Computing across the Curriculum

Computing across the Curriculum:

Intent:

- To be able to use a range of accessible technology to achieve a purpose and fulfill functionality in life
- To be able to use the internet to find information to be used for a range of purposes
- To use technology to communicate with others safely, using video, email or messaging
- To present information using an app or programme
- To use technology to record/capture, edit and combine audio or visual content
- To programme or control technology to complete simple actions, procedures or events to achieve a goal
- To represent real life situations, scenarios or objects on a computer, using modelling and simulation
- To collect, record, manipulate or present data.
- To use technology to develop skills in other subject areas
- To use technology to explore the topic that half term
- To develop the fine motor skills to type using a keyboard, tap or hold a range of hardware
- To recognise a range of familiar icons which are consistently used across technology devices (E.g. home, back, forward, save, open, print, etc.)

Implementation:

Content, order and skills to deliver a sequential, cumulative and coherent curriculum

E = Emerging   **D = Developing**   **S= Secure**   **C = Contextualising/Embedding**

Pre-formal (P1-4)	Semi-formal (PS4-6)	Formal (PS7 and above)
Computing across the curriculum: Whilst children with PMLD may partake in Computing through the curriculum themed sessions, the skills they are learning would come from one of their four core areas above, namely: Communication and Interaction Physical Development Cognition Independent Life Skills	**Computing across the Curriculum:** **Using Technology-** *Activities: mouse skills, typing, switch activation, touch screen, saving and finding work, turning items on and off, recognising icons on familiar equipment, etc.* E1 - Identifying a symbol or creating a sound. E2 - Using a switch to activate an electronic device, operating a powered wheelchair, E3 - Press buttons on Wii controller, Uses switches to build images, *Programmes/devices/apps:* Wii, Building images on screen (Big bang, big bang patterns, switch it jigsaw), Touch and target music, Spot on games, Paper toss app, Angry birds app, Touch games 1 D1 - matching shapes or grouping objects by size using a touch screen, concept keyboard or mouse. D2 - pressing a specific symbol on a concept keyboard or on a communication aid D3 – Recognition of a small range of symbols/items/icons *Programmes/devices/apps:*	**Computing across the Curriculum:** **Using Technology-** *Activities: mouse skills, typing, switch activation, touch screen, saving and finding work, turning items on and off, recognising icons on familiar equipment, etc.* S1 - Use keyboard to type and input letters choosing digitised photographs or video clips for their personal profiles. S2 - Using a writing-with-symbols programme to send a message home *Programmes/devices:* Communicate: In Print, First Keys, Mouse Skills, iPad C1 - Develop familiarity with computers and keyboards. C2 - Develop skills in using a mouse and/or track pad to control a computer/laptop. C3 - Understand that people can interact with technology in a range of ways. C4 - Exposure to a range of technology, including cameras, tablets, microphones/recording devices and computers. Learn to take sensible photographs and video recordings. *Programmes/devices:* See 'tools for teaching typing' document for software and websites to use. First keys, Mouse skills, Wii games, iPad

	Keyboard, First keys, Mouse skill, Touch games 1, 2simple to type, First keys, Helpkidslearn letter pop, Mouse skills, iPad apps **Using the internet** *Activities: Researching, finding information including images, video, sound and text, communicating with others, copies/records and saves information etc.* E1 – To press the button on the photocopier E2 - To press the go button on the internet page E3 - o know that when I press the button something will happen E4 - Look for the internet icon on the desktop E5 - Look for particular image on google E6 - Locate the printer icon with help *Programmes/devices:* Internet Browser, Photocopier D1 - Locate the internet icon on the desktop using touch screen or mouse D2 - Type in text using the keyboard in search engine with help (visual prompts) D3 - Use Google image to find an image D4 - To save the image and retrieve image with support D5 - Look for the print icon to print *Programmes/devices:* Internet Browser, Search engine (google), Keyboard, Mouse **Communicating and Collaborating Online** *Activities: E-mails, Collaborative working, Video Conferencing, Messaging etc.* E1 - Student can activate a switch a number of times to keep an activity playing. E2 - Student can activate a switch a number of times to complete a simple sequence, noticing changes after each switch press. E3 - Student can activate a switch to start and stop an activity.	**Using the internet** *Activities: Researching, finding information including images, video, sound and text, communicating with others, copies/records and saves information etc.* S1 – Chooses the internet to gather information S2 - Chooses a photo or images from Google S3 - Can communicate about what I have collected. S4 - Explores images from google S5 - Selects an image on google *Programmes/devices:* Internet Browser Search engine (google), Keyboard, Mouse C1 - Look for information on website with support C2 - Type a text in the search engine C3 - Load images from google with help by copying and pasting C4 - Copy a text with help C5 - Communicate what they have collected. *Programmes/devices:* Internet Browser, Search engine (google), Keyboard, Mouse **Communicating and Collaborating Online** *Activities: E-mails, Collaborative working, Video Conferencing, Messaging etc.* S1 – Choose the internet icon to communicate with others online S2 - Include basic details in an email with visual support S3 - Take part in video messaging another person with support (e.g. recognizing icons to begin and end the call, etc.

| | E4 - Student explores the use of two switches in simple nonscanning activities- **two switch play**
E5 - Student can use two switches, one to start an activity, the other to stop the activity.
E6 - Student can press a switch in response to an on-screen cue
Programmes/devices:
SwitchIt! software series, Choose it maker,
Clicker 5, Music, SEN Switcher, Switch it Music
D1 - Student can track an object as it moves across the screen, pressing a single switch when the object is in a target area.
D2 - Student can use two switches, each controlling part of the same activity
D3 - Student can use two switches to complete simple 'move and
choose' or 'build up' activities.
D4 - Student can choose one item from three on-screen options
D5 - Student can choose one from three or more on-screen options which include empty cells.
D6 - Student can complete simple sequences by choosing the
appropriate object from three or more on-screen options.
D7 - Student can select a specific object from three or more on-screen options in response to a question or request.
D8 - Student can make independent choices using one or two switch scanning.
Programmes/devices:
SwitchIt! software series, ChooseIt! maker,
Clicker 5, Music, SEN Switcher, Switch it Music

Creating and Publishing
Activities: Anything that involves presenting information in some way using ICT- word processing, presentations, blogging, websites etc.
E1 – Presses switch to activate MP3 player, Shows interest in particular image or sound.
E2 - Presses and releases control device using fingers. | Programmes/devices:
Skype, mouse, Keyboard, Email, messenger

C1 – Contribute ideas to a class email

C2 - Develop skills to type short words with increasing speed and accuracy

C3 - Take part in video messaging another person with increasing independence (E.g. selecting person to call, beginning and ending call, communicating with person, using signing/symbols/speech etc.)

Programmes/devices:
Skype, mouse, Keyboard, Email, messenger

Creating and Publishing
Activities: Anything that involves presenting information in some way using ICT- word processing, presentations, blogging, websites etc.
S1 – Gathers text and images and communicates about what they have found. |

	E3 - Stops to attend to the screen E4 - Touches the screen to create different patterns E5 - Looks for object, sound or image. E6 - Selects a specific picture in a 3 by 3 matrix grid to match it sound that I have heard. E7 - Selects specific picture in a 5 by 5 matrix to match to the sound that I have heard. *Programmes/devices:* *Prepared symbols/words, Laminated paper grids/overlays, Clicker 5 Labelling, Bim bam balagoo-paint, letters* *Sen switcher, Big bang, Chatter block, Switch it maker /choose it maker/switch it jigsaw, Myboard* D1 – Looks for object on screen, D2 - Moves objects on screen, D3 - Matches objects on screen, D4 - Takes turns, D5 - Interacts with other peers, D6 - Plays a simple game, makes marks using the mouse, choosing different colours using the on screen palette, D7 - Saves work, Asks to see a picture saved earlier. *Programmes/devices:* *Prepared symbols/words, Laminated paper grids/overlays, Clicker 5 Labelling, Bim bam balagoo-paint, letters* *Sen switcher, Big bang, Chatter block, Switch it maker /choose it maker/switch it jigsaw, Myboard*	S2 - Selects familiar tools and colours. Encourage pupils to remember where a piece of information was from, or who created a particular picture, for example, by adding name labels as a group. S3 - Chooses colours and tools independently *Programmes/devices:* *Dazzle 03, Earlyessential, Sparkle paint* C1 - Add text to photographs, graphics, drawings and sound using a computer. C2 - Uses simple authoring tools to create their own content and begin to add basic effects to sections of text, changing the font size and colour. C3 - Chooses different tools for effect. Uses a variety of tools and colours to create something. C4 - Knows that the computer can be used to make real and fantasy images or effect. *Programmes/devices:* *Microsoft Word*
	Digital Media *Activities: Photo editing and image manipulation, video and video editing, audio recording and editing and animation (some animation can also be programming)* E1 – Reach towards a control device, E2 - Presses switch to activate object, E3 - Explore use of control device and its effects, Presses and releases control device using fingers, E4 - Plays instruments, Chooses what keys to press on the keyboard (organ) *Programmes/devices: Camera, Ipad apps (photo and camera), iPad app – photo booth, Music apps (ikassolator), APP- GARAGE BAND, Khorus,*	**Digital Media** *Activities: Photo editing and image manipulation, video and video editing, audio recording and editing and animation (some animation can also be programming)* S1 - Take turns, S2 - Waits for own turn, S3 - Uses a digital camera to take a photo, Plays and stops, S4 - Discusses the information held on an audio tape *Programmes/devices: Audio- Ipad camera roll, use 2simple software- 2explore and 2beat.* C1 - Uses a mouse or keyboard to select onscreen icons to play sounds, stop, pause and replay, C2 - Select a pictures, Prints a picture,*

Microphones, Digital keyboard, Keyboard (music), Talking buttons, 2 simple music kit, Web camera, Big mack switch, Wii music, Wii Dance
D1 - Responds to change of sound / music,
D2 - Remembers a sequence of 2 actions,
D3 - Remembers a sequence of 3 actions
Programmes/devices: Camera, Ipad apps (photo and camera), iPad app – photo booth, Music apps (ikassolator), APP- GARAGE BAND, Khorus, Microphones, Digital keyboard, Keyboard (music), Talking buttons, 2 simple music kit, Web camera, Big mack switch, Wii music, Wii Dance

Programming and Control
Activities: Making something 'happen' using ICT (control, movement, Stop/Start, etc.).
E1 – Reaches towards a control device,
E2 - Appears motivated to press the control device to cause the action,
E3 - Presses and releases control device using fingers,
E4 - Explore use of control device and its effects, Stops to attend to the screen,
E5 - Uses a touch screen to touch a specific area (hot spot) of a computer screen.
Programmes/devices: Beebots and simple coding app, remote control toys, early essentials, Turtle it
D1 – Follows two simple directions
D2 - Remembers a sequence of 2 actions
D3 - Remembers a sequence of 3 actions,
D4 - Repeats sequence of actions
D5 - Looks for object on screen,
D6 - Understands one to one correspondence between switch press and action,
D7 - Tracks movement across a screen showing reaction at appropriate point,
D8 - Tracks object horizontally across the screen operating the switch at the correct time,
D9 - Tracks object vertically across the screen operating the switch at the correct time
Programmes/devices: Beebots and simple coding app, remote control toys, early essentials, Turtle it

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C3 - Recognises own retrieved work,
C4 - Discusses stored information, drag and drop, presses button & release at appropriate time
C5 - Uses camera effects
Programmes/devices: Audio- Ipad camera roll, use 2simple software- 2explore and 2beat.

Programming and Control
Activities: Making something 'happen' using ICT (control, movement, Stop/Start, etc.).
S1 - Can take turns in a game,
S2 - Waits patiently for a turn,
S3 - Activates a switch (or other) to operate a device,
S4 - Operates toys with button, pull cord, push button,
S5 - Takes turns in a game, Waits patiently for a turn
Programmes/devices: Beebots and simple coding app, remote control toys, early essentials, Turtle it
C1 - Aware that some equipment is plugged in
C2 - Aware that plugs can be dangerous
C3 - Input simple operation on robot, Repeat procedures,
C4 - Uses a remote control toy,
C5 - Presses play button on Mp3 player/ CD player (window media), C6 - Presses stop button on Mp3 player/ CD player (window media),
C7 - Identifies button on the robot and explains what happens when each button is pressed.
Programmes/devices: Beebots and simple coding app, remote control toys, early essentials, Turtle it

	Modelling and Simulations *Activities: Representing real life situations, scenarios or items on the computer.* E1 - Show pleasure when certain images are presented E2 - Shows pleasure when certain sounds are presented E3 - Reaches towards a control device E4 - Appears motivated to press the control device to cause the action E5 - Understands that the control device causes the change of action E6 - Anticipates actions in a sequence or building activity *Programmes/devices: Reacktickles Magic and Shiny Mouse Mover* D – Looks for object on screen, Moves objects on screen, Tracks movement across a screen showing reaction at appropriate point, Tracks object horizontally across the screen operating the switch at the correct time, Remembers a sequence of 2 actions, Remembers a sequence of 3 actions. *Programmes/devices: Reacktickles Magic and Shiny Mouse Mover*	**Modelling and Simulations** *Activities: Representing real life situations, scenarios or items on the computer.* S1 – Touches a specific image on a screen S2 - Shares a game with peers or adult S3 - Takes turns, Operates some parts of the game independently, S4 - Can press the switch, mouse or touch screen at the particular point to achieve desired result S5 - Is aware of a 'game' situation, Can take turns in a game, Waits patiently for a turn S6 - Takes pleasure in sharing an activity with another person *Programmes/devices: Reacktickles Magic and Shiny Mouse Mover* C1 – Looks for specific objects on screen, C2 - Activates switch to control horizontal movement - almost on target C3 - Activates switch to control horizontal movement - on target, C4 - Moves the cursor round screen using mouse C5 - Single clicks mouse to select object C6 - Moves an item on the screen, Operates simple appropriate structured software *Programmes/devices: Reacktickles Magic and Shiny Mouse Mover*
	Using Data *Activities: Spreadsheets (including using formulas), Databases and any other work which involves either sorting, presenting or manipulating data of some sort.* E1 – Points to favourite image, E2 - Reachs towards a control device *Programmes/devices: Counting songs , Step by step switch, Touch games rocket and coconut shy, Choose it maker, Early essential pictogram* <u>D1 -</u> Selects specific images, D2 - Adds to check list, D3 - Selects correct image to add to pictogram D4 - Counts the number of pictogram images in a column.	**Using Data** *Activities: Spreadsheets (including using formulas), Databases and any other work which involves either sorting, presenting or manipulating data of some sort.* S1 - Selects correct image to add to pictogram, S2 - Counts the number of pictogram images in a column. *Programmes/devices: Counting songs , Step by step switch, Touch games rocket and coconut shy, Choose it maker, Early essential pictogram* C1 – Uses ICT to present their data in a graph, C2 - communicates about what the graph represents with some support *Programmes/devices: Counting songs , Step by step switch, Touch games rocket and coconut shy, Choose it maker, Early essential pictogram*

	Programmes/devices: Counting songs , Step by step switch, Touch games rocket and coconut shy, Choose it maker, Early essential pictogram **Theme Days:** Internet Safety Day	**Theme Days:** Internet Safety Day

Impact:

How we measure whether the implementation of the curriculum achieves our intent statements

- Learning walks
- Book Trawls
- Lesson Observations
- Drop-ins by SLT
- Subject Coordinator Scrutiny (For awareness – Subject coordinators are not accountable for progress)
- Progress data & Target Setting
- Termly Progress Meeting with actions set
- Next Steps
- Formative Assessment (Work samples, written observations on progress sheets and photographs)
- Moderation of work
- End of year Reports (Academic)
- Annual Reviews of the pupil's EHCP
- Parent Workshops, Questionnaires & Parents Evenings
- Class team meetings and Phase Meetings
- Teacher and TA Appraisal
- Ofsted Inspections
- School Improvement Partner involvement in T&L Monitoring
- BEP/Local feedback on curriculum content
- Discussion of Curriculum at SLT Meetings
- Use of CPD time to review curriculum and agree ways forward
- Staff confidence questionnaires in teaching skills
- SLT Leadership and Management of the curriculum
- Teacher involvement in choosing motivating topics to gauge pupils' interests
- Robust monitoring of pupils' opportunities to take part in reading activities to read widely and often
- Assessment using WS P Steps, AET Progression Framework and Scales of Engagement