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| **Computing** | The Internet:  Skills:  Describe the internet as a network of networks.  Demonstrate how info is shared across the curriculum.  Discuss why network needs protecting. Describe different networked devices, explain how the internet allows us to view WWW. Recognise websites and web pages. Explain different types of media. Describe how to access websites. Create media, which can be found on websites. Add content to WWW, explain new content. Suggest who owns content on websites; explain the rules to protect content. Explain that not everything on the WWW is true or accurate.  Knowledge:  Knowledge of computer networks. Know the definition of a network. Know how data is routed around the internet. Know where websites are stored. Know about copyright and the reasons for it, knowledge of creative common licenses. Know how info spreads quickly around the web. Know that search results are influenced by adverts.  Vocabulary:  Internet, network, router, network, security, network switch, server, wireless access point, website, web page, web address, routing, route tracing, browser, World Wide Web, internet, content, website, web page, links, files, use, download, sharing, ownership, permission, sharing, accurate, honest, content, adverts | Audio Editing:  Skills:  Identify digital devices that can record and play back sound, identify inputs and outputs, recognise a range of sounds. Use a device to record audio and play back sound. Discuss what others include when recording sound for a podcast. Plan and write content for a podcast,. Save digital recording as a file. Open a digital recording from a file. Edit sections of an audio recording. Use editing tools to arrange sections of audio. Suggest improvements.  Knowledge:  To know the location of microphones/speakers on digital devices capable of recording sounds. Know how to use Audacity to record sound. Know how to delete individual tracks. Know how to edit audio, including altering the volume and fading sections. Know how to use the copy, paste and time shift tools in audacity. Know how to export audio recordings.  Vocabulary:  Audio, record, playback, microphone, speaker, headphones, input, output, sound, start, pause, stop, podcast, save, file, selection, open, mixing, time shift, export, MP3, editing, evaluate, feedback. | Photo Editing:  Skills:  Identify changes to an image, explore how images can be changed in real life, and explain the effect of editing. Change the composition of an image; consider why an image may need changing. Talk about changes, choose effects, and explain choices. Identify how an image has been retouched, give examples of positive and negative effects, and choose appropriate tools to retouch an image. Sort images into real or fake. Combine parts of an image to create new images. Consider the effects of adding elements, compare original image with a completed publication, and evaluate the impact of the publication through feedback.  Knowledge:  Know how to crop an image. Know how to search for and save an image. Know how to combine parts of two images. Know how to make image adjustments and change effects in the image editor. Know how to use “lasso select” tool in paint.  Vocabulary:  Image, edit, arrange, select, digital, crop, undo, save, copyright, composition, edit, pixels, rotate, flip, image, adjustments, colours, hue/saturation, sepia, save, version, illustrator, vignette, retouch, clone, recolour, magic wand, adjust, sharpen, brighten, composite, alter, background, foreground, publication, elements, original, font style, shapes, border, layer. | Data Logging:  Skills:  Choose a data set to answer a given question. Suggest questions that can be answered, identify data over time. Exaplin that sensors are input devices, identify that data from sensors can be recorded. Identify the intervals used to collect data, import a data set, use a computer to view data, use a computer program to sort data. Plan how to collect data using a data logger, use a data logger to collect data, interpret data, draw conclusions.  Knowledge:  Know that a data logger is a digital device that can collect data over time and store it. Know that input devices allow data to be entered into a computer. Know that keyboards, mice and microphones are all input devices. Know that a sensor can capture data about temp, light, sound, humidity, pressure etc.  Vocabulary:  Data, table (layout), input device, sensor, data logger, logging, data point, interval, analyse, data set, import, export, logged, collection, review, conclusion. | Programming A: Repetition in shapes:  Skills:  Program a computer by typing commands, explain the effect of changing a value of a command, create a code snippet for a given purpose. Use a template to draw what the program needs to do, write an algorithm, identify patterns, and use a count-controlled loop. Predict the outcome of a program; choose which values to change in a loop. Identify chunks of actions in the real world. Design a program that includes count controlled loops.  Knowledge:  Know how to use Logo. Know how to use the logo commands. Know that repetition can include actions and commands. Know that loops can be repeated indefinitely, or a set number of times: count controlled loops. Know how to carry out code tracing. Know how to decompose code snippets. Know how to recognise patterns in their programming.  Vocabulary:  Program, turtle: arrow/turtle image, commands, code snippet, algorithm, design, debug, logo, debugging, pattern, repeat, repetition, count controlled loop, algorithm , value, trace, value, repeat, decompose, procedure, | Repetition in games:  Skills:  List an everyday task as a set of instructions, predict the outcome of a snippet of code, modify a snippet, modify loops, recognise some programming languages enable more than one process to be ran at once, choose an action which will be repeated, evaluate the effectiveness of a programme, re-use existing code snippets, evaluate the use of a repetition, refine the algorithm in my design, build a programme that follows a design, evaluate the steps.  Knowledge:  Know that repetition is where actions or commands in programming are repeated. Know that repeated commands can also be referred to as a loop. Know that there are four levels which can help describe a project.  Vocabulary:  Scratch, programming, sprite, blocks, code, loop, repeat, value, forever, infinite loop, count controlled loop, costume, event block, duplicate, modify, design, algorithm, debug, evaluate, |