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| **Branton St Wilfrid’s C of E Primary School Whole School Computing Progression Map** | | | | | | | |
| **Intent**  At our primary school, our intent for teaching computing is to provide a **high-quality, relevant** and **engaging** **curriculum** that develops pupils' **computational thinking** and **digital literacy skills.** We want to equip our pupils with the knowledge and skills to use technology **confidently** and **safely**, and to be **creative** and **innovative** in their use of digital tools.  Our computing curriculum is designed to build knowledge across three **substantive concepts:**   * **Computer science:** knowledge of computers and computation, including concepts such as data, algorithms and programming. * **Information technology:** a focus on how computers are used in different sectors and describes the methods used to create digital artefacts such as presentations and videos. * **Digital literacy:** the skills and knowledge required to be an effective and safe user of a range of computer systems.   Overall, computing curriculum is designed to provide our pupils with the skills and knowledge to use technology confidently and safely, as well as to develop their **creativity, innovation,** and **problem-solving skills.** Our aim is to equip our pupils with the **digital literacy skills** they need to thrive in a **rapidly changing digital world**, and to enable them to use technology in **positive and meaningful ways.** | | | | | | | |
| Core themes:   * Computer science * Information Technology * Digital Literacy | | | | | | | |
|  | **EYFS** | **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** |
| **Computer Systems and networks**  *Computer science* | **Technology around us**  To explore technology such as interactive whiteboard, iPad, laptop | **Technology around us**  To identify technology  To identify a computer and its main parts  To use a mouse in different ways  To use a keyboard to type on a computer  To use the keyboard to edit text  To create rules for using technology responsibly | **IT around us**  To recognise the uses and features of information technology  To identify the uses of information technology in the school  To identify information technology beyond school  To explain how information technology helps us  To explain how to use information technology safely  To recognise that choices are made when using information technology | **Connecting computers**  To explain how digital devices function  To identify input and output devices  To recognise how digital devices can change the way we work  To explain how a computer network can be used to share information  To explore how digital devices can be connected  To recognise the physical components of a network | **The internet**  To describe how networks physically connect to other networks  To recognise how networked devices make up the internet  To outline how websites can be shared via the World Wide Web (WWW)  To describe how content can be added and accessed on the World Wide Web (WWW)  To recognise how the content of the WWW is created by people  To evaluate the consequences of unreliable content | **System and searching**  To explain that computers can be connected together to form systems  To recognise the role of computer systems in our lives  To experiment with search engines  To describe how search engines select results  To explain how search results are ranked  To recognise why the order of results is important, and to whom | **Communication and collaboration**  To explain the importance of internet addresses  To recognise how data is transferred across the internet  To explain how sharing information online can help people to work together  To evaluate different ways of working together online  To recognise how we communicate using technology  To evaluate different methods of online communication |
| **Vocabulary** | Technology, computer, laptop, iPad | technology, computer, mouse, trackpad, keyboard, screen, double-click, typing | Information technology (IT), computer, barcode, scanner/scan | digital device, input, process, output, program, digital, non-digital, connection, network, switch, server, wireless access point, cables, sockets | internet, network, router, security, switch, server, wireless access point (WAP), website, web page, web address, routing, web browser, World Wide Web, content, links, files, use, download, sharing, ownership, permission, information, accurate, honest, content, adverts | system, connection, digital, input, process, storage, output, search, search engine, refine, index, bot, ordering, links, algorithm, search engine optimisation (SEO), web crawler, content creator, selection, ranking. | communication, protocol, data, address, Internet Protocol (IP), Domain Name Server (DNS), packet, header, data payload, chat, explore, slide deck, reuse, remix, collaboration, internet, public, private, oneway, two-way, one-to-one, one-to-many. |
| **Programming**  *Computer science* | **Moving a robot**  To explore Bee-bots  To enter instructions into a Beebot  **Algorithms**  To follow simple instructions to achieve a goal.  To give simple instructions to achieve a specific goal. | **Moving a robot**  To explain what a given command will do  To act out a given word  To combine ‘forwards’ and ‘backwards’ commands to make a sequence  To combine four direction commands to make sequences  To plan a simple program  To find more than one solution to a problem  **Programming animations**  To choose a command for a given purpose  To show that a series of commands can be joined together  To identify the effect of changing a value  To explain that each sprite has its own instructions  To design the parts of a project  To use my algorithm to create aprogram | **Robot algorithms**  To describe a series of instructions as a sequence  To explain what happens when we change the order of instructions  To use logical reasoning to predict the outcome of a program  To explain that programming projects can have code and artwork  To design an algorithm  To create and debug a program that I have written  **Programming Quizzes**  To explain that a sequence of commands has a start  To explain that a sequence of commands has an outcome  To create a program using a given design  To change a given design  To create a program using my own design  To decide how my project can be improved | **Sequencing sounds**  To explore a new programming environment  To identify that commands have an outcome  To explain that a program has a start  To recognise that a sequence of commands can have an order  To change the appearance of my project  To create a project from a task description  **Events and actions in programs**  To explain how a sprite moves in an existing project  To create a program to move a sprite in four directions  To adapt a program to a new context  To develop my program by adding features  To identify and fix bugs in a program  To design and create a maze-based challenge | **Repetition in shapes**  To identify that accuracy in programming is important  To create a program in a text-based language  To explain what ‘repeat’ means  To modify a count-controlled loop to produce a given outcome  To decompose a task into small steps  To create a program that uses count-controlled loops to produce a given outcome  **Repetition in games**  To develop the use of count-controlled loops in a different programming environment  To explain that in programming there are infinite loops and count-controlled loops  To develop a design that includes two or more loops which run at the same time To modify an infinite loop in a given program  To design a project that includes repetition  To create a project that includes repetition | **Selection in physical**  To control a simple circuit connected to a computer  To write a program that includes count-controlled loops  To explain that a loop can stop when a condition is met  To explain that a loop can be used to repeatedly check whether a condition has been met  To design a physical project that includes selection  To create a program that controls a physical computing project  **computing**  **Selection in quizzes**  To explain how selection is used in computer programs  To relate that a conditional statement connects a condition to an outcome  To explain how selection directs the flow of a program  To design a program that uses selection  To create a program that uses selection  To evaluate my program | **Variables in games**  To define a ‘variable’ as something that is changeable  To explain why a variable is used in a program  To choose how to improve a game by using variables  To design a project that builds on a given example To use my design to create a project  To evaluate my project  **Sensing movement**  To create a program to run on a controllable device  To explain that selection can control the flow of a program  To update a variable with a user input  To use an conditional statement to compare a variable to a value  To design a project that uses inputs and outputs on a controllable device  To develop a program to use inputs and outputs on a controllable device |
| **Vocabulary** | Bee-bot, instruction, forwards, backwards, turn | Bee-Bot, forwards, backwards, turn, clear, go, commands, instructions, directions, left, right, route, plan, algorithm, program.  ScratchJr, command, sprite, compare, programming, area, block, joining, start, run, program, background, delete, reset, algorithm, predict, effect, change, value, instructions, design | instruction, sequence, clear, unambiguous, algorithm, program, order, prediction, artwork, design, route, mat, debugging, decomposition  sequence, command, program, run, start, outcome, predict, blocks, design, actions, sprite, project, modify, change, algorithm, build, match, compare, debug, features, evaluate, decomposition, code. | Scratch, programming, blocks, commands, code, sprite, costume, stage, backdrop, motion, turn, point in direction, go to, glide, sequence, event, task, design, run the code, order, note, chord, algorithm, bug, debug, code.  motion, event, sprite, algorithm, logic, move, resize, extension block, pen up, set up, pen, design, action, debugging, errors, setup, code, test, debug, actions | Logo (programming environment), program, turtle, commands, code snippet, algorithm, design, debug, pattern, repeat, repetition, count-controlled loop, value, trace, decompose, procedure  Scratch, programming, sprite, blocks, code, loop, repeat, value, infinite loop, count-controlled loop, costume, repetition, forever, animate, event block, duplicate, modify, design, algorithm, debug, refine, evaluate. | microcontroller, USB, components, connection, infinite loop, output component, motor, repetition, count-controlled loop, Crumble controller, switch, LED, Sparkle, crocodile clips, connect, battery box, program, condition, Input, output, selection, action, debug, circuit, power, cell, buzzer Selection, condition, true, false, count-controlled loop, outcomes, conditional statement, algorithm, program, debug, question, answer, task, design, input, implement, test, run, setup, operator | Variable, change, name, value, set, design, event, algorithm, code, task, artwork, program, project, code, test, debug, improve, evaluate, share, assign, declare  Micro:bit, MakeCode, input, process, output, flashing, USB, trace, selection, condition, if then else, variable, random, sensing, accelerometer, value, compass, direction, navigation, design, task, algorithm, step counter, plan, create, code, test, debug. |
| **Data and information**  *Computer science* | **Grouping data**  To sort and count objects in different ways.  To answer questions about ways objects have been grouped. | **Grouping data**  To label objects.  To identify that objects can be counted.  To describe in different ways.  To count objects with the same properties.  To compare groups of objects.  To answer questions about groups of objects. | **Pictograms**  To recognise that we can count and compare objects using tally charts.  To recognise that objects can be represented in pictures.  To create a pictogram.  To select objects by attribute and make comparisons.  To recognise that people can be describes.  To explain that we can present information using a computer. | **Branching databases**  To create questions with yes/ no answers.  To identify the attributes needed to collect data about an object.  To create a branching database.  To explain why it is helpful for a database to be well structured.  To plan the structure of a branching database.  To independently create an identification tool. | **Data logging**  To explain that data gathered over time can be used to answer questions.  To use a digital device to collect data automatically.  To explain that a data logger collects ‘data points’ from sensors over time.  To recognise how a computer can help us analyse data.  To identify the data needed to answer questions.  To use data from sensors to answer questions. | **Flat- file databases**  To use a form to record information.  To compare paper and computer- based databases.  To outline how you can answer questions by grouping and then sorting data.  To explain that tools can be used to select specific data.  To explain that computer programs can be used to compare data visually.  To use real-world database to answer questions. | **Introduction to spreadsheets**  To create a data set in a spreadsheet.  To build a data set in a spreadsheet.  To explain that formulas can be used to produce calculated data.  To apply formulas to data.  To create a spreadsheet to plan an event.  To choose suitable ways to present data. |
| **Vocabulary** | Object, group, colour, size, shape | Object, label, group, search, image, property, colour, size, shape, value, data set, more, less, most, fewest, least, the same. | More than, less than, most, least, common, popular, organise, data, object, tally, chart, votes, total, pictogram, enter, compare, attribute, group, same, different, conclusion, block diagram, sharing | Attribute, value, questions, table, objects, branching, database, objects, equal, even, separate, structure, compare, order, organise, selecting, information, decision tree. | Data, table, layout, input device, sensor, logger, logging, data point, interval, analyse, dataset, import, export, logged, collection, review, conclusion | Database, data, information, record, field, sort, order, group, search, value, criteria, graph, value, criteria, group, chart, axis, compare, filter, presentation. | Data, collecting, table, structure, spreadsheet, cell, cell reference, data item, format, formula, calculation, spreadsheet, input, output, operation, range, duplicate, sigma, propose, question, data set, organised, chart, evaluate, results, sum, comparison, software, tools. |
| **Creating media**  *Information technology* | **Digital painting**  To draw pictures using technology  **Digital photography**  To use an iPad to take photos | **Digital Painting**  To describe what different freehand tools do  To use the shape tool and the line tools  To make careful choices when painting a digital picture  To explain why I chose the tools I used  To use a computer on my own to paint a picture  To compare painting a picture on a computer and on paper | **Digital Photography**  To use a digital device to take a photograph  To make choices when taking a photograph  To describe what makes a good photograph  To decide how photographs can be improved  To use tools to change an image  To recognise that photos can be changed | **Stop-motion animation**  To explain that animation is a sequence of drawings or photographs  To relate animated movement with a sequence of images  To plan an animation  To identify the need to work consistently and carefully  To review and improve an animation  To evaluate the impact of adding other media to an animation | **Audio Production**  To identify that sound can be recorded  To explain that audio recordings can be edited  To recognise the different parts of creating a podcast project  To apply audio editing skills independently  To combine audio to enhance my podcast project  To evaluate the effective use of audio | **Video production**  To explain what makes a video effective  To identify digital devices that can record video  To capture video using a range of techniques  To create a storyboard  To identify that video can be improved through reshooting and editing  To consider the impact of the choices made when making and sharing a video | **Web page creation**  To review an existing website and consider its structure  To plan the features of a web page  To consider the ownership and use of images (copyright)  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 |
| **Vocabulary** | Tool, line tool, erase tool, line colour, camera, device, photograph | Paint program, tool, paintbrush, erase, fill, undo, shape tools, line tool, fill tool, undo tool, colour, brush, style, brush size, pictures, painting, computers | device, camera, photograph, capture, image, digital, landscape, portrait, framing, subject, compose, light sources, flash, focus, background, editing, filter, format, framing, lighting | animation, flip book, stop frame, frame, sequence, image, photograph, setting, character, events, onion skinning, consistency, evaluation, delete, media, import, transition | audio, microphone, speaker, headphones, input device, output device, sound, podcast, edit, trim, align, layer, import, record, playback, selection, load, save, export, MP3, evaluate, feedback. | video, audio, camera, talking head, panning, close up, video camera, microphone, lens, mid-range, long shot, moving subject, side by side, angle (high, low, normal), static, zoom, pan, tilt, storyboard, filming, review, import, split, trim, clip, edit, reshoot, delete, reorder, export, evaluate, share | website, web page, browser, media, Hypertext Markup Language (HTML), logo, layout, header, media, purpose, copyright, fair use, home page, preview, evaluate, device, Google Sites, breadcrumb trail, navigation, hyperlink, subpage, evaluate, implication, external link, embed. |
| **Self- image and identity**  *Digital literacy* | I can recognize, online or offline, that anyone can say ‘no’ / ‘please stop’ / ‘I’ll tell’ / I’ll ask’ to someone who makes them feel sad, uncomfortable or embarrassed. | I can recognize that there may be people online who can make people feel sad, embarrassed or upset.  If something happens that makes me feel sad, worried or upset I can give examples of when and how to speak to an adult I can trust and how they can help. | I can explain how other people may look and act differently online and offline.  I can 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. | I can explain what is meant by the term ‘identity’.  I can explain how people can represent themselves in different ways online.  I can 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. | I can explain how my online identity can be different to my offline identity.  I can describe positive ways for someone to interact with others online and understand how this will positively impact on how others perceive them.  I can explain that others online can pretend to be someone else, including my friends, and can suggest reasons why they might do this. | I can explain how identity online can be copied, modified or altered.  I can demonstrate how to make responsible choices about having an online identity, depending on context. | I can 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.  I can describe issues online that could make anyone feel sad, worried, uncomfortable or frightened. I know and can give examples of how to get help, both on and offline.  I can explain the importance of asking until I get the help needed. |
| **Online relationships**  *Digital literacy* | I can recognize different ways that the internet can be used to communicate  I can give examples of how I can use technology to communicate with people I know. | I can give examples of when I should ask permission to do something online and explain why this is important.  I can use the internet with adult support to communicate with people I know (video call apps)  I can explain why it is important to be considerate and kind to people online and respect their choices.  I can explain why things one person finds funny or sad online may not always be seen in the same way by others. | I can give examples of 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).  I can explain who I should ask before sharing things about myself or others online.  I can describe different ways to ask for, give, or deny my permission online and can identify who can help me if I am not sure.  I can 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.  I can identify who can help me if something happens online without my consent.  I can explain how it may make others feel if I do not ask their permission or ignore their answers before sharing something about them online.  I can explain why I should always ask a trusted adult before clicking ‘yes’, ‘agree’ or ‘accept’ online. | I can describe ways people who have similar likes and interests can get together online.  I can explain what it means to ‘know someone’ online and why this might be different from knowing someone offline.  I can 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.  I can explain why someone may change their mind about trusting anyone with something if they feel nervous, uncomfortable or worried.  I can explain how someone’s feelings can be hurt by what is said or written online.  I can explain the importance of giving and gaining permission before sharing things online; how the principles of sharing online is the same as sharing offline e.g. sharing images and videos. | I can describe strategies for safe and fun experiences in a range of online social environments (e.g. livestreaming, gaming platforms).  I can give examples of how to be respectful to others online and describe how to recognise healthy and unhealthy online behaviours.  I can explain how content shared online may feel unimportant to one person but may be important to other people’s thoughts feelings and beliefs. | I can give examples of technology-specific forms of communication (e.g. emojis, memes and GIFs).  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 describe some of the ways people may be involved in online communities and describe how they might collaborate constructively with others and make positive contributions. (e.g. gaming communities or social media groups).  I can explain how someone can get help if they are having problems and identify when to tell a trusted adult.  I can demonstrate how to support others (including those who are having difficulties) online. | I can explain how sharing something online may have an impact either positively or negatively.  I can 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.  I can describe how things shared privately online can have unintended consequences for others. e.g. screen-grabs.  I can explain that taking or sharing inappropriate images of someone (e.g. embarrassing images), even if they say it is okay, may have an impact for the sharer and others; and who can help if someone is worried about this. |
| **Online reputation**  *Digital literacy* | I can identify ways that I can put information on the internet. | 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 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 | I can explain how to search for information about others online.  I can 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.  I can explain who someone can ask if they are unsure about putting something online. | I can describe how to find out information about others by searching online.  I can explain ways that some of the information about anyone online could have been created, copied or shared by others. | I can search for information about an individual online and summarise the information found.  I can describe ways that information about anyone online can be used by others to make judgments about an individual and why these may be incorrect. | I can explain the ways in which anyone can develop a positive online reputation.  I can explain strategies anyone can use to protect their ‘digital personality’ and online reputation, including degrees of anonymity. |
| **Online bullying**  *Digital literacy* | I can describe ways that some people can be unkind online.  I can offer examples of how this can make others feel. | I can describe how to behave online in ways that do not upset others and can give examples. | I can explain what bullying is, how people may bully others and how bullying can make someone feel.  I can explain why anyone who experiences bullying is not to blame.  I can talk about how anyone experiencing bullying can get help. | I can describe appropriate ways to behave towards other people online and why this is important.  I can give examples of how bullying behaviour could appear online and how someone can get support. | I can recognise when someone is upset, hurt or angry online.  I can describe ways people can be bullied through a range of media (e.g. image, video, text, chat).  I can 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). | I can recognise online bullying can be different to bullying in the physical world and can describe some of those differences.  I can describe how what one person perceives as playful joking and teasing (including ‘banter’) might be experienced by others as bullying.  I can explain how anyone can get help if they are being bullied online and identify when to tell a trusted adult.  I can identify a range of ways to report concerns and access support both in school and at home about online bullying.  I can explain how to block abusive users.  I can describe the helpline services which can help people experiencing bullying, and how to access them (e.g. Childline or The Mix). | 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 explain how someone would report online bullying in different contexts. |
| **Managing online information**  *Digital literacy* | I can talk about how to use the internet as a way of finding information online.  I can identify devices I could use to access information on the internet. | I can give simple examples of how to find information using digital technologies, e.g. search engines, voice activated searching).  I know / understand that we can encounter a range of things online including things we like and don’t like as well as things which are real or make believe / a joke.  I know how to get help from a trusted adult if we see content that makes us feel sad, uncomfortable worried or frightened. | I can use simple 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, and know it is not a real person (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 real or true | I can demonstrate how to use key phrases in search engines to gather accurate information online.  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. and can give examples of how and where they might be shared online, e.g. in videos, memes, posts, news stories etc.  I can explain that not all opinions shared may be accepted as true or fair by others (e.g. monsters under the bed).  I can 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. | I can 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.  I can 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).  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 why lots of people sharing the same opinions or beliefs online do not make those opinions or beliefs true.  I can 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.  I can explain what is meant by fake news e.g. why some people will create stories or alter photographs and put them online to pretend something is true when it isn’t. | I can explain the benefits and limitations of using different types of search technologies e.g. voice-activation search engine. I can explain how some technology can limit the information I am presented with.  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 evaluate digital content and can explain how to make choices about what is trustworthy e.g. differentiating between adverts and search results.  I can explain key concepts including: information, reviews, fact, opinion, belief, validity, reliability and evidence.  I can identify ways the internet can draw us to information for different agendas, e.g. website notifications, pop-ups, targeted ads.  I can describe ways of identifying when online content has been commercially sponsored or boosted, (e.g. by commercial companies or by vloggers, content creators, influencers).  I can 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.  I can describe how fake news may affect someone’s emotions and behaviour, and explain why this may be harmful.  I can explain what is meant by a ‘hoax’. I can explain why someone would need to think carefully before they share. | I can explain how search engines work and how results are selected and ranked.  I can explain how to use search technologies effectively.  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’; why the popularity of an opinion or the personalities of those promoting it does not necessarily make it true, fair or perhaps even legal.  I can define the terms ‘influence’, ‘manipulation’ and ‘persuasion’ and explain how someone might encounter these online (e.g. advertising and ‘ad targeting’ and targeting for fake news).  I understand the concept of persuasive design and how it can be used to influences peoples’ choices.  I can demonstrate how to analyse and evaluate the validity of ‘facts’ and information and I can explain why using these strategies are important.  I can explain how companies and news providers target people with online news stories they are more likely to engage with and how to recognise this.  I can describe the difference between online misinformation and dis-information.  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 or disinformation).  I can identify, flag and report inappropriate content. |
| **Privacy and security**  *Digital literacy* | I can identify some simple examples of my personal information (e.g. name, address, birthday, age, location).  I can describe who would be trustworthy to share this information with; I can explain why they are trusted. | I can explain that passwords are used to protect information, accounts and devices.  I can recognise more detailed examples of information that is personal to someone (e.g where someone lives and goes to school, family names).  I can explain why it is important to always ask a trusted adult before sharing any personal information online, belonging to myself or others. | I can explain how passwords can be used to protect information, accounts and devices.  I can explain and give examples of what is meant by ‘private’ and ‘keeping things private’.  I can describe and explain some rules for keeping personal information private (e.g. creating and protecting passwords).  I can explain how some people may have devices in their homes connected to the internet and give examples (e.g. lights, fridges, toys, televisions). | I can describe simple strategies for creating and keeping passwords private.  I can give reasons why someone should only share information with people they choose to and can trust. I can explain that if they are not sure or feel pressured then they should tell a trusted adult.  I can describe how connected devices can collect and share anyone’s information with others. | I can describe strategies for keeping personal information private, depending on context.  I can explain that internet use is never fully private and is monitored, e.g. adult supervision.  I can 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.  I know what the digital age of consent is and the impact this has on online services asking for consent. | I can explain what a strong password is and demonstrate how to create one.  I can 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.  I can explain what app permissions are and can give some examples. | I can describe effective ways people can manage passwords (e.g. storing them securely or saving them in the browser).  I can explain what to do if a password is shared, lost or stolen.  I can describe how and why people should keep their software and apps up to date, e.g. auto updates.  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 know that online services have terms and conditions that govern their use. |
| **Copyright and ownership**  *Digital literacy* | I know that work I create belongs to me.  I can name my work so that others know it belongs to me. | I can explain why work I create using technology belongs to me.  I can say why it belongs to me (e.g. ‘I designed it’ or ‘I filmed it’’).  I can save my work under a suitable title / name so that others know it belongs to me (e.g. filename, name on content).  I understand that work created by others does not belong to me even if I save a copy. | I can recognise that content on the internet may belong to other people.  I can describe why other people’s work belongs to them. | I can explain why copying someone else’s work from the internet without permission isn’t fair and can explain what problems this might cause. | 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 of content which I must not use without permission from the owner, e.g. videos, music, images. | 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 and know how this content can be found online. | 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. |