Welton St Mary's Church of England Primary Academy

Computing Curriculum

'Whether you want to uncover the secrets of the universe, or you want to pursue a career in the 21st century, basic computer programming is an essential skill to learn'. - Stephen Hawking

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Computing Intent

All pupils at Welton St Mary's Academy will be provided **opportunities** to engage in deep and varied learning experiences in the elements of computing. Technology plays an ever-increasingly important role in society and our lives. With this in mind, we aim to help children develop into digitally literate users of technology who are able to **participate effectively, creatively** and safely in this digital world. Computing has deep links with mathematics, science and design and technology, whilst providing insights into both natural and artificial systems. Learning about Information Technology will allow pupils to effectively use the functions of computers as well as to create a range of content and media. Through Computer Science, pupils are taught the principles of information and computation, how digital systems work and how to put this knowledge to use through programming. A consistent focus on E-safety will ensure that children are equipped with the knowledge and skills to evaluate content and use technology in a **kind, responsible and safe** manner.

Implementation

At Welton St Mary's computing will be taught in 3 strands of Information Technology (using and creating content with computer functions), Computer Science (programming and coding computer instructions) and E-Safety (evaluating content and using technology safely) which together aim to build overall digital literacy for all children.

At Welton St Mary's, children have access to a computer suite and each year group is equipped with a set of iPads. This ensures that all year groups have the opportunity to use a range of devices and programs for many purposes across the wider curriculum, as well as in discrete computing lessons. Employing cross-curricular links motivates pupils and supports them to apply the knowledge and skills, and to recall previous knowledge which they have learned.

The Computing Curriculum of Welton St Mary's follows a progression of skills in each core concept, which continue through year groups and key stages. In order to aid this progression of skills, teachers utilise the code.org program of study in computer science and the National Online Safety resources in E-Safety. Much of the students' work can be found evidenced on our internal drive. The children are also use Seesaw for their home learning, which is a digital learning platform allowing them to share their content, access learning and interact with the work of others in a safe, controlled environment. The children

Computing Overview

	Autumn term 1	Autumn term 2	Spring term 1	Spring term 2	Summer term 1	Summer term 2
Year 1	Coding	Word Processing	PowerPoint Digital	E-Safety There are 8 e-safety units so one taught per half term apart from this term where the other three can be taught	Excel Office 365	Creating and publishing Internet
Concept focus	Computer Science & Information Technology		Computer Science & Information Technology	E-safety	Information Technology	Information Technology
Year 2	Word Processing	Coding	Digital PowerPoint	E-Safety There are 8 e-safety units so one taught per half term apart from this term where the other three can be taught	Excel Office 365	Creating & publishing Internet
Concept focus	Computer Science & Information Technology		Information Technology	E-safety	Information Technology	Information Technology
Year 3	Word Processing	Digital Powerpoint	Coding	E-Safety There are 8 e-safety units so one taught per half term apart from this term where the other three can be taught	Excel Office 365	Creating and Publishing Internet
Concept Focus	Information Technology		Computer Science	E-safety	Information Technology	Information Technology
Year 4	Word Processing	Digital	Excel	E-Safety	Coding	Creating and Publishing

	Powerpoint	**Office 365** Outlook / Office 365	There are 8 e-safety units so one taught per half term apart from this term where the other three can be taught		**Internet** http://www
Concept Focus	Information Technology	Information Technology	E-safety	Computer Science	Information Technology

Year 5	**Word Processing**	**Digital** / **PowerPoint**	**Excel** / **Office 365** Outlook / Office 365	**E-Safety** There are 8 e-safety units so one taught per half term apart from this term where the other three can be taught	**Creating and Publishing** / **Internet** http://www	**Coding**
Concept Focus	Information Technology	Information Technology	E-safety	Information Technology	Computer Science

Year 6	**Coding**	**Word Processing**	**Digital** / **PowerPoint**	**E-Safety** There are 8 e-safety units so one taught per half term apart from this term where the other three can be taught	**Excel** / **Office 365** Outlook / Office 365	**Creating and Publishing** / **Internet** http://www
Concept focus	Computer Science & Information Technology	Information Technology	E-safety	Information Technology

Core Concepts

CONCEPT – Information Technology

- Can understand and apply IT skills which enable them to effectively use computers for a variety of functions
- Can use a range of techniques and programs to create content for different audiences and purposes.

CONCEPT – Computer Science

- Can understand and apply the fundamental principles and concepts of computer programming, including abstraction, logic, sequencing, algorithms and data representation
- Can solve problems through creating and manipulating instructions for computers to follow

CONCEPT – E-safety

- Are competent and confident in using computer technology both creatively and for a specified purpose
- Are able to identify and avoid risks in order to use communication technology safely, responsibly and effectively

Progression of skills

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Information technology – Using the Internet	• Log on to the computer • Open an internet browser and search using an internet search engine • Use hyperlinks to navigate to specific websites	• Open an internet browser and navigate to a search engine • Conduct a web search to find a specified internet site. • Explore a website by clicking on the arrows, menus and hyperlinks.	• Conduct a web search to find information on a specified topic using key words/phrases • Think of search terms to use linked with questions they wish to answer. • Recognise reliable/unreliable websites and sources of information such as Wikipedia	• Use a search engine to find a range of media, e.g. images, texts, videos • Use strategies to check the reliability of information (cross check with another source such as books) • Save and open documents from the school G drive network • Understand the purpose, and benefits and potential issues with an internal network.	• Add web addresses to favourites/bookmarks and understand the benefits of this • Create a hyperlink and understand what it does and where it might be used • Understand files may be saved off their device in 'clouds' and explore this using File Explorer to save documents from an IPad onto the internal drive.	• Apply previously acquired skills to research with accuracy and speed, and present information • Find specific information to specific questions using targeted internet searches • Use advance search functions in Google.
Information technology – Word Processing	• Use space, backspace and enter keys	• Save and open documents • Begin to understand how to save in	• Edit text and its features • Create a heading	• Improve the presentation and layout of	• Use Publisher and apply skills from Word	• Apply all previously acquired skills

	• Use the computer mouse to click and select items • Launch a word document • Type a sentence using the keyboard ensuring the correct spacing between words and appropriate punctuation • Use the shift key to produce a capital letter • Change the font size, type and colour • Save a document	different folders and how folders can be used effectively to organise files • Use word art to enhance presentation • Use the mouse or arrow keys to insert or edit text such as underlining a title • Know how to print documents • Format text • Insert clip art and images.	• Use basic copy and paste • Position images and rotate them • Understand the role of the 'Wrap text' feature • Use a range of appropriate punctuation and symbols (e.g. speech marks, commas, %, ? etc.) • Insert tables • Format text including font, paragraph justification and columns • Alter page orientation	documents, for e.g. using bullet points. • Use a spellchecker • Use the 'find' and 'replace' tools • Use a range of techniques for copying and pasting text and images including the use of snipping tool, and keyboard shortcuts • Insert and format text boxes.	• Identify the similarities and differences between Word and Publisher and their purpose • Edit page layout, text, text boxes, headings and images in Publisher • Select and use a range of templates for labels and documents in Publisher, choosing the most appropriate for the purpose	• Choose appropriate formats to present information • Create a presentation for a specific audience • Use menu tools available in Word and Publisher to enhance presentation of documents e.g. page colours, borders, paragraph spacing, page numbering, SmartArt
Information technology – PowerPoint	• Add text to a single slide • Save a document • Understand the purpose of PowerPoint and apply Word skills to PowerPoint. • Choose a particular template to present with • Understand what a title is	• Add an image (including inserting clip art/copy and pasting an image) • Insert shapes on to slide • Save and retrieve a document • Insert text and format this	• Create multiple slides as part of a slideshow and begin to use transitions • Know how to preview a slide show from the beginning or on a chosen slide • Improve typing skills and speed by using two hands to type, recognising how to place their hands on the keyboard	• Add animation to slides - understand and use transitions with increasing confidence and independence. This includes more control over timings • To add a 'section' and understand the purpose of this	• Use text, graphics, animations, sound and video within a PowerPoint presentation • Children can take a video, use file explorer to export this and then insert into their slideshow to enhance their presentation • Start to think about audience and purpose and ensure	• Varying layout, design and presentation style to fit a particular audience or subject • Understand & use slideshow tab including timings - use appropriately for presenting • Understand how the notes sections can be used to support the presenter

					that features enhance the presentation and do not detract from it • Insert a hyperlink for a specific purpose	• Create a comprehensive slideshow after being given a brief and to use this to present confidently about a chosen subject
Information Technology- Excel	• Enter simple data - to produce a shopping list • Use auto sum to find a total • Save a document	• Enter simple data to produce a chart • Save and retrieve a document	• Understand cells, rows and columns • Enter a range of data to produce a range of graphs and chart appropriate to the data/task	• Apply all previously learnt expectations in different contexts • Use cell formatting (including font, border & fill)	• Use simple formula (including SUM, Average) • Understand and use conditional formatting • Sort and filter data for a given purpose • Use cell formatting (including number, alignment, font, border and fill)	• Use spreadsheets to present information • Manipulate the data to extract information needed • Explore how to organise data for purpose • Creating new, calculated, d ata automatically using basic formulas
Information technology- Microsoft 365 outlook	• Contribute ideas to class and group emails • Log on to own email account to read an email	• Send an email to a known member of school community • Open and reply to an email from a known person	• Create and send appropriate replies (know the difference between reply and reply all) • Forward an e-mail and understand when this might be necessary • Save an e-mail in draft format and then return and edit prior to sending	• Open and save attachments to an appropriate place • Select an email recipient from a class address book • Know how to delay emails and how and when to use the 'Follow up' tool and to change the importance of the email	• Create group or distribution lists of contacts from an address book • Add email addresses to a class address book • Know how to add folders in the inbox to easily locate emails	• Learn how to use the cc and bcc facilities when sending an e-mail and discuss when these should be used • Send 'group' e-mails • Understand different audiences and the formalities within sending an email (how to sign

						off, the importance of accurate punctuation and grammar, spacing, tone of an email etc) • Understand when an email is used and the purpose of emails as opposed to other forms of communication
Information technology – Creating and Publishing	• Create work by applying the Year 1 Information Technology skills	• Create work by applying the Year 2 Information Technology skills • Publish work to a class and then individual Seesaw account • Understand the purpose of Seesaw and what is and isn't appropriate to publish on the platform	• Create individual work by applying the Information Technology skills taught in Year 3 • Create and upload videos, voice recordings and notes on to Seesaw • Comment appropriately upon their own and others' work, knowing when and what it is appropriate to comment • Know how to upload a Word document onto Seesaw by saving as PDF before uploading	• Create individual work by applying the Information Technology skills taught in Year 4 • Create and upload a video using green screen technology	• Create individual work by applying the Information Technology skills taught in Year 5 • Create and upload a video using varied visual effects including green screen technology • Create a PowerPoint presentation using text, graphics, animations, sound	• Apply Information Technology skills acquired through primary school to create individual work • Choose appropriate formats to present information • Create a presentation through a format for a specific audience • Consider layout and design of the format
Digital photographs, video and animation	• Use a range of digital devices to capture and save	• Upload images or movies from cameras and other	• Discuss and evaluate the quality of captured images	• Use software to change images	Plan and create a short animated sequence to communicate a specific	Export images and movies in formats appropriate for the

	both still and moving images • With support, create a series of still images that can be used to create a short animation.	digital devices to a computer • Begin to make changes to images (e.g. using Paint) • Create a sequence of images to form a short animation or film	and make decisions whether to keep, delete or change them • Upload images and movies from digital cameras and other devices to a computer and save in a relevant location • Resize images (pixels, resolution, aspect ratio and dimensions)	according to purpose • Import music, stills or video into video editing software for a specific project. • Arrange, trim and cut clips to create a short film that conveys meaning. • Add simple titles, credits and special effects (e.g. transitions)	idea, using a storyboard and timeline Make use of transitions and special effects in video editing software, understanding the effect they have on the audience	purpose and use them in multimedia presentations
Computer Science – Coding **Please follow the separate and more detailed progression of skills document below. Specific lessons from code.org are detailed. An overview of the skills from each year group can be found here.**	**Course A** • Use a sequence of instructions to create an algorithm • Give instructions for directions and movement • Debug errors in code • Simplify code by using loops	**Course B** • Use a sequence of instructions to create an algorithm • Create programs featuring multiple sets of instructions • Give instructions for directions and movement • Debug errors in code • Simplify code by using loops	**Course C** • Create programs featuring multiple algorithms • Create variables in code through 'if' statements • Debug errors in code • Simplify code by using loops • Use measurement with degrees and pixels • Incorporate design through stickers	**Course D** • Create programs featuring multiple algorithms • Create variables in code through 'if' statements • Debug errors in code • Simplify code by using loops and loops 'until' • Understand the role of binary code in computer programming	**Course E** • Create variables in code through coded functions • Debug errors in code • Simplify code by using loops • Incorporate design through sprites • Consider purpose of programs when creating algorithms	**Course F** • Create variables in code through varying behaviours • Debug errors in code • Simplify code by using loops, loops 'until' and nested loops • Incorporate design through sprites
E-Safety				Please see the Welton St Mary's E-Safety curriculum for a detailed breakdown of the progression of content		

	Computer Science
	Practice through the code.org online program. Teaching should take place before and throughout practice but <mark>essential teaching elements</mark> are highlighted.
FS	**Course A** – **Lesson 2** only. Basic skills of drag and drop for 'brick' coding.

Y1	**Course A**
	
	 1) <mark>Unplugged Activity</mark> (sequencing, movement) Happy maps lesson 3
	 2) **Lesson 4** (sequence, algorithm, directions)
	 3) <mark>Introduction the concept of debugging</mark> and practice with **Lesson 5.** *Debugging is the removal of a problem so children should work to fix a set of instructions with at least one error. E.g. A character getting dressed in the morning putting their shoes on before their socks. Can be done through pictures or words.*
	     - **Lesson 6** is available as an extension task
	 4) <mark>Introduction the concept of loops</mark> and practice with Lesson 8. *Write or say a set of instructions where the same task is repeated many times. E.g. Putting away colour pencils. Instead of saying "pick up pencil, move your hand to the tray, put the pencil in the tray, pick up pencil, move your hand to the tray, put the pencil in the tray, pick up pencil, move your hand to the tray, put the pencil in the tray" you could use "pick up pencil, move your hand to the tray, put the pencil in the tray, repeat 3 times" as a simpler command.*
	     - **Lesson 9** is available as an extension task
	 5) **Lesson 10** (loops and sequence practice)
	 6) Children to create and 'draw' an image in the free play section of **lesson 10 part 14**. *Once completed, this should be saved (by pressing the finish button) to their profile as evidence.*
	 7) Children to create a sequence of actions through code for the dog in the free play section of **lesson 12 part 2**. *Once completed, this should be saved (by pressing the finish button) to their profile as evidence.*
	
	 To Complete – Lesson 4, 5,8, 10
	 Evidence – Lesson 10 part 14, lesson 12 part 2
	 Extension – Lesson 6, 9
	 Key terms and concepts – sequence, algorithm, directions, movement, debugging, loops

Y2	**Course B**
	1) <mark>Unplugged activity</mark> (recap sequencing & algorithm) See Y2 unplugged activity.
	2) **Lesson 4** (recap of using sequences and loops)
	- **Lesson 3** can be used as a recap to using block programming for any children who need it.
	3) <mark>Reviewing the concept of debugging</mark> and practice through **lesson 5**. *Ask children to complete a simple task such as eating a skittle with a clear step missing (picking it up for example). Can children fix the algorithm to complete the task.*
	4) <mark>Reviewing the concept of loops</mark> and practice through **lesson 7**. *Write or say a set of instructions which can be simplified using repeat. E.G. Lining up at the door: "stand up, put your chair under, go to the door, stand up, put your chair under, go to the door, stand up, put your chair under, go to the door" simplified to "stand up, put your chair under, go to the door, repeat 28 times".*
	- **Lesson 8** is available as an extension task.
	5) **Lesson 9** (loops, sequence and debugging practice).
	6) Children to create and 'draw' an image in the free play section of **lesson 9 part 12**. *Once completed, this should be saved (by pressing the finish button) to their profile as evidence.*
	7) Children to create a sequence of actions through code for the characters in the free play section of **lesson 12 part 2**. *Once completed, this should be saved (by pressing the finish button) to their profile as evidence.*
	To Complete – Lesson 4, 5, 7, 9
	Evidence – Lesson 9 part 12, lesson 12 part 2
	Extension – Lesson 8
	Pre-learning – Lesson 3
	Key terms and concepts – sequence, algorithm, program, debugging, loops
Y3	**Course C**
	1) <mark>Unplugged activity</mark> (recap sequencing, program & algorithm**) Lesson 3**.
	2) **Lesson 4** (recap of programming in sequence)
	3) <mark>Reviewing the concept of debugging</mark> and introduce prediction. Practice through **lesson 5**. *Link to maths by giving division statements and predicting if they are true based on knowledge. E.G. 235 is in the 5x table, 141 is in the 2x table. Logical thought can predict if outcomes will be successful or unsuccessful before action.*
	- **Lesson 6** is available as an extension activity.
	4) <mark>Reviewing the concept of loops</mark> and practice through **lesson 10 and 11**.
	5) <mark>Introduce using 'if' statements</mark> and practice through **lesson 12**. *English link. Use subordinate clause sentence starters with 'if' and ask children to complete them. Check their understanding of when the stated outcomes will or won't occur and explain that computer programs work in the same way by responding to an action.*
	6) **Lesson 7** (Degrees of movement) *Children will need to understand the idea of pixels, although a concept of their exact size isn't necessary as more pixels = a greater movement. Depending on when taught in relation to maths curriculum, the idea of degrees may need to be covered.*

	7) **Lesson 13** (using stickers). Children practice through the lesson then create their best sticker in **lesson 13 part 9**. *Once completed, this should be saved (by pressing the finish button) to their profile as evidence. Children can try publishing their work to seesaw by using the share my work http code.* 8) **Lesson 16** (designing a game) - Children practice through the lesson then create their best game design the 'free play' section of **lesson 16 part 12**. *Once completed, this should be saved (by pressing the finish button) to their profile as evidence. Children can try publishing their work to seesaw by using the share my work http code.* **To Complete** – Lesson 4, 5, 7, 10, 11, 12, 13, 16 **Evidence** – Lesson 13 part 9, lesson 16 part 12 **Extension** – Lesson 6 **Key terms and concepts** – sequence, algorithm, program, bug, debugging, loops, if statements, degrees, pixels, stickers

Y4	**Course D**
	
	1) **Lesson 5** and **Lesson 6** (coding with controls).
	    - **Lesson 2** can be used as a recap to using block programming for any children who need it.
	    - **Lesson 4** can be used as a recap to debugging for any children who need it.
	    - **Lesson 7** can be used as a recap to loops for any LA children who need it.
	2) **Lesson 8** (using loops).
	    - **Lesson 9** is available as an extension activity.
	3) Unplugged activity (using 'if') – See "Y4 Using if" lesson plan. Practice with **lesson 11**.
	4) **Lesson 13** (loops until…).
	    - **Lesson 14** is available as an extension activity.
	5) Unplugged activity (using binary) – See lesson plan on code.org **Lesson 15**.
	6) Lesson **16** (using binary). Children practice through the lesson then create their best binary pattern in the 'free play' section of **lesson 16 part 11**. *Once completed, this should be saved (by pressing the finish button) to their profile as evidence. Children can publish their work to seesaw by using the share my work http code.*
	7) **Lesson 18** (coding with music). Children practice through the lesson then create their best dance routine in the 'free play' section of **lesson 18 part 13**. *Once completed, this should be saved (by pressing the finish button) to their profile as evidence. Children can publish their work to seesaw by using the share my work http code.*
	
	To Complete – Lesson 5, 6, 8, 11, 13, 16, 18
	Evidence – Lesson 16 part 11, lesson 18 part 13
	Extension – Lesson 9, 14
	Pre learning – Lesson 2, 4, 7
	Key terms and concepts – sequence, algorithm, program, loops, if statements, loops until…, binary

Y5	**Course E** 1) **Lesson 1** and **Lesson 2** (recapping sequencing, debugging and loops) 2) **Lesson 3** (recapping conditionals) - **Lesson 4** can be used as an extension.

	3) <mark>Unplugged activity</mark> (what is a sprite and adding behaviour)– see **lesson 5** "Simon Says" on code.org and practice with **Lesson 6**
	    - **Lesson 7** can be used as an extension.
	4) <mark>Unplugged activity</mark> (coding for purpose) – see **Lesson 10** on code.org.
	5) **Lesson 11** and **Lesson 12** (nested loops) - Children practice through the lessons then create their own looped drawing in the 'free play' section of **lesson 12 part 13**. *Once completed, this should be saved (by pressing the finish button) to their profile as evidence. Children can publish their work to seesaw by using the share my work http code.*
	    - **Lesson 13** can be used as an extension.
	6) **Lesson 15** (using functions) **-** Children practice through the lessons then create their own minecraft events in the 'free play' section of **lesson 15 part 12**. *Once completed, this should be saved (by pressing the finish button) to their profile as evidence. Children can publish their work to seesaw by using the share my work http code.*
	    - **Lesson 16** and **17** can be used as an extension.
	
	To Complete – Lesson 1, 2, 3, 6, 11, 12, 15
	Evidence – Lesson 12 part 13, lesson 15 part 12
	Extension – Lesson 4, 7, 13, 16, 17
	Key terms and concepts – sequence, debugging, loops, sprite, purpose, functions

Y6	**Course F**
	
	1) **Lesson 1** and **Lesson 2** (recapping sprites, behaviours, functions)
	    - **Lesson 3** can be used as an extension.
	2) **Lesson 4** and **Lesson 5** (recapping loops and nested loops)
	3) <mark>Unplugged activity</mark> (coding with variables)– see **lesson 6** on code.org and practice with **Lesson 7** and **Lesson 8.**
	    - **Lesson 9** can be used as an extension.
	4) **Lesson 12** ("For" loops)
	    - **Lesson 13** can be used as an extension.
	
	5) **Lesson 15** and **Lesson 16** (free coding) - Children practice through the lessons then create their own final project showing their abilities in the 'free play' section of **lesson 16 part 8**. *Once completed, this should be saved (by pressing the finish button) to their profile as evidence. Children can publish their work to seesaw by using the share my work http code.*
	
	To Complete – Lesson 1, 2, 4, 5, 7, 8, 12, 15, 16
	Evidence – Lesson 16 part 8
	Extension – Lesson 3, 9, 13
	Key terms and concepts – sprites, behaviours, functions, loops, nested loops, variables

Computer Science Vocabulary

Algorithm - a set of instructions designed to perform a specific task

Loops – Code which allows an instruction or set of instructions to be repeated multiple times.

Nested loops – loops within loops.

Program - a set of instructions designed to perform a specific task. More complex computer programs use multiple algorithms together.

Bug – An error or omission in an algorithm.

Debugging - The removal of errors to allow algorithms to function effectively.

Pixels – A single, tiny block of colour in a computer display. A computer screen is made up of thousands or millions of pixels. The exact number and size of pixels in a display depends on the picture/screen **resolution**.

Binary – Computer programming in the most basic terms of 1 and 0.

Sprite – A 2D image representation. E.g. A character in a basic computer game or the representation of a compass in the safari app.

Functions – A set of instructions which can be easily replicated and used repeatedly in an algorithm.

Assessment

CONCEPT – Information Technology
- Can understand and apply IT skills which enable them to effectively use computers for a variety of functions
- Can use a range of techniques and programs to create content for different audiences and purposes.

	By the End of Y2	By the end of Y4	By the end of Y6
Expected	Open an internet browser and navigate to a web address. Conduct a web search to find a specified internet site. Use hyperlinks to navigate to specific websites Save and open documents and use folders Use punctuation on a computer. Use the mouse or arrow keys to insert or edit text. Print documents with support. Use space, backspace and enter keys. Change the font size, type and colour Insert clip art and images Add text and images to a PowerPoint slide Enter simple data into a spreadsheet Find the total using autosum Compose, reply and send an email Capture, save and upload photographs and images to a computer. Animate a set of still images to produce a moving picture Explain the purpose of Seesaw as an online learning platform and publish work to a Seesaw account	Conduct a web search to find information on a specified topic. Save and open documents from the school network and explain the benefits of an internal network. Improve the presentation and layout of documents. Use a spellchecker. Use a range of techniques for copying and pasting text and images Insert and format text boxes. Publish and edit work with increasing confidence Create a video using green screen technology. Use a range of appropriate punctuation (e.g. speech marks, commas etc.). Insert tables format text including font and paragraph justification. Alter page orientation Create multiple slides as part of a slideshow - add animation to slides and use transitions Produce a range of graphs and chart appropriate to the data/task Use cell formatting (including font, border & fill) Create and send appropriate email replies. -forward an e-mail. -save an e-mail in draft format and then return and edit prior to sending - Open and save email attachments to an appropriate place. Select an email recipient from a class address book Evaluate the quality of captured images and make decisions whether to keep, delete or change them. Upload images and movies from digital cameras and other devices to a computer and save in a relevant location. -resize images (pixels, resolution, aspect ratio and dimensions). Use software to change images according to purpose. -Import music, stills or video into video editing software for a specific project. Arrange, trim and cut clips to create a short film that conveys meaning. Add simple titles, credits and special effects (e.g. transitions) -create a short animated sequence which communicates a specific idea.	Add web addresses to favourites/bookmarks. Use a hyperlink and understand what it does. Edit page layout, text, text boxes, headings and images in Publisher. Use text, graphics, animations, sound in a PowerPoint presentation. Create videos using varied visual effects. Create a presentation through a format for a specific audience. Consider layout, design and format when creating a presentation for purpose. Publish and edit work. Select and use a range of templates for labels and documents in publisher choosing the most appropriate for purpose. Use menu tools available in word and publisher to enhance presentation of documents e.g. page colours, borders, paragraph spacing, page numbering, SmartART Understand & use slideshow tab including timings -use appropriately for presenting. Use simple formula (including SUM, Average) Understand and use conditional formatting Sort and filter data for a given purpose. Use cell formatting (including number, alignment, font, border and fill) Use spreadsheets to present information. Manipulate the data to extract information needed. Explore how to organise data for purpose. Creating new, calculated, data automatically using basic formulas. Learn how to use the cc and bcc facilities when sending an e-mail and know when these should be used. -send 'group' e-mails and be aware of the benefits and risks in 'replying to all'. Create group or distribution lists of contacts from an address book Add email addresses to a class address book

CONCEPT – Computer Science

- Can understand and apply the fundamental principles and concepts of computer programming, including abstraction, logic, sequencing, algorithms and data representation
- Can solve problems through creating and manipulating instructions for computers to follow

		By the End of Y2	By the end of Y4	By the end of Y6
Expected		Use a sequence of instructions to create an algorithm. Create programs featuring multiple sets of instructions. Give instructions for directions and movement Debug errors in code. Simplify code by using loops.	Create programs featuring multiple algorithms. Create variables in code through 'if' statements. Debug errors in code. Simplify code by using loops and loops 'until'. Use binary code, degrees and pixels. Incorporate design through stickers.	Create variables in code through varying behaviours and functions. Debug errors in code. Simplify code by using loops, loops 'until' and nested loops. Incorporate design through sprites. Code for purpose.

CONCEPT – E-safety

- Are competent and confident in using computer technology both creatively and for a specified purpose
- Are able to identify and avoid risks in order to use communication technology safely, responsibly and effectively

		By the End of Y2	By the end of Y4	By the end of Y6
Expected	Self-image and identity	Give examples of issues online that might make me feel sad, worried, or frightened. Explain what is meant by the term 'identity.' Explain how other people's identity online can be different to their identity in real life. Describe ways in which people might make themselves look different online. Give examples of how I might get help from a trusted adult or helpline if I find content that makes me feel sad, worried or frightened.	Explain how I can represent myself in different ways online and in 'real life'. Explain how and why I might change my identity depending on what I am doing online. Recognise that images and information online can be altered or adapted and the reasons for why this happens Know strategies to recognise whether something they see online is true or accurate Describe issues online that might make me and others feel sad, worried, or frightened and know how to get help.	Understand that some media and online content promote stereotypes. Describe and identify how media can shape ideas about gender. Explain why it is important to reject inappropriate messages about gender online. Explain how identity online can be copied, modified or altered. Demonstrate reasonable choices about my online identity and what I should share online.
	Online relationships	Use the internet to communicate with people in other places. Understand why it is important to be kind to people, offline and online.	Describe ways people who have similar likes and interests can get together online. Give examples of technology-specific forms of speech. Explain how feelings can be hurt by what is said or written online.	Describe how to have safe and fun experiences in a range of social environments. (e.g. live streaming, or gaming) Give examples of how to be respectful to others online. Recognise when and how to seek help when needed.

			Understand my responsibilities to make positive contributions when online. Explain what is meant by 'trusting someone online.'	
	Online reputation	Understand what information is acceptable to share and what information is not acceptable to share online. Explain how information put online about me can last a long time.	Understand that everything shared online has a digital footprint. Describe some simple ways that help build a positive online reputation Understand that information online can be copied, created, edited and shared by others. Know who I should ask if I am not sure if I should put something online.	Explain how I am developing an online reputation which will allow other people to form an opinion of me. Describe ways that information about people online can be used by others to make judgements about an individual. Understand that online content can be designed to manipulate people's emotions and encourage them to read or share things. Judge what is appropriate to share online and now rules and laws relating to sharing online. Know how to report inappropriate online content or contact.
	Online bullying	Recognise examples of bullying behaviour and how it could look online. Understand how bullying can make someone feel. Share what it means to be caring or kind on or offline.	Identify online technologies where bullying might take place. Describe ways people can be bullied through a range of media. Recognise when someone is upset, hurt, or angry online and know how to get help for someone that is being bullied online. Explain why content I post might affect others' feelings or reputation and what I should do to avoid this. Know how report concerns both in school and at home about online bullying and how to block abusive users.	Know how to identify online bullying. Know how to capture bullying content as evidence to share with others who can help me. Explain how to report online bullying through apps or trusted adults, including helplines and support services.
	Managing online information	Use simple key words in search engines. Explain the difference between things that are imaginary, 'made up' or 'make believe' and things that are 'true' or 'real'.	Use key phrases in search engines and search for information within technologies. Make safe, reliable choices from search results. Explain the difference between a 'belief', an 'opinion' and a 'fact'. Understand how some opinions can be presented as fact. Explain why some information I find online may not be honest, accurate or legal.	Explain key concepts including; data, information, fact, opinion, belief, true, false, valid, reliable and evidence. Identify different types of media and their purposes. Assess the reliability of search results and recognise unsafe or suspicious content online. Understand the difference between mis-information and dis-information. Demonstrate the strategies I would apply to evaluating digital content and search results. Know how to identify, flag and report inappropriate content
	Health and wellbeing	Know and create rules and guidelines that can help me to stay safe.	Explain how using technology can distract me from other things and give examples of activities where it is easy to spend a lot of time engaged. Suggest strategies to help me limit this time. Evaluate whether a game is suitable to play or a website is appropriate for my age-group. Recognise what online adverts look like. Compare content shared for factual purposes and for advertising.	Identify when and why I might need to limit my technology time. Give advice to promote heathy amounts of technology use. Have strategies to self-regulate my use of technology and limit the impact of technology on my health. Describe common systems that regulate age-related content and describe their purpose. Know why people choose to communicate through social media and some of the risks and challenges of doing so.

				Understand why some media and online content is not appropriate for children and that social media sites have age restrictions and regulations for use.
	Privacy and Security	Know online information about me could be seen by others. Explain some rules for keeping my information private. Explain what passwords are and use passwords for my accounts and devices.	Strategies for keeping my personal information private. Give reasons why I should only share information with people I choose to, and can trust. Explain that if I'm not sure or I feel pressurised, I should ask a trusted adult. Explain how apps may access my personal information. Know that organisations can use personal information to encourage people to buy things. Explain how apps request or take payment for additional content and why I should seek permission before purchasing. Describe ways to increase privacy through privacy settings.	Understand the benefits of safe internet use. Recognise images which may have been altered or faked. Know how and why images online may have been altered or faked. Know how devices store and share information Give reasons why passwords are important. Create and use strong, secure passwords and use simple strategies for keeping passwords private. Know what to do if my password is lost or stolen.
	Copyright and ownership	Know that content on the internet may belong to other people.	Understand that I have ownership of work I have created. Understand the importance of respecting work created by others and the problems of copying others' work.	Understand they should credit themselves as owner for any content they publish online. Understand that copying information and work from others is 'plagiarism'. Understand when it is ok to use work from others and how to do this.

Welton St Mary's Church of England Primary Academy

Online safety Curriculum

![National Online Safety logo]

Intent

At Welton St Mary's Primary Academy we believe that technology should be embraced as a way of **improving and enriching the lives and learning of our pupils at school and beyond.** However, we also recognise the risks posed by society's greater use of technology both to people in general and specifically for children. E-Safety is about using technology in a **responsible and respectful** manner in order to stay safe and enjoy the benefits technology can bring to our lives. We believe that our school rules of being kind, safe and responsible must be applied to all areas of our lives, including our online activity.

E-safety is one of the 3 core concepts of Computing at Welton St Mary's, as we view using technology safely as a key part of being digitally literate. The e-safety concept of the Welton St Mary's computing curriculum follows a progression of skills in 8 aspects which continue to be revisited through the year groups and key stages. These 8 aspects are set out in the UKCCIS Education for a Connected World Framework, and are as follows:

Self-image and identity

This strand explores the differences between online and offline identity beginning with self-awareness, shaping online identities and how media impacts on gender and stereotypes. It identifies effective routes for reporting and support and explores the impact of online technologies on self-image and behaviour.

Online relationships

This strand explores how technology shapes communication styles and identifies strategies for positive relationships in online communities. It offers opportunities to discuss relationships and behaviours that may lead to harm and how positive online interaction can empower and amplify voice.

Online reputation

This strand explores the concept of reputation and how others may use online information to make judgements. It offers opportunities to develop strategies to manage personal digital content effectively and capitalise on technology's capacity to create effective positive profiles.

Online bullying

This strand explores bullying and other online aggression and how technology impacts those issues. It offers strategies for effective reporting and intervention and considers how bullying and other aggressive behaviour relates to legislation.

Managing online information

This strand explores how online information is found, viewed and interpreted. It offers strategies for effective searching, critical evaluation and ethical publishing.

Health, well-being and lifestyle

This strand explores the impact that technology has on health, well-being and lifestyle. It also includes understanding negative behaviours and issues amplified and sustained by online technologies and the strategies for dealing with them.

Privacy and security

This strand explores how personal online information can be used, stored, processed and shared. It offers both behavioural and technical strategies to limit impact on privacy and protect data and systems against compromise.

Copyright and ownership

This strand explores the concept of ownership of online content. It explores strategies for protecting personal content and crediting the rights of others as well as addressing potential consequences of illegal access, download and distribution.

Core Concepts

CONCEPT – Information Technology

- Can understand and apply IT skills which enable them to effectively use computers for a variety of functions
- Can use a range of techniques and programs to create content for different audiences and purposes.

CONCEPT – Computer Science

- Can understand and apply the fundamental principles and concepts of computer programming, including abstraction, logic, sequencing, algorithms and data representation
- Can solve problems through creating and manipulating instructions for computers to follow

CONCEPT – Online safety

- Are competent and confident in using computer technology both creatively and for a specified purpose
- Are able to identify and avoid risks in order to use communication technology safely, responsibly and effectively

	Autumn term 1	Autumn term 2	Spring term 1	Spring term 2	Summer term 1	Summer term 2
FS	**Self-Image and Identity** Saying "no thank you", "please stop", "I'll tell" and "I'll ask"	**Online Relationships** How can we communicate with others offline and online?	**Online Reputation** Sharing information online.	**E-Safety Focus Term** **Online Bullying:** Being kind **Health, wellbeing and lifestyle:** Rules to keep us safe. **Managing Info Online:** Finding information online.	**Privacy and security** What is personal information?	**Copyright and ownership** What belongs to me and why do we need to name it?
Year 1	**Health and wellbeing** Rules to keep us safe and healthy online	**Online Reputation** Keeping personal information private	**Online bullying** Being kind online	**E-Safety Focus Term** **Online Relationships:** Being kind and considerate to people online and in real life. **Self-Image and Identity:** Trusted adults I can share feelings and emotions with. **Managing Info Online:** Devices we can use to access information on the internet.	**Privacy and security** Who is trustworthy to share personal information with?	**Copyright and ownership** Creating my own work and knowing it is mine
Year 2	**Online bullying** What is bullying? Who is to blame and how can I help?	**Self-Image and Identity** How can people be different online to offline?	**Online Reputation** Information online can be seen by others and last a long time online	**E-Safety Focus Term** **Online Relationships:** Consent, pressure and asking for, giving or denying my permission online **Health and Wellbeing:** Guidance for using technology in different environments **Managing Info Online:** Navigating search engines and webpages and seeing what is real or fake online	**Privacy and security** Keeping information private through passwords	**Copyright and ownership** Why does other people's work belong to them online?
Year 3	**Privacy and security** Keeping passwords private and connected devices can share information with others	**Online Reputation** What information about others is online?	**Health and Wellbeing** Age restrictions and spending too much time on technology	**E-Safety Focus Term** **Online Relationships:** Similar interests online and how 'trusting someone online' is different from 'liking or knowing someone online' **Managing Info Online:** Buying and selling online and the difference between a belief, an opinion and a fact **Self-Image and Identity:** What is 'identify' and how might it change depending on what they are doing online?	**Online bullying** Recognising and resolving online bullying online	**Copyright and ownership** The problems of copying
Year 4	**Self-Image and Identity** Why might people pretend to be someone else?	**Online Relationships** Healthy and unhealthy online behaviours, and safe and fun experiences online like gaming	**Managing information online** Bots, fake news and inaccuracies online	**E-Safety Focus Term** **Online Reputation:** Information about others can be created, copied or shared by others **Privacy and security:** Online services seeking consent **Health and Wellbeing:** How can technology be a positive or negative distraction?	**Online bullying** Bullying through a range of media	**Copyright and ownership** Ownership of online content – do I have the right to reuse content?

Year 5	Online Reputation	Online Relationships	Health and Wellbeing	E-Safety Focus Term	Online bullying	Copyright and ownership
	Information online allows judgments to be made and why these may be incorrect	Dangers online and online communities	Purchasing online and positive and negative apps on health	**Self-Image and Identity:** Copying, modifying or altering online identity. **Privacy and security:** Strong passwords and app permissions **Managing Information Online:** Stereotypes, validity and reliability online	Reporting and blocking online bullying and finding help	Where can we find online content that we are permitted to use?
Year 6	Self-Image and Identity	Online relationships	Managing information online	E-Safety Focus Term	Online bullying	Copyright and ownership
	Critically evaluate online content relating to gender, race, religion, disability, culture and other groups	Screen grabs, sharing inappropriate images and respecting boundaries	Evaluating online information and understanding search engines	**Online Reputation:** Protecting digital personality including anonymity **Health and Wellbeing:** Strategies to limit the impact of technology on health and age appropriate content **Privacy and security:** Software updates, privacy settings and terms and conditions	Capturing bullying content	Understanding plagiarism and acknowledging sources

Progression of skills

	E-Safety
	Online safety using National Online Safety resources https://nationalonlinesafety.com/hub . Videos for units are available in NOS lesson plans. Also try BBC Bitesize or https://www.kelsi.org.uk/child-protection-and-safeguarding/e-safety/e-safety-classroom-materials.
FS	Use NOS online videos for each topic.
	Autumn Term 1 (Self Image and Identity)
	I can name and recognise uncomfortable, embarrassed, and upset emotions
	I can recognise, online or offline, that anyone can say 'no thank you'/ 'please stop'/ 'I'll tell'/'I'll ask' to somebody who makes them feel sad, uncomfortable, embarrassed or upset
	Autumn Term 2 (Online Relationships)
	I can recognise some ways in which the internet can be used to communicate.
	I can give examples of how I (might) use technology with people I know.
	Spring Term 1 (Online Reputation)
	I can identify ways that I can put information on the internet.
	Spring Term 2 (E-Safety focus term)
	Online Bullying: I can describe ways that some people can be unkind online. I can offer examples of how this can make others feel.
	Health, wellbeing and lifestyle: I can identify rules that help keep us safe and healthy in and beyond the home when I am using technology. I can give some simple examples of these rules. I can apply these rules during my play. I can link feelings to my online experiences
	Managing Information online: I can talk about how to use the internet as a way of finding information online. I can identify devices I could use to access information on the internet
	Summer Term 1 (Privacy and Security)
	I can identify some simple examples of my personal information (e.g. name, address, birthday, age, location)
	I can describe who would be trustworthy to share this information with; I can explain why they are trusted.
	Summer Term 2 (Copyright and Ownership)
	I know that work I create belongs to me
	I can name my work so that others know it belongs to me
	I can express how I felt when I created this work
	I can share my work with a friend
Y1	**Autumn Term 1 (Health and Wellbeing)**
	I can identify rules that help keep us safe and healthy in and beyond the home when using technology.
	I can give some simple examples of these rules.
	I can explain rules to keep myself safe when using technology both in and beyond the home.

Autumn Term 2 (Online Reputation)

I can identify ways that I can put information on the internet.

I can recognise that information can stay online and could be copied.
I can describe what information I should not put online without asking a trusted adult first.

Spring Term 1 (Online Bullying)

I can describe ways that some people can be unkind online.

I can offer examples of how this can make others feel.
I can describe how to behave online in ways that do not upset others and can give examples.

Spring Term 2 (E-Safety focus term)

Managing Info Online:

I can talk about how to use the internet as a way of finding information online.

I can identify devices I could use to access information on the internet.

I can give simple examples of how to find information using digital technologies (e.g. search engines, voice activated searching).

I know/understand that I can encounter a range of things online, including things I like and don't like as well as things which are real or make believe/a joke.
I know how to get help from a trusted adult if I see content that makes me feel sad, uncomfortable worried or frightened

Self-Image and Identity:

I can recognise, online or offline, that anyone can say 'no'/'please stop'/'I'll tell'/'I'll ask' to somebody who makes them feel sad, uncomfortable, embarrassed or upset.

I can recognise that there may be people online who could make someone feel sad, embarrassed or upset.
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.

Online Relationship:

I can recognise some ways in which the internet can be used to communicate.

I can give examples of how I (might) use technology to communicate with people I know.

I can give examples of when I should ask permission to do something online and explain why this is important.

I can use the internet with adult support to communicate with people I know (e.g. video call apps or services).

I can explain why it is important to be considerate and kind to people online and to respect their choices.
I can explain why things one person finds funny or sad online may not always be seen in the same way by others.

Summer Term 1 (Privacy and Security)

I can identify some simple examples of my personal information (e.g. name, address, birthday, age, location).

I can describe who would be trustworthy to share this information with; I can explain why they are trusted.

I can explain that passwords are used to protect information, accounts and devices.

I can recognise more detailed examples of information that is personal to someone (e.g. where someone lives and goes to school, family names).
I can explain why it is important to always ask a trusted adult before sharing any personal information online belonging to myself or others.

	Summer Term 2 (Copyright and Ownership)	
	I know that work I create belongs to me.	
	I can name my work so that others know it belongs to me.	
	I can explain why work I create using technology belongs to me.	
	I can say why it belongs to me (e.g. 'I designed it' or 'I filmed it').	
	I can save my work under a suitable title/name so that others know it belongs to me (e.g. filename, name on content).	
	I understand that work created by others does not belong to me even if I save a copy	
Y2	**Autumn Term 1 (Online Bullying)**	
	I can explain what bullying is, how people may bully others and how bullying can make someone feel.	
	I can explain why anyone who experiences bullying is not to blame.	
	I can talk about how anyone experiencing bullying can get help.	
	Autumn Term 2 (Self Image and Identity)	
	I can explain how other people may look and act differently online and offline.	
	I can give examples of issues online that might make someone feel sad, worried, uncomfortable or frightened; I can give examples of how they might get help.	
	Spring Term 1 (Online Reputation)	
	I can explain how information put online about someone can last for a long time.	
	I can describe how anyone's online information could be seen by others.	
	I know who to talk to if something has been put online without consent or if it is incorrect.	
	Spring Term 2 (E-Safety focus term)	
	Managing Info Online:	
	I can use simple keywords in search engines.	
	I can demonstrate how to navigate a simple webpage to get to information I need (e.g. home, forward, back buttons; links, tabs and sections).	
	I can explain what voice activated searching is and how it might be used, and I know it is not a real person (e.g. Alexa, Google Now, Siri).	
	I can explain the difference between things that are imaginary, made up or make believe and things that are true or real.	
	I can explain why some information I find online may not be real or true.	
	Health and Wellbeing:	
	I can explain simple guidance for using technology in different environments and settings (e.g. accessing online technologies in public places and the home environment).	
	I can say how those rules/guides can help anyone accessing online technologies.	
	Online Relationship:	
	I can give examples of how someone might use technology to communicate with others they don't also know offline and explain why this might be risky (e.g. email, online gaming, a pen-pal in another school/country).	
	I can explain who I should ask before sharing things about myself or others online.	
	I can describe different ways to ask for, give or deny my permission online and can identify who can help me if I am not sure.	
	I can explain why I have a right to say, 'no' or 'I will have to ask someone'. I can explain who can help me if I feel under pressure to agree to something I am unsure about or don't want to do.	
	I can identify who can help me if something happens online without my consent.	

I can explain how it may make others feel if I do not ask their permission or ignore their answers before sharing something about them online.
I can explain why I should always ask a trusted adult before clicking 'yes', 'agree' or 'accept' online.

Summer Term 1 (Privacy and Security)

I can explain how passwords can be used to protect information, accounts and devices.

I can explain and give examples of what is meant by 'private' and 'keeping things private'.

I can describe and explain some rules for keeping personal information private (e.g. creating and protecting passwords).
I can explain how some people may have devices in their homes connected to the internet and give examples (e.g. lights, fridges, toys, televisions).

Summer Term 2 (Copyright and Ownership)

I can recognise that content on the internet may belong to other people.
I can describe why other people's work belongs to them.

Y3	**Autumn Term 1 (Privacy and Security)**

I can describe simple strategies for creating and keeping passwords private.

I can give reasons why someone should only share information with people they choose and can trust. I can explain that if they are not sure or feel pressured, they should tell a trusted adult.
I can describe how connected devices can collect and share anyone's information with others.

Autumn Term 2 (Online Reputation)

I can explain how to search for information about others online.

I can give examples of what anyone may or may not be willing to share about themselves online. I can explain the need to be careful before sharing anything personal.
I can explain who someone can ask if they are unsure about putting something online.

Spring Term 1 (Health and Wellbeing)

I can explain why spending too much time using technology can sometimes have a negative impact on anyone (e.g. mood, sleep, body, relationships). I can give some examples of both positive and negative activities

where it is easy to spend a lot of time engaged (e.g. doing homework, games, films, videos).
I can explain why some online activities have age restrictions, why it is important to follow them and know who I can talk to if others pressure me to watch or do something online that makes me feel uncomfortable (e.g. age restricted gaming or web sites).

Spring Term 2 (E-Safety focus term)
Managing Info Online: |

	I can demonstrate how to use key phrases in search engines to gather accurate information online.
	I can explain what autocomplete is and how to choose the best suggestion.
	I can explain how the internet can be used to sell and buy things.
	I can explain the difference between a belief, an opinion and a fact and can give examples of how and where they might be shared online (e.g. in videos, memes, posts, news stories).
	I can explain that not all opinions shared may be accepted as true or fair by others (e.g. monsters under the bed).
	I can describe and demonstrate how we can get help from a trusted adult if we see content that makes us feel sad, uncomfortable worried or frightened.
	Online Relationship:
	I can describe ways people who have similar likes and interests can get together online.
	I can explain what it means to 'know someone' online and why this might be different from knowing someone offline.
	I can 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.
	I can explain why someone may change their mind about trusting anyone with something if they feel nervous, uncomfortable or worried.
	I can explain how someone's feelings can be hurt by what is said or written online.
	I can explain the importance of giving and gaining permission before sharing things online and how the principles of sharing online are the same as sharing offline (e.g. sharing images and videos).
	Self Image and Identity:
	I can explain what is meant by the term 'identity'.
	I can explain how people can represent themselves in different ways online.
	I can explain ways in which someone might change their identity depending on what they are doing online (e.g. gaming, using an avatar, social media) and why.
	Summer Term 1 (Online Bullying)
	I can describe appropriate ways to behave towards other people online and why this is important.
	I can give examples of how bullying behaviour could appear online and how someone can get support.
	Summer Term 2 (Copyright and Ownership)
	I can explain why copying someone else's work from the internet without permission isn't fair and can explain what problems this might cause.
Y4	**Autumn Term 1 (Self Image and Identity)**
	I can explain how my online identity can be different from my offline identity.
	I can describe positive ways for someone to interact with others online and understand how this will positively impact on how others perceive them.
	I can explain that others online can pretend to be someone else, including my friends, and I can suggest reasons why they might do this.
	Autumn Term 2 (Online Relationships)
	I can describe strategies for safe and fun experiences in a range of online social environments (e.g. livestreaming, gaming platforms).
	I can give examples of how to be respectful to others online and describe how to recognise healthy and unhealthy online behaviours.
	I can explain how content shared online may feel unimportant to one person but may be important to other people's thoughts, feelings and beliefs.
	Spring Term 1 (Managing Info Online)
	I can analyse information to make a judgement about probable accuracy, and I understand why it is important to make my own decisions regarding content and that my decisions are respected by others.
	I can describe how to search for information within a wide group of technologies and make a judgement about the probable accuracy (e.g. social media, image sites, video sites).

	I can describe some of the methods used to encourage people to buy things online (e.g. advertising offers, in-app purchases, pop-ups) and can recognise some of these when they appear online.
	I can explain why lots of people sharing the same opinions or beliefs online do not make those opinions or beliefs true.
	I can explain that technology can be designed to act like, or impersonate, living things (e.g. bots) and describe what the benefits and the risks might be.
	I can explain what is meant by fake news; for example, why some people will create stories or alter photographs and put them online to pretend something is true when it isn't.
	Spring Term 2 (E-Safety focus term)
	Privacy and Security:
	I can describe strategies for keeping personal information private, depending on context.
	I can explain that internet use is never fully private and is monitored.
	I can describe how some online services may seek consent to store information about me. I know how to respond appropriately and who I can ask if I am not sure.
	I know what the digital age of consent is and the impact this has on online services asking for consent.
	Health and Wellbeing: I can explain how using technology can be a distraction from other things in a positive and negative way.
	I can identify times or situations when someone may need to limit the amount of time they use technology. For example, I can suggest strategies to help with limiting this time.
	Online Reputation:
	I can describe how to find out information about others by searching online. I can explain ways that some of the information about anyone online could have been created, copied or shared by others.
	Summer Term 1 (Online Bullying)
	I can recognise when someone is upset, hurt or angry online.
	I can describe ways people can be bullied through a range of media (e.g. image, video, text, chat).
	I can explain why people need to think carefully about how content they post might affect others, their feelings and how it may affect how others feel about them (their reputation).
	Summer Term 2 (Copyright and Ownership)
	When searching on the internet for content to use, I can explain why I need to consider who owns it and whether I have the right to reuse it.
	I can give some simple examples of content which I must not use without permission from the owner (e.g. videos, music, images).
Y5	**Autumn Term 1 (Online Reputation)**
	I can search for information about an individual online and summarise the information found.
	I can describe ways that information about anyone online can be used by others to make judgments about an individual and why these may be incorrect.
	Autumn Term 2 (Online Relationships)
	I can give examples of technology-specific forms of communication (e.g. emojis, memes and GIFs).
	I can 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.
	I can describe some of the ways people may be involved in online communities and how they might collaborate constructively with others and make positive contributions. (e.g. gaming communities and social media groups).
	I can explain how someone can get help if they are having problems and identify when to tell a trusted adult.
	I can demonstrate how to support others (including those who are having difficulties) online.
	Spring Term 1 (Health and Wellbeing)
	I can describe ways technology can affect health and well-being positively (e.g. mindfulness apps) and negatively.

	I can describe some strategies, tips or advice regarding technology to promote health and wellbeing.
	I recognise the benefits and risks of accessing information about health and well-being online and how we should balance this with talking to trusted adults and professionals.
	I can 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.
	Spring Term 2 (E-Safety focus term)
	Privacy and Security:
	I can explain what a strong password is and demonstrate how to create one.
	I can explain how many free apps or services may read and share private information (e.g. friends, contacts, likes, images, videos, voice, messages, geolocation) with others.
	I can explain what app permissions are and can give some examples.
	Self Image and Identity:
	I can explain how identity online can be copied, modified or altered.
	I can demonstrate how to make responsible choices about having an online identity, depending on context.
	Managing Information Online:
	I can explain the benefits and limitations of using different types of search technologies such as voice-activation search engines. I can explain how some technology can limit the information I am presented with, for example voice-activated searching giving one result.
	I can explain what is meant by 'being sceptical'; I can give examples of when and why it is important to be sceptical.
	I can evaluate digital content and can explain how to make choices about what is trustworthy, for example differentiating between adverts and search results.
	I can explain key concepts, including information, reviews, fact, opinion, belief, validity, reliability and evidence.
	I can identify ways the internet can draw us to information for different agendas (e.g. website notifications, pop-ups, targeted ads).
	I can describe ways of identifying when online content has been commercially sponsored or boosted (e.g. by commercial companies or by vloggers, content creators, influencers).
	I can explain what is meant by the term 'stereotype', how stereotypes are amplified and reinforced online and why accepting stereotypes may influence how people think about others.
	I can describe how fake news may affect someone's emotions and behaviour and explain why this may be harmful.
	I can explain what is meant by a hoax. I can explain why someone would need to think carefully before they share.
	Summer Term 1 (Online Bullying)
	I can recognise that online bullying can be different from bullying in the physical world and can describe some of those differences.
	I can describe how what one person perceives as playful joking and teasing (including 'banter') might be experienced by others as bullying.
	I can explain how anyone can get help if they are being bullied online and identify when to tell a trusted adult.
	I can identify a range of ways to report concerns and access support in school and at home about online bullying.
	I can explain how to block abusive users.
	I can describe helpline services which can help people experiencing bullying and how to access them (e.g. Childline or The Mix).
	Summer Term 2 (Copyright and Ownership)
	I can assess and justify when it is acceptable to use the work of others.
	I can give examples of content that is permitted to be reused and know how this content can be found online.
Y6	**Autumn Term 1 (Self Image and Identity)**

I can 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.

I can describe issues online that could make anyone feel sad, worried, uncomfortable or frightened. I know and can give examples of how to get help online and offline.
I can explain the importance of asking until I get the help needed.

Autumn Term 2 (Online Relationships)

I can explain how sharing something online may have an impact either positively or negatively.

I can 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.

I can describe how things shared privately online can have unintended consequences for others, for example screen-grabs.
I can explain that taking or sharing inappropriate images of someone, for example embarrassing images, even if they say it is okay, may have an impact for the sharer and others. I can also explain who can help if someone is worried about this.

Spring Term 1 (Managing Info Online)

I can explain how search engines work and how results are selected and ranked.

I can explain how to use search technologies effectively.

I can describe how some online information can be opinion and can offer examples.

I can explain how and why some people may present opinions as facts, and why the popularity of an opinion or the personalities of those promoting it does not necessarily make it true, fair or perhaps even legal.

I can define the terms 'influence', 'manipulation' and 'persuasion' and explain how someone might encounter these online, for example advertising, ad targeting and targeting for fake news.

I understand the concept of persuasive design and how it can be used to influences peoples' choices.

I can demonstrate how to analyse and evaluate the validity of facts and information, and I can explain why using these strategies is important.

I can explain how companies and news providers target people with online news stories they are more likely to engage with and how to recognise this.

I can describe the difference between online misinformation and disinformation.

I can explain why information that is on a large number of sites may still be inaccurate or untrue. I can assess how this might happen, for example the sharing of misinformation or disinformation.
I can identify, flag and report inappropriate content.

Spring Term 2 (E-Safety focus term)

Health and Wellbeing:

I can describe common systems that regulate age-related content (e.g. PEGI, BBFC, parental warnings) and describe their purpose.

I recognise and can discuss the pressures that technology can place on someone and how and when they could manage this.

I can recognise features of persuasive design and how they are used to keep users engaged (current and future use).
I can 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).

Online Reputation:

I can explain the ways in which anyone can develop a positive online reputation.
I can explain strategies anyone can use to protect their digital personality and online reputation, including degrees of anonymity.

Privacy and security:

I can describe effective ways people can manage passwords, for example storing them securely or saving them in the browser.

I can explain what to do if a password is shared, lost or stolen.

I can describe how and why people should keep their software and apps up to date, for example auto updates.

I can describe simple ways to increase privacy on apps and services that provide privacy settings.

I can describe ways in which some online content targets people to gain money or information illegally; I can describe strategies to help me identify such content (e.g. scams, phishing).
I know that online services have terms and conditions that govern their use.

Summer Term 1 (Online Bullying)

I can describe how to capture bullying content as evidence (e.g. screen-grab, URL, profile) to share with others who can help me.
I can explain how someone could report online bullying in different contexts.

Summer Term 2 (Copyright and Ownership)

I can demonstrate the use of search tools to find and access online content which can be reused by others.
I can demonstrate how to make references to, and acknowledge, sources I have used from the internet.