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|  | **Autumn 1** | **Autumn 2** | **Spring 1** | **Spring 2** | **Summer 1** | **Summer 2** |
| EYFS | **Screen:**  -Active Inspire, e.g. children are to draw and label a picture of themselves.  -Twinkl Maths Games / Counting Games.  **iPads:**  **-**Doodle Buddy.  -Bee Bot game.  **Computer:**  -Phonics Games.  **-**Active Inspire.  **Bee Bots:**  -Children are to direct the Bee Bots along the path to Granny’s House. | **Screen:**  -Active Inspire, e.g. children are to design their own Christmas Tree.  -Twinkl Maths Games / Super Pairs 2D Shape Games.  **iPads:**  **-**Doodle Buddy.  -Bee Bot game.  **Computer:**  -Phonics Games.  **-**Active Inspire.  **Bee Bots:**  -Children are to direct the Bee Bots through the story of Stick Man. Can they order the events and go to them correctly?  Enrichment:  E-Safety Audit | **Screen:**  -Active Inspire, e.g. children are to draw a Gruffalo Scene and label it. Can they write a caption?  -Twinkl Maths Games / Number Bonds to 5 matching game.  **iPads:**  **-**Doodle Buddy.  -Bee Bot game.  **Computer:**  -Phonics Games.  **-**Active Inspire.  **Bee Bots:**  -Children are to move the Doctor Bee Bots to help the different objects.  Enrichment:  Safer Internet Day | **Screen:**  -Active Inspire, e.g. children are to design their own pancake and label the toppings.  -Twinkl Maths Games / Number Bonds to 10 matching game.  **iPads:**  **-**Doodle Buddy.  -Bee Bot game.  **Computer:**  -Phonics Games.  **-**Active Inspire.  **Bee Bots:**  -Children are to programme the Bee Bots to visit the different planets. | **Screen:**  -Active Inspire, e.g. children are to draw a farm scene and label it.  -Twinkl Maths Games / Addition Game.  **iPads:**  **-**Doodle Buddy.  -Bee Bot game.  **Computer:**  -Phonics Games.  **-**Active Inspire.  **Bee Bots:**  -Children are to move the Bee Bot through the story of ‘What the Ladybird Heard’. | **Screen:**  -Active Inspire, e.g. children are to draw an under the sea setting and label it.  -Twinkl Maths Games / Counting to 20 Game.  **iPads:**  **-**Doodle Buddy.  -Bee Bot game.  **Computer:**  -Phonics Games.  **-**Active Inspire.  **Bee Bots:**  -Children are to programme the Bee Bot to collect the treasure dotted around the carpet. |
| Year 1 | **Computing systems and networks – 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 | **Creating media – 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  Enrichment:  E-Safety Audit | **Creating media – Digital writing**  To use a computer to write  To add and remove text on a computer  To identify that the look of text can be changed on a computer  To make careful choices when changing text  To explain why I used the tools that I chose  To compare typing on a computer to writing on paper  Enrichment:  Safer Internet Day | **Grouping data**  To label objects  To identify that objects can be counted  To describe objects in different ways  To count objects with the same properties  To compare groups of objects  To answer questions about groups of objects | **Programming A**  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 B – Introduction to animation**  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 a program |
| Year 2 | **Computing systems and networks- 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. | **Creating media- 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.   Enrichment:  E-Safety Audit | **Creating media- Making Music**   * To say how music can make us feel. * To identify that there are patterns in music. * To experiment with sound using a computer. * To use a computer to create a musical pattern. * To create music for a purpose. * To review and refine our computer work.   Enrichment:  Safer Internet Day | **Data and information- Pictograms**   * To recognise that we can count and compare objects using tally charts. * To recognise that objects can be represented as pictures. * To create a pictogram. * To select objects by attribute and make comparisons. * To recognise that people can be described by attributes. * To explain that we can present information using a computer. | **Programming A- 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 B- An Introduction to 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. |
| Year 3 | **Computing Systems and Networks – Connecting Computers**   * To explain how digital devices function * To identify input and output devices * To recognise how digital devices can change the way that 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 | **Creating Media – 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 Enrichment:  E-Safety Audit | **Creating Media – Desktop Publishing**   * To recognise how text and images convey information * To recognise that text and layout can be edited * To choose appropriate page settings * To add content to a desktop publishing publication * To consider how different layouts can suit different purposes * To consider the benefits of desktop publishing   Enrichment:  Safer Internet Day | **Data and Information – 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 | **Programming A – Sequence in Music**   * 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 | **Programming B – Events and Actions**   * 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 |
| Year 4 | **The Internet**   * To describe how networks physically connect to other networks * 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   Enrichment:  Coding Club | **Creating media – 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   Enrichment:  Coding Club  E-Safety Audit | **Photo Editing**   * To explain that the composition of digital images can be changed * To explain that colours can be changed in digital images * To explain how cloning can be used in photo editing * To explain that images can be combined * To combine images for a purpose * To evaluate how changes can improve an image   Enrichment:  Safer Internet Day  Coding Club | **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   Enrichment:  Coding Club | **Programming A - 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   Enrichment:  Coding Club | **Programming B – 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   Enrichment:  Coding Club |
| Year 5 | **Computing systems and networks – Sharing information**  • To explain that computers can be connected together to form systems  • To recognise the role of computer systems in our lives  • To identify how to use a search engine  • 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  Enrichment:  Coding Club | **Creating media – Vector drawing**  • To identify that drawing tools can be used to produce different outcomes  • To create a vector drawing by combining shapes  • To use tools to achieve a desired effect  • To recognise that vector drawings consist of layers  • To group objects to make them easier to work with  • To apply what I have learned about vector drawings  Enrichment:  Coding Club  E-Safety Audit | **Creating media – Video editing**  • To explain what makes a video effective  • 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  Enrichment:  Safer Internet Day  Coding Club | **Data and information – 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 a real-world database to answer questions  Enrichment:  Coding Club | **Programming A – Selection in physical computing**  • 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  Enrichment:  Coding Club | **Programming B – 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  Enrichment:  Coding Club |
| Year 6 | **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  Enrichment:  Coding Club | **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  Enrichment:  Coding Club  E-Safety Audit | **Programming A – 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  Enrichment:  Safer Internet Day  Coding Club | **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  Enrichment:  Coding Club | **3D modelling**  -To recognise that you can work in three dimensions on a computer  -To identify that digital 3D objects can be modified  -To recognise that objects can be combined in a 3D model  -To create a 3D model for a given purpose  -To plan my own 3D model  -To create my own digital 3D model  Enrichment:  Coding Club | **Programming B – Sensing**  -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  Enrichment:  Coding Club |