

Gresham Primary School's Computing Curriculum

Mission Statement Creating the digital learners of tomorrow

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<p>Intent (The What)</p> <ul style="list-style-type: none"> • Pupils have a firm understanding of e-safety, including what this is and how they can keep themselves (and others) safe online • Pupils to regularly access Google Classroom to complete home learning and, in the event of a lockdown, online lessons • Pupils to identify and work with a range of technical equipment including computers, iPads and different programmes within these • To understand the importance of the internet for research purposes and how it can help inform understanding of a range of different topics • Pupils to understand the basics of computing including the names of equipment they will use • Pupils to understand how code works and the importance of algorithms in everyday life • Pupils to develop an understanding of the importance of search engines and search terms to retrieve better results online • Pupils to develop an understanding of how to communicate effectively online • Pupils develop to develop collaboration skills when using equipment • Pupils to develop independence in using and accessing computing equipment • Pupils to reflect on information they find online and know the importance of checking from a range of different sources • Pupils to build a confidence in using online equipment and know how to troubleshoot simple errors • Pupils to understand how technology is used on a daily basis in the wider world and how new technology has developed in recent years 	<p>Implementation (The How)</p> <ul style="list-style-type: none"> • Class teachers to use the International Primary Curriculum to plan and execute lessons in the relevant year groups whilst also taking into account the need to build on skills in year groups where there is not a computing unit (currently: Year 2, Year 4 and Year 6) • Teachers have their own year group maps to ensure key concepts are covered during the year • Classes have their own set slots to go over to the computing suite in addition to using the existing iPads that we have in the classrooms to access computing. • E-Safety is taught regularly (at least once a year) to remind children of the importance of this and to extend their understanding at an age appropriate level. • Pupils will participate in a range of computing lessons, not just restricted to working on a computer – e.g. iPads, e-safety sessions, conducting surveys, planning PowerPoints, coding floor robots etc. • Pupils to regularly recap (especially in lower years) the terminology for computing and teachers to ensure children use their own logins to gain an appreciation for keeping their own data safe in addition to knowing how to log on/off and access programmes. • Children to work with an understanding of our Gresham learning superheroes and think about how they can apply these to their computing lessons, including collaboration • Teachers to have files in the classroom where pieces of work can be printed and collated to show and track pupils' progress in computing and for subject leaders to see (where this is not possible, requested pieces of work to be saved in the shared area so it can be easily accessed) • Teachers to use the correct vocabulary when teaching computing to ensure pupils understand the different between equipment • Pupils to use the internet regularly as a basis for research and use search engines as a starting point • Children to have access to floor robots or other coding apparatus to ensure they are confident with this • Regular reminders through displays and assemblies as to the importance of e-safety so children have a good knowledge of how to communicate effectively online and what to do if they are upset by anything they see online. • Teachers to allow pupils time to independently access a range of computing equipment to build confidence • Teachers to ensure they are aware (through subject leaders) of the latest changes in technology with regards to school but also have a basic knowledge of changes in the wider world. 	<p>Impact</p> <p>Books, pupil voice, display and collection of work to show the following:</p> <ul style="list-style-type: none"> • Pupils will have an enjoyment and confidence in computing with a clear progression seen through the year groups. • Pupils will remain confident and knowledgeable about computing and how it can be used in daily life. • Pupils will achieve the set learning objective either independently or with minimal support • Pupils of all abilities will be catered for in computing lessons and be able to access equipment • Children will know what to do if they see something upsetting online and how to ensure they are using equipment sensibly and responsibly. • Children to use and name equipment and programmes and know what each programme does if asked • Pupils to be able to show what they are able to do on the internet and how it can be used effectively. • Pupils will continue to learn new skills as they progress through the school

The Essential Elements Something, for someone, with some purpose

1. **Create** – children will design and create a wide range of their own content using different computing system in different ways that is personalised to them.

2. **Knowledge and understanding** – children will understand and gain regular knowledge as to how technology works and the uses for it in everyday life. Their knowledge and understanding of computing will evolve over time as they, in turn, learn how computing and technology are evolving on a daily basis. Their use of the internet and search engines will also increase their knowledge and

understanding generally.

3. **Communication** – children will learn how computing can be used to communicate with people in different ways and how the different components working together create a beneficial system for the user (e.g. somebody who is hard of hearing can visually see a screen, whereas somebody who is blind can hear through speakers).

4. **Safety** – children will learn through regular e-safety sessions how useful computing is, but there are risks involved too. They will learn how to manage these risks and the importance of getting help/talking to somebody if something they see online upsets them. They will also know what to do if this happens to one of their peers and what they should encourage them to do. This will ensure children leave school with a secure knowledge of safety online as computer systems develop and progress over time.

5. **Independence** – children will become independent using computer systems/technology from an early age by being trusted with their own computer account which is password. They will learn the importance of keeping this password to themselves as well as encouraging them to independently access documents/data associated with their own accounts.

6. **Control** – children will learn, through coding, how things are controlled using computer systems and how they, in turn, are able to control a robot or on screen character. This will help them to understand how they can control things the computer does.

Key Concepts Big Ideas Revisited Across Units

Coding	Communication	Data	Internet	Application	System	E-Safety	Device
The letters, numbers, words and symbols used for writing computer programs.	The imparting or exchanging of information by speaking, writing, or using some other medium.	Information in electronic form that can be stored and processed by a computer.	A global computer network providing a variety of information and communication facilities.	A program or piece of software designed to fulfil a particular purpose.	A group of related hardware units of programs or both, especially when denoted to a single application.	The safe and responsible use of technology.	A piece of portable equipment that can connect to the internet.

KEY STAGE 1

NC Statutory Programme of Study KS1

Key stage 1

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.

	Unit being taught...	Learners will be finding out...	Knowledge, Skills and Understanding...
EYFS	N/A (regular access to class computers)	<ul style="list-style-type: none"> • The names for parts of a computer • The different things we can access on a computer • Finding letters on a keyboard 	<p>Children will have regular reminders about the names of the parts of a computer (e.g. mouse, keyboard, screen) and how to use them safely.</p> <p>Children will experience a range of different programs and resources on the computer and be encouraged to use these independently with the available equipment (including 'Paint' for mouse control).</p> <p>Children will sometimes have Microsoft Word on the computer where they will be encouraged to write words or a simple sentence.</p>
Year 1 (MP1)	ICT: Learning Safely Online	<ul style="list-style-type: none"> • Online graphing tools • Screentime • Password safety • Smart devices • Effective and safe internet searching • Using others' images respectfully in our own work • Communication types • Designing effective slides 	<p>1.09 Be able to use a child-friendly search engine to find images or information</p> <p>1.10 Be able to prioritise sources to use for research</p> <p>1.11 Be able to use images, text and audio to communicate information</p> <p>1.12 Be able to use a given tool to collect and record information</p> <p>1.13 Be able to create graphs within a given template</p> <p>1.14 Understand that some images available on the internet are free from copyright</p> <p>1.15 Be able to save, retrieve and revise files</p> <p>1.17 Understand that passwords are used to protect users and should not be shared</p> <p>1.18 Understand that the internet is a public domain that presents privacy risks</p> <p>1.19 Be able to use games and models to enhance learning</p> <p>1.20 Know that there are different tools for communicating around the world</p> <p>1.21 Be able to use given software for a particular purpose</p>

Year 2 (MP1)

N/A – children continue to work on skills learnt in Year 1 to consolidate their understanding

As above, with additions in bold:

- Online graphing tools
- Screentime
- Password safety
- Smart devices
- Effective and safe internet searching
- Using others' images respectfully in our own work
- Communication types
- Designing effective slides
- **E-Safety - continuing to use computers and the Internet**
- **Work on Microsoft Office - focus on Microsoft Word in Year 2. Becoming confident with word processing, typing, inserting onto a document, tables, using a spelling check tool.**

Consolidation from previous unit/year group

1.09 Be able to use a child-friendly search engine to find images or information

1.10 Be able to prioritise sources to use for research

1.11 Be able to use images, text and audio to communicate information

1.12 Be able to use a given tool to collect and record information

1.13 Be able to create graphs within a given template

1.14 Understand that some images available on the internet are free from copyright

1.15 Be able to save, retrieve and revise files

1.17 Understand that passwords are used to protect users and should not be shared

1.18 Understand that the internet is a public domain that presents privacy risks

1.19 Be able to use games and models to enhance learning

1.20 Know that there are different tools for communicating around the world

1.21 Be able to use given software for a particular purpose

Green denotes specific objectives to work on when using Microsoft Word.

Key Stage 2

NC Statutory Programme of Study KS2

Key stage 2

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.

	Unit being taught...	Learners will be finding out...	Knowledge, Skills and Understanding...
Year 3 (MP2)	ICT and Computing	<ul style="list-style-type: none"> • How much time we spend on digital devices • How to create a safe password • Parts of computer networks and how they work • Using keywords to improve internet searches • Searching for and interpreting information on the internet • Benefits and challenges of digital lifestyles • How to best organise our digital learning. 	2.03 Understand that programs respond to input to produce an output 2.09 Be able to use a search engine to find required information 2.10 Be able to fact check by cross-referencing with more than one source 2.11 Be able to combine images, text and audio to effectively communicate to an audience 2.12 Be able to select an appropriate tool to collect and record required information 2.13 Be able to create graphs/charts using digital tools/software. 2.14 Understand that we should recognise or cite when using others' work 2.15 Be able to manage and organise files 2.17 Understand that some digital environments are controlled while others are open 2.18 Understand that information online is permanent and can be saved and shared by others 2.19 Be able to use digital tools to explore real and imaginary situations

			<p>2.20 Know which tools are permissible at different ages for communication locally and globally</p> <p>2.21 Be able to creatively use software for a particular purpose</p>
Year 4 (MP2)	N/A – children continue to work on skills learnt in Year 1 and 3 to consolidate	<p>As above, with additions in bold:</p> <ul style="list-style-type: none"> • How much time we spend on digital devices • How to create a safe password • Parts of computer networks and how they work • Using keywords to improve internet searches • Searching for and interpreting information on the internet • Benefits and challenges of digital lifestyles • How to best organise our digital learning • E-Safety - continuing to use computers and the Internet • Work on Microsoft Office - focus on Microsoft PowerPoint in Year 4. Becoming confident with creating simple PowerPoints to present, adding effects, transitions, slides and knowing how to present information clearly and appropriately (covering plagiarism). 	<p>Consolidation from previous unit/year group</p> <p>2.03 Understand that programs respond to input to produce an output</p> <p>2.09 Be able to use a search engine to find required information</p> <p>2.10 Be able to fact check by cross-referencing with more than one source</p> <p>2.11 Be able to combine images, text and audio to effectively communicate to an audience</p> <p>2.12 Be able to select an appropriate tool to collect and record required information</p> <p>2.13 Be able to create graphs/charts using digital tools/software.</p> <p>2.14 Understand that we should recognise or cite when using others' work</p> <p>2.15 Be able to manage and organise files</p> <p>2.17 Understand that some digital environments are controlled while others are open</p> <p>2.18 Understand that information online is permanent and can be saved and shared by others</p> <p>2.19 Be able to use digital tools to explore real and imaginary situations</p> <p>2.20 Know which tools are permissible at different ages for communication locally and globally</p> <p>2.21 Be able to creatively use software for a particular purpose</p> <p>Green denotes specific objectives to work on when using Microsoft PowerPoint.</p>
Year 5 (MP3)	ICT and Computing	<ul style="list-style-type: none"> • How to keep our personal information safe • How to search the internet using Boolean operators • About the importance of evaluating online content • How to use online surveys as a research tool • How to use hyperlinks to create interactive stories 	<p>3.04 Be able to collect, interpret and present their findings</p> <p>3.05 Be able to evaluate and check the validity of their findings</p> <p>3.06 Be able to manipulate and combine different forms of information and data from different sources</p> <p>3.07 Be able to select which programs or apps to use to present information or data in the most effective and appropriate way</p> <p>3.09 Be able to design and write programs to accomplish specific goals, working with sequence, selection and repetition to control events</p>

		<ul style="list-style-type: none"> • How to program our own online maths quiz • About different simulations and their uses • How to use data loggers to help with our learning in other subjects • More about wearable technologies and designing our own 	
<p style="text-align: center;">Year 6 (MP3)</p>	<p>N/A – children continue to work on skills learnt in Year 1, 3 and 5 to consolidate</p>	<p>As above, with additions in bold:</p> <ul style="list-style-type: none"> • How to keep our personal information safe • How to search the internet using Boolean operators • About the importance of evaluating online content • How to use online surveys as a research tool • How to use hyperlinks to create interactive stories • How to program our own online maths quiz • About different simulations and their uses • How to use data loggers to help with our learning in other subjects • More about wearable technologies and designing our own • E-Safety - continuing to use computers and the Internet • Work on Microsoft Office - focus on Microsoft Excel and Publisher in Year 6. Becoming confident with creating simple documents (letters, flyers, banners, posters etc.) to present a range of Information In addition to using Excel to explore how this can be used In mathematics (creating simple calculations). 	<p>Consolidation from previous unit/year group</p> <p>3.04 Be able to collect, interpret and present their findings</p> <p>3.05 Be able to evaluate and check the validity of their findings</p> <p>3.06 Be able to manipulate and combine different forms of information and data from different sources</p> <p>3.07 Be able to select which programs or apps to use to present information or data in the most effective and appropriate way</p> <p>3.09 Be able to design and write programs to accomplish specific goals, working with sequence, selection and repetition to control events</p> <p>Green denotes specific objectives to work on when using Microsoft PowerPoint.</p>

Key Vocabulary

EYFS, Years 1 and 2

Hardware

Bluetooth (noun) - Wireless technology standard used for exchanging data between fixed and mobile devices over short distances

Device (noun) - Physical unit of equipment that contains a computer or microcontroller - including a smartphone, tablet and smartwatch.

Input (noun) - A device or code that sends instructions to the computer and allows us to interact with technology; the means of communicating with computers, e.g. keyboard and mouse.

Network (noun) - A number of computational devices connected together, allowing sharing of resources and cooperation between devices in the solution of a problem.

Operating system (noun) - The program that enables the computer to start and access different sorts of software on the computer. Examples include Microsoft Windows and iOS for Mac.

Year 3 and 4

Citation (noun): Is a reference to the source of information used in your research.

Copyright (noun): The exclusive legal right to reproduce, publish, sell, or distribute the matter and form of something (such as a literary, musical, or artistic work).

[The] Internet (noun): An electronic communications network that connects computer networks and organizational computer facilities around the world and allows access to and interaction with vast amounts of data.

Internet Browser (noun): A computer program/application used for accessing and viewing websites.

Internet Protocol (noun): The communications protocol for sending data across networks. It is essentially a postal system for the internet which allows you to direct data to specific places on a network none as an IP address.

Internet Search Engine (noun): Computer software used to search data to return web page/site results.

Year 5 and 6

Algorithm, animation, avatar, blogging, boolean operators, browser, code, computer program, control, cyberbullying, data, debug, digital artefacts / digital content, directional language, digital literacy **E**Book, email, e-safety, hardware, HTML, hyperlink, input, internet, IP Address, keywords, memory, network, operating system, output, password, podcast, program / code (verb), program / code (noun), QR Code, repetition, router, search engines, search technologies, selection, sequence, server, simple program, simulation, software, survey, switch, variables, Wiki, WWW

Smart device (noun) - An electronic gadget that is able to connect, share and interact with its user and other smart devices.

Internet

Browser (noun) - A program or app that enables a user to locate, retrieve and display information on the internet.

Cyberbullying (noun) - Online harassment or cruelty, often characterized by repeated or ongoing incidences.

Digital citizenship (noun) - The practice of navigating the digital world safely, responsibly, and ethically.

E-safety (noun) - Understanding and applying rules to prevent risks to personal safety and privacy of personal information in using digital devices of all kinds.

Home page (noun) - The main page of a website. It may have menus and/or a search box for navigation.

Internet (noun) – A communications system that connects computers and computer networks all over the world.

Pop-up (noun) - A new window that opens up on a screen, usually uninvited.

Search engine (noun) - A text (or image) box to search for digital content matching search terms

Keyword (noun): A significant word from a title or document used especially as an index to content.

Password (noun): Something that enables one to pass or gain admission: such as a sequence of characters required for access to a computer system.

given by a user. Results are normally presented in the form of links to relevant content.

URL (noun) - An address (of a document or website) on the Internet.

Wifi (noun) - Allows computers or devices to connect to the Internet or communicate with one another wirelessly.

Research and recording

Animation (noun) - A way of creating a continuous motion and shape change of your graphic or sprite.

Blogging (noun) - A personal website/webpage on which an individual records opinions on a regular basis.

Data (noun) - Information which can be stored, retrieved and manipulated in digital form using digital devices.

Digital artefacts / digital content (noun) - Images, videos, text or data, or a combination of these, which are made on a digital device.

Digital literacy (noun) - The ability to access and manipulate digital content and understand the implications of its creation and distribution.

E-book (noun) - An electronic version of a printed book which can be read on a computer or a specifically-designed handheld device.

Green screen (in film and video) (noun) - A subject is filmed in front of a green background

which allows a separately filmed background/image to be added to the final video in the editing phase.

Infographic (noun) - A graphic, visual representation of information, data, or knowledge.

Selfie (noun) - An image of oneself taken by oneself using a digital camera, especially for posting on social networks.

Simulation (noun) - The technique of representing the real world by a computer program.

Software (noun) - The programs that enable computers to undertake specific functions, such as word processing, presentations, spreadsheet creation, etc.

Curriculum Expectations and Guidance

What pupils should know, be able to do and understand

	Years 1 and 2	Years 3 and 4	Years 5 and 6
CONTROL AND PROGRAMMING	<p>KS1 Computing National Curriculum</p> <p>Children to understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions</p> <p>They should create and debug simple programs</p> <p>They use logical reasoning to predict the behaviour of simple programs</p> <p>Children can:</p> <ul style="list-style-type: none"> a Test symbolic code and make improvements b Give instructions to control or direct a device or on-screen character c Understand that there are a range of everyday devices that follow programs d Understand that an algorithm is a set of instructions 	<p>KS2 Computing National Curriculum</p> <p>Children to design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>Children to use sequence, selection, and repetition in programs; work with variables and various forms of input and output</p> <p>They can use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p> <p>Children can:</p> <ul style="list-style-type: none"> a Test code and make improvements b Use sequences of instruction to achieve specific outcomes c Understand that programs respond to input to produce an output d Know that a program is made up of one or more algorithms written in code 	<p>KS2 Computing National Curriculum</p> <p>Children to design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>Children to use sequence, selection, and repetition in programs; work with variables and various forms of input and output</p> <p>They can use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p> <p>Children can:</p> <ul style="list-style-type: none"> a Predict the outcomes of code b Write and/or edit program code to achieve a specific outcome c Understand that most current applications are following human programming to produce a defined output or set of results d Know that algorithms need to be written in a specific programming language in order to function.
DIGITAL LITERACY	<p>KS1 Computing National Curriculum</p> <p>They should use technology purposefully to create, organise, store, manipulate and retrieve digital content</p> <p>Children to recognise common uses of information technology beyond school</p> <p>Children 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.</p> <p>Children can:</p> <ul style="list-style-type: none"> a Use a child-friendly search engine to find images or information b Prioritise sources to use for research c Use images, text and audio to communicate information d Use a given tool to collect and record information e Create graphs within a given template f Understand that some images available on the internet 	<p>KS2 Computing National Curriculum</p> <p>They can 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</p> <p>Children use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</p> <p>They 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</p> <p>Children use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p> <p>Children can:</p> <ul style="list-style-type: none"> a Use a search engine to find required information 	<p>KS2 Computing National Curriculum</p> <p>They can 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</p> <p>Children use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</p> <p>They 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</p> <p>Children use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p> <p>Children can:</p>

	<p>are free from copyright</p> <p>g Save, retrieve and revise files</p>	<p>b Fact check by cross-referencing with more than one source</p> <p>c Combine images, text and audio to effectively communicate to an audience</p> <p>d Select an appropriate tool to collect and record required information</p> <p>e Create graphs/charts using digital tools/software</p> <p>f Understand that some images available on the internet are free from copyright</p> <p>g Manage and organise files</p>	<p>a Frame search terms for effective gathering and interrogating of information</p> <p>b Analyse the validity of online sources</p> <p>c Apply the rules of graphic design to communicate information</p> <p>d Collect information from non local sources</p> <p>e Use different software to create visuals of data</p> <p>f Understand that there are rules for using the work of others</p> <p>g Save, retrieve, revise, manage and organise shared files and/or folders</p>
IT AND SOCIETY	<p>KS1 Computing National Curriculum</p> <p>Children to recognise common uses of information technology beyond school</p> <p>Children 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.</p> <p>Children can:</p> <p>a Understand that passwords are used to protect users and should not be shared</p> <p>b Understand that the internet is a public domain that presents privacy risks</p>	<p>KS2 Computing National Curriculum</p> <p>Children use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p> <p>Children can:</p> <p>a Understand that some digital environments are controlled while others are open</p> <p>b Understand that information online is permanent and can be saved and shared by others</p>	<p>KS2 Computing National Curriculum</p> <p>Children use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p> <p>Children can:</p> <p>a Understand that there are different ways of protecting online identity</p> <p>b Understand that information shared online can be misinterpreted and reach unintended audiences</p>
DIGITAL LEARNING	<p>KS1 Computing National Curriculum</p> <p>Children to understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions</p> <p>They should use technology purposefully to create, organise, store, manipulate and retrieve digital content</p> <p>Children to recognise common uses of information technology beyond school</p> <p>Children 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.</p> <p>Children can:</p> <p>a Use games and models to enhance learning</p> <p>b Understand that there are different tools for communicating around the world</p> <p>c Use given software for a particular purpose</p>	<p>KS2 Computing National Curriculum</p> <p>Children to design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>They can 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</p> <p>They 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</p> <p>Children use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p> <p>Children can:</p> <p>a Use digital tools to explore real and imaginary</p>	<p>KS2 Computing National Curriculum</p> <p>Children to design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>They can 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</p> <p>They 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</p> <p>Children use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p> <p>Children can:</p>

		<p>situations</p> <ul style="list-style-type: none"> b Know which tools are permissible at different ages for communication locally and globally c Creatively use software for a particular purpose 	<ul style="list-style-type: none"> a Use digital tools to predict what might happen in real and imaginary situations b Know the risks associated with communicating locally and globally with others on digital platforms c Select appropriate hardware and software for a particular purpose
COMPUTER SYSTEMS			<p>KS2 Computing National Curriculum</p> <p>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</p> <p>Children can:</p> <ul style="list-style-type: none"> a Understand the hardware and software components that make up computer systems and how they work together b Know about some of the threats to computer systems and devices

Cultural Capital Opportunities

General						
Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
		Jam coding	Jam coding	Coding club	Whitgift project Coding club	Coding club