

**HOLY TRINITY CATHOLIC ACADEMY
MEDIUM TERM CURRICULUM PLANNER**

Subject: COMPUTING

INTENT Digital Literacy:

- To be responsible users of digital devices inside and outside of school.
- To make connections with their learning and apply it to their everyday use of technology. (Online safety)
- To be able to retain and recall specific knowledge throughout the year.

INTENT ICT:

- To develop confident users of technology.
- To develop links between curriculum subjects, such as Maths and Science, to create and produce data which can be analysed, evaluated and presented.

INTENT Computer Science:

- To develop enquiring minds through practical investigations through the use of coding.
- To be confident in explaining the debugging process (KS2), when solving errors within coding.

EYFS Curriculum

1.To know how to operate some ICT or mechanical toys

2.To know how to be able to operate a CD player or music app on the Ipad and show understanding of the remote controls.

3.To know and be able to operate a digital device and show understanding of the remote controls.

To know and to be able to show interest in other technological items.

4.To know how to be able to understand and complete a simple program on a computer

KS1 National Curriculum Objectives:

1.To understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions

2.Create and debug simple programs
Use logical reasoning to predict the behaviour of simple programs

3.Use technology purposefully to create, organise, store, manipulate and retrieve digital content
Recognise common uses of information technology beyond school

4.Use technology safely and respectfully, keeping personal data private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies

KS2 National Curriculum Objectives:

1.Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts

2.Use sequence, selection and repetition in programs; work with variables and various forms of input and output

3.Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs

4.Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration

5.Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content

6.Select, use and combine a variety of software (including internet services) on a range of digital devices to design & create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information

7.Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact

YEAR	FOCUS AREA	VOCABULARY	KEY KNOWLEDGE & SKILLS
Foundation Stage	Digital Literacy (DL)	Safe Friend Adult	<ul style="list-style-type: none"> Recognise inappropriate content and know to tell an appropriate adult Are aware that information can be public or private <ul style="list-style-type: none"> Can describe what makes a good friend
	Information Technology (ICT)	Mouse Screen Keyboard Spacebar Numbers Letters Tablet Ipad More Less Like Dislike	<p>Using a computer</p> <ul style="list-style-type: none"> To know how to use a mouse, touchscreen or appropriate access device to target and select options on screen Recognise and use a range of digital devices Recognise the basic parts of a computer, e.g. mouse, screen, keyboard inc. spacebar, numbers and letters Understand that information and media can be stored on a digital device, e.g. they ask to view a photo that has been taken on a tablet <p>Communication</p> <ul style="list-style-type: none"> Create simple digital content, e.g. digital art <p>Understanding and sharing data</p> <ul style="list-style-type: none"> Sort familiar objects into 1 or more categories Answer basic questions about information displayed in images, e.g. more or less Collect and present simple data (e.g. likes/dislikes) on a topic
	Computer Science (CS)	Instructions Actions Goal	<ul style="list-style-type: none"> Understand that we control computers Write and understand a short sequence of instructions to control a device Repeat an action with technology to trigger a specific outcome Evaluate an outcome based on an initial goal Recognise patterns in groups of objects

YEAR	FOCUS AREA	VOCABULARY	KEY KNOWLEDGE & SKILLS BY THE END OF THE ADVENT TERM:	
KS1	Digital Literacy (DL)	Cyber Safety E-safety Cyber Bullying Technology Devices Portable Personal Information	<p>In Year A the children show an understanding of the following objectives: Some objectives are repeated yearly to ensure that they are embedded and are the core foundations of being safe online.</p> <ul style="list-style-type: none"> To know what personal information is – E.g. Name, Address, School name, Age and Email address. To know who we can trust with our personal information – E.g. Teachers, Schools, Police, Parents. To know and understand the school rules when using technology 	<p>In Year B the children will use Hector's world resources to show an understanding of the following objectives: Some objectives are repeated yearly to ensure that they are embedded and are the core foundations of being safe online.</p> <ul style="list-style-type: none"> To know what personal information is – E.g. Name, Address, School name, Age and Email address. To know who we can trust with our personal information – E.g. Teachers, Schools, Police

		<ul style="list-style-type: none"> To know how to use technology safely at home E.g. make sure an adult is near by or watching what I am doing. To know how to keep my personal details safe, such as passwords that I need to remember. (Keep passwords in your reading diary for school websites – don't share them with other children) To know why you shouldn't share passwords with other people – accounts get hacked (E.g. TTRockstars coins being spent – this could be real money for some people) To know who to speak to when I am concerned online. E.g. Staff member or parents or report button. To know that a pop-up can appear on a website and can take you away from your webpage. <p>-</p>	<ul style="list-style-type: none"> To know why you shouldn't share personal information online – E.g. people use it to set up fake accounts or people can find out which school you are at. To know when it is acceptable to share information – E.g. when you go on a school trip your teacher needs a copy of your name and phone number for an emergency To know who to tell when I don't feel safe (example – when I see something I shouldn't, when someone asks for my details or when bad messages are sent) . E.g. A parent, teacher or trusted adult. To know that an adult should be checking what I do online – E.g. A parent to be in the room when using the internet. Adults in school always share which app/website to use. To know that personal information shouldn't be shared with others, even offline. E.g. In the park, at an amusement arcade. To know that passwords are used to keep personal information safe.
FOCUS AREA	VOCABULARY	KEY KNOWLEDGE & SKILLS BY THE END OF THE LENT TERM:	
Information Technology (ICT)	Store Folder Document Create Retrieve Manipulate Organise	YEAR A: Using a computer <ul style="list-style-type: none"> To know that there are range of devices in school and what they are used for – laptops, computer suite, iPads. To know how these devices can be used outside of school To know my username and password for logging into the school computers (keep in school reading diary) To know how to create a PowerPoint and save into the pupil folders – Link to History – 	YEAR B: Using a computer <ul style="list-style-type: none"> To know that there are range of devices in school and what they are used for – laptops, computer suite, iPads. To know how these devices can be used outside of school To know my username and password for logging into the school computers (keep in school reading diary) To know how to save a picture from the web onto the school computer – Link to Significant

			<p>Fire of London (Advent Term) – Children can use History books and Knowledge organisers to create a PowerPoint to show what they have learned in class.</p> <ul style="list-style-type: none"> • To know how to store a PowerPoint in a folder on the pupil folders – Y1/2 are using Bears pupil folders to store work. Work will include PowerPoints about The Fire of London. • To know how to open a saved document from Office 365 <p>PowerPoint:</p> <ul style="list-style-type: none"> • I know how to add text to a single slide • I know how to add an image (including clip art) • I know how to copy and paste an image (with support) Teachers can take pictures of the children’s work or film them talking about The Fire of London on a iPad before uploading them into the pupil folders for the children to access. • I know how to save and retrieve a document <p>Excel</p> <ul style="list-style-type: none"> • I know how to add simple data • I know how to produce a chart (bar chart) • I know how to save and retrieve a document <p>Microsoft 365 Outlook (Email)</p> <ul style="list-style-type: none"> • I know how to send an email to a known member of our school community (with support) • I know how to open and reply to an email from a known person • I know how to contribute ideas to a class email <p>Digital Research</p> <ul style="list-style-type: none"> • I know how to use key words to search for information • I know how to locate specific, teacher defined, age appropriate websites by typing into the address bar in a web browser Link to history unit for The Fire of London – children can search for simple searches on Google. 	<p>Individuals History Topic – Children can be shown how to safely search for bitesize website around Columbus or Armstrong for images to save into a folder by right clicking and saving.</p> <ul style="list-style-type: none"> • To know how to store a document in a folder on pupil folders – children in Y1/2 are using Bears pupil folders to store work. Work can include the image of the Significant individual and a short piece of text to say who the person is. The document can be named with the child’s name. • To know how to open a saved document from pupil folders. <p>Microsoft Word:</p> <ul style="list-style-type: none"> • I know how to enter text • I know how to understand and use capital letters • I know how to understand and use lowercase letters • I know basic typing skills including the use of the space bar, return key and basic punctuation. • I know how to format text (size and font) (with support) • I know how to insert clip art and images (with support) Link to Significant Individuals History Topic – Children can be shown how to safely search for bitesize website around Columbus or Armstrong for images to save into a folder by right clicking and saving. • I know how to save and retrieve a document • I know how to evaluate content made (PowerPoint) to ensure that it is purposeful - Link to Significant Individuals History Topic – show children bitesize website and then Wikepedia – discuss which website is best for the age range <p>Excel</p> <ul style="list-style-type: none"> • I know how to add simple data • I know how to produce a chart (bar chart) • I know how to save and retrieve a document
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			<ul style="list-style-type: none"> I know what to do if I discover an inappropriate or offensive website, at home or school. <p>Digital Photographs, Video and Animation</p> <ul style="list-style-type: none"> I know how to use a digital device to capture and save both still and moving images. I know how to upload images or movies from devices to the computer (with support) I know how to make changes to images (use of Paint) I know how to create a sequence of images to form a short animation. 	<p>Microsoft 365 Outlook (Email)</p> <ul style="list-style-type: none"> I know how to send an email to a known member of our school community (with support) I know how to open and reply to an email from a known person I know how to contribute ideas to a class email <p>Digital Research</p> <ul style="list-style-type: none"> I know how to use key words to search for information I know how to locate specific, teacher defined, age appropriate websites by typing into the address bar in a web browser Link to history unit for Significant individuals – give children search terms and ask them to find the bitesize website. I know what to do if I discover an inappropriate or offensive website, at home or school. <p>Digital Photographs, Video and Animation</p> <ul style="list-style-type: none"> I know how to use a digital device to capture and save both still and moving images. I know how to upload images or movies from devices to the computer (with support) I know how to make changes to images (use of Paint) <p>I know how to create a sequence of images to form a short animation.</p>
	FOCUS AREA	VOCABULARY	KEY KNOWLEDGE & SKILLS BY THE END OF THE PENTECOST TERM:	
	Computer Science (CS)	<p>Algorithm</p> <p>Debug Programs</p> <p>Prediction</p> <p>Digital Device Instructions</p>	<p><i>YEAR A: Using Beebots</i></p> <ul style="list-style-type: none"> To know what an algorithm is and that they are implemented as programs on digital devices such as Beebots. To know that algorithms are precise instructions for a digital device. To know how to use the inputs and outputs of a Beebot to get it from Point A to Point B. To know how to use the inputs and outputs of a Beebot to turn 90 degrees. 	<p><i>YEAR B: Using Beebots</i></p> <ul style="list-style-type: none"> To know what an algorithm is and that they are implemented as programs on digital devices such as Beebots. To know that algorithms are precise instructions for a digital device. To know how to predict the outcome of an algorithm by reading the code. To know how to test and amend an algorithm.

			<ul style="list-style-type: none"> To know how to create an algorithm (flow chart) to decompose a problem into smaller steps to make it simpler. To know how to use diagrams to represent an algorithm, e.g. a flowchart To know how to create a program using a range of events/inputs to control what happens (Turning 90 degrees, avoid an obstacle) <p>Link to wider curriculum – Beebots can be used on floor mats that have some key features of Newark on. E.g. Newark Castle, Train Station, Our School, Sconce Park, A46 – This links to the topic in Geography ‘Comparison of small area of UK (Newark) vs Non-European Country Town/Market.</p>	<ul style="list-style-type: none"> To know how to use the inputs and outputs of a Beebot to get it from Point A to Point B. To know how to use the inputs and outputs of a Beebot to turn 90 degrees. To know how to create an algorithm (flow chart) to decompose a problem into smaller steps to make it simpler. To know how to use diagrams to represent an algorithm, e.g. a flowchart To know how to create a program using a range of events/inputs to control what happens (Turning 90 degrees, avoid an obstacle) To know how to predict the outcome of a program, e.g. Beebot or Scratch Junior Codes <p>Link to wider curriculum – Beebots can be used on floor mats that have obstacles that might be there in War – eg buildings or rivers. Group children to ‘capture’ objectives on the floor mat. Links to William Tritton inventor of the first fighting tank. Beebots can be used as mini-tanks that move across the map.</p>
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YEAR	FOCUS AREA	VOCABULARY	KEY KNOWLEDGE & SKILLS BY THE END OF THE ADVENT TERM:	
LKS2 Y3/4	Digital Literacy (DL)	E-safety Cyber Safety Cyber Bullying Behaviours Reporting Collaboration Network Communication Digital Content Content	Year A – Using Google Internet Legends. <ul style="list-style-type: none"> To know what the internet is. To know what the world wide web is. To know what personal information is – E.g. Name, Address, School name, Age, Email address, Phone Numbers, Bank Details, Family members names, Jobs. 	Year B – Using resources created by Y3/4 Team (Some used to deepen understanding from Year A) <ul style="list-style-type: none"> To know what the internet is. To know what the world wide web is. To know what personal information is – E.g. Name, Address, School name, Age, Email address, Phone Numbers, Bank Details, Family members names, Jobs.

		<p>Contact</p>	<ul style="list-style-type: none"> • To know who we can trust with our personal information – E.g. Teachers, Schools, Police • To know why you shouldn't share personal information online – E.g. people use it to set up fake accounts or people can find out which school you are at. • To know that an adult should be checking what I do online – E.g. A parent to be in the room when using the internet. Adults in school always share which app/website to use. • To know that personal information shouldn't be shared with others, even offline. E.g. In the park, at an amusement arcade. • To know how to work out if information online is true and reliable • To know how to protect their online reputation through the actions they make • To know how to create a strong password to secure information online. • To know how to be 'kind' to others online. • To know how to identify ways in which they can secure their information online by creating strong passwords. 	<ul style="list-style-type: none"> • To know who we can trust with our personal information – E.g. Teachers, Schools, Police • To know why you shouldn't share personal information online – E.g. people use it to set up fake accounts or people can find out which school you are at. • To know and identify the dangers of people online – E.g. people aren't who they say they are. Not to meet up with people you don't know. • To know the social media age restrictions and why they have been put in place • To know who to tell when you have been cyberbullied online (Staff, Parent, Trusted Adult) • To know that you can report bad behaviour online using a report button. • To know that an adult should be checking what I do online – E.g. A parent to be in the room when using the internet. Adults in school always share which app/website to use. • To know that personal information shouldn't be shared with others, even offline. E.g. In the park, at an amusement arcade. • To know that passwords are used to keep personal information safe. • To know that games and films have age ratings, rate a game or film they have made and explain their rating
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FOCUS AREA	VOCABULARY	KEY KNOWLEDGE & SKILLS BY THE END OF THE LENT TERM:	
Information Technology (ICT)	Search Engine Results Variables Content Software Digital devices Programs Collecting Analysing Evaluating Data Information	<p>YEAR A:</p> <p>Using a computer</p> <ul style="list-style-type: none"> To know how to open and save a file to a suitable folder To know how to use suitable file names when saving work To be able to type using all fingers To know how to use right-click, left-click and double-click appropriately on a mouse To know how to copy text and images into a another document To remember an individual password To know how to upload pictures and videos made on the iPad into their OneDrive folder so it can be used in Word or PowerPoint. <p>Communication</p> <ul style="list-style-type: none"> To know how to create a Word document on Office 365 using a laptop or iPad. To know how to share a document from an iPad to the class teacher on Office 365. To know how to collect data to present information linked to a topic (see below) To know how to share data from one app (excel) into another (Word) so it can be explained in a presentation. To know that I can use a range of software for similar purposes – Word and PowerPoint for note making and sharing information. To know how to select and use the best piece of software for a given goal – PowerPoint is best for sharing videos made, Word is useful for adding images and text. Link the above to the History unit of Early Civilisation: Ancient Egypt. Children can use the iPads to create pictures or videos about the topic they have learned. These can be uploaded to OneDrive and used in Word Documents or PowerPoints when using laptops or computers in school. 	<p>YEAR B:</p> <p>Using a computer</p> <ul style="list-style-type: none"> To know that there are range of devices in school To know how these devices can be used outside of school To know my username and password for logging into the school computers To know how to create a word document and save to the pupil folders or Office 365 To know how to store a document in a folder in pupil folders or Office 365, giving it a suitable name. To know how to use folders to manage my files. To know how to open a saved document from pupil folders or Office 365 To know how to use right-click, left-click and double-click appropriately on a mouse To know simple key-board shortcuts such as select all, copy, paste and save. Ctrl+C Ctrl+V Ctrl+S To know how to use search engines effectively and understand how searches are ranked <p>Communication</p> <ul style="list-style-type: none"> To know how to create a PowerPoint on Office 365 using a laptop. To know how to share folders and work from Office 365 to the class teacher. To know how to collect data to present information linked to a topic To know how to share data from one app (excel) into another (PowerPoint) so it can be explained in a presentation. Link the above to the History unit on Anglo-Saxons. Children can search for the bitesize website or another site chosen by the class teacher. Using the website children can create their PowerPoints using the key board shortcuts.

Understanding and sharing data

- To know how to create tables and pie charts or line graphs to show data based on learning in class. (History, Geography, Science link).
- To know how to share the information into another document to analyse data to show findings and conclusions.
- Data for line graphs can link to solids, liquids and gases topic in Science. Pie Charts for number of items that are made out of each?

Microsoft Word

- I know how to type with speed
- I know how to use a range of punctuation (Speech, commas, brackets)
- I know how to insert tables, images and word art.
- I know how to format text including font and paragraph justification
- I know how to alter page orientation

PowerPoint

- I know how to create multiple slides as part of a slideshow
- I know how to add animation to slides (Transition/Text/Appear/Disappear)

Excel

- I know how to understand cells, rows and columns.
- I know how to enter a range of data
- I know how to produce a range of graphs and charts appropriate for the task/data.
- I know how to use cell formatting (font/boarder/fill) (With support)

Office 365 Outlook (Email)

- I know how to open emails and create and send an email to a known member of the school community.
- I know how to forward an email.
- I know how to save a draft email, then edit the email prior to sending
- I know how to open and save attachments to an appropriate folder.

Understanding and sharing data

- To know how to create bar charts or line graphs to show data on a graph.
- To know how to analyse data from a graph or chart.
- To know how to share the data from excel or a website which creates graphs and put this into a PowerPoint where text can be used to explain the data.
- Bar Chats and Line Graphs can be created around rocks – how many of each type of rock can be found in the school grounds.

Microsoft Word

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- I know how to use a range of punctuation (Speech, commas, brackets)
- I know how to insert tables, images and word art.
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PowerPoint

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Office 365 Outlook (Email)

- I know how to open emails and create and send an email to a known member of the school community.
- I know how to forward an email.
- I know how to save a draft email, then edit the email prior to sending

- I know how to select an email recipient from a class address book.

Digital Research

- I know how to use child friendly search engines to locate different media (text, images, sounds or videos)
- I know how to develop key questions/words to search for specific information
- I know how to consider the effectiveness of key questions on search results and refine.
- I know how to use strategies to verify the accuracy and reliability of information
- I know how to use appropriate tools to save and retrieve accessed information (favourites/copy and paste/save as)
- I know what to do if I discover an inappropriate or offensive website, at home or in school.

Digital Photography

- I know how to use digital devices to capture still and moving images for a purpose (Word of the Week?)
- I know how to discuss and evaluate the quality of captured images and make decisions whether to keep, delete or change them.
- I know how to upload images from a device to a computer and save in a relevant location
- I know how to resize images
- I know how to import music, stills or video into video editing
- I know how to arrange, trim and cut clips to create a short film
- I know how to add simple titles, credit and transitions in a short film.

- I know how to open and save attachments to an appropriate folder.
- I know how to select an email recipient from a class address book.

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- I know how to add simple titles, credit and transitions in a short film.

	FOCUS AREA	VOCABULARY	KEY KNOWLEDGE & SKILLS BY THE END OF THE PENTECOST TERM:	
	Computer Science (CS)	Algorithm Debugging Coding Selection Sequence Selection Repetition Decomposition Input Output Program World Wide Web System Software Physical Software Detect Correct Errors	<p><i>YEAR A: Scratch Junior – iPads (Outcome)</i></p> <ul style="list-style-type: none"> To know how to explain some simple algorithms. To know how to detect an error in a simple algorithm. To know how to correct an error in a simple algorithm. To know how to decompose a problem into smaller steps to make it simpler To know how to use repetition to make programs more efficient, e.g. a forever loop in Scratch Junior To predict the outcome of a program, e.g. Scratch Junior To know how to use diagrams to represent an algorithm, e.g. a flowchart To know how to create a program using a range of events/inputs to control what happens 	<p><i>YEAR B: Scratch Junior – iPads (Outcome)</i></p> <ul style="list-style-type: none"> To know how to explain some simple algorithms. To know how to detect an error in a simple algorithm. To know how to correct an error in a simple algorithm. To know how to decompose a problem into smaller steps to make it simpler To know how to remix and change an existing program To know how to use selection in algorithms and programs, i.e. if... then... To know how to use procedures in programs to create a sub-routine e.g. a procedure called 'square' in Scratch To know how to use repetition to make programs more efficient, e.g. a forever loop (Scratch)

YEAR	FOCUS AREA	VOCABULARY	KEY KNOWLEDGE & SKILLS BY THE END OF THE ADVENT TERM:	
UKS2 Y5/6	Digital Literacy (DL)	E-safety Cyber Safety Cyber Bullying Behaviours Reporting Collaboration Network Communication Digital Content Content Contact	<p>Year A – Using Google Internet Legends</p> <ul style="list-style-type: none"> To know how when it is Okay to share information To know what having a positive digital footprint means To know ways in which I can build a positive digital footprint. To know how to be a critical consumer while online To know about different online scams, including what 'phishing' means. 	<p>Year B - Using Google Internet Legends and other resources provided by SW.</p> <ul style="list-style-type: none"> To know how to apply previous knowledge of online safety to their own activities (use SMART robot) To know who to tell when if concerned about content or contact online (Teachers, Adults, CEOP website/Reporting functions on apps/gaming)

			<ul style="list-style-type: none"> To know how to describe ways to evaluate what we see on social media To know how to explain how social media can mislead or misrepresent reality To know how to identify different types of online scams people our age may experience, including 'phishing'/' To know how to identify sources of support for someone who is worried about anything online. To know some of the risks when using technology online E.G. – People aren't who they say they are, phishing and scams, theft of identity. To know how to minimise the risks of losing personal data E.G – phishing/unknown links. 	<ul style="list-style-type: none"> To know ways to develop safe habits online, including the importance of protecting personal information. To know how to create a strong password and why this is important at school and in the wider world. To know that different passwords should be created for different things. To know how to describe ways to keep personal information private online by using safety tools and privacy settings. To know how to respond to hurtful online behaviour, in ways that keeps you safe and healthy. To know that you have to make choices when using technology and that not everything is true and/or safe. To know that if I make personal information available online, it can be seen and used by others – talk about social media and keeping accounts private and 'about me' private.
FOCUS AREA	VOCABULARY	KEY KNOWLEDGE & SKILLS BY THE END OF THE LENT TERM:		
Information Technology (ICT)	Search Engine Results Variables Content Software Digital devices Programs Collecting Analysing Evaluating Data Information	YEAR A: Using a computer <ul style="list-style-type: none"> To know how to use the keyboard confidently and use common keyboard shortcuts (Copy, Paste, Select All, Undo, Redo, Bold, Italic, Underlined) To know how to use more advanced searching techniques when using a search engine (e.g. Boolean logic – AND, OR, NOT) To know how search engine results are ranked. To know how to evaluate digital content for reliability. To know how to describe characteristics of a reliable piece of digital content. Communication <ul style="list-style-type: none"> To recognise the purpose and audience when designing and creating digital content – formal PowerPoint for 	YEAR B: Using a computer <ul style="list-style-type: none"> To know how to use the keyboard confidently and use common keyboard shortcuts (Copy, Paste, Select All, Undo, Redo, Bold, Italic, Underlined) To know how to resize and crop an image within a computer program such as Word or PowerPoint. To recognise common file types and extensions Communication <ul style="list-style-type: none"> To recognise the purpose and audience when designing and creating digital content – formal PowerPoint for presentations, word documents for note making. To know a range of Internet services, e.g. email, instant messaging and FaceTime), and their benefits and limitations. 	

presentations, word documents for note making.

Understanding and sharing data

- To know the benefits of using a computer to create charts and databases
- To know that information can be stored and shared on the Internet
- To know that search engines store information in databases
- To know how to share content created on an iPad (video/picture) to another digital device in school (laptop or PC) using OneDrive.
- To know how to combine information created on multiple devices into a single document to be presented in class – link to wider curriculum (See below)
- To know how to create a video/ take pictures and add information on a PowerPoint.
 - Link to wider curriculum: Digital content that is created in the computing lessons can be linked to the Ancient Greece unit in Lent 1 for History. Children can use knowledge from this unit to create a PowerPoint and Video on iMovie which can be shared on the school YouTube/Social Media platforms.
 - Understanding and sharing of data will link through Maths and can also be linked to the Volcanoes unit in Lent 2 – graphs can be created looking at population of towns/cities near volcanoes etc.

Microsoft Word

- I know how to cut, copy and paste, select all, undo and redo using keyboard shortcuts.
- I know how to use the spell check and thesaurus
- I know how to format a specific area or text (highlight, move and edit according to task)

- To know that some online services allow for collaboration – Office 365 sharing capabilities for partner work.

Understanding and sharing data

- To know how to design a questionnaire and collect a range of data on a theme linked wider curriculum (see below)
- To know how to enter data into an excel document.
- To know how to create bar charts or line graphs in excel.
- To know how to draw conclusions from information stored in a database, table or chart.
- To know how to share data in a presentation for an audience.
 - Link to wider curriculum: When creating PowerPoints/Word documents children have to produce a piece of work that is linked to the Mayan Civilisation (Lent 1 unit in History). Data can be linked through Maths using data from the class. E.G Height, shoe size, age in Months etc.

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- I know how to format pictures within a document (wrapping, crop, resize, remove background)

PowerPoint

- I know how to add music to slides
- I know how to insert hyperlinks externally and internally
- I know how to use and understand the slideshow tab to include timings and loops.

- I know how to format pictures within a document (wrapping, crop, resize, remove background)

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- I know how to use the notes appropriately for presenting.

Excel

- I know how to use simple formula (SUM/Average)
- I know how to sort and filter data for a given purpose
- I know how to use cell formatting (number/alignment/font/fill)

Office 365 Outlook (Email)

- I know how to add an email address to a class address book.
- I know how to use the cc and bcc facilities when sending an email
- I know how bcc and cc can be used.
- I know how to send group emails and be aware of the risks when clicking 'reply to all'

Digital Research

- I know how to use the internet for independent research (with a given goal – Teacher Led research task)
- I know how to use advanced searching techniques (use of quotation marks to location precise information)
- I know how to choose the most appropriate search engine for the task (image search, search within a website)
- I know how to create and use folders within lists of bookmarks or favourites.
- I know what to do if I discover an inappropriate or offensive website, at home or in school.

Digital Photography

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Digital Photography

- I know how to use transitions and special effects in video editing software, and understand the effect they might have on the audience
- I know how to export images and movies in formats appropriate for the purpose and use them in multimedia presentations

		<ul style="list-style-type: none"> • I know how to use transitions and special effects in video editing software, and understand the effect they might have on the audience • I know how to export images and movies in formats appropriate for the purpose and use them in multimedia presentations • I know how to plan and a create short-animated sequence to communicate a specific idea, using a story board and timeline (Word of the Week) 	I know how to plan and a create short-animated sequence to communicate a specific idea, using a story board and timeline (Word of the Week)
FOCUS AREA	VOCABULARY	KEY KNOWLEDGE & SKILLS BY THE END OF THE PENTECOST TERM:	
Computer Science (CS)	Algorithm Debugging Coding Selection Sequence Selection Repetition Decomposition Input Output Program World Wide Web System Software Physical Software Detect Correct Errors	YEAR A: Create a 'Racing Game' <ul style="list-style-type: none"> • To know that different solutions exist for the same problem • To know how to create programs including repeat until loops • To know how to create simple variables, e.g. to keep score or remove lives in a game • To know how to use two-way selection, i.e. if... then... else... • To know the difference between if... then... and if... then... else... statements • To know how to combine a variable with relational operators (< = >) to determine when a program changes, e.g. if score > 5, say "well done" • To predict what will happen in a program or algorithm (e.g. change of output) when the input changes (e.g. sensor, data or event) • To design a physical computing system that uses sensors, e.g. using a flow chart 	YEAR B: Create a Ping Pong game on Scratch online. <ul style="list-style-type: none"> • To know what an algorithm is. • To know that different solutions exist for the same problem • To know how to create programs including repeat until loops • To create simple variables, e.g. to keep score or remove lives in a game • To know how to use two-way selection, i.e. if... then... else... • To know the difference between if... then... and if... then... else... statements • To know how to combine a variable with relational operators (< = >) to determine when a program changes, e.g. if score > 5, say "well done" • To predict what will happen in a program or algorithm (e.g. change of output) when the input changes (e.g. sensor, data or event) • To design a physical computing system that uses sensors, e.g. using a flow chart