COMPUTING

At Clarendon Primary Centre, we recognise that technology is an integral part of everyday life. The intent of our computing curriculum is to prepare our children for a future that is being increasingly transformed by technology. We encourage children to develop the skills, knowledge and confidence that they need to be able to become digitally literate. We do this through a combination of both cross-curricular and specific skills-based lessons. We recognise that children need to learn how to stay safe online and we develop this awareness regularly through our class lessons. When appropriate, touch-typing is taught to support writing skills.

Pupils are taught the skills required to apply computing skills to real life problems and tasks, and to support the computing content taught at Clarendon Secondary Centre.

This SOW contains some suggested resources for each level. Some resources can be adapted to use to teach across a range of levels and this list is not exhaustive, but simply to give an initial range of possibilities. Teachers can select and adapt resources relevant to their classes.

Technology Around Us - Recognise and learn to use technology required to access the curriculum across school. This topic involves learning to identify and use different technology for a range of outcomes.

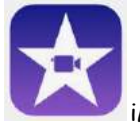
Encountering	Foundation	Core	Development	Enrichment	Enhancement
With support, explore how they can make something happen intentionally on different digital devices.	Intentionally explore digital devices and recognise that an action produces a predictable result.	With support, operate a digital device to fulfil a familiar task Can make an intentional choice between a selection of digital resources or devices (e.g. I want to take a photograph of that, I need the iPad/camera…).	Independently operate a digital device to fulfil a familiar task Recognise the ways we use different technology in home and school Choose media from a selection for a given purpose Use technology across the curriculum e.g. data loggers in science Identify the appropriate technology from a limited selection to fulfil a task.	Select and present media to convey information, combining media with support Demonstrate understanding that information and media can be stored on a digital device Identify the benefits of using technology for themselves Can identify and communicate the differences between the internet and things in the physical world	Can independently use a range of technologies for different purposes Identify the benefits of using technology for others (finding information, creating and communicating) Can communicate about/access different files on the school drive. Can select resources, including from the internet, for different purposes. Can interpret data collected from using technology across the curriculum.
Suggested resources/activities					
Sensory room Switches/ buttons	Vehicle sound puzzle Glow Draw App iPad story and sound books	 Proloquo2go	Treasure hunt looking at technology at home and school 	Visit a local shopping centre and photograph technology.	

Text and Multimedia - Pupils can use a range of different media to present information

For example, information can be represented through audio, video, and animation in addition to traditional media (i.e., text, graphics drawings, images)

Encountering	Foundation	Core	Development	Enrichment	Enhancement
Listens to a story or song from a member of staff or on a digital device	I play at typing, texting or similar during role play	Find letters on a keyboard (on screen or separate)	Enter text using keyboard using the spacebar and return keys Save work in a pre-assigned folder	Can enter text using upper and lowercase letters and punctuation. Make simple edits to word processed documents Save and retrieve work To understand that right clicking/two finger click brings up options	Beginning to touch type. Can combine media independently to present information and combine ideas Copy information using a variety of media into a word document Format text to refine and improve
Suggested resources/activities					
See and learn saying words 	ProLoQuo2Go	 Clicker writer, supported writing. Recordable talking clipboards			 Create a presentation using powerpoint/slides Newspaper report in pages app.

Art, Sound and Animation

Encountering	Foundation	Core	Development	Enrichment	Enhancement
Begin to recognise that an action produces a result	Know the button to press to take a photograph on an iPad and demonstrate awareness that this saves an image by looking at the image Draw a simple picture/make marks using touch technology	Take a photograph on an iPad Open the photos app to view photographs taken Use a simple paint programme with increasing control to create a desired effect Use a familiar digital device to take a photograph (camera or iPad) Record their voice/sounds in a digital format	Use a stop motion app to take a series of photographs and create a simple animation with support Create an image related to a topic and add a title Use different tools (brushes and pens) in a paint package Insert images, text and sound into a clicker book with support Film short scenes	Create a simple stop motion animation and add titles and credits Using software such as clicker books, create a digital piece combining sound and images, inserting sounds and images independently from easily accessible files	Use a stop motion app to create a simple animation adding music and sound effects Using software such as clicker books, create a digital piece combining sound and images, inserting sounds and images to create a desired effect Film short scenes and edit these to create a short movie
Suggested resources/activities					
Glow draw app, simple mark making. Zen Pond App Bouncy Balls online https://bouncyballs.org/	Ketchup flip book 	 	Stop Motion on iPads, making models. 	Clicker books, all about me. Add pictures and sound clips.	Stop motion app  iMovie

Keeping Safe Online/Online Relationships

Use technology safely and respectfully, keeping 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. This is embedded throughout the school and curriculum, linking closely to the PSHE curriculum and taught in partnership with these units.

From Relationships Education statutory guidance (online relationships):
By the end of Key Stage 2 pupils should know:
•that people sometimes behave differently online, including by pretending to be someone they are not
•that the same principles apply to online relationships as to face-to-face relationships, including the importance of respect for others online including when we are anonymous
•the rules and principles for keeping safe online, how to recognise risks, harmful content and contact, and how to report them
•how to critically consider their online friendships and sources of information including awareness of the risks associated with people they have never met
•how information and data is shared and used online

Encountering	Foundation	Core	Development	Enrichment	Enhancement
Respond with curiosity to adult modelling of different ways that people communicate with each other Respond to stimuli about the different ways we can communicate with adults in school - e.g. look when a phone rings Respond to familiar adults in the school or home environment Recognise and respond to their name.	Recognise/describe some ways in which we communicate with others Identify some simple ways in which technology can be used to communicate with other people Identify trusted adults in school. I can recognise and press/select the symbol/logo for the website that I want to use.	Give examples of how we (might) use technology to communicate with people we know Explain some risks of communicating online with others we don't know well Identify how to speak/communicate to a trusted adult if something happens that makes us feel sad, worried, or frightened Describe some reasons for keeping personal information private Know that they should always ask an adult	Give examples of how technology may enable us to communicate with people far away Explain what we mean when we talk about keeping safe online Explain that there may be people online who could make us feel sad, embarrassed or upset Explain why we should be careful about whom we trust online and what information we can trust them with Give reasons why we should only share information with people	Explain how other people's identity online can be different to what it actually is in real life Describe ways in which we or others might make ourselves look or sound different when online Explain what is meant by 'trusting someone online'; identify how this is different from 'liking' someone online Explain that if we don't feel sure about sharing information or feel pressured we should ask a trusted adult Know that devices have a personal login/password,	Demonstrate practical strategies for keeping safe when using specific digital media (e.g. a computer, or mobile phone) Give reasons why we need to think carefully about how the content we post online might affect ourselves or others Explain why we should always ask a trusted adult before we share any information about ourselves online Identify whom we can talk to if someone asks us for or sends us an

		before accessing technology Can talk about good and bad choices when using websites – being kind, telling a grown up if something upsets us. I can type key letters/words and know that this will enable me to search for my selected 'age appropriate website'.	we choose to and can trust Know that devices have a login/password. Can start to understand simple e-safety rules. Understand that they can access the same content on different devices. I know key word(s) to use to search for an 'age appropriate website', and know that it will come up with options that I can scroll down to select, being aware that I need to be careful.	and that you should keep a password private. Can agree and follow sensible e-safety rules. Know that many websites ask for information that is private, and can discuss how to responsibly handle such requests. Are aware that some online content is inappropriate. Know that they should tell a trusted adult if they do not like or are worried about something that happens online. Are aware that information can be private or public. I can use and search for 'age appropriate websites' following a given criteria for research (personal and school related).	image that makes us feel uncomfortable Can explain why a password and personal information is private. Recognise inappropriate content and know that they should tell a trusted adult. Recognise what information should be kept private. I can use and search for 'age appropriate websites' coming up with my own words/ criteria for research (personal and school related).
Suggested resources/activities					
	Resources across all stages: UK Safer Internet Centre LGfL DigiSafe	Digi Duck 	Resources across all stages: CEOP Education from the National Crime Agency	Kara Winston and the Smart Crew	

		www.childnet.com	NSPCC Learning	www.childnet.com	

Data

Encountering	Foundation	Core	Development	Enrichment	Enhancement
Begin to recognise and identify objects of one category Match two objects that are the same.	Understand, recognise and sort objects into two simple groups (i.e. by colour).	Can collect simple data as a class, i.e. favourite animal Click to add data to a simple prepared graph/pictogram on a programme such as Busy Things Graph.	Create a basic pictogram using a programme such as Busy things Graph Can collect and discuss data collected and presented as a class Create a basic pictogram and make simple editing choices such as changing the colour or changing the image.	Choose from a selection of preset surveys to collect and input data. Create a pictogram, or bar chart from scratch using a familiar programme Interpret and construct simple pictograms, tally charts, block diagrams and simple tables using on or offline tools Compare data represented in graphs or tables using the terms more or less.	Use online tools to create a variety of graphs and tables to represent data, and answer simple questions. (e.g. using J2Data) Use online tools to search data to answer questions.
Suggested resources/activities					
	Choose it Maker 3 App	Take picture on camera or ipad			

Shape sorter		Tinker trays Collecting data Busy Things, Busy Graph Maker	Tinker trays, sort and respond.	Easiscope Microscope,recording information Topmarks e.g. Tally games.	www.j2e.com/j2data/

Programming and Algorithms

Encountering	Foundation	Core	Development	Enrichment	Enhancement
Begin to explore digital devices, noticing cause and effect One touch to express needs or wants.	Control a digital device using a one button unit with purpose e.g. record one sound/ word on to sound buttons.	Can experiment and explore control technology with a two button unit e.g. record phases onto sound buttons Can control technology for a purpose and recognise the success or failure of an action Start to explore how we create simple programs, such as giving instructions to a peer and follow their instructions.	Experiment and use control technology with a four button unit With support, start to explore online sprites and commands Communicate the order in which to do something to achieve a desired result (algorithm).	To program control technology to follow a simple route Set simple instructions for online sprites Predict the outcome of a simple program (to move a floor robot or sprite) Test a program and recognise when it needs debugging.	Create a simple program (to control a floor robot or sprite) to achieve a desired outcome Use logical thinking to solve an open ended problem by breaking it up into smaller parts.
Suggested resources/activities					

PECS Proloquo2go story and sound books (ALDs - assistive listening devices) toys that make light or sounds	 Clever Cats Pre recorded sound buttons	 Easi-cars	 Rugged Racers www.j2e.com/jit5#turtle	 BeeBot4 Blue BeeBot (ipad)	 /www.j2e.com/j2code/ Scratch Junior