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| **Computing Curriculum Intent**In Portobello Primary it is our intent to develop a love of Computing and provide children with the ability to enhance their knowledge, skills and understanding through different types of media. Our school is a place where everyone is given an education that builds on their strengths and addresses their individual needs to ensure progression. We believe that all children should be able to achieve their full potential academically, socially, emotionally and physically. In line with the 2014 National Curriculum for Computing, our aim is to provide a high-quality Computing curriculum which equips children to use technology to think creatively and to begin to comprehend the vast world in which they live, and how technology has and will change this. We acknowledge that future generations will rely heavily on their confidence with technology and digital skills in order to support their progress within their chosen career paths. Therefore, we want to enable our children to become active participants in the digital world. Key to this is that we teach them to how to be respectful, responsible and confident users of technology, aware of how keep themselves and others safe online. More recently, technology has had an impact on the physical and emotional well-being of our children. Technology is used as a way of encouraging children to be active throughout the school day. This has had a positive impact on fitness, concentration, attention and emotional well-being. It is also a way for some children to communicate their thoughts and feelings. It is our aim to equip children with the relevant skills and knowledge that is required to understand the three core areas of Computing - Computer Science, Information Technology and Digital Literacy and to offer a broad and balanced approach to providing quality first teaching. **Computing Curriculum Implementation**In Portobello Primary we facilitate the best possible outcomes for all our children. We have an inclusive approach when delivering our diverse, broad and balanced curriculum and recognise the needs and strengths of all our individual children. All children will succeed in this curriculum area because of our bespoke approach to their learning requirements. Teachers are trained to use formative assessment accurately within lessons to ensure the provision of targeted support and challenge effectively. Where appropriate, adaptations are made to the curriculum in response to individual or groups of children. In lessons children are supported in a number of appropriate ways until they no longer require the scaffolded support and are then encouraged to progress their independence, to embed skills and fully develop their own potential and to ensure independent excellence is achieved. We ensure we promote, teach and celebrate diversity and equality though the delivery of the curriculum. We recognise the importance of retrieval and the impact that this has on learning for all our children to be able to remember and do more. Therefore, we ensure that sufficient time for high quality retrieval practise is firmly embedded into the teaching sequence. To strengthen their understanding and consolidate knowledge and skills we ask that retrieval practise takes place not just during the lesson but over time. Children actively participate in high quality rehearsal, summarising, analysing or application activities.We teach Computing using a blocked curriculum approach. This ensures children are able to develop depth in their knowledge and skills over the duration of each of their Computing topics. Through the teaching of Computing we endeavour to expose children to a variety of software, programmes, and equipment in order to offer an age appropriate range of appropriate challenges and experiences.  It is our aim to equip children with the relevant skills and knowledge that is required to understand the three core areas of Computing: * **Computer Science** – the understanding of coding and programming across a range of physical devices and digital resources.
* **Information Technology**– the range of skills required to operate and manipulate specific programs, systems, and content.
* **Digital Literacy**– the knowledge required to use technology safely and to evaluate and react to any potential risks of the online/digital world.

We wish for our children to enjoy participating in online activities. Therefore, a vital part of implementing our Computing curriculum is to ensure that the safety of our children is paramount. We prioritise giving children the necessary skills to keep themselves safe online. We recognise that as the digital technology world changes, so must our curriculum. We reflect upon key issues, new initiatives and equip children with the knowledge, skills and understanding they need to thrive in the digital world of today and the future. Online safety is embedded and taught throughout all curriculum areas and we address issues as they arise. Each year we also celebrate Safer Internet Day in school. Coordinated in the UK by the UK Safer Internet Centre, the celebration sees thousands of organisations get involved to promote the safe, responsible and positive use of digital technology for children and young people. From EYFS-Year 6 pupils partake in a range of activities linked respectful and safe usage of the internet. Part of the day is also spent exploring how the internet works and the wider use of technology beyond the school boundaries. At Portobello Primary we celebrate by putting children and young people’s voices at the heart of the day and encouraging them to shape the online safety support that they receive. **National Curriculum for 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

**National Curriculum for 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.

**Consensual and non-consensual sharing of nude and semi-nude images and/or videos**The term ‘sharing nudes and semi-nudes’ is used to mean the sending or posting of nude or semi-nude images, videos or live streams by children under the age of 18 online. This could be via social media, gaming platforms, chat apps or forums. It could also involve sharing between devices via services like Apple’s AirDrop which works offline. The term ‘nudes’ is used as it is most commonly recognised by children and more appropriately covers all types of image sharing incidents. In Portobello Primary the learning about the sharing of nudes and semi-nude images and/or videos is located within the Relationships Education and Relationships and Sex Education curriculum, as well as our Computing programme. In our Online Safety topics; Self-image & identity, Online relationships and Online reputation children are educated on the basic principles of consensual image sharing. This is delivered to our primary-aged children, without the need to discuss the sharing of nudes and semi-nudes specifically.**Computing Curriculum Impact**By the time our children leave us in Key Stage Two they will have gained key knowledge and skills in the three main areas of the Computing curriculum - Computer Science, Information Technology and Digital Literacy. Within Computing we encourage a creative and collaborative environment in which children can learn to express and challenge themselves. The knowledge and skills developed in our Computing lessons equip children with experiences which will benefit them in the next stage of their life and future lives as adults. **Supporting the development of Spiritual Moral Social Cultural Development**Computing provides opportunities for reflection of awe and wonder about the achievements of technology today and begin to imagine the possibilities for the future. We raise the awareness and give our children the opportunity to reflect on how computers can sometimes perform better in certain activities than people. We promote moral development through teaching the importance of online safety. Asking children to reflect upon possible consequences of different actions and situations, and whether it is fair that some people in this country and in other countries cannot use the internet. It is crucial our children have the knowledge and tools to report any instances of bullying, cyber-bullying and online safety issues. Embedded into the curriculum is the teaching and discussing of the different ways that the internet has impacted on communication. The pandemic has resulted in Computing becoming an ever-popular way of communicating with people in close proximity and further afield. We equip the children with the social skills for the challenges of living and learning in a technologically enriched interconnected world. As children develop their Computing skills they are able to learn co-operatively in groups or pairs. We encourage them to take action to find solutions whilst developing respect for the ideas and opinions of others they are learning with. Computing can also help some of our children to express themselves clearly and to communicate. Whilst learning across the curriculum we ask children to reflect on how different cultures are portrayed on the internet. We take an analytical approach to exploring how technology has changed our culture, with the ability to communicate instantly nationally and internationally. Thus, breaking through of linguistic and cultural barriers. In Portobello Primary we have a growth mindset approach firmly embedded in everything we do. Children understand that learning takes place over time and that they are required to make the most of all learning opportunities, mistakes are one part of this. **Oracy in Computing**In Computing, oracy is essential for developing students’ ability to articulate technical concepts, collaborate effectively, and think critically about digital systems and their impact. All four strands of oracy—**physical**, **linguistic**, **cognitive**, and **social & emotional**—will be explicitly taught and embedded throughout the curriculum to support students in becoming confident digital communicators and problem-solvers.**Physical**: Pupils will develop clear and confident verbal communication when explaining code, presenting digital projects, or participating in discussions about computing concepts. They will practise using appropriate tone, pace, and body language to engage audiences in both formal and informal settings.**Linguistic**: Students will be taught to use precise technical vocabulary to describe algorithms, data structures, programming concepts, and digital systems. They will engage in structured talk to explain processes, troubleshoot problems, and reflect on their learning.**Cognitive**: Oracy will support computational thinking by encouraging students to verbalise their reasoning, justify design choices, and evaluate the effectiveness of digital solutions. They will be guided to think aloud, ask questions, and explore alternative approaches through discussion.**Social & Emotional**: Through pair programming, group projects, and collaborative problem-solving, students will develop active listening, empathy, and confidence in sharing their ideas. They will learn to give and receive constructive feedback and work respectfully with others in both physical and virtual environments.Oracy will be embedded across all areas of the Computing curriculum, enabling students to communicate effectively, think critically, and collaborate meaningfully in an increasingly digital world.**Computing Curriculum Assessment and Monitoring**Computing is monitored by the subject leaders throughout all year groups using a number of strategies including learning outcomes moderations and discussions with teaching staff and children. Subject leaders also discuss Computing with Senior Leaders termly and they complete a written report to Governors in Summer Term Two. Teaching staff are encouraged to provide evidence where appropriate to support evidence of attainment and progress of children against the National Curriculum objectives. For some topics, such as Online Safety, this evidence is compiled into a whole school floor book. At the end of each lesson children are provided with reflection time for them to self and peer assess against the learning objectives. |

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| **Year 1**  |
| **Autumn 1 – Self-image and identity,** Online Relationships, **Online Reputation** |
| **New Words We Will Use and Understand**Self- ImageSad, Worried, Uncomfortable, Frightened, Advice, Trusted adultOnline RelationshipsAllowed, Permission, Trusted Adult, Devices, Positive, Negative, Cyberbullying Online ReputationProfile, Trusted adult, Sharing, Online, Personal, Information, Share, Sign up |
| **What We Will Remember** Self- Image* How to can recognise, online or offline, that anyone can say ‘no’/‘please stop’/‘I’ll tell’/‘I’ll ask’ to somebody who makes them feel sad, uncomfortable, embarrassed or upset.
* How to recognise that there may be people online who could make someone feel sad, embarrassed or upset.
* If something happens that makes me feel sad, worried, uncomfortable or frightened, I can give examples of when and how to speak to an adult I can trust and how they can help.

Online Relationships* When to ask permission to do something online and explain why this is important.
* How to recognise some ways in which the internet can be used to communicate.
* How (I might) use technology to communicate with people I know.
* How to use the internet with adult support to communicate with people I know (e.g. video call apps or services).
* Why it is important to be considerate and kind to people online and to respect their choices.
* Why things one person finds funny or sad online may not always be seen in the same way by others.

Online Reputation* How to identify ways that I can put information on the internet.
* What information I should not put online without asking a trusted adult first.
* How to recognise that information can stay online and could be copied.

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| **Additional Learning Opportunities**Self- Image* Explain that just as we would use this in real life, we can let people know that we do not like what they are doing online.
* Relate learning to online behaviour and ask the children to think of all the things they might do online which may need permission.

Online Relationships* Link to friendships and relationships on and offline.

Online Reputation* Recapping on trusted adults, daily discussions around safer internet use.

**\*Safer Internet Day – Themed Day celebrated in school every February.****\*Portobello Pupil Digital Ambassadors (PPDA) to visit each class termly.** |
| **Suggested Resources/Applications*** National Online Safety Designated Year Group Unit
* Portobello Primary School Online Safety Posters
* Online Safety Books
* Project Evolve Resources - Each member of staff will receive a designated account.
 |
| **Autumn 2 – Key Skills and Multimedia Production** |
| **New Words We Will Use and Understand**Font, Digital, Copy, Paste, Left Click, Right Click, Click and Drag, Brush, Tool, Keyboard, Mouse, Stamp, Load |
| **What We Can Do** * Combine text and images in simple program.
* Record a sound and play it back.
* Use simple paint tools, brushes, colour-fill and palette.
* Add stamps or clipart to create a scene.
* Be familiar with the features of Microsoft Paint.
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| **Additional Learning Opportunities**Opportunities to apply skills and create other multimedia documents across the National Curriculum. |
| **Suggested Resources/Applications*** Paint
* Pic Collage
* Our Story 2
* Moldiv App (image editor)

YouNewsed (News report creator) |
| **Spring 1 – Online Bullying and Managing Online Information**  |
| **New Words We Will Use and Understand**Online BullyingUpset, Unkind, Behaviour, Uncomfortable, Nervous, Embarrassed, Positive, Negative, Behaviour, Effect Managing Online InformationSearch Engine, Internet, Access, Information, Online, Real, Make believe, Trusted adults  |
| **What We Will Remember** Online Bullying* To describe ways that some people can be unkind online.
* Examples of how this can make others feel.
* How to behave online in ways that do not upset others and can give examples.

Managing Online Information* How to talk about how to use the internet as a way of finding information online.
* How to identify devices I could use to access information on the internet.
* How to give simple examples of how to find information using digital technologies (e.g. search engines, voice activated searching).
* To understand that I can encounter a range of things online, including things I like and don’t like as well as things which are real or make believe/a joke.
* To know how to get help from a trusted adult if I see content that makes me feel sad, uncomfortable worried or frightened.
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| **Additional Learning Opportunities**Online Bullying* Daily opportunities to work on/focus on friendships within class.
* Share/Recap Key Stage 1 Anti-Bullying Policy (child friendly version)

Managing Online Information* Recapping on trusted adults, daily discussions around safer internet use.

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| **Suggested Resources/Applications*** National Online Safety Designated Year Group Unit
* Portobello Primary School Online Safety Posters
* Online Safety Books
* Project Evolve Resources - Each member of staff will receive a designated account.
 |
| **Spring 2 – Networks and using the internet (Computer Science Theory)** |
| **New Words We Will Use and Understand**Communication, Electronic, E-Mail, Internet, Page (webpage), Website, Button, Advert/Advertising, Window |
| **What We Can Do** * Use pre-chosen sites to find information.
* Use pre-chosen sites to answer simple questions.
* Use activities on the internet and software to learn something new.
* Use the internet safely.
* Be aware that the Internet holds information on web pages.
* Know uses of the internet and other technology beyond school.
 |
| **Additional Learning Opportunities**Opportunities to apply skills and use the internet to carry out independent research based on likes and interests.**\*Safer Internet Day – exploration of significant individuals including Tim Berners-Lee, Bill Gates, Mark Zuckerberg, Steve Jobs** |
| **Suggested Resources/Applications*** @simonhaughton Twitter
* Skitch App (labelling software)
* NCCE Teach Computing Supporting Units
 |
| **Summer 1 – Health, Wellbeing and Lifestyle, Privacy and Security, Copyright and Ownership** |
| **New Words We Will Use and Understand**Health, Wellbeing and LifestyleRules, Safety, Healthy, Technology, Device Privacy and SecurityPersonal, Information, Trustworthy, Password, Private Copyright and OwnershipCreate, Document, Type, Save, Belong, Copy, Original  |
| **What We Will Remember** Health, Wellbeing and Lifestyle* How to identify rules that help keep us safe and healthy in and beyond the home when using technology.
* To give some simple examples of these rules.
* How to explain rules to keep myself safe when using technology both in and beyond the home.

Privacy and Security * To identify some simple examples of my personal information (e.g. name, address, birthday, age, location).
* To describe who would be trustworthy to share this information with; I can explain why they are trusted.
* To explain that passwords are used to protect information, accounts and devices.
* To recognise more detailed examples of information that is personal to someone (e.g. where someone lives and goes to school, family names).
* How to explain why it is important to always ask a trusted adult before sharing any personal information online belonging to myself or others

Copyright and Ownership* To know that work I create belongs to me.
* To name my work so that others know it belongs to me.
* How to explain why work I create using technology belongs to me.
* To say why it belongs to me (e.g. ‘I designed it’ or ‘I filmed it’).
* How to save my work under a suitable title/name so that others know it belongs to me (e.g. filename, name on content).
* To understand that work created by others does not belong to me even if I save a copy.

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| **Additional Learning Opportunities**Health, Wellbeing and Lifestyle* Daily teaching and recapping of rules.

Privacy and Security* Opportunities to teach and recap on trusted adults and keeping personal information safe.

Copyright and Ownership* Opportunities to use copy write and ownership in all areas of the curriculum.

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* Portobello Primary School Online Safety Posters
* Online Safety Books
* Project Evolve Resources - Each member of staff will receive a designated account.
 |
| **Summer 2 – Coding and Computational Thinking – Graphical Coding** |
| **New Words We Will Use and Understand**Test, Fix, Predict, Algorithm, Simulation, Duplicate, Repeat, Sensor |
| **What We Can Do** * Give simple instructions one at a time using left, right, forwards and backwards.
* Put two instructions together to control a toy or other similar item.
* As part of a group, plan, predict and test an algorithm by giving a sequence of instructions.
* Use a simple on-screen simulation of real-life activities.
* Become familiar with key vocabulary associated with programming.
 |
| **Additional Learning Opportunities**Opportunities to use iPads and other technology in school to develop programming skills.VEX 123 – Coding FocusKS1 STEM and Coding ClubVisit to PPS STEM & Robotics HubOzobots – Coding and Algorithms Focus |
| **Suggested Resources/Applications*** Bee Bot App
* Helicopter Rescue (Busythings App)
* A.L.E.X App
* Code Karts App
* Story Sequencing Cards (Yellow Door Resources – Online)
* Twister – Practical Coding
* Hopscotch/ Dino Hop (PE Cross-curricular idea).
* Vocabulary Posters
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| **Year 2** |
| **Autumn 1 - Self- Image,** Online Relationships, **Online Reputation** |
| **New Words We Will Use and Understand**Self- ImageOnline, Offline, Emotions, Avatar, Identity, Risk, Privacy, Trusted AdultOnline RelationshipsPermission, Online, Consent, Trusted adult, Mood, Options, DecisionsOnline ReputationOnline, Search, Forever, Digital, Content, Tab, Information, Profile, Safer, Username, Trusted adult, Sign up  |
| **What We Will Remember** Self- Image* How to explain how other people may look and act differently online and offline.
* To give examples of issues online that might make someone feel sad, worried, uncomfortable or frightened; I can give examples of how they might get help.

Online Relationships* To know how someone might use technology to communicate with others they don’t also know offline and explain why this might be risky (e.g. email, online gaming, a pen-pal in another school/country).
* To know who I should ask before sharing things about myself or others online.
* To describe different ways to ask for, give or deny my permission online and can identify who can help me if I am not sure.
* To explain why I have a right to say, ‘no’ or ‘I will have to ask someone’. I can explain who can help me if I feel under pressure to agree to something I am unsure about or don’t want to do.
* To know who can help me if something happens online without my consent.
* To explain how it may make others feel if I do not ask their permission or ignore their answers before sharing something about them online.
* To know why I should always ask a trusted adult before clicking ‘yes’, ‘agree’ or ‘accept’ online.

Online Reputation* I can explain how information put online about someone can last for a long time.
* I can describe how anyone’s online information could be seen by others.
* I know who to talk to if something has been put online without consent or if it is incorrect.
 |
| **Additional Learning Opportunities**Self- Image* Explain that just as we would use this in real life, we can let people know that we do not like what they are doing online.
* Relate learning to online behaviour and ask the children to think of all the things they might do online which may need permission.
* Revisit the meaning of a trusted adult, who would the children talk to?

Online Relationships* Link to friendships and relationships on and offline.
* Revisit the ‘right to say no’, not only online but day to day living.
* Talk about peer pressure and trusted adults.

Online Reputation* Recapping on trusted adults, daily discussions around safer internet use.
* We promote an ethos of growth mindset, children will mistakes in life, both on and offline. Would they know who to talk to or what do to? Recap on trusted adults and online reputation.

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* Online Safety Books
* Project Evolve Resources - Each member of staff will receive a designated account.
 |
| **Autumn 2 – Key Skills and Multimedia Production** |
| **New Words We Will Use and Understand**Font, Digital, Copy, Paste, Left Click, Right Click, Click and Drag, Brush, Tool, Keyboard, Mouse, Stamp, Load |
| **What We Can Do** - Experiment with sound, text, WordArt, buttons and pictures within a program (including slideshows).- Use the shape tools, flood fill, straight line tools and spray effect to build up pictures and effects.- Insert sounds into a piece of work. - Capture images using Print Screen.- Be familiar with the features of Microsoft Word and PowerPoint. |
| **Additional Learning Opportunities**Opportunities to apply skills and create other multimedia documents across the National Curriculum. |
| **Suggested Resources/Applications*** Paint
* Microsoft Word
* Microsoft PowerPoint
* Pic Collage
* Our Story 2
* Moldiv App (image editor)
* YouNewsed (News report creator)
 |
| **Spring 1 - Online Bullying and Managing Online Information** |
| **New Words We Will Use and Understand**Online BullyingUpset, Unkind, Behaviour, Uncomfortable, Nervous, Embarrassed, Bullying, Self-esteem, Self-love, Fault, Responsible, Blame, Trusted adult, Support, Advice, Insecure Managing Online InformationWebpage, Home button, Back button, Forward button, Links, Tabs, Sections, Header, Main body, Footer, Navigate, Browser, Scroll bars, Search Engine, Voice-activated, Search, Information, Devices, Real, Online  |
| **What We Will Remember** Online Bullying* What bullying is, how people may bully others and how bullying can make someone feel.
* Why anyone who experiences bullying is not to blame.
* To talk about how anyone experiencing bullying can get help.

Managing Online Information* How to use simple keywords in search engines.
* How to navigate a simple webpage to get to information I need (e.g. home, forward, back buttons; links, tabs and sections).
* That voice activated searching is and how it might be used, and I know it is not a real person (e.g. Alexa, Google Now, Siri).
* The difference between things that are imaginary, made up or make believe and things that are true or real.
* That some information I find online may not be real or true.
 |
| **Additional Learning Opportunities**Online Bullying* Daily opportunities to work on/focus on friendships within class.
* Share/Recap Key Stage 1 Anti-Bullying Policy (child friendly version)

Managing Online Information* Recapping on trusted adults, daily discussions around safer internet use.

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| **Spring 2 – Networks and using the internet (Computer Science Theory)** |
| **New Words We Will Use and Understand**Communication, Electronic, E-Mail, Internet, Page (webpage), Website, Button, Advert/Advertising, Window |
| **What We Can Do** - Use shortcuts to open pre-chosen websites.- Find information to answer simple questions.- Use activities on the internet to learn something new and practice skills.- Use an index and hyperlinks to locate information.- Be aware that the Internet holds information on web pages.- Know common uses of the internet and other technology beyond school. |
| **Additional Learning Opportunities**Opportunities to apply skills and use the internet to carry out independent research based on likes and interests.**Safer Internet Day – exploration of significant individuals including Tim Berners-Lee, Bill Gates, Mark Zuckerberg, Steve Jobs** |
| **Suggested Resources/Applications*** @simonhaughton Twitter
* Skitch App (labelling software)
* NCCE Teach Computing Supporting Units
 |
| **Summer 1 - Health, Wellbeing and Lifestyle, Privacy and Security, Copyright and Ownership** |
| **New Words We Will Use and Understand**Health, Wellbeing and LifestyleDanger, Risk, Happy, Healthy, Safe, Rule, Trusted adultPrivacy and SecurityInformation, Private, Password, Safe, Log in, Internet, Wi-Fi, Devices Copyright and OwnershipBelongs to me = It is mine, Belongs to you = It isn’t mine, it’s yours, Copy, Permission, Original  |
| **What We Will Remember** Health, Wellbeing and Lifestyle* Simple guidance for using technology in different environments and settings (e.g. accessing online technologies in public places and the home environment).
* How rules/guides can help anyone accessing online technologies.

Privacy and Security* That passwords can be used to protect information, accounts and devices.
* What is meant by ‘private’ and ‘keeping things private’.
* That some rules for keeping personal information private (e.g. creating and protecting passwords).
* That some people may have devices in their homes connected to the internet and give examples (e.g. lights, fridges, toys, televisions).

Copyright and Ownership* How to recognise that content on the internet may belong to other people.
* Why other people’s work belongs to them.
 |
| **Additional Learning Opportunities**Health, Wellbeing and Lifestyle* Daily opportunities to discuss rules/guides can help anyone accessing online technologies.

Privacy and Security* Discussions on what is meant by ‘private’ and ‘keeping things private’.

Copyright and Ownership* Link to other curriculum areas, how to recognise that content may belong to other people.

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* Online Safety Books
* Project Evolve Resources - Each member of staff will receive a designated account.
 |
| **Summer 2 - Coding and Computational Thinking – Graphical Coding** |
| **New Words We Will Use and Understand**Test, Fix, Predict, Algorithm, Simulation, Duplicate, Repeat, Sensor |
| **What We Can Do** - Use forwards, backwards, up and down within a sequence of instructions.- Use repeats and turns within my instructions.- Complete a simple program and predict what the results will be. - Test and change my instructions. - Use simulations to investigate a question by making different choices. |
| **Additional Learning Opportunities**Opportunities to use iPads and other technology in school to develop programming skills.VEX 123 – Coding FocusKS1 STEM and Coding ClubVisit to PPS STEM & Robotics HubOzobots – Coding and Algorithms Focus |
| **Suggested Resources/Applications*** Bee Bot App
* Helicopter Rescue (Busythings App)
* A.L.E.X App
* Code Karts App
* Story Sequencing Cards (Yellow Door Resources – Online)
* Twister – Practical Coding
* Hopscotch/ Dino Hop (PE Cross-curricular idea).

Vocabulary Posters |
| **Year 3** |
| **Autumn 1 - Self-Image and Identity, Online Relationships, Online Reputation** |
| **New Words We Will Use and Understand**Self- ImageIdentity = who a person is or the qualities of a person that makes them different from others, Online, Avatar = an image that represents you online, Reputation, Username, Online reputation Online RelationshipsSharing, Trusted adult, Online, Trust, Respect, Consent, Permission, Information, Share, Profile, Username, Discussion, Response, Online Online ReputationSearch, Incorrect, Inaccurate, Official, Information  |
| **What We Will Remember** Self- Image* To know what is meant by the term ‘identity’.
* To explain how people can represent themselves in different ways online.
* To explain ways in which someone might change their identity depending on what they are doing online (e.g. gaming, using an avatar, social media) and why.

Online Relationships* To describe ways people who have similar likes and interests can get together online.
* To explain what it means to ‘know someone’ online and why this might be different from knowing someone offline.
* To explain what is meant by ‘trusting someone online’, why this is different from ‘liking someone online’, and why it is important to be careful about who to trust online, including what information and content they are trusted with.
* To explain why someone may change their mind about trusting anyone with something if they feel nervous, uncomfortable or worried.
* To explain how someone’s feelings can be hurt by what is said or written online.
* To explain the importance of giving and gaining permission before sharing things online and how the principles of sharing online are the same as sharing offline (e.g. sharing images and videos).

Online Reputation* To explain how to search for information about others online.
* To give examples of what anyone may or may not be willing to share about themselves online. I can explain the need to be careful before sharing anything personal.
* To explain who someone can ask if they are unsure about putting something online.
 |
| **Additional Learning Opportunities**Self- Image* Links to online gaming trend within class.

Online Relationships* Daily opportunities to talk about trusting someone online.
* Recap on the importance of giving and gaining permission before sharing things online and how the principles of sharing online are the same as sharing offline (e.g. sharing images and videos).

Online Reputation* Reminding children of the importance of sharing personal information.

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* Project Evolve Resources - Each member of staff will receive a designated account.
 |
| **Autumn 2 – Key Skills and Multimedia Production** |
| **New Words We Will Use and Understand**Multimedia, Audio, Save (and Save as), Line Break, Enter, Format, Layout, Transparent, Alignment, File Format (linked to export), Pitch, Tempo |
| **What We Can Do** - Capture content in a variety of ways (Print Screen, Right Click, Download). - Use photo editing software to crop photos and add simple effects and filters.- Insert still and moving images, text and buttons into different programs. - Create pieces of work that show some awareness of an audience.- Be familiar with the features of Microsoft Word and PowerPoint. |
| **Additional Learning Opportunities**Opportunities to apply skills and create other multimedia documents across the National Curriculum.Presentations to peers including as part of FIRST LEGO LEAGUE group. |
| **Suggested Resources/Applications*** Microsoft Word
* Microsoft PowerPoint
* Pic Collage
* Our Story 2
* Moldiv App (image editor)

YouNewsed (News report creator) |
| **Spring 1 - Online Bullying and Managing Online Information** |
| **New Words We Will Use and Understand**Online BullyingResponse, Power, Responsibility, Positive, Negative, Cyberbullying, Follower, Add, Block, Report, Support, Safety, Happy Managing Online InformationAutocomplete, Suggestion, Prediction, Fact, Opinion, Belief, Source, Share, Opinion, Fair  |
| **What We Will Remember** Online Bullying* To describe appropriate ways to behave towards other people online and why this is important.
* To give examples of how bullying behaviour could appear online and how someone can get support.

Managing Online Information* To demonstrate how to use key phrases in search engines to gather accurate information online.
* To explain what autocomplete is and how to choose the best suggestion.
* To explain how the internet can be used to sell and buy things.
* To explain the difference between a belief, an opinion and a fact and can give examples of how and where they might be shared online (e.g. in videos, memes, posts, news stories).
* To explain that not all opinions shared may be accepted as true or fair by others (e.g. monsters under the bed).
* To describe and demonstrate how we can get help from a trusted adult if we see content that makes us feel sad, uncomfortable worried or frightened.
 |
| **Additional Learning Opportunities**Online Bullying* Daily opportunities to work on/focus on friendships within class.
* Share/Recap Key Stage 2 Anti-Bullying Policy (child friendly version)

Managing Online Information* Recapping on trusted adults, daily discussions around safer internet use.

**\*Safer Internet Day – Themed Day celebrated in school every February.****\*Portobello Pupil Digital Ambassadors (PPDA) to visit each class termly.** |
| **Suggested Resources/Applications*** National Online Safety Designated Year Group Unit
* Portobello Primary School Online Safety Posters
* Online Safety Books
* Project Evolve Resources - Each member of staff will receive a designated account.
 |
| **Spring 2 – Networks and using the internet (Computer Science Theory)** |
| **New Words We Will Use and Understand**Blog, Attachment, Subject, World Wide Web, Cyber, Source (validity), Wiki, Social Network/Social Media, Shortcut, Menu |
| **What We Can Do** - Be aware that the Internet holds information on web pages.- Use search engines to find and save content using a keyword.- Decide what text to copy and paste into my work.- Find relevant information by browsing.- Be familiar with Google Chrome/Microsoft Edge and the main search features.- Know computer networks can provide multiple services including the WWW. |
| **Additional Learning Opportunities**Opportunities to apply skills and use the internet to carry out independent research based on likes and interests.**Safer Internet Day – exploration of significant individuals including Tim Berners-Lee, Bill Gates, Mark Zuckerberg, Steve Jobs** |
| **Suggested Resources/Applications*** @simonhaughton Twitter
* Skitch App (labelling software)
* NCCE Teach Computing Supporting Units
 |
| **Summer 1 - Health, Wellbeing and Lifestyle, Privacy and Security and Copyright and Ownership** |
| **New Words We Will Use and Understand**Health, Wellbeing and LifestyleHappy, Healthy, Trusted adult, Age restriction, PEGI, Ability, Violence Privacy and SecuritySafe, Wi-Fi, Devices, Information, Passwords, Trustworthy, Private, Adverts, Connected, Collect, Share, Information, Targeted Copyright and OwnershipCopyright, Breach, Copy, Save, Document, Digital artwork  |
| **What We Will Remember** Health, Wellbeing and Lifestyle* To explain why spending too much time using technology can sometimes have a negative impact on anyone (e.g. mood, sleep, body, relationships). I can give some examples of both positive and negative activities where it is easy to spend a lot of time engaged (e.g. doing homework, games, films, videos).
* To explain why some online activities have age restrictions, why it is important to follow them and know who I can talk to if others pressure me to watch or do something online that makes me feel uncomfortable (e.g. age restricted gaming or web sites).

Privacy and Security* To describe simple strategies for creating and keeping passwords private.
* To give reasons why someone should only share information with people they choose and can trust. I can explain that if they are not sure or feel pressured, they should tell a trusted adult.
* To describe how connected devices can collect and share anyone’s information with others.

Copyright and Ownership* To explain why copying someone else’s work from the internet without permission isn’t fair and can explain what problems this might cause.
 |
| **Additional Learning Opportunities**Health, Wellbeing and Lifestyle* Daily opportunities to discuss rules/guides can help anyone accessing online technologies.

Privacy and Security* Discussions on what is meant by ‘private’ and ‘keeping things private’.

Copywrite and Ownership* Link to other curriculum areas, how to recognise that content may belong to other people.

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| **Suggested Resources/Applications*** National Online Safety Designated Year Group Unit
* Portobello Primary School Online Safety Posters
* Online Safety Books
* Project Evolve Resources - Each member of staff will receive a designated account.
 |
| **Summer 2 - Coding and Computational Thinking – Hybrid Coding** |
| **New Words We Will Use and Understand**Tinker, Debug, Virtual (& Physical), Sequence/Sequential, Variable (as a choice), Input, Process, Output, Loop, Code, Programme, Run, Hardware, Software |
| **What We Can Do** - Give a series of instructions to take a programmable object to a location.- Use degree turns in my instructions and programs. - Write programs to create simple animations and drawings.- Test, changes and fix errors in my instructions and programs. - Understand the importance of using simulations and explore the effect of different choices when using simulations. |
| **Additional Learning Opportunities**Opportunities to use iPads and other technology in school to develop programming skills.FIRST LEGO LEAGUEVEX RoboticsVisit to PPS STEM & Robotics HubMicrobits – Coding FocusOzobots – Coding and Algorithms FocusSpecialist Taster Sessions |
| **Suggested Resources/Applications*** A.L.E.X App
* Code Karts App
* Story Sequencing Cards (Yellow Door Resources – Online)
* Twister – Practical Coding
* Hopscotch/ Dino Hop (PE Cross-curricular idea).
* Scratch
* Rodocodo App
* Lightbot Code Hour App
* Spritebox coding App
* Vocabulary Posters
 |
| **Year 4** |
| **Autumn 1 - Self-Image and Identity, Online Relationships, Online Reputation** |
| **New Words We Will Use and Understand**Self- ImageIdentity, Trusted adult, Positive, Reputation, Perception, Identity, Identity theft, Profile Online RelationshipsOnline community, Online social environment, Healthy, Unhealthy, Motive, Respect, Privacy, Permission, Consent Online ReputationWebsites, Information, Search, Search Engine, Websites, Information, Search, Search Engine, Trustworthy, Source, Websites, Information, Online, Profile  |
| **What We Will Remember** Self- Image and Identity* To explain how my online identity can be different from my offline identity.
* To describe positive ways for someone to interact with others online and understand how this will positively impact on how others perceive them.
* To explain that others online can pretend to be someone else, including my friends, and I can suggest reasons why they might do this.

Online Relationships* To describe strategies for safe and fun experiences in a range of online social environments (e.g. livestreaming, gaming platforms).
* To give examples of how to be respectful to others online and describe how to recognise healthy and unhealthy online behaviours.
* To explain how content shared online may feel unimportant to one person but may be important to other people’s thoughts, feelings and beliefs.

Online Reputation* To describe how to find out information about others by searching online.
* To explain ways that some of the information about anyone online could have been created, copied or shared by others.
 |
| **Additional Learning Opportunities**Self- Image* Links to online gaming trend within class.

Online Relationships* Daily opportunities to talk about trusting someone online.
* Recap on the importance of giving and gaining permission before sharing things online and how the principles of sharing online are the same as sharing offline (e.g. sharing images and videos).

Online Reputation* Reminding children of the importance of sharing personal information.

**\*Safer Internet Day – Themed Day celebrated in school every February.****\*Portobello Pupil Digital Ambassadors (PPDA) to visit each class termly.** |
| **Suggested Resources/Applications*** National Online Safety Designated Year Group Unit
* Portobello Primary School Online Safety Posters
* Online Safety Books
* Project Evolve Resources - Each member of staff will receive a designated account.
 |
| **Autumn 2 – Key Skills and Multimedia Production** |
| **New Words We Will Use and Understand**Multimedia, Audio, Save (and Save as), Line Break, Enter, Format, Layout, Transparent, Alignment, File Format (linked to export), Pitch, Tempo |
| **What We Can Do** - Combine text, images and sounds in different programs to target a familiar audience. - Know that sounds exist in different formats.- Capture images (and other media) using different methods.- Create a multimedia presentation that teaches others something that I have learnt.- Review, add to and edit my work to make my message clearer. |
| **Additional Learning Opportunities**Opportunities to apply skills and create other multimedia documents across the National Curriculum.Presentation to peers including as FIRST LEGO LEAGUE group. |
| **Suggested Resources/Applications*** Microsoft Word
* Microsoft PowerPoint
* Pic Collage
* Our Story 2
* Moldiv App (image editor)

YouNewsed (News report creator) |
| **Spring 1 - Online Bullying and Managing Online Information** |
| **New Words We Will Use and Understand**Online BullyingScreengrab / Screenshot, Intimidate, Trusted grown-up, Upset, Hurt, Angry, Online, Tone, Body language, Responsibility, Impact, Online environment, Content, Self-image, Self-esteem, Misunderstand, Misinterpret Managing Online InformationWorksheet, PowerPoint, Examples of adverts, Advertising, Purchase, Pop-up, Fake news, URL, Advertising, Purchase, accurate, online, sync.  |
| **What We Will Remember** Online Bullying* To recognise when someone is upset, hurt or angry online.
* To describe ways people can be bullied through a range of media (e.g. image, video, text, chat).
* To explain why people need to think carefully about how content they post might affect others, their feelings and how it may affect how others feel about them (their reputation).

Managing Online Information* To analyse information to make a judgement about probable accuracy, and I understand why it is important to make my own decisions regarding content and that my decisions are respected by others.
* To describe how to search for information within a wide group of technologies and make a judgement about the probable accuracy (e.g. social media, image sites, video sites).
* To describe some of the methods used to encourage people to buy things online (e.g. advertising offers, in-app purchases, pop-ups) and can recognise some of these when they appear online.
* To explain why lots of people sharing the same opinions or beliefs online do not make those opinions or beliefs true.
* To explain that technology can be designed to act like, or impersonate, living things (e.g. bots) and describe what the benefits and the risks might be.
* To explain what is meant by fake news; for example, why some people will create stories or alter photographs and put them online to pretend something is true when it isn’t.
 |
| **Additional Learning Opportunities**Online Bullying* Daily opportunities to work on/focus on friendships within class.
* Share/Recap Key Stage 2 Anti-Bullying Policy (child friendly version)

Managing Online Information* Recapping on trusted adults, daily discussions around safer internet use.

**\*Safer Internet Day – Themed Day celebrated in school every February.****\*Portobello Pupil Digital Ambassadors (PPDA) to visit each class termly.** |
| **Suggested Resources/Applications*** National Online Safety Designated Year Group Unit
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* Online Safety Books
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 |
| **Spring 2 – Networks and using the internet (Computer Science Theory)** |
| **New Words We Will Use and Understand**Blog, Attachment, Subject, World Wide Web, Cyber, Source (validity), Wiki, Social Network/Social Media, Shortcut, Menu |
| **What We Can Do** - Use a search engine to find a specific website.- Use different strategies to decide which text to copy and paste into a document.- Use tabbed browsing to open two or more pages.- Begin to consider who wrote the information I find and how this affects if I trust it or not (bias).- Be familiar with Google Chrome/Microsoft Edge and the main search features.- Know computer networks can provide multiple services including the WWW. |
| **Additional Learning Opportunities**Opportunities to apply skills and use the internet to carry out independent research based on likes and interests.**Safer Internet Day – exploration of significant individuals including Tim Berners-Lee, Bill Gates, Mark Zuckerberg, Steve Jobs** |
| **Suggested Resources/Applications*** @simonhaughton Twitter
* Skitch App (labelling software)
* NCCE Teach Computing Supporting Units
 |
| **Summer 1 - Health, Wellbeing and Lifestyle, Privacy and Security and Copyright and Ownership** |
| **New Words We Will Use and Understand**Health, Wellbeing and LifestyleHealthy, Moderation, Lifestyle, Self-regulation. Privacy and SecurityPasswords, Private, Personal, Convince, Information, Monitored, Cookies, Digital age of consent, Data, Consent. Copyright and OwnershipCopy, Permission, Original, Images, Information, Creative Commons Licence, Commercial licence, Search, Usage rights, Research, Copyright, Licences.  |
| **What We Will Remember** Health, Wellbeing and Lifestyle* To explain how using technology can be a distraction from other things in a positive and negative way.
* To identify times or situations when someone may need to limit the amount of time they use technology. For example, I can suggest strategies to help with limiting this time.

Privacy and Security* To describe strategies for keeping personal information private, depending on context.
* To explain that internet use is never fully private and is monitored.
* To describe how some online services may seek consent to store information about me. I know how to respond appropriately and who I can ask if I am not sure.
* To know what the digital age of consent is and the impact this has on online services asking for consent.

Copyright and Ownership* When searching on the internet for content to use, to explain why the need to consider who owns it and whether I have the right to reuse it.
* To give some simple examples of content which I must not use without permission from the owner (e.g. videos, music, images).
 |
| **Additional Learning Opportunities**Health, Wellbeing and Lifestyle* Daily opportunities to discuss rules/guides can help anyone accessing online technologies.

Privacy and Security* Discussions on what is meant by ‘private’ and ‘keeping things private’.

Copyright and Ownership* Link to other curriculum areas, how to recognise that content may belong to other people.

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| **Suggested Resources/Applications*** National Online Safety Designated Year Group Unit
* Portobello Primary School Online Safety Posters
* Online Safety Books
* Project Evolve Resources - Each member of staff will receive a designated account.
 |
| **Summer 2 - Coding and Computational Thinking – Hybrid Coding** |
| **New Words We Will Use and Understand**Tinker, Debug, Virtual (& Physical), Sequence/Sequential, Variable (as a choice), Input, Process, Output, Loop, Code, Programme, Run, Hardware, Software |
| **What We Can Do** - Write programs to create simple animations and patterns. - Make turns by different degrees. - Predict the outcome of my instructions and programs. - Use inputs and outputs when writing simple programs. - Use a loop within programs. |
| **Additional Learning Opportunities**Opportunities to use iPads and other technology in school to develop programming skills.FIRST LEGO LEAGUEVEX RoboticsVisit to PPS STEM & Robotics HubMicrobits – Coding FocusOzobots – Coding and Algorithms FocusSpecialist Taster Sessions |
| **Suggested Resources/Applications*** A.L.E.X App
* Code Karts App
* Story Sequencing Cards (Yellow Door Resources – Online)
* Twister – Practical Coding
* Hopscotch/ Dino Hop (PE Cross-curricular idea).
* Scratch
* Rodocodo App
* Lightbot Code Hour App
* Spritebox coding App
* Vocabulary Posters
 |
| **Year 5** |
| **Autumn 1 - Self-Image and Identity, Online Relationships, Online Reputation** |
| **New Words We Will Use and Understand**Self- Image and IdentityIdentity, Copy, Modify, Alter, Original.Online RelationshipsResponsible, Trusted adult, Block, Report, GIF, Meme, Emoji, Caption, Community.Online ReputationReputation, Positive, Profile, Information, Judgements, Evidence, Inaccurate, Digital footprint.  |
| **What We Will Remember** Self- Image* To explain how identity online can be copied, modified or altered.
* To demonstrate how to make responsible choices about having an online identity, depending on context.

Online Relationships* To give examples of technology-specific forms of communication (e.g. emojis, memes and GIFs).
* To explain that there are some people I communicate with online who may want to do me or my friends harm. I can recognise that this is not my/our fault.
* To describe some of the ways people may be involved in online communities and how they might collaborate constructively with others and make positive contributions. (e.g. gaming communities and social media groups).
* To explain how someone can get help if they are having problems and identify when to tell a trusted adult.
* To demonstrate how to support others (including those who are having difficulties) online.

Online Reputation* To search for information about an individual online and summarise the information found.
* To describe ways that information about anyone online can be used by others to make judgments about an individual and why these may be incorrect.
 |
| **Additional Learning Opportunities**Self- Image* Links to online gaming trend within class.

Online Relationships* Daily opportunities to talk about trusting someone online.
* Recap on the importance of giving and gaining permission before sharing things online and how the principles of sharing online are the same as sharing offline (e.g. sharing images and videos).

Online Reputation* Reminding children of the importance of sharing personal information.

**\*Safer Internet Day – Themed Day celebrated in school every February.****\*Portobello Pupil Digital Ambassadors (PPDA) to visit each class termly.** |
| **Suggested Resources/Applications*** National Online Safety Designated Year Group Unit
* Portobello Primary School Online Safety Posters
* Online Safety Books
* Project Evolve Resources - Each member of staff will receive a designated account.
 |
| **Autumn 2 – Key Skills and Multimedia Production** |
| **New Words We Will Use and Understand**Export, Safe Zone, Hyper-Link, Icon, Transparent (including opacity), Filters, Transparency |
| **What We Can Do** - Make multimedia presentations that contain: sound; animation or video and hyperlinks. - Create transparent images using a layered editing program and save them in an appropriate format. - Use appropriate software to plan, create, edit and present my work to a selected audience.- Consider the effect of angles and filters when altering images.- Be familiar with the features of different presentation applications including continued use of Microsoft PowerPoint. |
| **Additional Learning Opportunities**Opportunities to apply skills and create other multimedia documents across the National Curriculum. |
| **Suggested Resources/Applications*** Microsoft Word
* Microsoft PowerPoint
* Microsoft Excel (Data Handling)
* Pic Collage
* Our Story 2
* Moldiv App (image editor)

YouNewsed (News report creator) |
| **Spring 1 - Online Bullying and Managing Online Information** |
| **New Words We Will Use and Understand**Online BullyingBullying, Cyberbullying, Continuous, Repetitive, Long period of time, Virtual, Physical, Face to face, Banter, Joking, Teasing, Bullying, Uncomfortable, Appropriate, Inappropriate, Helpline services, Trusted adult, Anonymous.Managing Online InformationDigital content, Trustworthy, Search, sceptical, URL, Genuine, Bias, Cookies, Opinion, Belief, Fact, Search, Hoax, Genuine, False, Reliable source.  |
| **What We Will Remember** Online Bullying* To recognise that online bullying can be different from bullying in the physical world and can describe some of those differences.
* To describe how what one person perceives as playful joking and teasing (including ‘banter’) might be experienced by others as bullying.
* To explain how anyone can get help if they are being bullied online and identify when to tell a trusted adult.
* To identify a range of ways to report concerns and access support in school and at home about online bullying.
* To explain how to block abusive users.
* To describe helpline services which can help people experiencing bullying and how to access them (e.g. Childline or The Mix).

Managing Online Information* To explain the benefits and limitations of using different types of search technologies such as voice-activation search engines. I can explain how some technology can limit the information I am presented with, for example voice-activated searching giving one result.
* To explain what is meant by ‘being sceptical’; I can give examples of when and why it is important to be sceptical.
* To evaluate digital content and can explain how to make choices about what is trustworthy, for example differentiating between adverts and search results.
* To explain key concepts, including information, reviews, fact, opinion, belief, validity, reliability and evidence.
* To identify ways the internet can draw us to information for different agendas (e.g. website notifications, pop-ups, targeted ads).
* To describe ways of identifying when online content has been commercially sponsored or boosted (e.g. by commercial companies or by vloggers, content creators, influencers).
* To explain what is meant by the term ‘stereotype’, how stereotypes are amplified and reinforced online and why accepting stereotypes may influence how people think about others.
* To describe how fake news may affect someone’s emotions and behaviour and explain why this may be harmful.
* To explain what is meant by a hoax. I can explain why someone would need to think carefully before they share.
 |
| **Additional Learning Opportunities**Online Bullying* Daily opportunities to work on/focus on friendships within class.
* Share/Recap Key Stage 2 Anti-Bullying Policy (child friendly version)

Managing Online Information* Recapping on trusted adults, daily discussions around safer internet use.

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| **Suggested Resources/Applications*** National Online Safety Designated Year Group Unit
* Portobello Primary School Online Safety Posters
* Online Safety Books
* Project Evolve Resources - Each member of staff will receive a designated account.
 |
| **Spring 2 – Networks and using the internet (Computer Science Theory)** |
| **New Words We Will Use and Understand**Micro-Blog, Instant Messaging, Communication and Collaboration (Collaborative Document), Cloud, Internet and World Wide Web (the difference), Validity, Reference, Copyright, Network, Boolean Operator, Complex Operator, Page Rank |
| **What We Can Do** - Understand how search engines function.- Compare the results of different searches and modify my search strategies to gain better results.- Use tabbed browsing, copy and paste, download and save information following simple lines of enquiry. - Check the validity and accuracy of different sources by considering a range of information.- Be familiar with Google Chrome/Microsoft Edge and the main search features (including basic awareness of advanced searches).- Know computer networks can provide multiple services including the WWW and opportunities for communication/collaboration. |
| **Additional Learning Opportunities**Opportunities to apply skills and use the internet to carry out independent research based on likes and interests.Opportunities to use research skills across different contexts including group research tasks in other National Curriculum areas.**Safer Internet Day – exploration of significant individuals including Tim Berners-Lee, Bill Gates, Mark Zuckerberg, Steve Jobs** |
| **Suggested Resources/Applications*** @simonhaughton Twitter
* Skitch App (labelling software)
* NCCE Teach Computing Supporting Units
* IP Address and URL Construction - Challenge
 |
| **Summer 1 - Health, Wellbeing and Lifestyle, Privacy and Security and Copyright and Ownership** |
| **New Words We Will Use and Understand**Health, Wellbeing and LifestylePositive, Negative, Mindfulness, Well-being, Mental Health. Privacy and SecurityPersonal information, Privacy settings, Strong password, Share, Protect, Private, Information, Apps, Permissions.Copyright and OwnershipContent, Usage rights, Permission, Acceptable, Rights, Copy, Paste.  |
| **What We Will Remember** Health, Wellbeing and Lifestyle* To describe ways technology can affect health and well-being positively (e.g. mindfulness apps) and negatively.
* To describe some strategies, tips or advice regarding technology to promote health and wellbeing.
* To recognise the benefits and risks of accessing information about health and well-being online and how we should balance this with talking to trusted adults and professionals.
* To explain how and why some apps and games may request or take payment for additional content (e.g. in-app purchases, loot boxes) and explain the importance of seeking permission from a trusted adult before purchasing.

Privacy and Security* To explain what a strong password is and demonstrate how to create one.
* To explain how many free apps or services may read and share private information (e.g. friends, contacts, likes, images, videos, voice, messages, geolocation) with others.
* To explain what app permissions are and can give some examples.

Copyright and Ownership* To assess and justify when it is acceptable to use the work of others.
* To give examples of content that is permitted to be reused and know how this content can be found online.
 |
| **Additional Learning Opportunities**Health, Wellbeing and Lifestyle* Daily opportunities to discuss rules/guides can help anyone accessing online technologies.

Privacy and Security* Discussions on what is meant by ‘private’ and ‘keeping things private’.

Copyright and Ownership* Link to other curriculum areas, how to recognise that content may belong to other people.

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| **Suggested Resources/Applications*** National Online Safety Designated Year Group Unit
* Portobello Primary School Online Safety Posters
* Online Safety Books
* Project Evolve Resources - Each member of staff will receive a designated account.
 |
| **Summer 2 - Coding and Computational Thinking – Hybrid Coding / Full Text Coding** |
| **New Words We Will Use and Understand**Variable (as a change), Trigger (related to input, process, output), IF Statement, Forever loop, Macro, Binary, Abstraction (linked to logical prediction and sequencing), Decomposition, String, Computational Thinking, Network, Programming language, Modify, Peripheral |
| **What We Can Do** - Write programs to control hardware and avatars. - Create different variables. - Combine a range of sensors, inputs and outputs to control devices and trigger events.- Use IF and REPEAT commands within my programs.- Consider how an algorithm works and outline any changes they have made. |
| **Additional Learning Opportunities**Opportunities to use iPads and other technology in school to develop programming skills.VEX RoboticsOzobots – Coding and Algorithms FocusCoding ClubVisit to PPS STEM & Robotics HubInterviewing computer programmers and app developers – Industry PartnershipsMicrobits – Python Coding opportunityRGS and NERAP HE Partnerships |
| **Suggested Resources/Applications*** A.L.E.X App and Coding Mats
* Code Karts App
* Story Sequencing Cards (Yellow Door Resources – Online)
* Twister – Practical Coding
* Scratch
* Rodocodo App
* Lightbot Code Hour App
* Spritebox coding App
* Human body Hopscotch (PE Cross-curricular idea)
* Inspect Element – Webpage Coding – leads to Python Coding Y6 upwards
* Vocabulary Posters
 |
| **Year 6** |
| **Autumn 1 - Self-Image and Identity, Online Relationships, Online Reputation** |
| **New Words We Will Use and Understand**Self- Image and IdentifyIdentify, Evaluate, Representation, Stereotype = A set idea that people have about what someone or something is like, Inclusivity, CEOP, ChildLine. Online RelationshipsPrivacy, Consent, Respect, Appropriate, Inappropriate, Privacy, Consent, Respect, Digital footprint, **Permission.**Online ReputationPositive, Online reputation, Positive image, Digital footprint.  |
| **What We Will Remember** Self- Image and Identity* To identify and critically evaluate online content relating to gender, race, religion, disability, culture and other groups and explain why it is important to challenge and reject inappropriate representations online.
* To describe issues online that could make anyone feel sad, worried, uncomfortable or frightened. I know and can give examples of how to get help online and offline.
* To explain the importance of asking until I get the help needed.

Online Relationships* To explain how sharing something online may have an impact either positively or negatively.
* To describe how to be kind and show respect for others online including the importance of respecting boundaries regarding what is shared about them online and how to support them if others do not.
* To describe how things shared privately online can have unintended consequences for others, for example screengrabs.
* To explain that taking or sharing inappropriate images of someone, for example embarrassing images, even if they say it is okay, may have an impact for the sharer and others. I can also explain who can help if someone is worried about this.

Online Reputation* To explain the ways in which anyone can develop a positive online reputation.
* To explain strategies anyone can use to protect their digital personality and online reputation, including degrees of anonymity.
 |
| **Additional Learning Opportunities**Self- Image* Links to online gaming trend within class.

Online Relationships* Daily opportunities to talk about trusting someone online.
* Recap on the importance of giving and gaining permission before sharing things online and how the principles of sharing online are the same as sharing offline (e.g. sharing images and videos).

Online Reputation* Reminding children of the importance of sharing personal information.

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| **Suggested Resources/Applications*** National Online Safety Designated Year Group Unit
* Portobello Primary School Online Safety Posters
* Online Safety Books
* Project Evolve Resources - Each member of staff will receive a designated account.
 |
| **Autumn 2 – Key Skills and Multimedia Production** |
| **New Words We Will Use and Understand**Export, Safe Zone, Hyper-Link, Icon, Transparent (including opacity), Filters, Transparency |
| **What We Can Do** **\*Introduced in Y5.**- Make multimedia presentations that contain: sound; animation or video and hyperlinks. - Create transparent images using a layered editing program and save them in an appropriate format. - Use appropriate software to plan, create, edit and present my work to a selected audience.- Consider the effect of angles and filters when altering images.- Be familiar with the features of different presentation applications including continued use of Microsoft PowerPoint. |
| **Additional Learning Opportunities**Opportunities to apply skills and create other multimedia documents across the National Curriculum.Transition presentation to peers supported by NERAP University Partnerships. |
| **Suggested Resources/Applications*** Microsoft Word
* Microsoft PowerPoint
* Microsoft Excel (Data Handling)
* Pic Collage
* Our Story 2
* Moldiv App (image editor)

YouNewsed (News report creator) |
| **Spring 1 - Online Bullying and Managing Online Information** |
| **New Words We Will Use and Understand**Online Bullying,Screenshot, Screengrab, Evidence, Block, Report, Helplines. Managing Online InformationDigital content, search engine, online, targeted advert, pop-up advert, influence, persuade, Digital content, Fake news, Opinion, Fact, Information, Misinformation, Persuade, Trusted adult.  |
| **What We Will Remember** Online Bullying* To describe how to capture bullying content as evidence (e.g. screen-grab, URL, profile) to share with others who can help me.
* To explain how someone could report online bullying in different contexts.

Managing Online Information* To explain how search engines work and how results are selected and ranked.
* To explain how to use search technologies effectively.
* To describe how some online information can be opinion and can offer examples.
* To explain how and why some people may present opinions as facts, and why the popularity of an opinion or the personalities of those promoting it does not necessarily make it true, fair or perhaps even legal.
* To define the terms ‘influence’, ‘manipulation’ and ‘persuasion’ and explain how someone might encounter these online, for example advertising, ad targeting and targeting for fake news.
* To understand the concept of persuasive design and how it can be used to influences peoples’ choices.
* To demonstrate how to analyse and evaluate the validity of facts and information, and I can explain why using these strategies is important.
* To explain how companies and news providers target people with online news stories they are more likely to engage with and how to recognise this.
* To describe the difference between online misinformation and disinformation.
* To explain why information that is on a large number of sites may still be inaccurate or untrue. I can assess how this might happen, for example the sharing of misinformation or disinformation.
* To identify, flag and report inappropriate content.
 |
| **Additional Learning Opportunities**Online Bullying* Daily opportunities to work on/focus on friendships within class.
* Share/Recap Key Stage 2 Anti-Bullying Policy (child friendly version)

Managing Online Information* Recapping on trusted adults, daily discussions around safer internet use.

**\*Safer Internet Day – Themed Day celebrated in school every February.****\*Portobello Pupil Digital Ambassadors (PPDA) to visit each class termly.** |
| **Suggested Resources/Applications*** National Online Safety Designated Year Group Unit
* Portobello Primary School Online Safety Posters
* Online Safety Books
* Project Evolve Resources\*

\*Each member of staff will receive a designated account. |
| **Spring 2 – Networks and using the internet (Computer Science Theory)** |
| **New Words We Will Use and Understand**Micro-Blog, Instant Messaging, Communication and Collaboration (Collaborative Document), Cloud, Internet and World Wide Web (the difference), Validity, Reference, Copyright, Network, Boolean Operator, Complex Operator, Page Rank |
| **What We Can Do** **\*Introduced in Y5.**- Understand how search engines function.- Compare the results of different searches and modify my search strategies to gain better results.- Use tabbed browsing, copy and paste, download and save information following simple lines of enquiry. - Check the validity and accuracy of different sources by considering a range of information.- Be familiar with Google Chrome/Microsoft Edge and the main search features (including basic awareness of advanced searches).- Know computer networks can provide multiple services including the WWW and opportunities for communication/collaboration. |
| **Additional Learning Opportunities**Opportunities to apply skills and use the internet to carry out independent research based on likes and interests.Opportunities to use research skills across different contexts including group research tasks in other National Curriculum areas.**Safer Internet Day – exploration of significant individuals including Tim Berners-Lee, Bill Gates, Mark Zuckerberg, Steve Jobs** |
| **Suggested Resources/Applications*** @simonhaughton Twitter
* Skitch App (labelling software)
* NCCE Teach Computing Supporting Units
* IP Address and URL Construction - Challenge
 |
| **Summer 1 - Health, Wellbeing and Lifestyle, Privacy and Security and Copyright and Ownership** |
| **New Words We Will Use and Understand**Health, Wellbeing and LifestylePersuasive design, Behaviour, Social, Psychological, Autopay, Streak, Loot box.Privacy and SecurityManage, Passwords, Shared, Lost, Stolen, Update, Content, Targets, Illegally, Scams, Phishing, Privacy, Suspicious, Genuine Copyright and OwnershipCopyright, Ownership, Content, Usage, Rights, Cite, source, plagiarism, bibliography. |
| **What We Will Remember** Health, Wellbeing and Lifestyle* To describe common systems that regulate age-related content (e.g. PEGI, BBFC, parental warnings) and describe their purpose.
* To recognise and can discuss the pressures that technology can place on someone and how and when they could manage this.
* To recognise features of persuasive design and how they are used to keep users engaged (current and future use).
* To assess and action different strategies to limit the impact of technology on health (e.g. night-shift mode, regular breaks, correct posture, sleep, diet and exercise).

Privacy and Security* To describe effective ways people can manage passwords, for example storing them securely or saving them in the browser.
* To explain what to do if a password is shared, lost or stolen.
* To describe how and why people should keep their software and apps up to date, for example auto updates.
* To describe simple ways to increase privacy on apps and services that provide privacy settings.
* To describe ways in which some online content targets people to gain money or information illegally; I can describe strategies to help me identify such content (e.g. scams, phishing).
* To know that online services have terms and conditions that govern their use.

Copyright and Ownership* To demonstrate the use of search tools to find and access online content which can be reused by others.
* To demonstrate how to make references to, and acknowledge, sources I have used from the internet.
 |
| **Additional Learning Opportunities**Health, Wellbeing and Lifestyle* Daily opportunities to discuss rules/guides can help anyone accessing online technologies.

Privacy and Security* Discussions on what is meant by ‘private’ and ‘keeping things private’.

Copyright and Ownership* Link to other curriculum areas, how to recognise that content may belong to other people.

**\*Safer Internet Day – Themed Day celebrated in school every February.****\*Portobello Pupil Digital Ambassadors (PPDA) to visit each class termly.** |
| **Suggested Resources/Applications*** National Online Safety Designated Year Group Unit
* Portobello Primary School Online Safety Posters
* Online Safety Books
* Project Evolve Resources - Each member of staff will receive a designated account.
 |
| **Summer 2 - Coding and Computational Thinking – Hybrid Coding / Full Text Coding** |
| **New Words We Will Use and Understand**Variable (as a change), Trigger (related to input, process, output), IF Statement, forever loop, Macro, Binary, Abstraction (linked to logical prediction and sequencing), Decomposition, String, Computational Thinking, Network, Programming language, Modify, Peripheral |
| **What We Can Do** **\*Introduced in Y5.**- Write programs to control hardware and avatars. - Create different variables. - Combine a range of sensors, inputs and outputs to control devices and trigger events.- Use IF and REPEAT commands within my programs.- Consider how an algorithm works and outline any changes they have made. |
| **Additional Learning Opportunities**Opportunities to use iPads and other technology in school to develop programming skills.VEX RoboticsOzobots – Coding and Algorithms FocusCoding ClubVisit to PPS STEM & Robotics HubInterviewing computer programmers and app developers – Industry PartnershipsMicrobits - Python Coding opportunity.RGS and NERAP HE Partnerships |
| **Suggested Resources/Applications*** A.L.E.X App and Coding Mats
* Code Karts App
* Story Sequencing Cards (Yellow Door Resources – Online)
* Twister – Practical Coding
* Scratch
* Rodocodo App
* Lightbot Code Hour App
* Spritebox coding App
* Human body Hopscotch (PE Cross-curricular idea)
* Inspect Element – Webpage Coding
* Python language coding
* Vocabulary Posters
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