Computing at Sir Alexander Fleming Primary School.

Planning Inclusive Lessons

Learning in computing involves children building on their knowledge and understanding within the three strands of computing; Computer Science, Digital Literacy and Information Technology. Learners must have a secure understanding of what has previously been taught before they are able to progress onto more complex learning. At Sir Alexander Fleming, we follow the NCCE Teach Computing scheme of work which has been written to support all pupils. In order for the computing education to be accessible and inclusive for all, each lesson is sequenced so that it builds on learning from the previous lesson and activities are carefully planned with scaffolded activities to ensure that all pupils are able to succeed and thrive. The scaffolded activities provide pupils with extra resources such as visual prompts to ensure they are able to succeed with greater independence. Exploratory tasks encourage a deeper understanding of a concept enabling children to make connections with their prior knowledge and experiences while applying their new learning in different contexts. Teachers also adopt a range of pedagogical strategies to ensure computing topics are more accessible.

Creating an Inclusive Environment

At Sir Alexander Fleming, we ensure that the children's involvement in Computing is as inclusive as possible. Teachers carefully consider the lessons they need to teach to ensure they are able to meet the needs of the children. Computing has the potential to create challenges for children with visual impairments and sensory needs. When preparing for lessons, teachers will be mindful of sound levels when using computing equipment for those children with sensory needs. Additional adults will be deployed effectively to support learners to access technology successfully. Teachers should also consider how the learning space is utilised to promote opportunities for collaboration and hands-on activities whilst being mindful of how learners will access the equipment.

How do we support learners who struggle to access lessons because of literacy difficulties?

Discuss and model computing vocabulary.

Chunk key information.

Re-phrase sentences to include key vocabulary during class discussions.

Display key vocabulary and meaning.

Provide children with visual word bank on the learning objectives.

Teacher will consistently use and encourage the use of learnt vocabulary within lessons.

How do we support learners who struggle to retain vocabulary?

Embed opportunities to recall key terms within lessons. - Retrieval questions at the start of each lesson to revisit topics. - Visual word banks available on learning objectives. Rephrasing techniques to include correct vocabulary. - Pre-teach of new vocabulary.

.How do we support learners who need additional time to develop conceptual understanding?

Model answers and the use of completed examples to look at and discuss.

Use prior knowledge and experiences to create links between new and old learning.

Go through learning together to check understanding.

Address misconceptions early.

.How do we support learners who struggle with attention?

Incorporate any interests and hobbies into learning.

Break down tasks into manageable chunks.

Encourage and praise pupils for their contributions.

Removal of any potential distractions from the environment.

Clear instructions.

Check in with pupils throughout task to ensure engagement.

Teaching considerations		
Early years	Key stage 1	Key stage 2
Introduction to computational thinking through activities. Introduce problem solving tasks to encourage logical reasoning. Hands-on experiences available to encourage tinkering. Children taught how to use technology safely, respectfully, and responsibly.	Focus on computational thinking. Tackling problems using logical reasoning. Practical activities to encourage hands-on experiences and help them visualise solutions. Predict behaviours of simple programs. Ensure correct terminology is taught. Children taught how to use technology safely, respectfully, and responsibly	Begin to design and write programs that accomplish specific goals. Detect and correct errors in algorithms. Children are encouraged to be resilient when solving problems. Children taught how to use technology safely, respectfully, and responsibly.