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| **Class** | **Aut 1** | **Aut 2** | **Spr 1** | **Spr 2** | **Sum 1** | **Sum2** |
| R | **All About Me**  Using tablets to play games to support learning. | **People Who Help Us**  Retelling stories using images / apps.– Story Maps. | **Amazing Animals**  Use images, video clips, shared texts and other resources to bring the wider world into the classroom. | **Come Outside**  Use the BeeBots  (directions) | **Ticket To Ride**  Use bee-bots on simple maps.  Comparing places on Google Earth – how are they similar/different? | **Fun At the Seaside**  Use QR codes on iPads to read stories. |
| 1 | **Online Safety**  **(PM – Unit 1.1)**  **Know how to use technology safely and respectfully.**  **Know how to keep personal information private**  **Identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.**  **Vocabulary: Login, Logout, Password, Private, Personal Information, Concern, Alerts, Notification.** | **DATA**  **Pictograms (PM - Unit 1.3)**  **To understand that data can be represented in picture format.**  **To contribute to a class pictogram.**  **To use a pictogram to record the results of an experiment.**  **Vocabulary: Collect Data, Compare, Data, Pictogram, Record Results, Title** | **PROGRAMMING**  **Beebots**  **Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.**  **Know how to create and debug simple programs.**  **use logical reasoning to predict the behaviour of simple programs.**  **Vocabulary: Algorithm, Programs, Digital Device, Create, Debug, Predict** | **Maze Runners**  **(PM – Unit 1.5)**  **Understand the functionality of the direction keys.**  **Understand how to create and debug a set of instructions (Algorithm)**  **Know how to use the additional direction keys as part of an algorithm.**  **Know how to create a longer algorithm for an activity.**  **Vocabulary: Algorithm, Direction, Route, Challenge, Instruction, Undo, Command, Unit** | **Coding**  **(PM – Unit 1.7)**  **Understand what instructions are and predict what might happen when they are followed**  **Know how to use code to make a computer program.**  **Understand what objects and actions are.**  **Understand what an event is.**  **Understand what backgrounds and objects are.**  **Know how to plan and make a computer program.**  **Vocabulary: Action, Algorithm, Background, Code, Coding, Command, Debug, Event, Execute.** | **Tech outside school**  **(PM – Unit 1.9)**  **Walk around the local community and find examples of where technology is used.**  **To record examples of technology outside school.**  **Vocabulary: Computer, technology, community.** |
| 2 | **ONLINE**  **E-safety**  **Internet searching (PM - unit 2.5)**  **To understand that information put online leaves a digital footprint or trail.**  **To identify the steps that can be taken to keep personal data and hardware secure.**  **To use an internet search engine.**  **Vocabulary: Digital Footprint, Network, Web Page, Domain, Search Engine, World Wide Web, Internet, Web Address, Web Site.** | **ONLINE**  **E-safety**  **Internet searching (PM - unit 2.5)**  **To understand that information put online leaves a digital footprint or trail.**  **To identify the steps that can be taken to keep personal data and hardware secure.**  **To use an internet search engine.**  **Vocabulary: Art, Palette, Style, Fill, Pointillism, Impressionism, Surrealism** | **MULTIMEDIA**  **Creating pictures (PM - Unit 2.6)**  **To know the functions of the 2Paint a Picture tool.**  **To know how to create work in an impressionist style.**  **To know how to create work in a pointillist style.**  **To use the line tool.**  **To use a pattern template.**  **Vocabulary: Beat, Compose, Note, Tune, Sound effect, Soundtrack, Speed, Tempo, Volume.** | **MULTIMEDIA**  **Making Music (PM - Unit 2.7)**  **To make music digitally using 2Sequence.**  **To explore, edit and combine sounds using 2Sequence.**  **To think about how music can be used to express feelings and create tunes which depict feelings**.  **Vocabulary: Binary Tree, Field, Record, Data, Pictogram, Search, Database, Question, Sort.** | **DATA**  **Questioning and concept maps (PM - Unit 2.4)**  **To learn about data handling tools that can give more information than pictograms.**  **To use yes/no questions to separate information.**  **To construct a binary tree to identify items.**  **To use 2Question (a binary tree database) to answer questions.**  **Vocabulary: Binary Tree, Field, Record, Data, Pictogram, Search, Database, Question, Sort.** | CODING (PM - Unit 2.1)  **To understand what an algorithm is.**  **To create a computer program using an algorithm.**  **To understand that algorithms follow a sequence.**  **To design an algorithm that follows a timed sequence.**  **To understand and debug simple programs.**  **Vocabulary: Action, Bug, Collision Detection, Algorithm, Button, Command, Event, Background, Click Events, Debug, Execute.** |
| 3 | **ONLINE**  **E-safety (PM – Unit 3.2)**  **+ BASIC SKILLS**  **Children know what a password is and how to keep it safe.**  **Children know if they are old enough to play a computer game.**  **Children know that not everything we read on online is true.**  **Vocabulary: Appropriate, Password, Spoof, Vlog, Blog, Personal Information, Reputable source, Reliable Source, Website, Inappropriate, Internet, Permission, Verify.** | **MULTIMEDIA**  **Simulations**  **(PM - Unit 3.7)**  **Children know that a computer simulation is a program, which mimics real life scenarios.**  **Children know the reasons why computer simulations are useful.**  **Know how to analyse and evaluate a simulation.**  **Vocabulary: Analysis, Modelling, Simulation, Evaluation, Decision.** | **DATA**  **Branching databases (PM – Unit 3.6)**  **Children know the functions of a branching database.**  **Children make their own branching databases.**  **Children can modify and alter a branching database, which they have created.**  **Vocabulary: Branching, Data, Databases, Functions, Modify.** | **ONLINE**  **Internet research and emails**  **Children know how to use the internet safely and effectively.**  **Children use the internet to help them research.**  **Children can send emails to multiple people and include attachments.**  **Vocabulary: Internet, Research, Emails, Effectively, Multiple, Attachments.** | **DATA**  **Graphing (PM – Unit 3.8)**  **Children know the different graphs they can make on a computer.**  **Children can input data on to a graph.**  **Vocabulary: Graphing, Graphs, Input, Data.** | **CODING**  **(PM) Unit 3.1**  Or SCRATCH  **Children know that sometimes you will need to use ‘if’ when you are coding.**  **Children know that a timer is a variable when coding and why this would be useful.**  **Children know that an algorithm is a set of instructions needed to complete a task.**  **Vocabulary: Action, Alert, Algorithm, Background, Bug, Button, Click event, Code, Collision Detection Event, Command, Debug.** |
| 4 | **E-safety – Socialising online**  **(PM – Unit 4.2)**  **Identify the meaning and the effect of your digital footprint.**  **Understand the term SPAM and highlight how to deal with SPAM.**  **Understand how to protect themselves from online identity theft.**  **Understand that copying the work of others is called ‘plagiarism.**  **Vocabulary: AdFly, Attachment, Citation, Collaborate, Cookies, Copyright, Digital footprint, Malware, Phishing, Plagiarism, Spam, Ransomware, SMART rules** | **Spreadsheets**  **(PM-Unit 4.3)**  **Know how to format cells as currency, percentage, decimal to different decimal places or fraction.**  **Know how to use the formula wizard to calculate averages.**  **Know how to combine tools to make spreadsheet activities.**  **Use a spreadsheet to model a real-life situation.**  **Add a formula to a cell to automatically make a calculation in that cell.**  **Vocabulary: AdFly, Attachment, Citation, Collabroate, Cookies, Copyright, Digital footprint, Malware, Phishing, Plagiarism, Spam, Ransomware, SMART rules** | **Online – Writing for different audiences**  **(PM – Unit 4.4)**  **Children to look at and discuss a variety of written material where font size and type are tailored to the purpose of the text.**  **Use the text formatting to make a piece of writing fit for its audience and purpose.**  **Children to interpret a variety of incoming communications and use these to build up the details of a story.**  **Vocabulary: Campaign, Format, Font, Genre, Opinion, Reporter, Viewpoint.** | **Coding – Logo**  **(PM – Unit 4.5)**  **Know the structure of the coding language of Logo.**  **Know how to input simple instructions in Logo.**  **Create letter shapes using the 2Logo program.**  **Know how to use the Repeat function in Logo to create shapes.**  **Know how to use and build procedures in Logo**.  **Vocabulary: Campaign, Format, Font, Genre, Opinion, Reporter, Viewpoint.** | **Multimedia – Animation**  **(Purple Mash)**  **Identify the meaning of an animation.**  **Children understand animation frames.**  **Identify the meaning of stop-start animation.**  **Children know what the Onion Skin tool does in animation.**  **Use backgrounds and sounds to make more complex and imaginative animations.**  **Know what ‘stop motion’ animation is and how it is created.**  **Use ideas from existing ‘stop motion’ films to recreate their own animation.**  **Vocabulary: Animation, Frames Per Second (FPS) Onion Skinning, Pause, Frame, Stop Motion.** | **Hardware Investigators**  **(PM – Unit 4.8)**  **Understand the different parts that make up a computer.**  **Recall the different part that make up a computer.**  **Know the difference between hardware and software.**  **Vocabulary: Components, CPU, Graphics Card, Hard Drive, Input, Motherboard, Network Card, Output.** |
| 5 | **Online Safety**  **(PM – Unit 5.2)**  **Gain understanding of the impact that sharing digital content can have.**  **Know how to maintain secure passwords.**  **Understand the advantages, disadvantages, permissions and purposes of altering an image digitally and the reasons for this.**  **Vocabulary: Citation, Copyright, Collaborate, Communication, Creative Commons Licence, Encrypt, Identify theft, PEGI ratings, Malware, Ownership, Password, Spoof, Validity, Reliable source.** | **MULTIMEDIA CONCEPT MAPS**  **Designing concept maps (PM – Unit 5.7)**  **Understand the need for visual representation when generating and discussing complex ideas.**  **Understand and use the correct vocabulary when creating a concept map.**  **Understand how a concept map can be used to retell stories and information.**  **Vocabulary: Concepty, Collaborate, Story Mode, Concept Map, Node, Connection, Presentation Mode.** | **DATA**  **Spreadsheets (PM – Unit 5.3) Databases (PM – Unit 5.4)**  **Explain what a spreadsheet is and how to use one.**  **Explain what a database is and how to use one.**  **Explain how databases and spreadsheets are used in day to day life.**  **Vocabulary: Rows, Data, Spreadsheet, Columns, Formula, Format, Formula Bar, Advance mode, Formula Wizard**. | **MULTIMEDIA DESIGN**  **3D Modelling (PM – Unit 5.6)**  **Explain what a CAD is.**  **Explain the difference between 2D, 3D and net designs.**  **Explore the effect of moving points when designing.**  **Vocabulary: 2D, 3D, 3D Printing, CAD – Computer aided design, Design brief, Net, Pattern Fill, Points, Template.** | **CODING**  **Game creator and coding skills (PM – Unit 5.1 and 5.5)**  **Understand what stimulation is.**  **Understand how to use friction in code.**  **Understand what the different variables types are and how they are used differently.**  **Understand what concatenation is and how it works.**  **Know how to design and create a game environment and game quest.**  **Vocabulary: Abstraction, Action, Algorithm, Concatenation, Debug, Decomposition, Efficient, Flowchart.** | |
| 6 | **MULTIMEDIA**  **Animation (iPads – stop motion)**  **Know what an animation is.**  **Understand the meaning of onion skinning.**  **Know what is meant by stop frame animation.**  **Vocabulary: Animation, Movement, Inanimate, motion, Onion skinning, Graphics, Frames,** | **ONLINE**  **Online safety**  **Blogging**  **(PM – Unit 6.4)**  **Know what a blog is.**  **Know what a blog can be written about.**  **Understand how the audience is involved in a blog.**  **Vocabulary: Blog, Subject, Audience, Key Features.** | **CODING**  **(PM) Unit 6.1**  **Understand how the launch command words.**  **Understand how functions are created and celled.**  **o understand how user input can be used in a program.**  **Understand how 2Code can be used to make a text adventure game.**  **Vocabulary: Ac**  **tion, Co-ordinates, Execute, Algorithm, Event, Command, Decomposition, Debug, Flowchart**. | **ONLINE**  **NETWORKS**  **(PM) Unit 6.6**  **Understanding WWW and Who Tim Berners Lee is.**  **To know what the difference is between the Internet and the World Wide Web.**  **Know the difference between a LAN and a WAN.**  **To know who Tim Berners-Lee is and to know what he invented.**  **Vocabulary: Hub/Switch, Network, Wide Area Network, Internet, World Wide Web, Local Area Network, Router, Wi-Fi.** | **MULTIMEDIA**  **QUIZZING**  **(PM) Unit 6.7**  **Create a quiz for younger children**  **Know how to create a picture-based quiz for younger children.**  **Learn how to use the question types within 2Quiz.**  **Know how to explore the grammar quiz games.**  **Know how to make a quiz that requires the player to search a database**  **Know how to make a quiz to test your teachers or parents.**  **Vocabulary: Audience, Audio, Case-sensitive, Clone, Cloze, Preview, Quiz.** | **DATA**  (**PM) Unit 6.3**  **or Excel Spreadsheets**  **Budgets**  **Know how to use a spreadsheet to calculate the discount and final prices in a sale.**  **Know how to use a spreadsheet to investigate the probability of the results of throwing many dice.**  **Know how to use a spreadsheet to plan how to spend pocket money and the effect of saving money.**  **Know how to use a spreadsheet to plan a school charity day to maximise the money donated to charity.**  **Vocabulary: Row, Data, Spreadsheet, Columns, Formula.** |