from the user and use this in the program.	To use advanced formulae. (Spreadsheets: PM U6.9 L5)

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				(Coding: PM U6.1)	
5	To independently insert hyperlinks into an MS PowerPoint presentation.	To independently compose a piece of electronic music. (Making Music: PM U4.9)	To add backgrounds and sounds to animations.	To follow through the code of how a text adventure can be programmed in 2Code. (Coding: PM U6.1)	To create a variety of graphs. (Spreadsheets: PM U6.9 L6)
6	To independently use the 'Slideshow' tab – including 'timings'.	To independently perform a piece of electronic music. (Making Music: PM U4.9)	To create a stop motion animation.	To follow through the code of how a text adventure can be programmed in 2Code. (Coding: PM U6.1)	To apply spreadsheet skills to solving problems. (Spreadsheets: PM U6.9 L8)