



## Year 4 Computing Framework

### Coverage New Learning Recall of prior learning CH – Computing Hierarchy

Terms	Autumn		Spring		Summer	
Topic	E-Safety / Programming		Communicate / Data		Digital Creativity	
Computing Topic	E-Safety	Programming with Scratch	Communicate/ Digital Literacy	Data	Stop Motion Animation	Video creation and editing.
Weeks						
1	- Understand and agree to use the internet safely and use the Google Pledge <i>-Use Q and A to discuss experiences of using the internet</i>	Explain how the interface works in Scratch, Understand what the tools are and how they work. Explain the stage, the script options and the coding	Understand how to find relevant images about a given topic. Use technology effectively and appreciate how results and selected and ranked. <i>C16: Understand how online services work. Use technology Effectively</i>	Understand what data is and how data is collected.	Understand what stop motion animation is. <i>Discuss/show clips of Stop Motion Animations.</i>	Understand digital creativity through image manipulation (change a photo) <i>Discuss how photos can be changed and why.</i>
2	- Google Activity 2 Be careful about fake news and phishing scams <i>-Discuss how they can get on the internet and what they do at home.</i>  Understand that not everyone online is who they say they are. <i>C27: Understand online risks and the age rules for sites.</i>	Design and write programs that accomplish specific goals, including controlling or simulating physical systems, solve problems by decomposing them into smaller parts. <i>C2: set the Appearance of objects and create sequences of change</i> <i>C3: Create and edit sounds in Scratch</i> <i>C4 Control when a sound is heard, the volume, duration and rest.</i> <i>C5 Control the shade of pens ( change Sprite colours)</i>	Understand how to save relevant images onto their own area (My Documents) and then how to find them. Use technology responsibly. <i>C16: Understand how online services work. Use technology Effectively</i>	Understand how data is collected about us all, e.g. shopping. Pupils need to understand what data is and how data is shared around the internet.	Understand how to create resources for Stop Motion with a Topic related to current studies or theme. <i>Discuss/show clips of Stop Motion Animations.</i>	Understand the tools and interface in iMovie
3	Google Activity 2 Continued. Profiles and who people really are. Understand how to recognise when someone is trying to steal personal information. <i>C27: Understand online risks and the age rules for sites.</i>		Develop skills in Microsoft Word. Understand how to edit images in MS Word. Presenting data and information  <i>C14: Understand the term 'copyright'</i>	Understand Different categories of data. Pupils understand categorisation for data purposes and how it is used.	Understand how Stop Motion App interface works.  Select use and combine a variety of software o present information. Use technology safely.	Understand how to take small pieces of video and store them.  Select use and combine a variety of software o present information. Use technology safely.
4	Understand that the information we share builds up a 'profile' of a user. Remember what personal information is and why it private and personal.  <i>Discuss/recap on the first lesson about playing games with others online.</i>  <i>C26 Participate in class social media accounts</i>	Use sequence, select and repetition in programs; work with variables and various forms of input and output.  <i>C6 Specify conditions to trigger events.</i> <i>C7 Use 'if and 'Then' Statements.</i> <i>C8 Create conditions for actions</i> <i>C9 Use variables</i>	Understand how to present a range of different ideas and choose the most appropriate layout and tools to do it. Presenting data and information	Understand what does data help us to find out  Understand that data is stored in social media platforms and that data may be shared with other online services.	Understand how to create an animation using the resources and the app from the last session. <i>C17: Use some advanced features of applications.</i>  Select use and combine a variety of software o present information. Use technology safely.	Understand how to insert video into iMovie.  Select use and combine a variety of software o present information. Use technology safely.
5	Google Activity 3 All about 'BOTS' Respect others and understand how others see you and how you see them  <i>C15: Understand that comments made online that are hurtful or offensive are the same as bullying.</i>	Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.  <i>C10 Use functions to define, set, change, show and hide to control variables.</i> <i>C11 Use the reporter operators to perform calculations.</i>	Understand how to present a range of different ideas and choose the most appropriate layout and tools to do it. Presenting data and information  <i>CH Use a range of devices and applications in order to communicate ideas, work and messages.</i>	Understand the differences between data and information  Pupils will be able to understand that raw data means very little until something is done with it to change it to information.	Understand how to create an animation using the resources and the app from the last session. <i>Demo work from last week and the limitation s or successes of it.</i>	Understand how to add text in the storyboard that is appropriate to the video.  Select use and combine a variety of software o present information.
6	Google Activity 4 'Reality River' Understand how to make you online present private and not give to much information away. <i>C17: Understand that some of the advanced features of applications and devices in order to communicate ideas.</i>			Amounts of data and storage etc.	Understand how to create an animation using the resources and the app from the last session.  <i>C17: Use some advanced features of applications.</i>	Understand how to share a movie trailer.  <i>C17: Use some advanced features of applications.</i>
Skills check – can children...? This is the aim for the vast majority of the class to achieve this half term to ensure that they are ready to move on to the next piece of learning	CH: Give examples of the risks posed by online communication CH Participate in class social media accounts. CH: Understand online risks and the age rules for sites. (IT) Use technology purposefully to create, organise, store, manipulate and retrieve digital content. (DL) Recognise common use for Information Technology beyond school. (DL) Use technology safely and respectfully, keeping personal information private; Identify where to go for help and support when they have concerns about content of contact on the internet or other online technologies.	CH- Control Motion by specifying the number of steps to travel and, direction and turn. CH. Add text strings, show and hide objects the features of the object. CH Add sounds and control when they are heard CH Specify user inputs (clicks) to control event. CH Specify the nature of events such as a loop. CH: Create conditions for actions (CS) Understand what algorithms are; How they are implemented as programs on digital devices and that programs execute (run) by following precise and un-ambiguous instructions. Create and debug simple programs (create and check them) Use logical reasoning to predict the behaviour of simple programs.	CH Use a range of devices and applications in order to communicate ideas, work and messages.  (IT) Use technology purposefully to create, organise, store, manipulate and retrieve digital content. (DL) Recognise common use for Information Technology beyond school. (DL) Use technology safely and respectfully, keeping personal information private; Identify where to go for help and support when they have concerns about content of contact on the internet or other online technologies.	CH Use simple databases to record information in areas across the curriculum. CH Use a range of devices and applications in order to communicate ideas, work and messages. (IT) Use technology purposefully to create, organise, store, manipulate and retrieve digital content. (DL) Recognise common use for Information Technology beyond school.	CH Use a range of devices and applications in order to communicate ideas, work and messages. (IT) Use technology purposefully to create, organise, store, manipulate and retrieve digital content. (DL) Use technology safely and respectfully, keeping personal information private; Identify where to go for help and support when they have concerns about content of contact on the internet or other online technologies.	CH Use a range of devices and applications in order to communicate ideas, work and messages. (IT) Use technology purposefully to create, organise, store, manipulate and retrieve digital content. (DL) Use technology safely and respectfully, keeping personal information private; Identify where to go for help and support when they have concerns about content of contact on the internet or other online technologies.
Terminology check	Online, private, Browser, Stay safe.	Control, Algorithms, Basic programming.	Communication, Resources, Technology,	Databases, Data and Information,	Stop Motion Animation, clips, frames, apps, themes, titles.	Movie, Sound, edit, frame,