HOLLY PRIMARY SCHOOL

Progression of Skills: Years 1 and 2

In Years 1 and 2, the children can…

Areas of Study & Key Vocabulary
Key Skills – Laptop skills / iPad Skills / Word processing Key Vocabulary: Username, password, Documents, Index finger typing, Enter/return, Caps lock, Backspace, delete, Home button, App, open, close, Save, Retrieve **Coding & Programming** – Unplugged / Toys / Apps - ALEX, BeeBot, Daisy & Code.org Key Vocabulary: algorithm, instruction, order, debug, program, turn, left, right, clockwise, anticlockwise, blocks, sequence, project, repeat, repeat forever, invisible, grow, shrink. **Digital Safety** - Name and Date work / Personal Information / Safe Image Searching / SMART rules / email Key Vocabulary: tell, safe, share, stranger, danger, safe, meet, accept, reliable, tell, online, trusted, adult, information, safety, personal, key, question, tell, safe, share, stranger, danger, internet. **Multimedia** - Creating Pictures / Making Music / Presenting Ideas & Animated Stories Key Vocabulary: paint, colour, brush, tools, settings, undo, redo, text, image, size, poster, launch, application, software, window, minimise, restore, size, move, screen, close, click, drag, log on, log off, keyboards, keys, mouse, click, button, double click, drag, present, commands, add sound. **Technology in our Lives** – Technology Outside: Key Vocabulary: filter, Google, search engine, image, keyboard, email, internet, subject, address, communicate, sender, safe, secure.

Online Safety	Online Safety
• Create, name and date digital creative work • Safely search for images online • Communicate safely online • Keep personal information safe	• Understand my information online leaves a digital footprint • Search online using keywords to help topic work • Recognise if some websites are appropriate for children • Rate and review information websites

• Explore email to communicate safely	• Identify kind and unkind behaviour online
• Apply online safety knowledge to help others make good choices	• Apply safe and sensible online behaviour to different situations

<u>Key Skills</u>
- Boot-up and Shut Down devices correctly
- Log-on and Log-off Laptops using individual username and password
- Open and close Applications on PC and Tablets
- Use trackpad and mouse buttons to navigate cursor including click-and drag. – Use basic finger-swipe gestures on Touch screens

<u>Multimedia</u> (text, images, sound & motion)
- add text strings, text boxes and images, manipulating some features such as size, font, colour and image position.
- use various tools, such as brushes, pens, eraser, stamps and shapes, and set the size, colour and shape.
- use applications and devices in order to communicate ideas, work, messages and demonstrate control.
- save, retrieve and organise work.
- use software to record sounds.
- change sounds recorded.

<u>Technology in our Lives</u>
- recognise ways that technology is used in the home and community, e.g. taking photos, blogs, shopping.
- use links to websites to find information.
- recognise age-appropriate websites.
- use safe search filters.

<u>Coding & Programming</u>
- give commands one at a time to control direction and movement, including straight, forwards, backwards, turn.
- control the nature of events: repeat, loops, single events and add and delete features.
- give a set of instructions to follow and predict what will happen.
- improve/change their sequence of commands by debugging.

Progression of Skills: Years 3 and 4

In Years 3 and 4, the children can…

Areas of Study

Computing Systems, Networks
Input, output, process, network, digital device, brush, fill, undo, redo, connected, switch, server, wireless access point

Multimedia – PowerPoint / Sway / Book Creator / Stop Frame Animation & Making Movies
Key Vocabulary: draw, object, shape, line, line colour, fill colour, group, ungroup, font, size, text box, format, image, wrap text, plan, link, image, object, link, hyperlink, minimise, restore, size, move, screen, split, create, organise, file, folder, close, exit, search, print, password, screenshot, snipping tool, shift, undo, redo, menu, dictionary, highlight, cursor, toolbar, spellcheck, audio, sound, video, movie, embed, link, file format, animate, animation, still image, flip book, frame, onion skinning, loop, frame rate, record, stop, play, stop motion, stop frame.

Online Safety – Cyberbullying / Advertising / Privacy / Email / Communication / Search Engines / Plagiarism / Online Profile / Digital Citizen
Key Vocabulary: safe, meet, accept, reliable, tell, online, trusted, adult, information, safety, personal, internet, world wide web, communicate, message, social media, email, password, cyberbullying/bullying, plagiarism, profiles, account, private, public.

Computing Development – Computer Hardware & Recent Developments
Key Vocabulary: Computer, Personal Computer (PC), laptop, tablet, key, keyboard, monitor, screen, hard drive (HDD), flash drive, USB drive, pen drive, memory, speakers, chip, cable, motherboard, printer, joystick, microphone, headphones, webcam, computer case, graphics card, modem, CD-ROM drive, virtual reality headset, card reader, device, hardware, 3D glasses, Charles Babbage, Bill Gates, Lady Aida Lovelace.

Coding & Programming – Gaming / Code.org / Scratch3 / Lego Wedo2
Key Vocabulary: decompose, decomposing, logical sequence, flowchart, sprite, block, command, algorithm, answer, correct, errors, program, algorithm, instructions, commands, forward (fd), left (lt), right (rt), move, turn, clear screen (cs), variable, loops, repeats.

HOLLY PRIMARY SCHOOL

Online Safety	Online Safety
- Know what cyberbullying is and how to address it - understand how websites use advertising - create strong passwords - understand some privacy settings - safely send and receive emails - explore different ways of online communication	- identify hurtful messages & suggest how to respond - use search engines effectively - understand and avoid plagiarism - create a safe online profile - explain how to be a responsible digital citizen

Multimedia (text, images, sound & motion)

- create different effects with different technological tools, demonstrating control
- use appropriate keyboard commands to amend text on a device
- use applications and devices in order to communicate ideas, work, and messages
- save, retrieve and evaluate work, making amendments
- insert a picture/text/graph/hyperlink from the internet or a personal file

Technology in our Lives - Computing Systems, Networks	Coding & Programming
- Understand how digital device work. (accept inputs & produce outputs). - Classify input and output devices, describe a process and design a device. - To recognise how digital devices can change the way that we work. - Understand how digital devices are connected to form networks. - I can explain the role of a switch, server, and wireless access point in a network and know how they are connected.	- use logical thinking to solve an open-ended problem by breaking it up into smaller parts; - write a program, putting commands into a sequence to achieve a specific outcome; - give a set of instructions to follow and predict what will happen; - keep testing a program and recognise when it needs to be debugged; - use variables to create effect;

Progression of Skills: Years 5 and 6

In Year 5 and 6, the children can…

Areas of Study

Internet, Communicating and Finding Out – Searching / Website evaluation / Office365 / Teams / Class Notebook
Key Vocabulary: world wide web, search, search engine, advanced search, results, Google, browser, terms of use, bias, authority, citation, plagiarism, source, website, secure, https, site, domain, website, browser, address bar.

Multimedia – PowerPoint / Sway / Audio / Book Creator / Website Creation / Stop Frame Animation & Making Movies
Key Vocabulary: window, layout, text, font, colour, format, heading, start animation on click, before previous, after previous. Motion. Timing. Onion Skin. Automate. Animation Pain. hyperlink, 2D shape, 3D shape, dimension, audio, record, edit, play stop, skip, waveform, input, output, record, edit, digital content, downloadable, backing track, voiceover, mute, gain, production, post-production, documentary, project, evaluation.

Online Safety – Spam / Citations / Passwords / False Photography / Online Safety Rules / Bullying & Cyberbullying / Website Security / Media & Girls and Boys / SmartBots
Key Vocabulary; spam, link, privacy, virus, scam, phishing, inbox, junk, sender, subject, secure, safe, account, online, private, social media, adverts, cyberbullying, reporting, anonymous, victim, fraud/fraudulent, policy, private/personal.

Technology in our Lives - Computing Development – Famous People Study / Historical Development
Key Vocabulary: Charles Babbage, Lady Aida Lovelace, Tommy Flowers, Bletchley Park, Enigma, Bill Gates, Steve Jobs, Amazon, Google, Facebook, YouTube,

Coding & Programming – Gaming / Code.org / Scratch3 / Lego Wedo2
Key Vocabulary: flowchart, algorithm, control, output, symbol, start, stop, delay, process, decision, loop, backdrop, script, block, repeat, commentary, sequence, consequence, debug, program, Kodu, world, object, tool palette, program environment, smooth, flatten, raise.

Data Handling – Spreadsheets & Databases
Key Vocabulary: insert, table, spreadsheet, cell, row, column, formula/formulas, calculate, format, edit, insert, ascending, descending.

HOLLY PRIMARY SCHOOL

Online Safety	Online Safety
• identify spam emails and know what to do with them • write citations for websites used in research • create strong passwords • recognise when why are how photographs and videos may have been edited • apply online safety rules to real-life scenarios	• find similarities and differences between in-person and cyberbullying • identify features of secure websites • identify benefits and pitfalls of online relationships • identify how the powerful role media plays in shaping ideas about girls and boys • apply online safety knowledge to my online activities

Multimedia (text, images, sound & motion)	Handling Data
• use the skills already developed to create content using unfamiliar technology. • select, use and combine the appropriate technology tools to create effect. • review and improve their own work and support others to improve their work. • save, retrieve and evaluate their work, making amendments. • insert a picture/text/graphics/hyperlink from the internet or personal file. • Use Animations, Motion lines, and timings in PowerPoint.	• construct data on the most appropriate application; • know how to interpret data, including spotting inaccurate data and comparing data; • use keyboard shortcuts and functions to input data on spreadsheets and create formulas for spreadsheets; • add data to an existing database;

Website Creation	Audio
• To review an existing website and consider its structure including HTML language. • To plan the features of a web page. • To consider the ownership and use of images (copyright & Fair Use). • To recognise the need to preview pages. • To outline the need for a navigation path. • To recognise the implications of linking to content owned by other people.	• use software to record sounds; change sounds recorded; • collect audio from a variety of resources including own recordings and internet clips; use a digital device to record sounds and present audio; • trim, arrange and edit audio levels to improve quality; publish their animation and use a movie editing package to edit/refine and add titles;

HOLLY PRIMARY SCHOOL

Internet, Communicating and Finding Out

- Refine search skills for specific information using appropriate websites and advanced search functions within Google;
- use strategies to check the reliability of information (cross-check with another source such as books);
- talk about the way search results are selected and ranked;
- check the reliability of a website, including the photos on site;
- tell you about copyright and acknowledge the sources of information;

Technology in our Lives

- Understand the work of famous computer scientists
- Learn how computers developed from the Abacus to Mobile devices

Coding & Programming

- use external triggers and infinite loops to demonstrate control;
- follow a sequence of instructions, e.g. in a flowchart and modify a flowchart using symbols;
- use conditional statements and edit variables;
- decompose a problem into smaller parts to design an algorithm for a specific
- outcome and use this to write a program;
- keep testing a program and recognise when it needs to be debugged;