

Computing Long Term Overview 2022-2023

In Reception, children have opportunities to meet their ELG through accessing technology in an example of the following contexts:

Understanding the world

Our classroom contains a rotating role play area with a range of technology, both functioning and model / broken devices (such as phones, keyboards, laptops etc) and Bee-Bots as part of continuous provision. Further technology is included in conjunction with other activities, such as iPads for pupils to photograph their own learning. Where appropriate, children should ideally be given the opportunity to select and use technology for a certain purpose rather than simply being given a device. The pedagogical approaches used in Early Years have also been considered and children are encouraged to tinker or play with a device, in order to discover how it functions.

Physical development

Many of our children entering our school are already familiar with tablet devices, although their ability to use a keyboard and mouse is now often limited. We therefore ensure that our 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. We have a desktop computer set up in our classroom which the children can access in provision.

Communication and language

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 are asked to give precise instructions verbally, such as through giving instructions to a Bee-Bots or determining rules for certain playground games, with links made to the importance of using the correct vocabulary, along with speaking clearly and precisely.

Personal, social and emotional development

Talking tins or the microphone built into our iPads, can be used in provision 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 appropriate use of technology and what to do if they feel worried or concerned when 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 which are accessed as eBooks. Using voice and video recorders also allows children to self-evaluate their own speaking.

Expressive arts and design

The use of painting and graphics applications like Busythings further develop pupils' keyboard and mouse skills in our Reception classroom, whilst a range of tablet based apps are also available. Creative outcomes can be produced which allow pupils to take ownership of their work when responding to certain topics. Outputs produced could be linked to other uses of technology, such as producing mats for Bee-Bots to travel around. Outfits for a device to wear, such as Bee-Bots head dresses, could also be developed.

Mathematics

Controlling devices provides an excellent opportunity to develop our children's understanding of left and right, along with directional language. Pupils could be asked to guide a device around a shape, path or maze, or even use coding activities from Busythings, to develop their understanding further.

Literacy

Bee-Bots provide a number of opportunities to develop pupils' computing knowledge within literacy sessions. In provision, children could create a story about the Bee-Bots' journey, such as around a local area or a country being studied. Should devices not be available, the Barefoot website has Fake Bots available, which children can use instead of a digital device. Children often access the Phonics and handwriting tools on the Busythings app. When practising handwriting and letter formation, our children use styluses to ensure they are practising the appropriate pencil grip.

Reception

All year groups follow the Teach Computing scheme of work from Year 1 upwards.

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	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1	Computing systems and networks – Technology around us	Creating media – Digital painting	Creating media – Digital writing	Programming A – Moving a robot	Data and information – Grouping data	Programming B – Introduction to animation
	Twinkl E-safety Resources					
Year 2	Computing systems and networks – IT around us	Creating media – Digital photography	Creating media – Making music	Programming A – Robot algorithms	Data and information – Pictograms	Programming B – An introduction to quizzes
	Twinkl E-safety Resources					
Year 3	Creating media – Animation	Computing systems and networks – Connecting computers	Creating media – Desktop publishing	Programming A – Sequence in music	Data and information – Branching databases	Programming B – Events and actions
	Twinkl E-safety Resources					
Year 4	Computing systems and networks – The Internet	Creating media – Audio editing	Creating media – Photo editing	Programming A – Repetition in shapes	Data and information – Data logging	Programming B – Repetition in games
	Twinkl E-safety Resources					
Year 5	Computing systems and networks – Sharing information	Creating media – Vector drawing	Creating media – Video editing	Data and information – Flat-file databases	Programming A – Selection in physical computing	Programming B – Selection in quizzes
	Twinkl E-safety Resources					
Year 6	Computing systems and networks – Communication	Creating media – 3D Modelling	Creating media – Web page creation	Data and information – Spreadsheets	Programming A – Variables in games	Programming B – Sensing
	Twinkl E-safety Resources					

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