Computing Progression of Skills

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|  | ***Year 1*** | ***Year 2*** | ***Year 3*** | ***Year 4*** | ***Year 5*** | ***Year 6*** |
| ***On the Doorstep*** | **Digital Galleries (Information Technology):**  Create a simple animation with moving characters and voice recordings  Use a camera to capture images which are in focus  Select options to change the appearance of digital content  Apply edits to digital content to achieve a particular effect  Create digital galleries using images and text  Use photo editing tools to crop images | Embed all skills taught so far across the curriculum | **Movies**  **(Information Technology):**  Create and edit a video/animation combining text, images and music  Plan a movie with a script that has a beginning, middle and end and combines text, music and images  Explore augmented reality and capture images and videos  Explore green screen technology and capture and edit videos | **Presentations**  **(Information Technology):**  Combine text (fonts, colours, backgrounds), images, voice recordings and videos to create a presentation  Create a presentation with slides with animations and transition effects  Using photo editing tools to improve the quality of images  Create and edit a video by combining text, images and music  Use a keyboard accurately with two hands to type and format documents  When searching on the internet for content to use, explain why you need to consider who owns it and whether you have the right to reuse it | **Games**  **(Computer Science):**  Use commands, loops, selections, debugging and variables to design and build a game  Experiment with different codes to test each element of a game until a desired outcome is reached  Make predictions on what will happen in a program when inputs are changed  Test, debug and improve programs  Make changes to digital content to animate characters in the game  Use creative tools to create a marketing campaign for a game  Identify the pros and cons of different games  Describe common systems that regulate age-related content (e.g. PEGI, BBFC, parental warnings) and describe their purpose | **Websites**  **(Information Technology):**  Work independently on a topic to build and create a website with pages, titles, images, videos and text  Recognise the audience when designing and creating an app/website  Create variables in spreadsheets and understand their role in a program  Edit videos, graphics and documents independently to create a website  Format a digital document to present ideas  Design a suitable brand for a business and promote it  Create a spreadsheet with formulas for profit and loss of a business  Design and build a web page and share it online  Combine text and images to create eye-catching social media adverts  Create a video for a marketing campaign and make improvements following feedback |
| ***Down the Road*** | **Programming Mini Topic**  **(Computer Science):**  Create simple programs using beebots  Design and create ‘unplugged’ programs for others to play  Predict the outcomes of a program | **Digital Books**  **(Information Technology)**  Create digital books combining text, images, and sounds  Type words in a speech bubble using a keyboard  Combine text and images to create a video presentation  Edit video content to improve it  Collect images by capturing screenshots and editing them  Present information on a topic using images, text boxes and voice recordings  Type words correctly using a keyboard  Create a contents page  **History of Computersc**  **(Computer Science):**  Identify, name and explain the functions of the main components of a computer  Investigate how computers have changed over the years  Name and compare common input/output devices  Identify and describe uses of technology beyond school  Explain how robots can be controlled | **Stop-Motion Animations**  **(Information Technology):**  Plan a simple animation using a storyboard  Take a series of pictures and combine them to form an animation  Add text, graphics and sound effects to improve an animation using editing  Tools  Create an animation with moving characters/objects, keeping the camera steady, using 'onion skinning’  Combine animated characters and voice recordings for particular effects | **Programming Games**  **(Computer Science):**  Create a program using a range of events/inputs to control what happens  Work with various forms of input/output  Write programs that accomplish specific goals  Use selection in algorithms and programs, i.e. if… then…  Use logical reasoning to write simple algorithms explaining the sequence commands should run in  Create programs including repeat commands  Solve problems by decomposing into smaller parts  Debug programs so they run correctly  Review a game and make improvements by debugging  Understand why it’s important to know your audience when designing games  Describe ways technology can affect health  Explain the importance of self-regulating the use of technology | **Stop-Motion Animations**  **(Information Technology):**  Plan and create a video by combining images, text, music and different layouts  Plan a multi-scene animation including characters, scenes, camera angles and effects  Edit a stop-go animation to improve the quality of the animation using ‘onion skinning’ features  Create title and credits screens by combining colours and text  Edit/refine a movie to add special effects, text, sound effects, graphics and backing track | **Presentations**  **(Information Technology):**  Plan a digital resource to teach a specific audience something new  Make choices on the best digital software available to present my ideas  Work independently to combine a range of tools (text, video, graphics, images) to present ideas clearly for an audience to follow  Work independently to create a presentation that includes graphics, images and movies  Deliver a presentation to an audience using digital tools |
| ***Over the Water*** | **Digital Posters**  **(Information Technology):**  Create posters by adding images to frames, editing text by changing font style, colour and size  Create images with different layers by placing one image on top of another  Combine words and images to create word art  Type words correctly using a keyboard  Collect images by capturing screenshots and editing them  Explore augmented reality and capture images | **Programming With Debugging**  **(Computer Science):**  Create simple programs using digital software  Debug an error in a simple algorithm  Understand that instructions in an algorithm need to be precise and unambiguous  Use logical reasoning to predict the behaviour of simple programs  Use simple repeats in programs  Use basic selections in programs and explain using the language if … then  Understand basic programming techniques | **Photo Editing Presentations**  **(Information Technology):**  Use a camera accurately to capture interesting perspectives  Apply edits to digital content to achieve a particular effect and save them as both images and videos  Create a presentation with slides  Select options to change the appearance of digital content and explore tools to edit it  Combine images and text for different effects | Embed all skills taught so far across the curriculum | **Apps**  **(Information Technology):**  Work independently on a topic to build and create an app with pages, titles, images, videos and text  Use wire-frames to plan the build for an app  Work collaboratively, using various tools independently for use in an app design  Recognise my audience when designing and creating an app  Design and build an app and share it online  Assess and justify when it is acceptable to use the work of others and give examples of content that is permitted to be reused  Demonstrate the use of search tools to find and access online content which can be reused by others | **Games**  **(Computer Science):**  Use selections and procedures in programs to draw shapes, patterns and pictures  Create more complex programs including commands, debugging, loops, repeats, selections, variables and procedures  Create simple variables and understand their role in a program  Use logical reasoning to detect and correct errors in algorithms  Use editing tools to label digital images |
| ***Thread throughout the curriculum*** | **Digital Literacy Mini Topic**  **(Digital Literacy):**  Explain how other people’s identity online can be different to their identity in real life  Give examples of issues online that might make me feel sad, worried, uncomfortable or frightened and give examples of how I might get help  Recognise that information about me can stay online for a long time and could be copied  Describe what information should not be put online without asking a trusted adult first  Explain rules to keep us safe when we are using technology both in and beyond the home and give examples  Recognise examples of information that is personal to me and what information not to put online | **Digital Literacy Mini Topic**  **(Digital Literacy):**  Explain why it is important to be considerate and kind to people online in ways that do not upset others  Give examples of bullying behaviour, how it could look online and how it can make someone feel  Talk about how someone can/would get help about being bullied online or offline  Describe and demonstrate how to get help from a trusted adult if I find content that makes me feel uncomfortable  Explain how devices can connect to the internet and list some of those devices  Navigate a webpage | **Digital Literacy Mini Topic**  **(Digital Literacy):**  Understand how the internet works, including how it is structured and that data travels along  Describe ways people who have similar likes and interests can get together online  Describe how to search for information within a wide group of technologies (e.g. social media, image sites, video sites)  Explain what autocomplete is and how to choose the best suggestion  Use search engines effectively and narrow search results down  Explain why lots of people sharing the same opinions or beliefs online does not make those opinions or beliefs true  Analyse information and have ways to check its credibility  Be skeptical of things I find online such as fauxtography | **Digital Literacy Mini Topic**  **(Digital Literacy):**  Explain why you need to think carefully about how content you post might affect others, their feelings and how it may affect how others feel about them (their reputation)  Recognise the need to be careful before sharing anything online and only with people you can trust  Explain what bullying is and describe how people may bully others  Describe rules about how to behave online and how to follow them  Understand the different types of social media platforms and how they are used for communication  Understand and give reasons why strong passwords are important and describe simple strategies for creating and keeping passwords private | **Digital Literacy Mini Topic**  **(Digital Literacy):**  Understand about e-commerce - what it is and its impact  Investigate the services offered by the internet  Understand about different types of robotics and how they can impact our lives  Understand about the advancements in technology and the impact this has had on society  Describe the impact of technology on society  Describe some simple ways that help build a positive online reputation  Understand that there are many positives and negatives to using social media | **Digital Literacy Mini Topic**  **(Digital Literacy):**  Describe ways in which media can shape ideas about gender and identify messages about gender roles and make judgments based on them  Describe issues online that might make me or others feel sad, worried, uncomfortable or frightened.  Explain how impulsive and rash communications online may cause problems  Describe how to get help for someone that is being bullied online and assess when to do or say something or tell someone  Identify a range of ways to report concerns about online bullying both in school and at home  Explain why information that is on a large number of sites may still be inaccurate or untrue, assess how this might happen  Create and use strong and secure passwords and use different ones for a range of online services.  Describe ways in which some online content targets people to gain money or information illegally  Explain how identify online can be copied, modified or altered |