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|  | **EYFS** | **Y1** | **Y2** | **Y3** | **Y4** | **Y5** | **Y6** |
| Knowledge  | In Early Years, Computing is used to enhance Early Years Framework and as part of provision. In EYFS children are encouraged to engage with a range of technology and explore the cause and effect of different buttons. | • I can recognise the ways we use technology in our classroom, my home and community. • I understand something online may upset and know where to find help it anything does, • I can communicate politely via the internet. • I understand that once something it posted you lose control if it. • I can describe how to behave online in ways that do not upset others and can give examples. • I know the rules of using technology at home or in school. • I can explain what personal information is and give examples of it. • I am aware that content online is owned by the person that created it. | • I can give examples of how technology is used to communicate beyond school. • I understand that somethings online may upset me and that I cannot trust everyone online. (Self Image) • I understand that once something it posted you lose control if it and know how to get help if I need to. (Online Reputation) • I can give examples of online bullying behaviour, I understand the impact it may have and I know where to go for support. (Online Bullying) • I know the rules of using technology at home or in school. (Health well being) • I can explain what personal information is and understand the need for passwords to protect it. (Privacy and Security) • I am aware that content online is owned by the person that created it. (Copyright) | • I can explain how the internet works. • I can explain how a search engine works• I can analyse information and make accurate searches. • I understand the need for copyright and the consequences of ignoring it. • I am aware of what I should be sharing online and where to go for help if I need it. • I understand that I cannot trust everyone I talk to online, that I should be a good digital citizen and where to go for help if something upsets me online. • I can explain what bullying is and know where to go for help. • I understand the impact technology can have on my health, well being and lifestyle. • I know who I should be sharing information with and how to keep my data secure. • I understand the term identity and I can take appropriate measures to protect my own online identity | • I can collaborate online to create digital content. • I can evaluate information presented to me to make informed choices about what is Fake News. • I can describe strategies for safe and fun experiences in a range of online social environments and I’m respectful to others online. (Online Relationships) • I understand that people may have a different online identity to that in real life and am able to interact with others. (Self Image)• I am aware others can find information out about me by searching online. (Online Reputation)• I know which technologies are used for online bullying and I am considerate of others when posting myself. (Online Bullying)• I understand the impact technology can have on my health, well being and lifestyle. (Health well being) • I am aware that some people want to access my data and can take appropriate measures to ensure this doesn't happen. (Privacy and Security) • I understand the need for copyright and the consequences of ignoring it. (Copyright) | • I understand the need for copyright and the consequences of ignoring it. • I am aware that there are people online who may try to upset me and my group of friends. I make a positive contribution to my online community. • I understand the impact online bullying can have and I know what to do if I am the victim or I witness online bullying. • I understand the impact technology can have on my health, well being and lifestyle. • I can create a strong password and understand the real cost of some apps. • I am aware that my identity can be copied by other users and take appropriate measure to minimise the risk of this happening. | • I understand how computer networks work, including the internet. • I can explain how to protect my computer or device from harm on the Internet. • I understand the need for copyright and the consequences of ignoring it. • I support my friends to protect themselves and make good choices online, including reporting concerns to an adult. • I am aware of the ways in which the media can shape our ideas about gender. • I am aware that if I need help I keep asking for it until I get help. • I am aware of the need for positive online relationships and I am mindful of others feelings at all times • I understand I need to create a positive online reputation. • I know how to capture evidence of online bullying and how to report it. • I know how to keep my data private and secure. • I understand the impact technology can have on my health, well being and lifestyle. |
| Skills | • I can do the basics with technology. • I can go online.• I can use a camera | • I can do the basics with technology.• I can take a good quality photograph and videoon an iPad/digital camera.• I can follow a simple algorithm and create a simple sequence algorithm using symbols that solve a problem. • I can create algorithms that can be turned into a program using a robot or digital device. • I can independently debug simple sequence errors in a program. • I can use logical reasoning to predict the outcome of simple programs.• I can use technology to create and present my ideas. • I can organise and store my digital work. • I can collect and sort data | • I can save, share and retrieve my digital work.• I can use technology to organise and present my ideas.• I can plan out an algorithm with a sequence of commands to carry out specific tasks. • I can identify ‘bugs’ in computer programs and use the term debug in context. • I can create a simple repeat loop. • I can create a simple game program. • I can predict the outcome of a sequence of blocks in Scratch• I can use design and formatting to enhance my digital work. • I can create with technology. E.g. Video, animation, 3D • I can collect and record data purposefully• I can use online services to communicate safely. (Online Relationships)• I can use a search engine and I am aware that not everything I read online is true. (Online Bullying)  | • I can troubleshoot when something doesn’t appear to be working with my device. • I can discuss different types of digital content and file types.• I can plan, create and debug programs. • I can use decomposition to help me solve computing problems. • I can use sequence, selection, repetition and variables in programs. • I can work with various forms of input and output. • I can use logical reasoning to predict and correct errors in algorithms and programs. • I can improve the quality and presentation of my work. • I can create with technology. E.g. Video, animation, 3D • I can collect, analyse, evaluate and present data and information. • I can use advanced search tools• I know how to use the internet.  | • I can label the different types of input connections on devices. • I can explain common file types• I can design an algorithm to simulate a real-life situation. • I can solve an open-ended problem by breaking it up into smaller parts. • I can design and write a program for a given purpose including specific programming features. • I can test existing programs to see how they could be improved. • I can understand the different method• I can improve the quality and presentation of my work using editing and formatting techniques. • I can create with technology. E.g. Video, animation, 3D • I can use a search engine and I am aware that not everything I read online is correct. (Online Bullying) | • I can make a QR codes that links to my own work. • I can film and produce a short video.• I can decompose a problem, design an algorithm and use this to write a program. • I can design and write a program linked to physical systems and sensors. • I can use variables, conditional statements, procedures & repeat commands to improve programs. • I can use logical reasoning to detect & debug a program. • I can explore networks and internet traffic. 8 I can translate binary numbers to decimal. 9 I can create a basic web page using HTML.• I can record and produce a podcast / audio clips. • I can use unfamiliar technology to create content. • I can improve the quality and presentation of my work. • I can use a spreadsheet to collect and record data. • I can use a search engine and I am aware that not everything I read online is correct.• I can create a subject specific vlog and understand the potential risks of sharing content online. • I can collaborate to develop & improve work. • I can search for someone online and create a summary report about that person | • I can collaborate to create digital content.• I can create a consistent design for my presentation, and present to othersI can design, plan & create a complex programs. • I can test, debug and modify a program to improve it. • I can write a program using a text based programming language. • I can use logical reasoning to detect and correct errors in algorithms and programs. • • I can talk about the way search results are selected and ranked.• I can create and combine a range of media in order to produce digital content. • I can improve the quality and presentation of my work using editing and formatting techniques. • I can create a digital storyboard to plan a project or investigation. • I can use a search engine and I am aware that not everything I read online is correct and that other people may be attempting to influence my opinions. |
| Key VocabularyCycle A |  |  | Instructions, camera, robot, QR code, sequence, share, technology, control, Google, information, internet, algorithm, computer, iPad/tablet,app (application), keyboard, button, printer, save, zoom. | 3D, program, debug, design, emoji, search, selection, website, personal information, link, menu, icon, trusted adult, online, sign in, game,wireless (Wifi), online bullying, landscape, portrait, Bluetooth, download, frame, processor, green screen, hard drive, illustration, log in, tool,send, follow, digital, communicate. | Browser, computer networks, data, computational thinking, execute/run, input, output, software, World Wide Web (WWW), password, username, interact, images, facts, scan, chat, post / re-post, copyright, backdrop, repeat / loop, characters, avatars, fictitious/fake, evaluation, publish, trust, stroke, template, reputation, identity, digital book (eBook/ePub). | Block, palette, code/coding, command, decomposition, sprite, stage, condition, control block, costume, digital content, simulation, hyperlink, attachment, URL, blog/blogging, consequences, illustrator, untrusted, cyberbully, cyberbullying, reliable, MegaByte, GigaByte, report, sceptical, verify, fake news, soundtrack, VR (virtual reality), font, shortcut, shots, 360º Video, authenticate, multimedia | Logical reasoning, audio, selection, page ranking, hacker, repetition (sometimes referred to as ‘iteration’ in upper KS2), script, scripts area, secure (https), PEGI, netiquette, conditional, scene, filters, griefing, storyboard, cloud computing, positive online communication, online persona, digital footprint, animation, age restrictions, social network, screenshot, screencast. | Abstraction, vlog, YouTuber, IP address, pixels, vector, HTML, CSS, services, ISP, LAN, TCP/IP, variables, hub, peripheral, bandwidth, CEOP, ChildLine, cache, harassment, plagiarism, infringe copyright, illegal downloads, streaming, blocking, victim, cookie, junk mail, RAM / ROM, USB, ZIP, augmented reality, bit & bytes, upload, score, podcast, edit. | Antivirus, new media, collaboration, visual coding, text based coding, adware, trojan, feedback, bot, boolean, checksum, server, firewall, generalisation, security updates, plug in, pop up blocker, scams, phishing, location based settings, in app purchasing, trolling, sexting, exclusion, doxxing, catfishing, flaming, fabotage, creeping, dissing, ghosting FTP, filtering, malware, screen time, balanced lifestyle, configuring. |