Supporting children with SEND in Computing

At St. Stephens, we cater for all children's needs to create a fully inclusive environment. Through planning engaging and accessible lessons, we break down barriers to learning and nurture all children's curiosity focusing on their strengths. We understand that barriers for children may include:

- Physical disability
- Hearing or visual differences
- Tactile sensitivities
- Learning disabilities and cognitive delays
- ASD
- And of course, some children have multiple disabilities, which can further increase the complexity of how to approach Computing with them.

Computing has the potential to empower pupils with SEND and transform their lives. At St. Stephen's, we believe that Computing has the potential to empower pupils with SEND and transform their lives. With progressive and creative planning, exposure to a wide range of technologies and enhanced support it is possible that all children can fulfil their potential within Computing and throughout the curriculum. Teaching through the Knowsley scheme of work offers children with SEND varied and engaging ways to communicate, collaborate, express ideas and demonstrate success.

Computing and Information Technology are essential tools for inclusion. They enable children with SEND, whatever their needs, to use technology purposefully in ways that make the wider curriculum accessible, empower those with communication difficulties to engage with others and to fully include everyone in activities and learning. From making and editing video/audio footage, programming animations, games and apps to creating rich web content – all pupils have an opportunity to participate, be challenged, learn and progress.

What does inclusion look like?

Using the Knowsley scheme of work as a base for planning, teachers create engaging, inclusive and accessible lessons for all children.

- **Familiarity** – Lessons follow similar patterns with familiar material and all involve aspects that appeal to various learning styles
- **Participation** – Activities often involve group or paired working with valuable roles for each member which encourages peer learning
- **Physical Activities** – Unplugged activities (computing without a computer) makes it much easier to explore the concepts involved and to ask questions. This can be really beneficial to learners with communication or learning difficulties who find abstract concepts difficult and require a multimodal approach. Unplugged activities can include a range of sensory approaches, from physical movement to music, and

from manipulating objects to drawing pictures. Unplugged activities enable the use of familiar contexts to teach new concepts and knowledge. This approach helps to reduce cognitive load and has the additional benefit of being able to set the context in accordance with learner's specific interests; which may motivate learning.

Programming physical devices (E.g. Bee-bot) helps pupils learn to program by experiencing their code 'come to life' in multiple ways. Devices with outputs that include sound, movement and light ensure learners with visual or auditory impairment are included.

- **Range** – A range of teaching approaches and materials enable pupils to access learning. E.g. colourful support materials; engaging worksheets; video links; creative unplugged activities and interactive online activities support pupil's learning enabling them to achieve.
- **Resources**- Children with sight impairments could have access to a large iPad where appropriate and text can be enlarged for children to access what is on the screens. Electronic coloured overlays can be used on iPads/ on the interactive screens to help visual stress.

<u>Assessment</u>

Alongside ongoing teacher assessment, pupils take part in end of unit assessments to gain an insight into their understanding of computing vocabulary from their current unit. Teachers are able to adapt these assessments to meet individual needs. For example by offering multiple-choice options, the opportunity to voice record their answers or to type their response.