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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.** |