Computing planning overview 2021-2022

	Autumn Term		Spring Term		Summer Term	
Year 1	**Basic Computing Skills** Pupils will learn how to log in and shut down a computer accurately and begin to understand the importance of a password. They will develop basic typing skills. *Digital Literacy: Why we have passwords.*	**Producing Digital Media** Pupils will learn how to use a word processing program to write and format text. They will add in digital images and consider the audience for their work.	**Unplugged Algorithms** Pupils will learn what an algorithm is and apply it to both off-computer (unplugged) and on computer tasks.	**Programming Robots** Pupils will program a physical device such as a BeeBot, and compare it with programming on screen versions of the devices. They will build upon their knowledge of algorithms from Spring 1.	**Data Handling: Pictograms** In the unit, pupils will explore how to transfer physical data from a tally chart into a digital pictogram. They will compare the difference with creating a physical pictogram	**Presenting Information** Pupils will consider a variety of ways to present cross curricular information digitally, and compare the advantages and disadvantages with paper-based content. *Digital Literacy: Pupils to discuss how they know if a website is right for them or not.*
Year 2	**Basic Computing Skills** Pupils will learn to access different platforms using various logins and how to send/receive simple emails – considering responsible use and password integrity.	**Unplugged Algorithms** In this unit pupils will continue to explore what algorithms are and what strategies they can use to find bugs when their algorithm is not working.	**Basic Block Coding** In this unit pupils will use the Code Studio site to write their own block code in a number of different projects	**Storing and Presenting Data** In this unit pupils will look at what data is and compare different methods of data storage. Pupils will also learn how to turn data into information by creating different styles of graphs and charts *Digital Literacy: Identifying what personal information is and whom it should be shared with.*	**Modifying Text and Images** In this unit pupils will build on previously learnt keyboard skills and learn how to format text in a number of different ways. Pupils will also work with images, editing them to meet a purpose.	**Presenting Data** In this unit pupils create a presentation of their class topic using the app Shadow Puppet EDU. Pupils will learn how to edit fonts and photos to make an engaging presentation.
Year 3	==**Programming a Game** Pupils will explore sequencing, selection, repetition, inputs and outputs in programs they create.==	**Composing Emails** Pupils will explore the different advanced features of Microsoft Word. They will also use these skills to compose an email. *Digital Literacy objective: Children consider their responsibilities to others online*	==**Creating a Programmable World** Pupils will create a programmable world using Kodu and Purple Mash.==	**Alerting Digital Media** Pupils will consider that all of the media they see could have been altered. Digital Literacy objective: Children consider that all of the media they see could have been altered	==**How Things Work including Networks** Pupils will develop an understanding of networks and the hardware required.==	**Publishing Online Content** Pupils will learn about graphic design, publishing and promoting their own content.
Year 4	==**Repetition and Forever Loops** Pupil will explore sequencing, selection, repetition, inputs and outputs in programs they create. They will also learn to use repeat loops in their code.==	**Coding with Scratch** Pupil create a game using repeat loops.	==**Branching Databases** Pupils learn about the concept of branching database and create their own using presentation software==	**Creating a Video** Pupils create their own videos and apply special effects to them (Information Technology). Learn how photos/videos can be edited online for advertisement. *Digital Literacy: Learn how photos/videos can be edited online for advertisement*	==**Networks and Online Services** Understand what a network is and the parts of the local network in our school (Computer Science) Pupils understand why a password is important and what a good password looks like (digital Literacy).== *==Digital Literacy: Pupils understand why a password is important and what a good password looks like.==*	**Spreadsheets** Create art using and creating a key in Microsoft Excel

Year 5	**Variables, If and If Else Statements** Children will be introduced to If and if else statements in Code Studio. *Digital Literacy – certificates and ratings for games and films*	**Create / Search Database** In this unit the children will use Excel to create and search a database.	**Creating Music** Using Code In this unit the children will use a number of sites to create music using code.	**Stop Motion Animation** In this unit the children will learn about all aspects of stop frame animation. They will storyboard their own story before using a software package to create their own stop frame animation. *Digital Literacy: Pupils to create a short animation about relationships online, who can you trust?*	**Difference WWW/Internet** In this unit the children will learn the difference between the WWW and the internet. They will also understand what is meant by IP address. *Digital Literacy: Pupils learn what an online footprint is and the reasons technology holds onto our information.*	**3D Modelling** Children will learn to design models using online CAD software.
Year 6	**Using Variables** Pupils will learn what variables are and how to use them when programming, using the website Code Studio *Digital Literacy – Screen time and managing access to technology*	**Program for An Audience** In this unit pupils will create an animation using the application Scratch 3.0.	**Creating Formula in Excel** Pupils will learn how to organise data and make calculations using the application Microsoft Excel.	**How Data is Stored** In this unit pupils will learn and explore how data is transferred and received.	**Plan and Compose Music** Pupils will learn how to compose music and learn how to record and edit a simple podcast. *Digital Literacy: Pupils learn about copywriting and using someone else's work responsibly*	**HTML** Pupils will learn how to use HTML coding to program a webpage *Digital Literacy: Pupils learn about fake news and how it can be used as click bait*

Yellow: Lessons taught by MGL