	Autumn	Spring	Summer
EYFS	**Understanding the world** **Technology** • Play with a variety of wheeled toys, exploring pushing and pulling. • To know that information can be found on the internet as well as nonfiction books. • Order a sequence of up to 3 events. • Order a sequence of up to 5 events. **Digital Literacy (DL) and IT beyond the school.** • Can identify a device that uses technology. • Ask permission before using the Internet. • Tell an adult if something worrying or unexpected happens whilst using technology. • Talk about technology that is used at home, in school and in the world around them. • Use a safe part of the Internet to explore, play and learn.	**Understanding the world** **Technology** • Play with a variety of wheeled toys, exploring pushing and pulling. • To know that information can be found on the internet as well as nonfiction books. • Order a sequence of up to 3 events. • Order a sequence of up to 5 events. **Information Technology (IT)** • Talk about different kinds of information such as pictures, videos, text and sound. • Use a mouse and touch screen to move objects on a screen. • Create shapes and text on a screen.	**Understanding the world** **Technology** • Play with a variety of wheeled toys, exploring pushing and pulling. • To know that information can be found on the internet as well as nonfiction books. • Order a sequence of up to 3 events. • Order a sequence of up to 5 events. **Computer Science (CS)** • Be able to give a floor robot instructions to make it move. • Use simple software and explain what you are doing. • Understand what happens when you click a button or touch an icon.
Key Vocabulary	• Button, mouse, icon, keyboard, touch screen, tablet, pc, laptop, camera, radio, smartphone	• Button, mouse, icon, keyboard, touch screen, tablet, pc, laptop, direction, arrows, input and output.	• Button, mouse, icon, keyboard, touch screen, tablet, pc, laptop, direction, arrows, input and output.
Year 1	**Information Technology (IT)** BASIC COMPUTER SKILLS: • Log in • Shut down • Passwords • Keyboard /mouse skills DL - Why do we have passwords? **Digital Literacy (DL)** PRODUCING DIGITAL MEDIA • How to process and format words. • How to process text. • How to add digital images.	**Computer Science (CS)** UNPLUGGED ACTIVITIES • Learn what an algorithm is. • Apply this knowledge to unplugged activities. **Computer Science (CS)** PROGRAMMING ROBOTS • Program devices such as a Beebots. • Compare programming on screen, building on knowledge from Autumn 1 about algorithms.	**Information Technology (IT)** DATA HANDLING • Transfer of data into software. • Comparison between handmade and digital pictogram. **Digital Literacy (DL)** PRESENTING INFORMATION • Pupils consider how to present cross curricular information digitally. • Compare with paper presentations. DL - Pupils to discuss how they know if a website is right for them or not.
Key Vocabulary	• Keyboard, keys, letters, Caps lock, Shift, Enter, Backspace. Log In, Shut Down, Password. Security. • Keyboard, keys, letters, Caps lock, Shift, Enter, Backspace. Log In, Shut Down.	• BeeBot, forward, backwards, right, left, turn, program, algorithm, clear	• Pictogram, graph, chart, tally, collect, count, data • image, photograph, import, text, font, colour, delete
Year 2	**Information Technology (IT)** WHAT IS A COMPUTER? · • Pupils describe computer parts.	**Computer Science (CS)** SCRATCH JNR • Pupils use Scratch to write their own code. • Cross curricular coding projects.	**Information Technology (IT)** MODIFYING TEXT & IMAGES • Building on previous learning about keyboard skills and format texts.

	• What roles do computers play within society? DL - Using a computer responsibly in terms of time and purpose. **Computer Science (CS)** UNPLUGGED ALGORITHMS • Continue to explore algorithms. • How to debug an algorithm that is not working.	**Digital Literacy (DL)** STORING & PRESENTING DATA • What is data? • Compare different methods of data storage. • Turning data into information through graphs and charts. • Identifying what personal information is and whom it should be shared with.	• Editing images and editing them for a purpose. Cross curricular links. **Digital Literacy (DL)** PRESENTING DATA • Pupils present a class topic using APP Shadow Puppet EDU. • Pupils will edit fonts and photos to improve their presentation.
Key Vocabulary	• Computer, Input, Output, Invention • Sequence, Code, Blocks, Sprites, Repeat, Bug, Debugging	• Sequence, Code, Blocks, Sprites, Repeat, Bug, Debugging • Records, Fields, Value, Data, Database, Graphs, Charts, Sort.	• Audience, Font, Online, Audience • Text, Bold, Italic, Keyboard
Year 3	**Information Technology (IT)** • Use of different Software. Composing Emails. • Pupils to explore the features of Microsoft Word - Skills to be used to compose an email. DL: Children to consider their responsibilities to others online. **Computer Science (CS)** PROGRAMMING SKILL • Programming a Game. • Explore sequencing, selection, repetition, inputs and outputs in programs they create.	**Computer Science (CS)** PROGRAMMING PROJECT • Creating a Programming World. • Pupils to use Kodu to create a programmable world **Information Technology (IT)** MEDIA ALERTING DIGITAL MEDIA • Pupils to consider how media they see could have been altered. DL: Children consider that all of the media they see could have been altered.	**Computer Science (CS)** HOW THINGS WORK • How things work including networks. • Pupils will learn about networks. What hardware is required for networks? **Information Technology (IT)** • Design Publishing Online content. • To learn about graphic design. • How to publish and promote their own content (links to cross curricular).
Key Vocabulary	• Email, malicious, phishing, social media, networks, internet, world wide web webcam, keyboard • Sequence, Code, Blocks, Sprites, Repeat, Bug, Debugging	• Kodu, computational, algorithm, programming, debugging, sequence, sprite, artificial intelligence, NPC (non-player character), pathway. • Camera, image, Picasa, pixel, portfolio, theme, consent.	• Laptop, desktops, hard drive, fan, heat sink, keyboard, motherboard, microprocessor, memory, disc drive, network, router, hub, switch, Wi-Fi. • Social media, graphic design, publishing, username, password, marketing, template, elements, text, effect, filter, adjust, crop.
Year 4	**Information Technology (IT)** USE OF DIFFERENT SOFTWARE BRANCHING DATABASE • Concept of a branching database. • Create a branching database. • Present their own branching database. **Computer Science (CS)** PROGRAMMING SKILLS REPETITION AND FOREVER LOOPS • Pupils learn to use repeat loops in their code	**Computer Science (CS)** PROGRAMMING PROJECT WITH SCRATCH • Pupils create a game using repeat loops. **Information Technology (IT)** MEDIA: CREATING A VIDEO • Pupils create a video. • Apply special effects. • Learn how photo's / films can be edited online for adverts.	**Computer Science (CS)** HOW THINGS WORK NETWORK & ONLINE SERVICES • Understand school network. • What does a good password look like? DL: Pupils understand why a password is important and what a good one looks like. **Information Technology (IT)** DESIGN SPREADSHEETS • Create art using and creating a key in Microsoft Excel.

Key Vocabulary	• Branching database, database, organise, transition, slides, log. • Repeat, forever, loop, code, debug, algorithm, sequence and selection.	• Sequence, variable, algorithm, code, repeat, loop, input, output, device. • Video, Special effects, CGI, Green screen, Audio, Image, Text.	• WAN, LAN, network, router, Wi-Fi, wireless, Local, cable, connection, binary, modem, switch, server. • Spreadsheets, rows, columns, algebra, formula, pixel, binary.
Year 5	**Information Technology (IT)** USE OF DIFFERENT SOFTWARE CREATE/SEARCH DATABASES • Microsoft Excel used to create a database. Then search the database. **Computer Science (CS)** PROGRAMMING SKILLS IF & IF ELSE STATEMENTS • Pupils introduced to If & If Else Statements in Scratch or similar programming language.	**Computer Science (CS)** PROGRAMMING PROJECT Creating Music using Code. • Pupils will learn to create music by using code. **Information Technology (IT)** MEDIA STOP MOTION ANIMATION • Learn about stop frame animation. Create a storyboard. • Using Stop Motion Studio to create their own stop frame animation. DL: Link to PSHE Children to create stop animation film about relationships online, and who you can trust.	**Computer Science (CS)** HOW THINGS WORK DIFFERENCE IN WWW & INTERNET • Learn the difference between WWW. & the internet • Learn about IP address and what it is. *DL: Pupils learn what an online footprint is and the reasons technology holds onto your information. Link to PSHE.* **Information Technology (IT)** DESIGN 3D MODELLING • Children learn to design models using *online CAD* software
Key Vocabulary	• Spreadsheet, cell, row, column, formula, calculate, format, insert, ascending, descending, sort, graph, total. • Algorithm, sprite, loops, variables, events, control, sensing, forever.	• Samples, composition, rhythm • Animation, Frame, Pivot Stick Figure Animator, Image, Stop Frame Animator, editing.	• Network, wireless access points, server, router, wired device, wireless device, Ethernet cable. • CAD (Computer aided design), Template, Select, Draw, Push /Pull, Orbit, Pan, Zoom, Zoom Extents, extrude, Paint bucket.
Year 6	**Information Technology (IT)** CREATING FORMULA • To understand how to organise, calculate and present data within a spreadsheet so that calculations can be made for different purposes. **Computer Science (CS)** PYTHON INTRODUCTION • To compare block based programming to written code. To introduce Python as a text based method of programming.	**Computer Science (CS)** PROGRAMMING A GAME • To create an interactive, playable game using conditionals, variables and operators. **Information Technology (IT)** **CREATING A PODCAST** • To produce a podcast based on a piece of writing from another curriculum area or aspect of school life. (DL focus)	**Information Technology (IT)** CREATING A WEBSITE USING HTML • To design a multi page informational website, considering the layout, user experience and key features including home page, links and images. **Digital Literacy (DL) + Information Technology** SOCIAL MEDIA & BEING SAFE ONLINE • To understand the purpose and different aspects of social media and how to use it safely.
Key Vocabulary	• Cell, Column, Row, Formulae, Graph, Chart Spreadsheet, Cell Reference, Grid, Tab, Workbook, Merge, Auto Sum • Sequence, Selection, Iteration, Loop, Variable, Conditional Statement, RGB values, Function.	• Algorithm, abstraction, decomposition, logic, sequence, variable, input, output, debug, operators, loops • Podcast, record, sound, audio, edit, refine	• Html, headings, text, images, layout, website, source code • Social media, PEGI, Networks, In-app, permissions, ratings, Forum,