Computing
WHOLE SCHOOL OVERVIEW

Love, Care, Share...
Love learning as friends;
Care for our community as neighbours;
Share our faith in Jesus as disciples.

St. Ethelbert's RCP

Whole School Overview for Computing

COMPUTING STATEMENT OF INTENT

At St Ethelbert's, our children will have a deep understanding of computer science, and develop the information technology skills to be effective communicators. In doing so, our children will be fully prepared for their next stage of education and equipped with these skills and knowledge for the rest of their lives. We will deliver a knowledge-rich curriculum that:

Systematically develops an understanding of programming, including algorithms.
Teaches children how computer systems, devices and the internet works.
Focuses on all important aspects of online safety.
Provides broad experiences of a range of software applications and, where appropriate, applies them across the curriculum.

This begins in early years, where children become familiar with basic controls on digital devices. In Key Stage 1, children are introduced practically to the fundamentals of algorithms and use technology purposefully to create, organise, store, manipulate and retrieve digital content. Themes are broadened and developed throughout Key Stage 2. The four essential programming strands of *sequencing*, *repetition*, *selection* and *variables* are developed so that children can design and debug their own programs. Children also learn about computer networks, as well as broadening their use of common computer applications in readiness for the next stage of their education.

We want to ensure that our children are fully equipped to negotiate the ever-changing digital world, both safely and responsibly; therefore, aspects of online safety are visited each term. Here, we focus on themes such as privacy, online bullying and healthy relationships.

PREVIOUSLY COVERED IN EYFS

KS1 National Curriculum:

Pupils should be taught to:

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

Year 1

Autumn Term	Spring Term	Summer Term
UNIT 1 - Digital Citizenship.	**UNIT 3 – Computer Science** **Focus: Algorithm – a set of instructions in everyday language**	**UNIT 5 – Information Technology**
KEY KNOWLEDGE & SKILLS:	**KEY KNOWLEDGE & SKILLS:**	**KEY KNOWLEDGE & SKILLS:**
In this unit, the children will learn to recognise warning signs while online and know how to get help. They will access the internet in an age-appropriate way and know what information should be kept private. They will know how to behave appropriately online and know the rules for keeping safe online.	In this unit, the children will develop their understanding of directional language. They will learn debugging BeeBot activities for when things go wrong. They will learn problem solving skills and know how to follow instructions. They will discuss and plan a simple algorithm.	In this unit the children will learn how to log in and develop their typing skills by beginning to use the appropriate fingers and keys. They will learn about the introduction of the microchip and how it has changed our lives by researching Jack Kilby and Robert Noyce. They will learn how to search using digital technology and key words. They will know why we use passwords and their importance. They will understand that people own work online.
KEY STICKY KNOWLEDGE	**KEY STICKY KNOWLEDGE**	**KEY STICKY KNOWLEDGE**
• Know that my digital footprint is the websites I visit and the apps I use on the internet. • Know that there may be people online who could make me feel sad, embarrassed, or upset.	• Know that an algorithm is a set of instructions in ordinary language that give a specific outcome. • Know how to plan a simple algorithm	• Know simple examples of how to find information (e.g. search engines, browsers and voice activated searches)

• Know that if something happens that makes me feel sad, worried, uncomfortable or frightened I can give examples of when and how to speak to an adult I can trust. • I know that information can stay online and could be copied. • I know some rules to keep us safe when we are using technology both in and beyond the home	• Know how to follow commands, which include straight / turning commands – one at a time • Know that when something goes wrong, I need to debug it.	• Know that passwords can be used to protect information and devices. • Know that if I save my work, I can find it again to carry on my work. • Know the Robert Noyce and Jack Kilby were famous for making computers smaller and cheaper using a micro-chip. • Know that micro-chips run computers and other devices.
UNIT 2 – Digital Literacy	**UNIT 4 – Computer Science** **Focus: Algorithm – a set of instructions in everyday language**	**UNIT 6 – Digital Literacy Project**
KEY KNOWLEDGE & SKILLS:	**KEY KNOWLEDGE & SKILLS:**	**KEY KNOWLEDGE & SKILLS:**
In this unit, the children will continue to develop their logging in skills. They will continue to practise their typing skills using the appropriate fingers and keys whilst also developing broader keyboard skills. They may develop simple data handling skills and also explore the creation of a simple music track.	In this unit, the children will learn how to plan a simple algorithm before moving on to create a simple algorithm. They will be able to predict the outcome of a simple algorithm and learn how to debug a simple algorithm. Children will begin to write their own algorithms using instructional writing.	In this unit, the children will produce a finished piece of work demonstrating the application of digital literacy skills taught throughout the year.
KEY STICKY KNOWLEDGE	**KEY STICKY KNOWLEDGE**	**KEY STICKY KNOWLEDGE**
• Know how to type a simple sentence on the screen, making use of a word bank. • Know how to move to different places in the text using the arrow keys or mouse. • Know how to use the 'undo' icon to fix a mistake. • Know that you need to use both hands to type on a computer.	• As above plus: • Know that an algorithm can be broken down into smaller parts (decomposing / chunking) • Know if a simple algorithm will work.	• Know that you can change the size of the font' • Know that I van change the colour of the font. • Know that I can change the font style. • Know how to use simple keyboard shortcuts Ctrl + B, I, U to edit my text style. • Know Microsoft Word is used to type a document.

Throughout the year

Digital Citizenship to be revisited – Anti Bullying Week, Children's Mental health Week, During Information Technology Units and as and when needed.

KEY KNOWLEDGE & SKILLS:

- I can describe how to behave online in ways that do not upset others and can give examples.
- I can explain rules to keep us safe when we are using technology both in and beyond the home.

KEY STICKY KNOWLEDGE
• Know that certain behaviours online can upset others. • Give examples of behaviours that can make people feel more pleasant emotions e.g. happy, proud etc. • Give examples of rules around their own use of technology • Know that it is important to look after your body and brain and this might mean taking a break from technology.

Year 2

Autumn Term	Spring Term	Summer Term
UNIT 1 – Digital Citizenship	**UNIT 3 – Computer Science** **Focus: Program - a set of precise instructions in for a computer**	**UNIT 5 – Information Technology**
KEY KNOWLEDGE & SKILLS:	**KEY KNOWLEDGE & SKILLS:**	**KEY KNOWLEDGE & SKILLS:**
In this unit, the children will learn how to understand that people might behave and communicate differently online and know that it is OK to say "no". They will know how to think carefully before adding information about themselves online. They will learn how to recognise bullying behaviour. The children will be able to explain how they can stay safe online in different situations and how to get help if they need it.	In this unit, children will **c**onsolidate the use of algorithms and continue to develop directional language. They will develop their skills of debugging BeeBot activities when things go wrong and apply problem solving skills. They will follow instruction and discuss and plan simple algorithms.	In this unit, children will continue to develop the skill of logging in to a variety of programmes. They will develop their typing and keyboard skills and begin to search on/using the WWW; understanding if information is real or imaginary. The children will research Tim Berners Lee: how did he develop technology. They will begin to understand how computers communicate with each other using the internet and local networks.
KEY STICKY KNOWLEDGE	**KEY STICKY KNOWLEDGE**	**KEY STICKY KNOWLEDGE**
• Know that people may look and act differently online and offline. • Know about issues online that might make me feel sad, worried, uncomfortable, or frightened; I can give examples of how I might get help. (Butterfly feeling) • Know and give examples of how someone might use technology to communicate with others they don't also know offline and explain why this might	• Know that a program is a set in instructions in computer language (code) • Know that an event is something that starts your program. • Know that a program needs an event to begin. • Know an event can be different e.g. a click, a button or a timer. • Know that if something doesn't work right it needs debugging.	• Know that Time Burners Lee invented the World Wide Web • Know that the World Wide Web is a collection of web pages that you view on the internet • Know how to navigate a simple webpage (home, forward, backward, tabs) • Know that not everything on the internet is true • Know some rules for keeping personal information private.

be risky. (e.g. email, online gaming, a pen-pal in another school / country) • Know that information put online about me can last for a long time.		
UNIT 2 – Digital Literacy	**UNIT 4 – Computer Science** **Focus: Program - a set of precise instructions in for a computer**	**UNIT 6 – Project for Digital Literacy**
KEY KNOWLEDGE & SKILLS:	**KEY KNOWLEDGE & SKILLS:**	**KEY KNOWLEDGE & SKILLS:**
In this unit, the children will continue to develop their logging in skills. They will practise their typing and keyboard skills using the appropriate fingers and keys. They will continue to develop their logging in, typing and keyboard skills. The children will be introduced to word processing through Purple Mash and creative multimedia – sound, pictures and film. They may produce simple graphs and charts or use branching database programmes.	In this unit, children will have an introduction to programs and events where they will plan a simple program. They will then create a simple program and predict the outcome of a simple program. They will debug a simple program and record algorithms (instructions).	In this unit, children will produce a finished piece of work demonstrating the application of digital literacy skills taught throughout the year. **Project ideas:** **Literacy** – create a story using Purple Mash 2Publish/2Create a story to combine sound, image and video **Science** – create a branching database linked to your topic e.g. living things and their habitats using Purple Mash 2Question
KEY STICKY KNOWLEDGE	**KEY STICKY KNOWLEDGE**	**KEY STICKY KNOWLEDGE**
• Know that the return/enter key will create a line break – start a new line. • Know that I need to use all 10 fingers when I tough type. • Know that when holding the shift key the computer will write capital letters. • Know that punctuation needs to be included in typing just like when writing	As above	• Know that a page orientation can be changed to be portrait or landscape to best suit the work. • Know that images can be saved to the computer. • Know that PowerPoint can be used for presentations. • Know that spell checker can be used to check work.
Throughout the year		
Digital Citizenship to be revisited – Anti Bullying Week, Children's Mental health Week, During Information Technology Units and as and when needed.		

KS2 National Curriculum:

Pupils should be taught to:

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

Year 3

Autumn Term	Spring Term	Summer Term
UNIT 1 – Digital Citizenship	**UNIT 3 - Computer Science**	**UNIT 5 – Information technology**
KEY KNOWLEDGE & SKILLS:	**KEY KNOWLEDGE & SKILLS:**	**KEY KNOWLEDGE & SKILLS:**
In this unit, children will talk about digital footprint and what it means. They will recognise that online identities can be different to real world identities. They will understand the concepts of trust, likes and feelings while online. They will learn that people can overshare information that should be kept private. They will recognise the impact of people being unkind online. They will develop a healthy balance between online and real-life activity.	IN this unit, children will consolidate their understanding of algorithms and programs. They will begin to know the difference between an algorithm and a program. They will plan an algorithm and then create the program. They will predict the outcome of a simple program and debug a simple program. They will also record algorithms (instructions).	In this unit, children will continue to develop their logging in across multiple devices and websites. They will continue to develop and apply their typing skills. They will research Ada Lovelace and/or Charles Babbage; how did they develop technology? They will learn how to use search engines help us find information. They will continue to learn about the importance of strong passwords and how to share information safely. They will know how to save work to a specific location.
KEY STICKY KNOWLEDGE	**KEY STICKY KNOWLEDGE**	**KEY STICKY KNOWLEDGE**

• Know that my digital footprint is a trail of data you leave behind when you use the internet • Know the difference between 'knowing' someone online and 'knowing' someone is offline. • Know why it is important to behave appropriately online • Know why it is important to not spend too much time on technology.	• Know how to detect and debug errors in my sequence. • Know I can use and edit a pre-written program to achieve a specific outcome.	• Know how to use key phrases in search engines to gather accurate information online. • Know 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 etc • Know why copying someone else's work from the internet without permission isn't fair • Know how the internet can be used to sell and buy things. • Know that Ada Lovelace and Charles Babbage designed a calculating machine.
UNIT 2 – Digital Literacy	**UNIT 4 – Computer Science**	**UNIT 6 - Consolidation project for Digital Literacy**
KEY KNOWLEDGE & SKILLS:	**KEY KNOWLEDGE & SKILLS:**	**KEY KNOWLEDGE & SKILLS:**
In this unit the children will continue to log in individually to increase skill and develop speed. They will continue to develop typing, keyboard skills and develop word processing skills using Microsoft Word and PowerPoint. They will be introduced to creative multimedia – sound, pictures and film and simple graphs and charts including branching databases.	In this unit, children will be introduced to sequences. They will plan a simple sequence and create a program using a sequence. They will predict the outcome of a sequence and the implications of reordering the sequence. They will continue to develop skills of debugging a sequence and will ttransfer skills between different software.	In this unit, children will select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals (NC 2014) The children will produce a finished piece of work demonstrating the application of digital literacy skills taught throughout the year **Project ideas:** **Literacy:** - create a multimedia presentation/eBook, with a title page, incorporating images, sounds and text - create an animated story using 2Create a story to combine sound, image and video **Science**

		Create a branching database linked to units e.g. plants. Animals including humans
KEY STICKY KNOWLEDGE	**KEY STICKY KNOWLEDGE**	**KEY STICKY KNOWLEDGE**
• Know how to type a number of sentences onto the computer • Know how to use cut, copy and paste to re-order text. • Know how to use keyboard shortcuts e.g. Ctrl + V, X, C to re-order text. • Know the difference between save and save as. • Know how to use tab to indent paragraphs.	As above plus: • Know that a sequence is a list of instructions in a particular order. • Know that if I change the sequence, I may change the outcome of the program.	• Know how to transfer digital literacy skills into PowerPoint • Know how to create a folder to save my work in. • Know the difference between save and save as. • Know how to use bullet points, speech bubbles, auto shapes and text boxes
Throughout the year		
Digital Citizenship to be revisited – Anti Bullying Week, Children's Mental health Week, During Information Technology Units and as and when needed.		
Year 4		
Autumn Term	**Spring Term**	**Summer Term**
UNIT 1- Digital Citizenship	**UNIT 3 - Computer Science**	**UNIT 5 - Information Technology**
KEY KNOWLEDGE & SKILLS:	**KEY KNOWLEDGE & SKILLS:**	**KEY KNOWLEDGE & SKILLS:**
In this unit, children will discuss their digital footprint and online vs real life identity. They will develop their understanding of respecting others while online and be aware of how online behaviour and content can impact on others. They will learn that anyone can search online profiles for information. They will focus on Online bullying and how it may affect others. They will discuss positives and negatives to using technology.	**In this unit, children will c**onsolidate their understanding of algorithms, program and sequences. They will learn the difference between an algorithm and a program; plan an algorithm and then create the sequence. They will predict the outcome of a sequence and will debug a sequence. They will transfer skills between different software.	In this unit, children will continue to develop logging on skills across websites and apps used in class. They will continue to develop their typing skills. They will research Hedy Lemarr and/or Radia Perlman; how did they develop technology? Children will develop their understanding of search engines, safe searching and copyright. They will learn to find, save and import images and information from the internet. They will learn how

		searching works and how to evaluate a website – 5 W's.
KEY STICKY KNOWLEDGE	**KEY STICKY KNOWLEDGE**	**KEY STICKY KNOWLEDGE**
• Know that my digital footprint can be a permeant trail of my online data and actions. • Know why someone may pretend to be someone else online. • Know ways in which people can be bullied online (e.g. images, videos, texts, chats) • Know that there are healthy and unhealthy online behaviours.	• Know what a repeat or loop is. • Know that a repeat / loop is used to repeat a set of instruction. • Know how to use repeats in programs.	• Know that Hedy Lamarr created a radio communication device which later became the foundation of WiFi and Bluetooth technology. • Know that Radia Perlman was an important woman in STEM. • Know that not all information on the internet is accurate and being to make a judgement on probable accuracy. • Know that the internet is never fully private or monitored (e.g. no adult supervision) • Know what the digital age for consent is (13) and that this is why apps and websites ask for consent. • Know some content that I must not use without permission e.g. videos, music, images – copyright
UNIT 2 - Digital Literacy	**UNIT 4 - Computer Science**	**UNIT 6 - Consolidation project for Digital Literacy**
KEY KNOWLEDGE & SKILLS:	**KEY KNOWLEDGE & SKILLS:**	**KEY KNOWLEDGE & SKILLS:**
In this unit the children will continue to develop their typing and word processing skills. The will be introduced to spreadsheets and graphing to represent data. They will continue to use digital animation.	In this unit, the children will be introduced to **repeat / loop**. The will plan a program using a repeat command. They will create a program using a repeat command. They will predict the outcome of repeat and the implications of reordering the repeat. They will debug coding when the outcome is not as expected. They will transfer skills between different software.	Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals (NC 2014) In this unit, children will produce a finished piece of work demonstrating the application of digital literacy skills taught throughout the year. Project ideas: Literacy -animation linked to pioneer Science animation linked to living things and habitats History

		- animation linked to Local History
KEY STICKY KNOWLEDGE	**KEY STICKY KNOWLEDGE**	**KEY STICKY KNOWLEDGE**
• Know how to import images, hyperlinks and sounds into Microsoft Word and PowerPoint. • Know how to enter basic formula into Excel. • Know how to use SUM to calculate the total of a set of numbers in a range of cells. • Know how to use a spreadsheet to create a graph. • Know how to change the look of a spreadsheet by using different formats e.g. text styles, colour, number format included: currency and date, row and column heights.	• Know how to select repeat and sequence code to make my own program. • Know how to detect and debug errors in algorithms and programs. • Know why it is important to use the repeat function in a particular place in my sequence.	• Know how to transfer my word processing skills into other multimedia packages e.g. PowerPoint. • Know how to include importing images, hyperlinks and the use of sounds recorded. • Know how to make a storyboard for a short animation. • Know how to add titles, credits, transitions and special effects. • Know how to choose appropriate scene transitions.
Throughout the year		
Digital Citizenship to be revisited – Anti Bullying Week, Children's Mental health Week, During Information Technology Units and as and when needed.		
Year 5		
Autumn Term	**Spring Term**	**Summer Term**
UNIT 1 - Digital Citizenship	**UNIT 3 - Computer Science**	**UNIT 5 - Information Technology**
KEY KNOWLEDGE & SKILLS:	**KEY KNOWLEDGE & SKILLS:**	**KEY KNOWLEDGE & SKILLS:**
In this unit, children will develop their understanding of making responsible choices when sharing information online and understand how this could be used by others. The will learn when and how to get help. They will learn how to differentiate between types of bullying. They will develop their understanding of promoting health and well-being with regards to using technology.	In this unit, children will **c**onsolidate their understanding of algorithms, programs, sequences and repeats. They will learn the difference between an algorithm and a program. They will plan and create a program using a repeat command. They will predict the outcome of repeat and the implications of reordering the repeat. They will debug code when the outcome is not as expected. They will transfer skills between different software.	In this unit, children will research a person famous for computing for example: Grace Hopper, Bill Gates & Steve Wozniak; how did they develop technology? They will learn to use search engines, safe searching and copyright. They will learn to find, save and import images and information from the internet. They will learn how searching works and how to evaluate a website – 5 W's. The basics of using technology in our everyday lives will be reinforced. The children will learn what the

		internal parts of a computer are and how they work.
KEY STICKY KNOWLEDGE	**KEY STICKY KNOWLEDGE**	**KEY STICKY KNOWLEDGE**
• Know examples of technology-specific forms of communication (e.g. Emojis, memes and GIFs). • Know that there are some people I communicate with online who may want to do me or my friend's harm. I can recognise that this is not my / our fault. • Know how someone can get help if they are having problems and identify when to tell a trusted adult. • Know some strategies, tips or advice to promote health and well-being with regards to technology.	• Know what a conditional / selection is. • Know how to plan algorithm and the write a program using the following: commands, sequence, repetition and selection / condition ('if…then'). • Know how to detect and debug errors in more complex algorithms and programs.	• Know that Bill Gates created Microsoft – one of the leading and most successful IT companies in the world. • Know that Grace Hopper was in important woman in Computing – know 3 facts about her. • Know that Steve Woznaik was the cofounder, with Steve Jobs, of Apple Computer. • Know why it is important to be sceptical when online. • Know what app permissions are and can give some examples. • Know examples of content that is permitted to be reused.
UNIT 2 - Digital Literacy	**UNIT 4 - Computer Science**	**UNIT 6 - Consolidation project for Digital Literacy**
KEY KNOWLEDGE & SKILLS:	**KEY KNOWLEDGE & SKILLS:**	**KEY KNOWLEDGE & SKILLS:**
In this unit, children will continue to develop word processing skills. They will be introduced to databases and graphing to represent data. They will review, edit and discuss why changes have been made to work. They will create work appropriate to audience. They will. They will be introduced to Computer Aided Design (CAD). They will evaluate websites.	In this unit, children will be introduced to Selection / Conditional. They will plan a program for a quiz using selection and create a program for a quiz using selection. They will develop an awareness of abstraction when programming and being to predict the outcome of the program and the implications of reordering the code. Pupils will debug code when the outcome is not as expected and will transfer these skills between different software.	Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals (NC 2014) Produce a finished piece of work demonstrating the application of digital literacy skills taught throughout the year Project ideas: DT create a new vehicle using CAD design Science create an eco-house using CAD design Literacy/History

		- Create a diorama scene with 3D figures using CAD
KEY STICKY KNOWLEDGE	**KEY STICKY KNOWLEDGE**	**KEY STICKY KNOWLEDGE**
• Know how to select appropriate tools to add emphasis and effect to my work. • Know why I have chosen my layout and formatting. • Know how to review and edit my work and talk about the changes I made. • Know how to create a database structure of my own and enter the data. • Know how to use databases to create a graph.	• Know how to use selection to create games in which the user must make a choice. • Know how to use skills and understanding of conditional / selection in more than 2 programs.	• Know how to design a 3D model using ICT to meet a specific goal, e.g. 2Design & Make. • Know whether work is suitable for an audience. • Know the features of a good page design and how it is suited to an audience.
Throughout the year		
Digital Citizenship to be revisited – Anti Bullying Week, Children's Mental health Week, During Information Technology Units and as and when needed.		
Year 6		
Autumn Term	**Spring Term**	**Summer Term**
UNIT 1 -Digital Citizenship	**UNIT 3 - Computer Science**	**UNIT 5 - Information Technology**
KEY KNOWLEDGE & SKILLS:	**KEY KNOWLEDGE & SKILLS:**	**KEY KNOWLEDGE & SKILLS:**
In this unit, children will develop their understanding of making responsible choices when sharing information online. They will learn when and how to get help. They will critically evaluate and reject inappropriate representations online. They will be kind and respect others online. They will learn how to protect their digital personality and know how to capture evidence of online bullying. They will develop their understanding of common systems that regulate age-related content and will promote	In this unit, children will consolidate their understanding of algorithms, programs, sequences, repeat command and selection/conditional. They will plan and create a program using a repeat command. They will learn to plan and program a quiz using selection. They will predict the outcome of the program and the implications of reordering the code. They will learn how to debug code when the outcome is not as expected to have an awareness of abstraction	In this unit, children will research a famous person famous for developing technology: Alan Turing, Elon Musk; how has technology been developed and how it continues to be developed? They will learn how to evaluate a website – 5 W's. They will develop their uunderstanding of copyright and how to cite references. They will learn about maintaining privacy and updating app permissions. Their understanding of what technology could look like in the future.

health and well-being with regards to using technology.	when programming. They will be able to ttransfer skills between different software.	
KEY STICKY KNOWLEDGE	**KEY STICKY KNOWLEDGE**	**KEY STICKY KNOWLEDGE**
• Know how to 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. • Know strategies anyone can use to protect their 'digital personality' and online reputation, including degrees of anonymity. • Know how to capture bullying content as evidence (e.g. screen-grab, URL, profile) to share with others who can help me. • Know common systems that regulate age-related content (e.g. PEGI, BBFC, parental warnings) and describe their purpose.	• Know what a variable is. • Know how to use events, repeats, selection and variables. • Know how to decompose a problem and methodically create a program to solve it, testing and adapting as I go. • Know how to evaluate the effectiveness of my programming and suggest improvements	• Know that Alan Turing was famous for his work developing the first modern computers, decoding the encryption of German Enigma machines during the Second World War, and detailing a procedure known as the Turing Test, forming the basis for artificial intelligence. • Know that Elon Musk cofounded the electronic payment firm PayPal, and the company that make Tesla cars that use electric batteries. He also founded SpaceX, a company that makes rockets and spacecraft. • Know how search engine results are ranked. • Know how to report inappropriate content. • Know that phishing is the fraudulent practice of sending emails or other messages pretending to be from reputable companies in order to gather information e.g. such as passwords and credit card numbers.
UNIT 2 - Digital Literacy	**UNIT 4 - Computer Science**	**UNIT 6 - Consolidation project for Digital Literacy**
KEY KNOWLEDGE & SKILLS:	**KEY KNOWLEDGE & SKILLS:**	**KEY KNOWLEDGE & SKILLS:**
In this unit, children will learn how to be independent when choosing appropriate software to create content. They will learn how to create work appropriate to a specific audience. They will know how to use video editing software.	In this unit, children will be introduced to **Variable.** They will learn how to plan a program for a quiz using a variable and then create a program for a quiz using variable. They will understand how to have an awareness of abstraction when programming. They will be able to predict the outcome of the program and the implications of reordering the code, as well as be able to debug code when the outcome is not as expected. They will learn how to plan and program a game which includes repeat, selection/conditional and a	*Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals (NC 2014)* They will produce a finished piece of work demonstrating the application of digital literacy skills taught throughout the year. **Project ideas:**

	variable for a younger audience. They will be able to transfer skills between different software.	**Literacy** • create a short film about end of Primary school **Science** • Time elapse video about decomposition **Computer Science** • Game creation including writing instructions and marketing materials
KEY STICKY KNOWLEDGE	**KEY STICKY KNOWLEDGE**	**KEY STICKY KNOWLEDGE**
• Know how to choose, select and use a combination of software to present my work. • Know how to select appropriate tools to add emphasis and effect to my work. • Know why I have chosen my layout and formatting. • Know how to review and edit my work and talk about the changes I made. • Know how to draft and redraft my work by deleting, inserting and replacing text.	• As above	• Know how to consider whether my work is suitable for the audience. • Know how to use a mobile device to film a short clip. • Know how to consider the effect of camera angles, light and shadow when filming. • Know how to export / embed a video in different formats for different purposes.
Throughout the year		
Digital Citizenship to be revisited – Anti Bullying Week, Children's Mental health Week, During Information Technology Units and as and when needed.		