Computing Long Term Plan at Dennington CofE Primary School

Learning Focus							
	Coding and Computational Thinking		Internet/Email (incl. esafety)		Digital Music		Writing/Publishing
	Spreadsheets		Computer Aided Design and Multimedia		Statistics		Communication and Networks (incl. esafety)

KS1

YR 1&2 CYCLE A	1	2	3	4	5	6	7	8	9	10	11	12
Autumn	Online safety & introduction to Learning Platforms (1.1) [Purple Mash/Google Classroom]				Effective Searching (2.5) [Safari/Chrome]			Lego Builders (1.4) [2DIY]			Technology (1.9) [various]	
Spring	Grouping & Sorting (1.2) [2DIY]				Creating Pictures (2.6) [2PaintAPicture]				Spreadsheets A (1.8) [2Calculate]			
Summer	Coding A (1.7) [2Code]							Coding B (2.1) [2Code]				

YR 1&2 CYCLE B	1	2	3	4	5	6	7	8	9	10	11	12
3Autumn	Online Safety & Introduction to Learning Platforms (1.1) [Purple Mash/Google Classroom]				Maze Explorers (1.5) [2Go]			Questioning (2.4) [2Question & 2Investigate]				
Spring	Online Safety (2.2) [various]		Animated Story Books (1.6) [2CreateAStory]					Making Music (2.7) [2Sequence]				
Summer	Spreadsheets B (2.3) [2Calculate]				Pictograms (1.3) [2Count]			Presenting Ideas (2.8) [various]				

LKS2

YR 3&4 CYCLE A	1	2	3	4	5	6	7	8	9	10	11	12
Autumn	Online Safety & Revisiting Learning Platforms (3.2) [various]		Coding C *Accomplishing a Goal* (Y3L1&Y4L1) [2Code]		Coding D *Simulating a Physical System* (Y3L2&Y4L6) [2Code]		Coding E *Debugging* (Y3L5&Y4L4) [2Code]		Spreadsheets C (3.3) [2Calculate]			
Spring	Touch Typing (3.4) [2Type and other online programs]						Using Email Safely (3.5) [2Email, 2Connect & 2DIY]					
Summer	Branching Databases (3.6) [2Question]				Simulations (3.7) [2Simulate & 2Publish]				Graphing (3.8) [2Graph]			

YR 3&4 CYCLE B	1	2	3	4	5	6	7	8	9	10	11	12
Autumn	Online Safety & Revisiting Learning Platforms (4.2) [various]		Coding F *Variables and 'if/else' statements* (Y3L4&Y4L2) [2Code]		Coding G *Repetition, Timers, Repeats and User Input* (Y3L3&Y4L3) [2Code]		Coding H *More Complex Variables* (Y3L6&Y4L5) [2Code]		Spreadsheets D (4.3) [2Calculate]			
Spring	Writing for Different Audiences (4.4) [2Email, 2Connect & 2DIY]						Logo (4.5) [Logo]					
Summer	Animation & Film (4.6) [2Animate & others e.g. iMovie]						Effective Searching (4.7) [Safari/Chrome]			Hardware Investigators (4.8) [Various]		

UKS2

YR 5&6 CYCLE A	1	2	3	4	5	6	7	8	9	10	11	12
Autumn	Online Safety & Revisiting Learning Platforms (5.2) [various]		Coding I *Accomplishing Goals and Simulations* (Y5L1&Y5L2) [2Code]		Coding J *Games with Scores and Timers* (Y5L4&Y5L5) [2Code]		Coding K *Using Buttons to Showcase Work* (Y6L6&Y6L6) [2Code]		Spreadsheets E (5.3) [2Calculate]			
Spring	Databases (5.4) [2Question&2Investigatge]				Game Creator (5.5) [2DIY 3D]							
Summer	3D Modelling (5.6) [2Design and Make and others]						Concept Maps (5.7) [2Connect]					

YR 5&6 CYCLE B	1	2	3	4	5	6	7	8	9	10	11	12
Autumn	Online Safety & Revisiting Learning Platforms (6.2) [various]		Coding L *Designing Complex Programs* (Y6L1&Y6L2) [2Code]		Coding M *Text Variables and Functions* (Y5L3&Y6L3) [2Code]		Coding N *Adventures in Text* (Y6L6) [2Code]		Spreadsheets F (6.3) [2Calculate]			
Spring	Blogging (6.4) [2Blog]						Text Adventures Continued (6.5) (2Code & 2Connect)					
Summer	Surveys and Quizzes (6.7) [2Quiz, 2DIY, Text Toolkit & 2Investigate]						Networks (6.6) [various]					

Opportunities for Computing in the EYFS (from CAS 2020)

Understanding the World	Literacy	Physical Development
• Classrooms could contain a role play area with a range of technology, both functioning and model / broken devices, or a variety of electronic toys, such as remote-controlled cars, walkie-talkies and interactive pets, as part of continuous provision. • Further technology could be included in conjunction with other activities, such as digital cameras for pupils to photograph their own learning, although it is worth bearing in mind that the EYFS Framework (pg. 12) states children need to "select and use technology for a particular purpose", rather than simply being given a device. • The pedagogical approaches used this age group should also be carefully considered, which includes the need to tinker, or play, with a device, in order to discover how it functions.	• Bee Bots continue to be extremely popular in both EYFS and Key Stage 1, and provide a number of opportunities to develop pupils' computing knowledge within literacy sessions. • Children could create a story about the Bee Bot's journey, such as around a local area or a country being studied, or they could sequence events within a story being studied. For example, children could guide the Bee Bot between different locations, characters and locations within Little Red Riding Hood. • Programming devices suitable for young children are being developed by a range of manufacturers, such as the Code-a-pillar by Fisher-Price.	• Many children entering Early Years settings are already familiar with tablet devices, although their ability to use a keyboard and mouse is often limited. This has recently become a more significant issue, due to the prevalence of tablet devices in the home. It is therefore important that children are given opportunities to become familiar with a range of input devices, including the keyboard and mouse, in order to develop the required fine motor skills. • Usage could be linked to phonics sessions, such as through the use of drill and practice games, including Dance Mat Typing or the Animal Typing app, or more creative outcomes.
Communication and Language	**Personal, Social and Emotional Development**	**Expressive Arts and Design**
• Unplugged activities, or those away from the machine, give children an opportunity to develop their understanding of technology without the need for expensive devices. • Children could be asked to give precise instructions verbally, such as through giving instructions to a sandwich making robot, with links made to the importance of using the correct vocabulary, along with speaking clearly and precisely. • Give me instructions could also form part of sessions linked to physical development activities, such as determining rules for certain playground games.	• Voice recorders, or the microphone built into a tablet device, could be used to record how pupils are feeling, or to discuss their relationships with others. • This could be extended through pupils creating their own videos, which could also link to children giving online safety guidance to their peers on using technology safely and what to do if they feel worried or concerned when you using a device. • A range of age-appropriate books are now available for young children to examine online safety, such as Chicken Clicking, Goldilocks (A hashtag cautionary tale) and the free Smartie the Penguin. • Using voice and video recorders also allows children to self-evaluate their own speaking.	• The use of painting and graphics applications can further develop pupils' keyboard and mouse skills, whilst a range of tablet-based apps are also available, such as the free Doodle Buddy. • Creative outcomes can be produced, which allows pupils to take ownership of their work and could even be part of an extended project. • Outputs produced could be linked to other uses of technology, such as producing mats for Bee Beets to travel around, other physical computing devices, such as Spheros, can even be put into paint and controlled using a tablet device to produce images. • Outfits for the device to wear, such as Bee Bot head dresses or Sphero paper cup people, could also be developed.