Computing in Pathway 1 and 2:

An integrated approach

Although computing is not explicitly taught in Pathway 1 and 2, there are many opportunities for our students to use technology to solve problems and produce creative outcomes. In particular, many learning areas provide opportunities for students to develop their ability to use computational thinking effectively, such as through undertaking projects and activities involving the use of interactive boards and iPads in the classrooms. Classrooms have access to a range of eLearning platforms such as the *Readymades* in *Helpkidslearn* and *Purple Mash* which includes themes that are covered in Pathway 1 and 2.

The main area in Pathway 1 and 2 related to computing is the Knowledge of the World, although each area of learning enables practitioners to effectively prepare our students to engage in computing. The best practice, however, is creative, active, exploratory and encourages engagement, thus the activities and resources below have been included to meet these criteria where feasible. The pedagogical approaches used in these pathways considers the need to tinker, or engage, with a device, in order to increase attention or discover how a device functions in a safe and functional manner.

Knowledge of the World- Classrooms also have access to technology, both functioning and model / broken devices, a variety of electronic toys, such as wind-up toys, switches, cause and effect toys. There is also access to programmable devices such as Bee Bots, Wonder bugs, remote-controlled rugged Racers, walkie-talkies and interactive animals and iPad as part of continuous provision.

Functional Literacy, *Communication and language* –Bee Bots and Wonder Bugs develop students computing knowledge within literacy sessions. Stories are created about the Bee Bot's journey around the theme being taught and sequence events within a story being studied. For example, students guide the Bee Bot/Bug between different locations, characters and locations within a story. Classrooms have access to interactive books which make sights and sounds at the push of a button (cause and effect). Where additional support to communicate is needed, students have access to communication switch buttons and apps such as Proloquo2go and Grid 3. Students in these pathways also have access to storybooks, like *Smartie the Penguin* and *Digiduck Stories* from https://www.childnet.com/resources which support online safety.

Functional Numeracy – Whilst operating the Bee bots, Bugs and remote-control cars students develop directional language, shapes and patterns. In addition, students have access to e-learning platforms, such as the *Readymades* in *Helpkidzlearn* that supports assessment for learning in Numeracy.

Physical development – Students have access to dance mats, piano mats and ActivAlls. Student record physical activities on the Ipads and also have access to stop watches.

Personal, social and emotional development - Students have access to voice recorders, or the microphone built into a tablet device, where they are able record how students are feeling, or to discuss their relationships with others. Using voice and video recorders also allows our students to self-evaluate their own speaking. Students have access to sensory and tactile resources in the sensory room.

Home management and cooking: Students have access to a wide range of technologies routinely used around modern homes to clean, for example a washing machine, vacuum cleaner, dryer and appliances to prepare food, for example a microwave oven, kettle, mixer, can opener, toaster and oven. Students also have access to technology used in the home used for leisure, for example using a CD player, television and remote control.

Community skills: When out in our community the use of technology is encouraged by asking students to help to press the button at the pelican crossing, use cash points or pay for items using a card machine or press the intercom to tell reception that they have returned to school. Onsite, the supervised use of access cards can be encouraged.

Art, DT and creative development: In pathway 1 and 2 the students experience, creative development, Art & DT through the use of the interactive whiteboard, PCs and ipads. The students have opportunities to use applications such as the drawing tool on the interactive whiteboard, to experience interactive screens. On the ipad the students have access to 'Choose it maker' and 'Finger paint' to develop fine motor skills and develop their understanding of shape and colour. Students have the opportunity to develop their skills further using advanced applications on iPads such as,'Photobooth' and 'ChatterPix' for editing photographs to enable moving imagery. Students also have access to the application 'IMovie' to combine both still and moving imager and have access to computers where they use web applications such as 'Purple Mash' art & design and 'Tinkercad' where they explore and

interact with 2D and 3D shapes. This enables the students to develop skills in shape and spatial awareness.

Online safety in Pathway 1 and 2

Students engage in activities directly associated with online safety once a term in Functional literacy and Knowledge of the world lesson. Teachers use resources found on *Childnet*, https://www.childnet.com/resources/star-send-toolkit to create bespoke sessions of learning. Star send toolkit is an extensive teaching toolkit to equip, enable and empower educators with the relevant knowledge they need to support young people with special educational needs and disability (SEND). In addition to this resource staff support our student further by:

- *Checking apps, websites and search results before using them with students.*
- *Ensuring that students are supervised when accessing the internet.*
- *Ensuring safety modes and filters are applied - default settings tend not to ensure a high level of privacy or security.*
- *Role modelling safe behaviour and privacy awareness. Talk to students about safe use, for example ask permission before taking a young person's picture even if parental consent has been given.*
- *Checking privacy settings to make sure personal data is not being shared inadvertently or inappropriately.*

https://www.gov.uk/