Newport CE Junior School

Computing Policy

Date Policy Written and Agreed by Governors:	Date of last review:	Date of next review:
Summer 2022	Summer 2022	Summer 2024

'We aspire to ensure that our inclusive, welcoming and loving church school gives children and adults the opportunity to reach their full potential, so that through God's love they can make a difference to the world around them.'

Intent:

At NJS, we strive to:

- Deliver an **INCLUSIVE**, high quality, **RICH,** and **VARIED** Computing curriculum.
- Ensure children acquire and remember the **SUBSTANTIVE** knowledge first, in a progressive, logical order.
- See that through **KNOWING MORE**, children gain **DISCIPLINARY** knowledge and skills.
- Ensure that children acquire new **VOCABULARY** every year, with each year group showing clear progression from the last.
- Help children build on previous knowledge gained at KS1 / prepare children for KS3.
- Give NJS Staff access to high quality CPD and resources – clear pedagogy for delivery and summative assessment – Children **REMEMBER MORE**.
- Make our curriculum **RELEVANT** - Children will gain understanding about how current computer systems work, and how to use them meaningfully, appropriately, and safely.
- Ensure our Computing curriculum gives children the required knowledge, skills, and vocabulary, with the ability to use their learning to contribute safely and positively in their **COMMUNITY**. It should equip them with the **ASPIRATIONS, SKILLS, AND EXPERIENCES** they need, to thrive in a technology-rich society.

Implementation:

- NJS use **high quality, progressive, Teach Computing NCCE resources**, in every year group.
- NJS teachers are free to **adapt and tailor NCCE planning** to fit particular year group topics – eg Y3 animation work to fit history topics, Year 6 Spreadsheet work on Maths.
- **Sequences of lessons build logically** on what has already been learned – see planning.
- Teachers use **structured, scaffolded** pedagogical approaches, taking children from **novice to expert, encouraging enjoyment through success** – see medium-term planning.
- **Teachers use formative assessment to reinforce concepts**, via retrieval quizzes, reviews of previous lessons, rehearsal and practice of skills and knowledge gained and reinforcement and recall of new vocabulary.
- **Teachers use summative assessment documents** during and after lessons, to assess progress, capturing and recording evidence anecdotally, and in physical and digital Computing folders.
- Teachers show children how to **use resources appropriately and safely,** for communication, presentation, creative and research purposes.
- **Online Safety (E-Safety) is taught regularly** at an age-appropriate level and is based on the National Curriculum requirements. Year groups use Twinkl resources,

Project Evolve resources, EfACW documents, SWGfL resources and Common Sense Media resources. Online Safety **is planned according to need.**

Impact:

- Knowledge and progress are measured through **Pupil Voice and Work Scrutiny,** on a regular basis. **Teachers receive feedback** from this, to ensure gaps in knowledge and skills are addressed.
- **Progress and attainment** are measured using **formative assessment** during lessons, and **summative assessment questions** at the end of each unit of work. Gaps in knowledge and skills will feed into planning for future lessons. Teachers are informed of any gaps in knowledge by previous teachers at the year's end.
- During Pupil Voice, **children's work is displayed in folders and viewed online**, where it is assessed for progress against learning objectives.
- Children's **vocabulary is assessed** through Pupil questionnaires, during Pupil Voice. This feeds into **Reading attainment and progress**.
- Children will use their knowledge and skills in wider society to **make a difference** when they move on.

The Curriculum:

At Newport Junior School we believe that our adaptations and use of the NCCE curriculum encompasses every experience the children encounter during their time at school.
We have developed a curriculum that inclusively ensures that all pupils have access to each of the National Curriculum subject areas as well as a range of other learning opportunities to reach their full potential.
We aim to promote an understanding of diversity in a variety of ways including through our key values of compassion, courage, and community.
The curriculum evolves and is responsive to events around us; we want children to leave us able to make a difference.

NB: the following overview documents are an 'approximate' guide – teachers may change the order and adapt units of work as they see fit, to meet the curricular / learning needs of their classes.

Newport CE Junior School: Long Term NCCE Curriculum Overview for Computing

	Year 3	Year 4	Year 5	Year 6
Autumn	**Networks** – Connecting Computers	**Networks** – The Internet	**Programming A** - selection	**Networks** - communication
	Programming A - sequences	**Creating Media** – Audio Editing	**Creating Media** – Vector drawing	**Data Handling** - spreadsheets
Spring	**Programming B** – Events and actions	**Programming A** - repetition	**Networks** – sharing information	**Programming A** - variables
	Creating Media - Animation	**Data Handling** – data logging	**Creating Media** – video editing	**Programming B** - sensing
Summer	**Data Handling** – Branching Databases	**Creating Media** – photo editing	**Data Handling** – flat file databases	**Creating Media** – 3D modelling
	Creating Media – Desktop Publishing	**Programming B** – repetition in games	**Programming B** – Selection in quizzes	**Creating Media** – website creation

Progression Planner: Year 3 Substantive and Disciplinary Knowledge and Vocabulary

Knowing More. Remembering More. Applying More!

Computing (Year 3)

Teachers to assess how well children have learned the required knowledge at the end of each term.
Working Towards (WTS) Expected (EXS) Greater Depth (GDS)

	Autumn Term – Networks - connecting computers / Programming A - Sequence	**Spring Term** - Programming B - Events and actions / Creating Media - Animation	**Summer Term** – Data Handling – Branching Databases / Creating Media – Desktop Publishing
Substantive Knowledge ***(what I know / acquisition of skill)***	**Networks:** I understand that computers need input and output devices. I can identify how devices in a network are connected to one another. I know the benefits of computer networks. **Programming A:** I can identify that a program includes sequences of commands. I can explain that the order of commands can affect a program's output. I can identify that different sequences can achieve different outputs, or the same output.	**Programming B:** I can explain what a sequence is, and understand that it is a process. I know that a program includes sequences of commands. I can explain that the order of commands / sequences can affect a program's output. **Creating Media:** I understand how text and images can be structured, using placeholders, to convey information. I can consider how different document layouts can suit different purposes. I understand the benefits and reasons why I might use a DTP application.	**Data and Information – Branching Databases** I can explain that a branching database is an identification tool and explain how it works. I can identify attributes that you can ask yes/no questions about. I can suggest real-world applications for branching databases. **Creating Media – Desktop Publishing** I can consider how different layouts can suit different purposes (landscape vs portrait). I understand what placeholders are and how they can help to structure a document. I can recognise how different font styles and effects are used for particular purposes.
Disciplinary knowledge ***(application of knowledge and skills)***	**Networks:** I can identify input and output devices and explain the processes they do. I can identify network devices around me and how they connect to one another. I can explain how switches, servers and wireless access points can be used in a network to share information. **Programming A:** I can build a sequence of commands. I can combine and order commands in a program. I can create a sequence of commands to produce a given outcome.	**Programming B:** I can build , combine and correctly order commands in a sequence, to produce a desired output. I can change the sequencing of a program to make it more efficient. **Creating Media:** I can add, delete, resize and rotate images to and from placeholders in a document. I can add, edit and change text, applying appropriate fonts, sizing and styles to suit the purpose of the document. I can reorientate a page, organising placeholders to suit the purpose, and review my document, making changes where necessary.	**Data and Information – Branching Databases** I can create questions with yes/no answers. I can choose questions that will divide objects into evenly-sized smaller groups. I can identify an object using a branching database and retrieve information from different levels of the database. **Creating Media – Desktop Publishing** I can add and organise text and image placeholders in a page layout, using a suitable style (landscape or portrait). I can add and remove images and text, to and from placeholders. I can edit font size and apply effects to it, and move/resize images in placeholders.
Key vocabulary	**Networks:** Network, data, server, wireless access points (WAPs), network switch, router, input, process, output, Wi-Fi, Bluetooth. **Programming A:** Debug, sequence, decompose, selection, repetition, variables, input, output, algorithms, programs, code, block-based coding, Scratch, sprite, staging area, code block, run, event block, control blocks	**Programming B:** Sequence, sprite, event, action, program, pen, stage, algorithms, selection, repetition, code, debug, output. **Creating Media:** Text, image, font, resize, orientation, portrait, landscape, placeholder, edit, template, layout, desktop publishing (DTP)	**Data and Information – Branching Databases** Branching database, Attribute / property, Yes/no questions, data, information. **Creating Media – Desktop Publishing** Layout, landscape, portrait, placeholders, font, style, edit, right click, left click, group/ungroup.

Progression Planner: Year 4 Substantive and Disciplinary Knowledge and Vocabulary

Knowing More. Remembering More. Applying More!

Computing (Year 4)

Teachers to assess how well children have learned the required knowledge at the end of each term.
Working Towards (WTS) Expected (EXS) Greater Depth (GDS)

	Autumn Term – Networks – the Internet / Creating Media – audio editing	**Spring Term** – Programming A – repetition / Data Handling – data logging	**Summer Term** – Creating Media – photo editing / Programming B – repetition in games
Substantive Knowledge *(what I know / acquisition of skill)*	**Networks:** I can describe how networks connect and communicate with each other and that together, the global interconnection of networks make up the Internet. I recognise that the World Wide Web (WWW) is a collection of websites and web pages, and that the Internet enables us to view these. I understand that WWW content can be created by anyone and shared with everyone. **Creating Media:** I know that sound can be recorded digitally and stored as a file, and can demonstrate ways to do this. I know that digital audio can be edited and altered, and can demonstrate some ways to do this. I can consider editing choices made, and understand their effects on finished media **and** its intended audience.	**Programming A – repetition:** I can understand and identify 'loops' of repeated code within programs as repeating sets of instructions. I know that looped code within programs can run for an indefinite amount of time, *or* for a specified number of times. I can choose when to use a looped instruction in my program and justify its use. **Data Handling – data logging:** I can recognise that sensors can be used to gather data to answer a specific question. I understand what type of data to collect in order to answer a specific question. I can explain that a data logger captures data from specific points in time, using an appropriate environmental sensor.	**Programming B – repetition in games** I understand that a loop command can be used to repeat instructions in a program. I understand that you can program a loop to stop after a specific number of times. I can explain the importance of instruction order in a loop, and justify when to use a loop and when not to. **Creating Media – photo editing** I recognise that images can be changed for different purposes. I can recognise that not all images are real, and that they can be manipulated. I can consider the impact of the changes made on the quality of the image.
Disciplinary knowledge *(application of knowledge and skills)*	**Networks:** I can describe what the Internet is, and how devices physically connect. I can explain what the World Wide Web is, and the difference between it and the Internet. I can explain the different types of content that can be created for the WWW and evaluate its reliability, the usefulness of content created, and the consequences of unreliable content. **Creating Media:** I can use Audacity to record sound digitally, using a device with a microphone and save it as an audio file, and locate the file again. I can use Audacity to play back, select, edit and alter an audio file, and understand what layering sound means. I can explain how my audio file is different and explain why I have changed it in that way.	**Programming A – repetition:** I can use a count controlled loop or an indefinite loop to produce a specified output. I can plan a program that includes loops to produce a given outcome. I can create two or more sequences that can run at the same time. **Data Handling – data logging:** I know where to place a sensor to collect specific data to answer a question. I can identify a time frame and appropriate sensor to use, in order to capture data to answer a specific question. I can collect, analyse, evaluate and present data, in order to answer a specific question.	**Programming B – repetition in games** I can use an indefinite (Forever) loop in a program, to produce a given outcome. I can use a count-controlled loop (e.g.: repeat x10) in a program, to produce a given outcome. I can create two or more sequences of code in a program, that run at the same time. **Creating Media – photo editing** I can change the composition of images, including arranging images, cropping images and editing out a part of an image. I can apply changes to the whole image or part of it, including adjusting colours, adding filters, adding effects, retouching. I can add to an image, including drawing, add text, add an element (e.g.: borders, etc.)
Key vocabulary	**Networks:** Network, data, World Wide Web, Internet, web page, website, content, media, copywrite. **Creating Media:** Audio file, digitally, microphone, select, input, output, volume, Audacity, podcast	**Programming A – repetition:** Loops, count-controlled loops, infinite loops, repetition, algorithms, logo, input, output. **Data Handling – data logging:** Sensor, data, information, data logger, time-frame, input, output,	**Programming B – repetition in games** Repetition, loop, indefinite, count-controlled, sequence, algorithm, sprite, debug. **Creating Media – photo editing** mage, filters, cropping, editing, composition, select, group, clone

Progression Planner: Year 5 Substantive and Disciplinary Knowledge and Vocabulary

Knowing More. Remembering More. Applying More!

Computing (Year 5)

Teachers to assess how well children have learned the required knowledge at the end of each term.
Working Towards (WTS) Expected (EXS) Greater Depth (GDS)

	Autumn Term – Programming A – selection / Creating Media – vector drawing	**Spring Term** – Networks – sharing information / Creating Media – video editing	**Summer Term** – Data Handling – flat file databases / Programming B – Selection in quizzes
Substantive Knowledge *(what I know / acquisition of skill)*	**Programming A:** I understand sequence, selection and repetition in programming. I understand that a conditional statement, using 'If…then…' statements, can either be true or false. I understand that a loop can be used to check whether a condition has been met or not, and that it can stop when the condition has been met. **Creating Media:** I understand what a vector drawing is, and that different tools can be used to modify them. I know that objects can be layered and grouped, or sent backwards / forwards and how to do this. I know that vector images can be modified in a variety of ways, without impacting on quality, and can demonstrate this.	**Networks – sharing information:** I understand that a computer system is a collection of inputs, processes and outputs, and how they play a role in our lives. I understand that computers have protocols and rules to follow, so that information can be shared over the internet, using 'packets' of information. I can understand the benefits of computer systems in our lives and how they enable collaborative projects. **Creating Media – video editing:** I can identify the key concepts of video composition. I understand why I need to plan and create a video storyboard, capture video according to my plan, and edit my finished product. I recognise how to identify improvements to my video, and can consider the effect of editing choices made.	**Data & Information – Flat File Databases** I can explain that a computer program can be used to organise data. I can outline how operands (questions) can be used to filter data, and outline how 'AND' and 'OR' can be used to refine data selection. I can explain that we present information to communicate a message and that computer programs can be used to compare data visually. **Programming B – Selection in quizzes** I understand that a condition can only be true or false. I can explain the difference between a count-controlled loop (e.g.: repeat x10) and a condition-controlled loop (e.g.: repeat until x=10, then stop all). I understand that a loop can be used to repeatedly check whether a condition (if…then…else) has been met.
Disciplinary knowledge *(application of knowledge and skills)*	**Programming A:** I can define sequence as being the order of instructions in a program, selection as being the outcome of a conditional statement, and repetition as a count-controlled loop in a program, which stops when a condition is met. I can use a condition in an 'if… then…' statement to produce a given outcome, and show that a condition can switch program flow in one of two ways. I can experiment with a 'repeat until' loop, changing counts and events within the loop. **Creating Media:** I can describe a vector drawing and create it as a 2D drawing on a screen. I can group and layer objects on a screen and evaluate the impact of my choices. I can use a variety of modifying tools to change a vector drawing, by selecting, rotating, dragging, repositioning, adding, recolouring, resizing and grouping objects.	**Networks – sharing information:** I can identify inputs, processes and outputs in a variety of computer systems. I can explain how computers 'talk' to one another, across a network system, in different countries, using 'packets' of information or data. I can use a computer system to collaborate on a project. **Creating Media – video editing:** I can use a video recording device to carry out the following functions: recording, panning, focussing, zooming and editing specific recording effects (e.g. filters). I can locate, playback and transfer/export video I have recorded. I can edit video using the following functions, justifying my choices: selecting specific sections, applying effects, deleting sections, splitting sections, cropping sections of video.	**Data & Information – Flat File Databases** I can choose different ways to view data, and choose which attribute and value to search by, to answer a given question (operand). I can choose multiple criteria to search data, in order to answer a given question (AND and OR). I can select an appropriate graph to visually compare data, and choose suitable ways to present data to other people. **Programming B – Selection in quizzes** I can choose a condition to use in a program. I can create a condition-controlled loop (e.g.: repeat until x=10, then stop all) I can use a condition in an 'if… then…else…' statement to start an action, in order to switch program flow in one of two ways.
Key vocabulary	**Programming A:** Crumble controller, Scratch, algorithm, sequence, selection (if…then…statements), repetition, loop, count-controlled or infinite loop, conditional statement, LED, sparkle, debug. **Creating Media:** Vector drawing, layer, group, modify, 2D object.	**Networks – sharing information:** Internet, computer system, packet, data, network, router, network switch, wifi, world wide web, input, process, output, IP address **Creating Media – video editing:** Storyboard, panning, zooming, editing, filters, cropping, exporting.	**Data & Information – Flat File Databases** Operand, data, information, selection, field, parameter, flat-file database. **Programming B – Selection in quizzes** Algorithm, sequence, repetition, selection, loop, condition, count-controlled loop, condition-controlled loop.

Progression Planner: Year 6 Substantive and Disciplinary Knowledge and Vocabulary

Knowing More. Remembering More. Applying More!

Computing (Year 6)

Teachers to assess how well children have learned the required knowledge at the end of each term.
Working Towards (WTS) Expected (EXS) Greater Depth (GDS)

	Autumn Term – Networks - communication / Data Handling - spreadsheets	**Spring Term** – Programming A - variables / Programming B - sensing	**Summer Term** – Creating Media - 3D modelling / Creating Media - website creation
Substantive Knowledge ***(what I know / acquisition of skill)***	**Networks:** I understand that there are a number of search engines and I can explain how search results are found, ordered and 'ranked'. I understand why the order of results is important, and to whom, and understand some of the limitations of search engines. I can define 'communication' and discuss the opportunities that technology offers for communication. **Data-Handling:** I can explain what data is, and that it needs a context. I know a range of the different types of software that deal with and organise data. I can organise and present data appropriately **and** effectively, evaluating my data presentation and results in comparison to the question asked.	**Programming A – variables:** I know that a variable is something that can be changed, in a program. I can identify examples of variables and recognise that variable scan be numbers or letters. I know that variables have specific names and can be used by programs to change outcomes. **Programming B – sensing:** I know that a variable is something that can be changed, in a program. I know that variables have specific names and can be used by programs to change outcomes. I know how to use sequence, selection and repetition in code I write, to design a program which produces a specific outcome.	***Creating Media – 3D modelling*** I can recognise that a 3D environment can be viewed from different perspectives. I can show how placeholders can create holes in 3D objects. I can recognise that artefacts can be broken down into a collection of 3D objects. ***Creating Media – website creation*** I understand that a website is a set of hyperlinked web pages and understand the relationship between HTML and what appears on the webpage. I can consider the ownership and use of images (copyright) on a website. I understand the need for a navigation pathway in webpage design.
Disciplinary knowledge ***(application of knowledge and skills)***	**Networks:** I can compare different search engines and explain why search results might be different, when searching for the same thing. I can evaluate the results of search terms and identify that results from search engines can include adverts, and that the adverts can be targeted at specific audiences. I can identify different ways to communicate without technology and evaluate different methods of online communication effectively. **Data-Handling:** I can give examples of data types and contexts in which they may be used. I can identify and use data handling software and input, present and evaluate data. I can apply formulas to data, explaining how my data presentation represents the answer to a specific question.	**Programming A – variables:** I can identify variables in existing programs and experiment with changing them. I can decide where in a program to set a variable and use an event to update it. I can use a variable in a conditional statement to control the flow of a program. **Programming B – sensing:** I can design and write a program which uses inputs on a device or emulator to achieve a specified output. I can use logical reasoning to explain how my program works. I can spot errors in my code, debug them and suggest improvements.	***Creating Media – 3D modelling*** I can position 3D shapes and use digital tools to modify 3D objects. I can use digital tools to accurately size 3D objects and combine them to create a 3D digital artefact. I can construct a 3D model which reflects a real world object. ***Creating Media – website creation*** I can review an existing website (navigation bars, header). I can create a new blank webpage and add text, images, change styles of font, and embed media. I can insert hyperlinks between pages and add links to another site.
Key vocabulary	**Networks:** Address bar, search box, World Wide Web, search engine, web crawler, page rank, ranking, communication, search terms. **Data-Handling:** Data, spreadsheet, cell, formula, select, duplicate, input, output, column, row, format.	**Programming A – variables:** Sequence, selection, repetition, variable, program, algorithm, string, outcome, abstraction. **Programming B – sensing:** MicroBit, emulator, input, sensor, output, step counter, conditional statement, sequence, selection, repetition, variable.	***Creating Media – 3D modelling*** Perspective, 3D, digital tool, artefact, object, placeholder ***Creating Media – website creation*** Webpage, HTML, hyperlink, navigation pathway, header, links, copyright, fair use.

Progression Planner: Online Safety

Newport CE Junior School: Long Term Curriculum Overview for Online Safety

	Year 3	Year 4	Year 5	Year 6
Autumn	Online Communication	Rings of responsibility	My Media Choices	Finding My Media Balance
	Keep it to yourself (passwords)	Password Power-up	Private and Personal Information	You won't Believe This!
Spring	Safe Emailing	Online identity	Our Online tracks	Beyond Gender Stereotypes
	Online Adverts	Respecting Online Communities	Keeping Games Fun and Friendly	Digital Friendships
Summer	What is Cyberbullying?	The Power of words	Super Digital Citizen	What is Cyberbullying?
	Party Planners project	Is Seeing Believing?	Copyright – a Creator's Rights and Responsibilities	What is Fake News?

NB:- Teachers can add resources / swap resources as needed, from the Project Evolve database of resources. See this Link

Newport CE Junior School: Curriculum Progress Map for Online Safety

	Year 3	Year 4	Year 5	Year 6
Autumn	**Unit Title: E-safety - Online Communication / Keep it to yourself (passwords)**	**Unit Title: E-safety – Rings of responsibility / Password Power-up**	**Unit Title: E-safety – My Media Choices / Private and Personal Information.**	**Unit Title: E-safety – Finding My Media Balance / You won't Believe This!**
	Vocabulary: device, email, social media, posts, comment, website, password, secure, privacy, settings, Online, community, communication, chat, forum.	**Vocabulary:** password, phrase, symbol, username, identity theft, privacy, responsibility, digital citizen.	**Vocabulary:** media, screen time, media choice, media balance, private, personal, posting.	**Vocabulary:** clickbait, FOMO (fear of missing out), media, screen time, media choice, media balance, posting.
	Substantive Knowledge: • To understand the need for a strong password. • To understand why I shouldn't share my password with anyone, and the need for privacy settings and what protections they offer. • To understand how to communicate respectfully online.	**Substantive Knowledge:** To understand the term 'password'. To understand the consequences of not having a strong password. To understand how online behaviour affects others and ourselves.	**Substantive Knowledge:** To understand what makes a media choice healthy or not. To understand what 'Media Balance' is. To understand the difference between private and personal information.	**Substantive Knowledge:** To understand what "media balance" means, and how it applies to them. To understand why it is important to balance time between different forms of media and other activities. To understand what is meant by 'clickbait' and how it uses the curiosity gap to get your attention.
	Disciplinary Skills:: • To be able to create a strong password. • To know how to set privacy settings effectively. • To know how to communicate respectfully online – if you wouldn't say it to they face, don't send it online.	**Disciplinary Skills::** To create a password that cannot be easily guessed (a 'strong' password. To be able to decide what to do if my password is compromised. To be able to talk about what 'being responsible online' means and give examples of responsible online behaviour.	**Disciplinary Skills::** To use media in a way that feels healthy and in balance with other activities. To know what information about me is private. To be able to explain the risks of posting private information.	**Disciplinary Skills::** To create a personalised plan for achieving a better media balance. To describe some of the tactics used by advertising media to get you to 'click' a link. To use strategies for avoiding 'clickbait.
Spring	**Unit Title: E-safety – Safe Emailing / Online Adverts**	**Unit Title: E-safety – Online identity / Respecting Online Communities.**	**Unit Title: E-safety – Our Online tracks / Keeping Games Fun and Friendly.**	**Unit Title: E-safety – Beyond Gender Stereotypes / Digital Friendships.**
	Vocabulary: Digital, device, email, social media, posts, comments, website, Internet, advert, product, target, digital footprint, secure, inbox, address line, subject line.	**Vocabulary:** Online, digital footprint, profiles, social media, account, register, private, public, privacy settings, digital citizen, respect, community, selfie, pledge, norms.	**Vocabulary:** digital footprint, inference, responsibility, digital media, griefing, trolling, social interaction.	**Vocabulary:** avatar, bias, gender, stereotype, gender stereotypes, private / personal information.
	Substantive Knowledge: To know how to safely send and receive an email. To understand how to write emails respectfully and clearly. To understand how companies use websites to promote products.	**Substantive Knowledge:** To understand how others might perceive what I post. To understand the most important parts of an online profile. To understand what it means to be a 'good digital citizen'.	**Substantive Knowledge:** To understand what responsibilities they have for the digital footprints of themselves and others. To know that digital footprints can affect our online and offline personal reputations for a long time. To understand the risks of online and in-game social interaction.	**Substantive Knowledge:** To understand what gender stereotyping is. To understand how gender stereotyping impacts on who I am. To understand and describe the benefits and risks of online-only friendships.
	Disciplinary Skills:: To safely send and receive an email. To identify an email that I should not open. To write an email with an address and subject. To identify a targeted advert.	**Disciplinary Skills::** To identify ways to post an online profile which best reflects who I am. To demonstrate 'good' online behaviour and how to act according to social 'norms' online. To be able to describe what 'digital footprint' means.	**Disciplinary Skills::** To define the term "digital footprint" and identify the online activities that contribute to it. To identify ways they are - and are not - in control of their digital footprint. To define "social interaction" and give an example and describe the positives and negatives of social interaction in online games.	**Disciplinary Skills::** To describe how gender stereotyping can lead to bias. To describe ways to stay safe online when developing online only friendships. To describe some of the risks of online friendships and how these may affect real-world friendships.
Summer	**Unit Title: E-safety – What is Cyberbullying? / Party Planners project**	**Unit Title: E-safety – The Power of words / Is Seeing Believing?**	**Unit Title: E-safety – Super Digital Citizen / Copyright – a Creator's Rights and Responsibilities.**	**Unit Title: E-safety – What is Cyberbullying? / What is Fake News?**
	Vocabulary: Cyberbullying/bullying, digital, device, email, social media, posts, comments, website, Internet, secure, private, advert, settings.	**Vocabulary:** advertise, persuade, Photoshop, alter, fake, online comments.	**Vocabulary:** attribute, copyright, intellectual property, cyberbullying, upstander, digital citizen	**Vocabulary: fake news, clickbait, propaganda, bias, scam, cyberbullying, victim, upstander.**
	Substantive Knowledge: To know what cyberbullying is and to recognise it when it happens. To know that cyberbullying can happen on a range of devices. To understand how to plan an event whilst keeping my online digital footprint private.	**Substantive Knowledge:** To understand the importance of thinking before we post online comments. To understand how other people perceive what we post. To understand why some photos and images may have been altered digitally.	**Substantive Knowledge:** To understand what cyberbullying is, and is not. To know how to be an 'upstanding' citizen. To understand rights and know my rights and responsibilities when it comes to the images I create and use.	**Substantive Knowledge:** To recognise similarities and differences between in-person bullying, cyberbullying, and being mean. To understand what fake news is and recognise it when it happens. To know why people create fake news and how it helps them.
	Disciplinary Skills:: To identify cyberbullying and know what to do about it and who to tell. To ensure that evidence of cyberbullying is kept so that it may be used to resolve things. To plan an event using online tools safely and ensure my digital footprint is private.	**Disciplinary Skills::** To identify different reasons why someone may alter a photo or image digitally. To decide what kind of statements are ok to make online, and which ones are not. To identify ways to respond to mean words and identify cyberbullying.	**Disciplinary Skills::** To identify three key ways in which cyberbullying can be addressed. To identify ways in which you can be an 'upstander'. To define copyright, explain how it applies to creative work and apply its principles to real-life scenarios.	**Disciplinary Skills::** To identify strategies for dealing with cyberbullying and ways they can be an upstander for those being bullied. To be able to discuss five key strategies for identifying fake news stories To use my knowledge to identify fake news stories from real news stories.

Statement on developing skills in Computing:

Computing at NJS helps children to learn the digital skills required to work more efficiently and creatively in areas such as computer science and digital literacy and allows them to apply these skills in all areas of the school curriculum.

Online Safety skills help children to assess and judge reliability of websites and develop respectful use of technology online. They are given opportunities to develop good personal safety habits in a 'safe' environment when accessing social media, through the delivery of a varied and exciting Online Safety Curriculum.

- Children will develop computational thinking strategies that support their learning.
- They will learn to use different software applications for different purposes and choose the most appropriate for the task.
- They will develop an understanding of the skills required to design, write and debug programs in more than one programming language.
- Children learn the basic skills of computational thinking (Algorithms, Decomposition, Logic, Pattern Recognition, Abstraction, Evaluation) through Computer Science, in increasingly more complex ways.

- They learn key aspects of Programming progressively, starting with Sequencing in Year 3, Selection in Year 4, Repetition in Year 5 and finally Variables in Year 6.
- Opportunities are given to develop effective online safety habits through carefully selected activities, scenarios, profile creation and understanding of privacy settings in a variety of Social Media settings.
- Pupils experience quality, tailored support when needed, and become active, independent students of Computing.

Special Educational Needs, Disabilities and Inclusion.

At Newport Junior School we believe in a broad and balanced Computing curriculum that allows all children, no matter of ability or need, to access an innovative and imaginative curriculum and allows the children to meet their full potential. We do this by setting suitably challenging learning tasks, identifying teaching styles and making adaptations to Computing lessons which allow children to fully participate in all activities, regardless of need.
Where children are to participate in Computing activities outside of the classroom, for example a school trip or visit, we carry out a risk assessment prior to the activity, to ensure that the activity is safe and appropriate for all pupils. This is in line with the Equalities Act and school policy.
Inclusion is seen to involve the identification and minimising of barriers to learning and participation, and the maximising of resources to support learning participation. We aim to set suitable learning challenges in Computing, respond to pupils' diverse needs, and overcome potential barriers to learning for individuals and groups of pupils. Every member of staff shares the responsibility to remove barriers to learning for all pupils, including those with a disability. As a result, we are committed to offering an inclusive Computing curriculum to ensure the best possible progress for all our pupils.

Interventions maybe carried out during Computing lessons which incorporate the key learning facts from the session. We teach each lesson with reference to the needs identified on the individual provision maps when required.

Assessment:

In Computing and Online Safety, teachers use on-going teacher assessment to help inform their daily planning. They use observations, marking, notes to teacher, peer and self-assessment and daily interactions with children to inform next steps in learning. Teachers use this information to evaluate whether children have acquired key Substantive and Disciplinary knowledge and skills and subsequently highlight this using each child's individual unit assessment sheet. Any gaps in knowledge are then either addressed at the time, or passed on to the Subject Leader and future teachers for them to address.

The children are involved in the assessment of their own work, using a range of tools such as on-screen success criteria, or end -of-lesson assessment tests and tasks, where they evaluate their progress against the learning outcome, peer reviews, group presentations and online sharing of work for review by others.

Monitoring:

Over the course of an academic year, Computing and Online Safety will be regularly monitored in line with the school Monitoring Policy, by the Computing Subject Leader. This may take the form of pupil voice, book looks and work scrutiny of Computing folders or completed online electronic records of work / files, lesson observations and analysis of data. The Subject Leader will use information gained to feedback to teachers so that they can further develop their teaching and the children's' learning. If necessary, information gained from monitoring is fed into the Subject Leader Action Plan and the School Development Plan, to improve teaching and learning outcomes in Computing.

Resources:

Computing resources such as laptops for student use can be found in the ICT room, in laptop trolleys around the school, in iPad trolleys in year group bases and the PPA room. Specific year groups have access to Microbits (Year 6) and Crumble Starter kits (Year 5) for physical computing units of work. All year groups are responsible for keeping computing resources tidy and checking that computing equipment is returned to the correct location for that device when it is no longer required.

Resources are to be monitored at least termly by the Computing Subject Lead and ICT Technician. Each classroom base is allocated a smartboard (CleverTouch or Smartboard and projector) for teaching purposes.
Whilst employed by the school, teachers are allocated a laptop and iPad for teaching and personal use, for which they are responsible.
The ICT technician will monitor resources throughout the school, using a 'traffic lights' system, to identify 'fitness for purpose'.
New resources may be sourced through permission of the Headteacher/ Deputy Headteacher.

Health and Safety:

The school is committed to ensuring that all pupils are safe within the school environment. Please refer to the school's policy for Health and Safety for further information.

Roles and Responsibilities:

Head Teacher and Governing Body

- support the use of appropriate teaching strategies by allocating resources effectively.
- monitor teaching strategies in the light of health and safety regulations.
- monitor how effective teaching and learning strategies are in terms of raising pupil attainment.
- ensure that staff development and performance management policies promote good quality teaching.

Computing/Online Safety Subject Lead

- ensures the effective implementation of the National Curriculum for Computing.
- completes a subject action plan which addresses key areas for development based on analysis of data and key messages from monitoring.
- supports colleagues in the teaching of Computing and Online Safety and identifies any training needs.
- maintains the availability of high-quality resources.
- maintains an overview of current trends and developments within the subject.

- ensures, together with the SLT, a rigorous and effective programme of monitoring and evaluation including planning reviews; lesson observations, learning walks, pupil voice interviews and book looks.
- gives feedback following monitoring and evaluation to individuals and teams as necessary to ensure teaching and learning improves/develops.

Class Teachers

- ensure the effective implementation of the National Curriculum for Computing.
- follow this agreed policy and related policies.
- teach high quality Computing lessons.
- demonstrate a love of Computing.
- seek advice and/or training to develop subject and pedagogical expertise.

ICT Gold Technician

- ensures ICT resources (iPads, Laptops, Desktops and Kindles) are functioning correctly each week.
- Performs a 'resource check' walk once a week when present, to ensure ICT teaching resources are functional.
- when required, assists teachers with ICT resource preparation and ensures effective functioning of resources during lessons
- keeps and inventory of all ICT resources for auditing purposes.
- ensures disposal of defunct ICT equipment according to national WEEE guidelines.

Cultural Capital and SMSC

We provide Cultural Capital for our children through our computing curriculum in these ways:

- through providing transferable skills that children will be able to use in future employment.
- through providing opportunities within the curriculum to become aware of on-line safety and how they should keep themselves safe.

- through an appreciation of how the internet can connect people together geographically around the world and can provide links to the global community.
- through coding club.

Parent Partnership:

Parents are vital in supporting their child's development. It is a partnership where we encourage parents to fully engage in what their child is doing in school.
NJS posts a monthly Online Safety Newsletter on the school website for parents to engage with.
NJS school website offers parents links to Computing and Online Safety information through the school website.
Children are encouraged to take part in Coding Club, through which they can continue their projects at home, with parental support.
Children's progress in Computing is reported at Parents' Evening meetings in the autumn and spring terms and in their end-of-year report at the end of the summer term.

Andrew Butler
Computing Coordinator and Subject Lead
Online Safety Coordinator
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