St. George's C of E Primary School

Computing and Online Safety Curriculum

Reception Computing Objectives

Computer Science	Information Technology	Digital Literacy
Pupils... **Give** commands/instructions e.g. forward, backwards, go, stop, when using simple software/hardware **Make** choices about the buttons/icons to press, touch or click on when using simple software/hardware.	**Pupils...** **Manage** a device by correctly closing websites or apps and safely turning on and off. **Input** commands using the space bar, backspace, enter, letters and numbers on a keyboard on any device (including on a tablet). **Input** commands using a mouse to control a cursor and use the left click to select options OR use finger control to interact with a tablet (double tap, swipe) **Experience** simple apps and software and use these to present ideas.	**In addition to our Online Safety curriculum (Education for a Connected World), pupils...** **Recognise** technology that is used at home and in school. **Understand** what a computer is and the different uses of computers i.e. learning, communicating, finding information, playing games etc.
Useful resources Beebots, remote control toys Beebot emulator website Beebot app, Daisy Dino app	**Useful resources** Purple Mash – Mini Mash	**Useful resources** https://www.bbc.co.uk/bitesize/clips/zqkj2hv https://www.bbc.co.uk/bitesize/topics/zvsc7ty/articles/zc4x6sg

Reception Online Safety objectives *(Taken from UKCCIS Education for a Connected World)* *(See Page 14 – 'Online Safety Curriculum links' for more information)*

Term 1		Term 2	Term 3	Term 4	Term 5	Term 6	
Self-Image and Identity	Privacy and security	Online Bullying	Online Reputation	Health, well-being and lifestyle	Online Relationships	Managing Online Information	Copyright and ownership
- I can recognise that I can say 'no' / 'please stop' / 'I'll tell' / 'I'll ask' to somebody who asks me to do something that makes me feel sad, embarrassed or upset. - I can explain how this could be either in real life or online.	- I can identify some simple examples of my personal information (e.g. name, address, birthday, age, location). - I can describe the people I can trust and can share this with; I can explain why I can trust them.	- I can describe ways that some people can be unkind online. - I can offer examples of how this can make others feel.	- I can identify ways that I can put information on the internet.	- I can identify rules that help keep us safe and healthy in and beyond the home when using technology. I can give some simple examples.	- I can recognise some ways in which the internet can be used to communicate. - I can give examples of how I (might) use technology to communicate with people I know.	- I can talk about how I can use the internet to find things out. - I can identify devices I could use to access information on the internet. - I can give simple examples of how to find information (e.g. search engine, voice activated searching).	- I know that work I create belongs to me. - I can name my work so that others know it belongs to me.

Year 1 and Year 2 Computing Objectives

	Computer Science	Information Technology	Digital Literacy
Year 1 Computing Objectives	In addition to objectives taught in the previous year, pupils… **Predict** what will happen for a simple sequence of instructions (algorithm) **Investigate** how algorithms work **Make** an algorithm/program to achieve a simple outcome **Improve** a simple algorithm by identifying basic errors (bugs) and correcting (debugging)	In addition to objectives taught in the previous year, pupils… **Save** work when the saving location has been set by an adult **Manage** a device by logging in, logging out, (shutting down where appropriate) and knowing the main parts of a computer **Input** commands with increasing fluency using the space bar, backspace, enter, caps lock, letters, numbers and common symbols/punctuation on a keyboard on any device (including on a tablet). **Input** commands with increasing fluency using a mouse to control a cursor and use the left click to select options OR use finger control to interact with a tablet (double tap, swipe) **Experience** a range of simple apps and software and use these to create and present ideas. **Evaluate** their work by saying what is good about it.	In addition to our Online Safety curriculum (Education for a Connected World) and objectives taught in the previous year, pupils… **Recognise** that devices can be connected **Understand** the ways devices are used in the classroom and at home **Use** a search engine to find information
Year 2 Computing Objectives	In addition to objectives taught in the previous year, pupils… **Predict** what will happen in an algorithm using logical reasoning. **Investigate** the way algorithms need precise, unambiguous instructions to work **Make** algorithms that solve a problem, using simple drawings or diagrams to **plan** the solution **Improve** algorithms, using debugging skills such as checking back through their plan and algorithm.	In addition to objectives taught in the previous year, pupils… **Save** and **retrieve** work using an appropriate file name **Manage** a device by navigating a range of software and using simple passwords **Input** commands by using both hands on a keyboard on any device (including on a tablet), understanding where home keys are and using a wide range of letters, numbers and symbols. **Input** commands using a mouse, with an understanding of the difference between left and right click OR use finger control to interact with a tablet (double tap, swipe, pinch zoom) **Experience** a wide range of apps and software and use these to create and present ideas. **Evaluate** what is good about work and how it could be improved.	In addition to our Online Safety curriculum (Education for a Connected World) and objectives taught in the previous year, pupils… **Recognise** that devices can be connected via networks. **Understand** the ways devices are used in the workplace and the wider world. **Use** key words in a search engine to find information

	Term 1	Term 2	Term 3	Term 4	Term 5 and Term 6
Cycle A	Unplugged learning and Beebot emulator website	Beebots – an *example lesson sequence can be found* here	IT skills – ipad input commands (home button, sleep button, swipe, double press). On Purple Mash - login, logout, navigate, save, open (Purple Mash – Mashcams if appropriate)	Purple Mash - 2Explore (Music focus)	Learning about technology at home and at school, how devices can be connected and how to use a search engine
Cycle B	iPad programming apps such as Beebots, ALEX, Daisy Dino	Purple Mash - 2Go	Purple Mash – 2Paint (Art focus)	Purple Mash – 2Count (Data handling focus)	Learning about technology in the workplace and wider world, how devices can be connected via networks and how to use a search engine *An example lesson sequence about using search engines and Google Earth can be found* here

Y1 & 2 CYCLE A Online Safety objectives *(Taken from UKCCIS Education for a Connected World)* *(See Page 14 – 'Online Safety Curriculum links' for more information)*

Terms 1 & 2		Terms 3 & 4		Term 4	Term 5	Term 6	
YEAR 1 - Health, well-being and lifestyle	**YEAR 2 - Health, well-being and lifestyle**	**YEAR 1 - Online Relationships**	**YEAR 2 - Online Relationships**	**YEAR 1 -Managing Online Information**	**YEAR 2 -Managing Online Information**	**YEAR 1 -Copyright and ownership**	**YEAR 2 - Copyright and ownership**
- I can explain rules to keep us safe when we are using technology both in and beyond the home - I can give examples of some of these rules.	- I can explain simple guidance for using technology in different environments and settings. - I can say how those rules/guides can help me.	- I can use the internet with adult support to communicate with people I know. - I can explain why it is important to be considerate and kind to people online.	- I can use the internet to communicate with people I don't know well (e.g. email a penpal/author/local school). - I can give examples of how I might use technology to communicate with others I don't know well.	- I can use the internet to find things out. - I can use simple keywords in search engines. - I can describe and demonstrate how to get help from a trusted adult or helpline if I find content that makes me feel sad, uncomfortable worried or frightened.	- I can use keywords in search engines. - I can demonstrate how to navigate a simple webpage to get to information I need (e.g. home, forward, back buttons; links, tabs and sections). - I can explain what voice activated searching is and how it might be used (e.g. Alexa, Google Now, Siri). - I can explain the difference between things that are imaginary, 'made up' or 'make believe' and things that are 'true' or 'real'. - I can explain why some information I find online may not be true.	- I can explain why work I create using technology belongs to me. - I can say why it belongs to me (e.g. 'it is my idea' or 'I designed it'). - I can save my work so that others know it belongs to me (e.g. filename, name on content).	- I can describe why other people's work belongs to them. - I can recognise that content on the internet may belong to other people.

Y1 & 2 CYCLE B Online Safety objectives *(Taken from UKCCIS Education for a Connected World)* *(See Page 14 – 'Online Safety Curriculum links' for more information)*

Terms 1 & 2				Terms 3 & 4		Terms 5 & 6	
YEAR 1 - Self-Image and Identity	**YEAR 2 - Self-Image and Identity**	**YEAR 1 - Privacy and security**	**YEAR 2 - Privacy and security**	**YEAR 1 - Online Bullying**	**YEAR 2 - Online Bullying**	**YEAR 1 - *Online Reputation***	**YEAR 2 - Online Reputation**
- I can recognise that there may be people online who could make me 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.	- I can explain how other people's identity online can be different to their identity in real life. - I can describe ways in which people might make themselves look different online. - I can give examples of issues online that might make me feel sad, worried, uncomfortable or frightened; I can give examples of how I might get help.	- I can recognise more detailed examples of information that is personal to me (e.g. where I live, my family's names, where I go to school). - I can explain why I should always ask a trusted adult before I share any information about myself online. - I can explain how passwords can be used to protect information and devices.	- I can describe how online information about me could be seen by others. - I can describe and explain some rules for keeping my information private. - I can explain what passwords are and can use passwords for my accounts and devices. - I can explain how many devices in my home could be connected to the internet and can list some of those devices.	- I can describe how to behave online in ways that do not upset others and can give examples.	- I can give examples of bullying behaviour and how it could look online. - I understand how bullying can make someone feel. - I can talk about how someone can/would get help about being bullied online or offline.	- I can recognise that information can stay online and could be copied. - I can describe what information I should not put online without asking a trusted adult first.	- I can explain how information put online about me can last for a long time. - I know who to talk to if I think someone has made a mistake about putting something online.

Year 3 and Year 4 Computing Objectives

	Computer Science	Information Technology	Digital Literacy		
Year 3 Computing Objectives	In addition to objectives taught in the previous year, pupils... **Predict** what will happen for a more complex sequence of instructions which uses repetition. **Investigate** how a problem can be solved by decomposing it into smaller steps and by **planning** a solution. **Make** algorithms that solve problems which use sequences and repetition. **Improve** more complex algorithms by identifying mistakes (bugs) and correcting (debugging)	In addition to objectives taught in the previous year, pupils... **Save** and **retrieve** files on the school network (a shared drive like PupilShare), understanding that information can be saved in different places (an individual device, a local network or the cloud) **Manage** various devices correctly, navigating a wide range of apps and software and using individual passwords. **Input** commands using a keyboard on any device (including on a tablet) with increased fluency, using efficient shortcuts where possible i.e. Shift + 'letter' instead of Caps Lock **Create,** modify and present work using different software/apps. **Evaluate** their work and improve its effectiveness. Use technology to **present** and **interpret** given data, identifying simple patterns or trends.	In addition to our Online Safety curriculum (Education for a Connected World) and objectives taught in the previous year, pupils... Begin to **recognise** the different parts of a school network e.g. WIFI point, server **Use** an online communication system e.g. email, and understand the opportunities this offers. **Use** search operators i.e. + - to filter information in a search engine		
Year 4 Computing Objectives	In addition to objectives taught in the previous year, pupils... **Plan** the solution to a problem by **decomposing** into smaller parts e.g. with a flow diagram, storyboard or other plan **Investigate** how algorithms work and identity the purpose of the different parts of an algorithm **Make** programs which use sequences, repetition and inputs and outputs when necessary. **Improve a** program by debugging systematically	In addition to objectives taught in the previous year, pupils... **Save** and **retrieve** work independently on the school network or a Cloud system like Purple Mash, using folders to organise work Use a wide range of **input** devices fluently, such as keyboards, mice and/or touchscreens **Create,** modify and present work to accomplish specific goals using a variety of software on a range of digital devices. **Evaluate** their work and improve it, based on their own, and other people's views. Use technology to **collect, present** and **interpret** data, using a range of different graphs/charts.	In addition to our Online Safety curriculum (Education for a Connected World) and objectives taught in the previous year, pupils... **Recognise** different parts of a school or office network e.g. server, switch, router, client, WIFI point, **Use** an online collaboration system e.g. blogging, and understand the opportunities this offers. **Use** a wider range of search operators i.e. " " ~ define: to efficiently find information in a search engine		

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Cycle A	Purple Mash – 2Code - Chimp level	Purple Mash – 2Code - Chimp/Gibbon level	Purple Mash – Busy Beats (Music focus)	Purple Mash – 2Publish	Learning about how to use a search engine effectively. *An example lesson sequence about using search engines and Google Earth can be found* here	Purple Mash - 2Email
Cycle B	Minecraft - An example lesson sequence can be found here	Purple Mash - 2Logo	Purple Mash - 2PaintAPicture (Art focus)	Purple Mash – 2Graph (Data Handling focus)	Purple Mash - 2Blog	Recognising different parts of a school network

Y3 & 4 CYCLE A Online Safety objectives *(Taken from UKCCIS Education for a Connected World)* *(See Page 14 – 'Online Safety Curriculum links' for more information)*

Terms 1 & 2		Terms 3 & 4		Terms 5 & 6			
Year 3 - Health, well-being and lifestyle	Year 4 - Health, well-being and lifestyle	Year 3 - Online Relationships	Year 4 - Online Relationships	Year 3 - Managing Online Information	Year 4 - Managing Online Information	Year 3 - Copyright and ownership	Year 4 - Copyright and ownership
- I can explain how using technology can distract me from other things I might do or should be doing - I can identify times or situations when I might need to limit the amount of time I use technology. - I can suggest strategies to help me limit this time.	- I can explain why spending too much time using technology can sometimes have a negative impact on me; I can give some examples of activities where it is easy to spend a lot of time engaged (e.g. games, films, videos).	- I can describe strategies for safe and fun experiences in a range of online social environments. - I can give examples of how to be respectful to others online.	- I can describe ways people who have similar likes and interests can get together online. - I can give examples of technology-specific forms of communication (e.g. emojis, acronyms, text speak). - I can explain some risks of communicating online with others I don't know well. - I can explain how my and other people's feelings can be hurt by what is said or written online. - I can explain why I should be careful who I trust online and what information I can trust them with. - I can explain why I can take back my trust in someone or something if I feel nervous, uncomfortable or worried. - I can explain what it means to 'know someone' online and why this might be different from knowing someone in real life. - I can explain what is meant by 'trusting someone online'. - I can explain why this is different from 'liking someone online'	- I can analyse information and differentiate between 'opinions', 'beliefs' and 'facts'. - I understand what criteria have to be met before something is a 'fact' - I can describe how I can search for information within a wide group of technologies (e.g. social media, image sites, video sites). - I can 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. - I can explain that some people I 'meet online' (e.g. through social media) may be computer programmes pretending to be real people. - I can explain why lots of people sharing the same opinions or beliefs online does not make those opinions or beliefs true.	- I can use key phrases in search engines. - I can explain what autocomplete is and how to choose the best suggestion - I can explain how the internet can be used to sell and buy things. - I can explain the difference between a 'belief', an - 'opinion' and a 'fact'	- When searching on the internet for content to use, I can explain why I need to consider who owns it and whether I have the right to reuse it. - I can give some simple examples.	- I can explain why copying someone else's work from the internet without permission can cause problems. - I can give examples of what those problems might be.

Y 3 & 4 CYCLE B Online Safety objectives *(Taken from UKCCIS Education for a Connected World)* *(See Page 14 – 'Online Safety Curriculum links' for more information)*

Terms 1 & 2				Terms 3 & 4		Terms 5 & 6	
Year 3 - Self-Image and Identity	**Year 4 - Self-Image and Identity**	**Year 3 - Privacy and security**	**Year 4 - Privacy and security**	**Year 3 - Online Bullying**	**Year 4 - Online Bullying**	**Year 3 - Online Reputation**	**Year 4 - Online Reputation**
- I can explain how my online identity can be different to the identity I present in 'real life'. Knowing this, I can describe the right decisions about how I interact with others and how others perceive me	- I can explain what is meant by the term 'identity' - I can explain how I can represent myself in different ways online. - I can explain ways in which, and why, I might change my identity depending on what I am doing online (e.g. - gaming; using an avatar; social media). -	- I can explain what a strong password is - I can describe strategies for keeping my personal information private, depending on context. - I can explain that others online can pretend to be me or other people, including my friends. - I can suggest reasons why they might do this. I can explain how internet use can be monitored.	- I can give reasons why I should only share information with people I choose to and can trust. - I can explain that if I am not sure or I feel pressured, I should ask a trusted adult. - I understand and can give reasons why passwords are important. - I can describe simple strategies for creating and keeping passwords private. I can describe how connected devices can collect and share my information with others.	- I can identify some online technologies where bullying might take place. - I can describe ways people can be bullied through a range of media (e.g. image, video, text, chat). I can explain why I need to think carefully about how content I post might affect others, their feelings and how it may affect how others feel about them (their reputation).	- I can explain what bullying is and can describe how people may bully others. - I can describe rules about how to behave online and how I follow them.	- I can describe how others can find out information about me by looking online. - I can explain ways that some of the information about me online could have been created, copied or shared by others.	- I can search for information about myself online. - I can recognise that I need to be careful before I share anything about myself or others online. - I know who I should ask if I am not sure if I should put something online.

Year 5 and Year 6 Computing Objectives

	Computer Science	Information Technology	Digital Literacy
Year 5 Computing Objectives	**In addition to objectives taught in the previous year, pupils...** **Plan** efficient solutions to problems that include controlling or simulating physical systems, using **decomposition** to solve the problem **Make** programs using more complex algorithms, selecting when to use sequences, selection, (if, then), repetition and a range of inputs and outputs **Investigate** how algorithms work on different platforms, by comparing one block-based code language to another (e.g. Scratch with 2Code) **Improve** code by systematically testing and debugging it, with an understanding of logic and syntax bugs	**In addition to objectives taught in the previous year, pupils...** Understand the difference between cloud based **saving** and other programs, which need to be manually saved. Use **input** devices fluently, such as keyboards, mice and/or touchscreens to navigate a system, using shortcuts on a keyboard (Ctrl + B, U, I, S, P) **Create,** modify and present work with a combination of software to achieve a specific goal, using built in functions that help the user such as spellchecker, dictate, immersive reader **Evaluate** their work and improve it, understanding how various forms of media e.g. photos, video and sound, can aid this. Use a range of tools within computer-based software to **evaluate** and **analyse** data i.e. sort, order and group in a database	**In addition to our Online Safety curriculum (Education for a Connected World) and objectives taught in the previous year, pupils...** **Recognise** different parts of a school or office network e.g. server, switch, router, client, Wi-Fi point, and explain the purpose of each. **Use** online communication and collaboration tools for different purposes **Use** a search engine efficiently by filtering and begin to understand how results are selected and ranked
Year 6 Computing Objectives	**In addition to objectives taught in the previous year, pupils...** **Plan** programs to achieve a specific goal, including controlling or simulating of physical systems by **decomposing** and by choosing an efficient method of **planning** i.e. storyboarding, flow diagrams or other method, giving reasons for their choice **Make** algorithms which find solutions to problems, which use logical reasoning, sequences, selection (if, then, else), repetition, variables and a range of inputs and outputs **Investigate** different ways of evaluating algorithms for effectiveness and efficiency **Improve** algorithms, systematically testing and debugging errors with an understanding of logic and syntax bugs	**In addition to objectives taught in the previous year, pupils...** Use search tools within a system to find **saved** work. Use **input** devices fluently, such as keyboards, mice, touchscreens and voice command to enter data in a system. **Create,** modify and present content using a combination of software (including internet service) on a range of digital devices which solves problems, with a regard to audience, atmosphere and user needs. **Evaluate** and refine their work, explaining their choices and the impact it has. Use different functions within computer-based software to present, **evaluate** and efficiently **analyse** data i.e. tables, charts, graphs and formula in a spreadsheet.	**In addition to our Online Safety curriculum (Education for a Connected World) and objectives taught in the previous year, pupils...** **Recognise** the different services that computer networks can provide i.e. the World Wide Web **Use** a range of online communication and collaboration tools independently and explain the benefits and limitations of each **Use** a search engine efficiently by filtering and deepen their understanding of how results are selected and ranked

	Term 1	Term 2	Term 3	Term 4	Term 5 and Term 6
Cycle A	Purple Mash – 2Code – Gibbon/Gorilla level		Purple Mash – 2Publish Plus	Microsoft PowerPoint – *an example lesson sequence can be found here*	Learning how to use a search engine efficiently (*an example lesson sequence based on researching Brazil can be found here*) and combining this with online communication and collaboration tools (Purple Mash – 2Email/2Blog) to share new knowledge.
Cycle B	Scratch – an *example lesson sequence can be found here*		Garageband	Purple Mash 2Investigate or Microsoft Excel (Data Handling focus)	Learning about the different services provided by computer networks e.g. World Wide Web and how to use a search engine efficiently by understanding filtering and how results are selected and ranked

Y 5 & 6 CYCLE A Online Safety objectives *(Taken from UKCCIS Education for a Connected World)* *(See Page 14 – 'Online Safety Curriculum links' for more information)*

Terms 1& 2		Terms 3 & 4		Terms 5 & 6			
Year 5 - Health, well-being and lifestyle	**Year 6 - Health, well-being and lifestyle**	**Year 5 - Online Relationships**	**Year 6 - Online Relationships**	**Year 5 - Managing Online Information**	**Year 6 - Managing Online Information**	**Year 5 - Copyright and ownership**	**Year 6 - Copyright and ownership**
- I can describe ways technology can affect healthy sleep and can describe some of the issues. - I can describe some strategies, tips or advice to promote healthy sleep with regards to technology	- I can describe common systems that regulate age-related content (e.g. PEGI, BBFC, parental warnings) and describe their purpose. - I can assess and action different strategies to limit the impact of technology on my health (e.g. nightshift mode, regular breaks, correct posture, sleep, diet and exercise). - I can explain the importance of selfregulating my use of technology; I can demonstrate the strategies I use to do this (e.g. monitoring my time online, avoiding accidents).	- I can 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. - I can make positive contributions and be part of online communities. - I can describe some of the communities in which I am involved and describe how I collaborate with others positively.	- I can show I understand my responsibilities for the well-being of others in my online social group. - I can explain how impulsive and rash communications online may cause problems (e.g. flaming, content produced in live streaming). - I can demonstrate how I would support others (including those who are having difficulties) online. - I can demonstrate ways of reporting problems online for both myself and my friends.	- I can use different search technologies. - I can evaluate digital content and can explain how I make choices from search results. - I can explain key concepts including: data, information, fact, opinion belief, true, false, valid, reliable and evidence. - I understand the difference between online **misinformation** (inaccurate information distributed by accident) and **dis-information** (inaccurate information deliberately distributed and intended to mislead). - I can explain what is meant by 'being sceptical'. - I can give examples of when and why it is important to be 'sceptical'. - I can explain what is meant by a 'hoax'. - I can explain why I need to think carefully before I forward anything online. - I can explain why some information I find online may not be honest, accurate or legal. - I can explain why information that is on a large number of sites may still be inaccurate or untrue. - I can assess how this might happen (e.g. the sharing of misinformation either by accident or on purpose).	- I can use search technologies effectively. - I can explain how search engines work and how results are selected and ranked. - I can demonstrate the strategies I would apply to be discerning in evaluating digital content. - I can describe how some online information can be opinion and can offer examples. - I can explain how and why some people may present 'opinions' as 'facts'. - I can define the terms 'influence', 'manipulation' and 'persuasion' and explain how I might encounter these online (e.g. advertising and 'ad targeting'). - I can demonstrate strategies to enable me to analyse and evaluate the validity of 'facts' and I can explain why using these strategies are important. - I can identify, flag and report inappropriate content.	- I can assess and justify when it is acceptable to use the work of others. - I can give examples of content that is permitted to be reused.	- I can demonstrate the use of search tools to find and access online content which can be reused by others. - I can demonstrate how to make references to and acknowledge sources I have used from the internet.

Y 5 & 6 CYCLE B Online Safety objectives *(Taken from UKCCIS Education for a Connected World)* *(See Page 14 – 'Online Safety Curriculum links' for more information)*

Terms 1 & 2				Term 3 & 4		Terms 5 & 6	
Year 5 - Self-Image and Identity	**Year 6 - Self-Image and Identity**	**Year 5 - Privacy and security**	**Year 6 - Privacy and security**	**Year 5 - Online Bullying**	**Year 6 - Online Bullying**	**Year 5 - Online Reputation**	**Year 6 - Online Reputation**
- I can explain how identity online can be copied, modified or altered. - I can demonstrate responsible choices about my online identity, depending on context.	- I can describe ways in which media can shape ideas about gender. - I can identify messages about gender roles and make judgements based on them. - I can challenge and explain why it is important to reject inappropriate messages about gender online. - I can describe issues online that might make me or others feel sad, worried, uncomfortable or frightened. - I know and can give examples of how I might get help, both on and offline. - I can explain why I should keep asking until I get the help I need.	- I can create and use strong and secure passwords. - I can explain how many free apps or services may read and share my private information (e.g. friends, contacts, likes, images, videos, voice, messages, geolocation) with others. - I can explain how and why some apps may request or take payment for additional content (e.g. in-app purchases) and explain why I should seek permission from a trusted adult before purchasing.	- I use different passwords for a range of online services. - I can describe effective strategies for managing those passwords (e.g. password managers, acronyms, stories). - I know what to do if my password is lost or stolen. - I can explain what app permissions are and can give some examples from the technology or services I use. - I can describe simple ways to increase privacy on apps and services that provide privacy settings. - I can 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)	- I can recognise when someone is upset, hurt or angry online - I can describe how to get help for someone that is being bullied online and assess when I need to do or say something or tell someone. - I can explain how to block abusive users. - I can explain how I would report online bullying on the apps and platforms that I use. - I can describe the helpline services who can support me and what I would say and do if I needed their help (e.g. Childline).	- I can describe how to capture bullying content as evidence (e.g. screen-grab, URL, profile) to share with others who can help me. - I can identify a range of ways to report concerns both in school and at home about online bullying.	- I can search for information about an individual online and create a summary report of the information I find. - I can describe ways that information about people online can be used by others to make judgments about an individual.	- I can explain how I am developing an online reputation which will allow other people to form an opinion of me. - I can describe some simple ways that help build a positive online reputation.

Alternative software and hardware		
Computer Science	**Information Technology**	**Digital Literacy**

KS1

Computer Science

Purple Mash tools
2Go
2Code – Chimp level (Year 1/2)

Units of work in Purple Mash Computing Scheme of Work
Year 1 - Units 1.4, 1.5, 1.7,
Year 2 - Units 2.1,

Apps
ALEX, Scratch Junior, Daisy Dino, Tynker, Bluebot

Hardware
Beebots
Code Mouse

Websites
Beebot emulator
Dance party
Scratch Junior for Windows and Mac (needs install)
https://www.bbc.co.uk/bitesize/topics/zvsc7ty
https://www.bbc.co.uk/bitesize/subjects/zyhbwmn

Information Technology

Purple Mash tools
2Paint (Painting program)
2Publish (Writing/Publishing template)
2Sequence (Music Creation)
2Create A Story – My Simple Story (Animated Stories)
2Calculate (Spreadsheet)
2Count (Pictograms)
2DIY (Make your own games and quizzes)
2Design and Make (3D Modelling)
2DIY 3D (3D Game Creation)
2Count, 2Graph, - Tools for collecting, analysing, evaluating and presenting data and information
Mashcams (Use a webcam to make topic themed images combined with text)
Topic area – lots of great activities to link to your current topic

Units of work in Purple Mash Computing Scheme of Work
Year 1 - Units 1.2, 1.3, 1.6, 1.8
Year 2 - Units 2.3, 2.4, 2.5, 2.6, 2.7, 2.8,

Microsoft Office
Word, Powerpoint, Excel, Publisher etc.

Apps
Any which allow creation! e.g. Puppet Pals, iMotion

Websites
BBC dance mat typing (Word processing)
Street art painting (Art)
Paint package (Art)
https://www.culturestreet.org.uk/activities/stopframeanimator/ (Stop Frame Animation)
Online flipbook maker
https://primaryschoolict.com/pictograph/ (data handling - pictograph)
https://www.mathsisfun.com/data/bar-graph.html(data handling – bar chart)
https://www.bbc.co.uk/bitesize/subjects/zyhbwmn

Digital Literacy

Purple Mash tools
2Calculate, 2Count, 2Graph, 2Investigate – all simple programs for collecting and presenting 'real life' data to link to use of technology beyond school

Units of work in Purple Mash Computing Scheme of Work
Year 1 - Units 1.1, 1.9
Year 2 - Units 2.2, 2.5

Child safe search engine - Swiggle.co.uk

Websites
https://www.bbc.co.uk/bitesize/topics/zvsc7ty/articles/zc4x6sg
https://www.bbc.co.uk/bitesize/clips/zcvr9j6
https://www.bbc.co.uk/bitesize/clips/zqkj2hv
https://www.bbc.co.uk/bitesize/subjects/zyhbwmn

	Alternative software and hardware		
	Computer Science	**Information Technology**	**Digital Literacy**
KS2	**Purple Mash tools** 2Logo 2Code - Gibbon level (Year 3/4) and Gorilla level (Year 5/6) 2Chart (Flowcharts) **Units of work in Purple Mash Computing Scheme of Work** Year 3 - Units 3.1, 3.3 Year 4 - Units 4.1, 4.2, 4.5, 4.7, 4.8 Year 5 - Units 5.1, 5.5 Year 6 - Units 6.1, 6.6, 6.8 **Apps** ALEX, Tynker, Cargobot **Hardware** Probots **Websites** Dance party Scratch Kodu Hour of Code	**Purple Mash tools** 2Paint a Picture (Painting program) 2Publish Plus (Writing/Publishing template) Busy Beats (Music creation) 2Animate (Animation) 2Create A Story (Animated Stories) 2Calculate (Spreadsheet) 2Count (Pictograms) 2DIY (Make your own games and quizzes) 2Design and Make (3D Modelling) 2DIY 3D (3D Game Creation) 2Graph, 2Question, 2Investigate – Programs for collecting, analysing, evaluating and presenting data and information Topic area – lots of great activities to link to your current topic **Units of work in Purple Mash Computing Scheme of Work** Year 3 - Units 3.4, 3.6, 3.7, 3.8 Year 4 - Units 4.3, 4.4, 4.6 Year 5 - Units 5.3, 5.4, 5.5, 5.6, 5.7 Year 6 - Units 6.3, 6.5, 6.7 **Microsoft Office** Word, Powerpoint, Excel, Publisher etc. **Apps** Any which allow creation! e.g. Puppet Pals, iMotion, Garageband **Websites** Creating music https://drumbit.app/ https://www.topmarks.co.uk/maths-games/7-11-years/data-handling	**Purple Mash tools** 2Email (Emailing) 2Respond (Creates simulation emails for children to respond to) 2Blog (Blogging in a safe environment) 2Connect/2Write (Real-time collaborative tools) **Units of work in Purple Mash Computing Scheme of Work** Year 3 - Units 3.2, 3.5 Year 4 - Units 4.2, 4.7 Year 5 - Units 5.2 Year 6 - Units 6.2, 6.4 Child safe search engine - Swiggle.co.uk **Websites** https://www.bbc.co.uk/bitesize/clips/zwdxhyc https://www.bbc.co.uk/bitesize/clips/zxxf34j

By teaching the skills and content laid out in TWHF Computing and Online Safety Curriculum, our pupils are taught to…

Key stage 1
- 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.

Key stage 2
- 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.

(The National Curriculum – Computing Subject content)

Online Safety Curriculum links

Strand	Cycle B Terms 1 & 2		Cycle B Terms 3 & 4	Cycle B Terms 5 & 6	Cycle A Terms 1 & 2	Cycle A Terms 3 & 4	Cycle A Terms 5 & 6	
	Self-Image and Identity	Privacy and security	Online Bullying	Online Reputation	Health, wellbeing and lifestyle	Online Relationships	Managing Online Information	Copyright and ownership
PSHE Jigsaw	Being Me in my World		Celebrating Differences		Healthy Me	Relationships		
SMART rules	A - Accept T - Tell	S – Safe and secure T - Tell	T - Tell	T - Tell	T - Tell	M – Meet T - Tell	R – Reliability T - Tell	T - Tell
Values	Understanding Freedom Tolerance	Responsibility	Kindness Trustworthy Honesty Friendship Responsibility Respect Thoughtfulness	Positivity Happiness Responsibility	Responsibility	Kindness Trustworthy Honesty Friendship Caring Cooperation	Responsibility	
Online Safety Books (Book list)	- Messages about Me: Sydney/ Wade's Story (UKS2)	- MonkeyCow	- Digi-Ducks Big Decision - Trolls Stink - One Creepy Street: The Terrible Terabytes (KS2)	- Webster's Email - Digi-Ducks Big Decision	- Webster's Bedtime - But it's just a game	- The Fabulous Friend Machine - Zoe and Molly online (UKS2) - One Creepy Street: The Spider on the Web (KS2) - Chicken Clicking	- Penguin Pig - But I Read It On the Internet	
Other			Anti-Bullying week					

For Online Safety lesson resources, please visit https://projectevolve.co.uk/