Foundation Curriculum Team: Technology

Practice Guidance for Computing

Why is Computing important to the children in our school?

At Cavendish Close Infant and Nursery School, we acknowledge that our children are growing up in a technology rich world. We recognise children need hands on experiences of using technology to support their natural curiosity and personal development to become confident, competent, and comfortable users of technology in today's society. Early use of digital technology supports language skills, promotes social development, and embraces a child's natural creativity. Computing supports all areas of learning and development, allowing all children to be successful. Positive experiences in Computing develops our children's awareness of how to apply skills safely both online and offline.

What is Computing?

Computing is a subject made up of three stands:

→ **Computer Science:** Children will analyse problems and have experience of writing programs.

→ **Information Technology:** Children will use information technology to create a range of digital content, including programs.

→ **Digital Literacy:** Children will acquire skills that will enable them to be responsible, competent, confident, and creative users of technology. Children will learn the importance of keeping themselves safe online.

Our approach to planning Computing:

At Cavendish Close Infant and Nursery School we aim to provide all children with meaningful learning opportunities that build on prior knowledge and develop new skills to support our children's independence, understanding and love for technology.

Our STAR curriculum for Computing runs from Nursery through to Year 2 and shows the progression of knowledge and skills that we expect from our children. Computing is planned as part of year group topics and through cross-curricular activities, identified in our STAR curriculum and intent. Objectives are included in all year group medium term topic planning and activities to support learning are detailed on weekly planning.

Technology is no longer referenced in the 'Revised EYFS Framework', therefore objectives for Nursery and Reception have been taken from Mr. P's EYFS Computing Overview. Objectives were carefully selected to ensure progression is evident to support the National Curriculum (NC) guidelines for children in Year 1 and 2. The NC guidelines are the same in Year 1 and 2, therefore Mr. P's Year Group Overviews were utilised to ensure a progression of sequential learning takes place to support a secure knowledge of the guidelines at the end of Year 2.

As technology continues to develop, so do the risks that children may face online. To support the planning of teaching key online safety messages, all teachers have access to Project Evolve. This project is based on the UKCIS framework "Education for a Connected World" (EFACW). It covers knowledge, skills, behaviour, and attitudes across 8 strands of our online lives. The outcomes and competencies are mapped to age and are progressive through the year groups. Activities and resources are provided, with the aim to promote discussion to shape thinking, encourage reflection and challenge misconceptions.

Essential resources for Computing:

IPads – We have a number of iPads stored securely in school, readily available to support children's learning. We are working towards assigning each class with two iPads for children to practise skills independently in the classroom 'Technology Zone'.

J2E - J2E is an app we have invested in as a school to support the core skills of Computing. The app allows children to write, paint, animate, create charts, and write accurate programs. All children will have an individual log in that they can access via inputting their username and password, or by scanning the QR code. Children are able to save work in their folder and this can be accessed by the class teacher. Teachers can showcase the achievements of children by displaying them on the interactive whiteboard in the classroom.

BeeBots – BeeBots are a core resource to support Computing 'unplugged'. They allow children to create, analyse and problem-solve programs they have written. BeeBots will be available in 'Technology Zones' to support ongoing learning and natural curiosity.

We are working towards developing 'Technology Zones' for each year group with high quality resources. These are highlighted on the Computing Curriculum Overview.

See appendices for audit of current technology resources.

Our approach to teaching and learning in Computing:

Computing is taught across the academic year in all year groups using a Mastery approach. Concepts are taught through explicit teaching and modelling, as well as opportunities for learning and exploration in the 'Technology Zone'.

There is a clear and consistent expectation across school that all children will be explicitly taught key vocabulary as identified in the STAR curriculum. The technology team will develop differentiated vocabulary mats to ensure consistency and support staff subject knowledge.

Technology should be used to enhance learning across the curriculum. To support the consolidation of learning, the school regularly promotes the use of paid educational resources such as Education City and Numbots.

Computing in the learning environment:

At Cavendish Close Infant and Nursery school we acknowledge that children from an early age need exposure of technology in order to be successful in today's society. 'Technology Zones' are being developed in the EYFS and KS1 to provide children with high quality resources that can be independently explored, to develop knowledge, skills and understanding of how resources work, and what they can be used for.

The teaching and learning of Computing will be evidenced in all classrooms with vocabulary mats, children's saved J2E work, and photographs displayed.

Our approach to assessment in Computing:

We are currently reviewing our assessment procedures of foundation subjects in EYFS and KS1. Please see our previous practice below:

Computing is assessed during the Spring and Summer terms (AP1 and AP2) in Key Stage 1 with 'best fit' judgements being made against age related expectations. Children are judged to be working at 'Working Towards' (WTS), Expected (EXS) or Greater Depth (GDS) levels of learning.

Intervention in Computing:

Computing is accessible to all children with varied outcomes and levels of support.

Computing across the curriculum:

As with all foundation subjects in our school, the teaching and learning of Computing takes place across topics with an emphasis on cross-curricular links. Technology has become an integral part of our modern world and it is used to enhance learning in other curriculum subjects where possible.

Enrichment opportunities in Computing:

Teach Rex Workshops – Children in KS1 are invited to engage in creative workshops to support their topics on Dragons (Year 1) and Dinosaurs (Year 2). Learning is brought to life to ignite children's minds and imagination. All workshops are interactive and are complemented with materials to support cross-curricular links to Science, Literacy and Computing. Children will develop the skills of storytelling, vocabulary building, asking questions and using technology creatively.

As a school we provide an in school club offer which is supported by teachers and teaching assistants, targeting cross-curricular links using the iPads e.g. Magical Maths Club. We are looking into promoting j2e through a Technology club next academic year.

Each year the school participates in Online Safety Day, which plans a range of activities to share key online safety messages. We welcome visitors to share their knowledge and understanding of our current digital world, such as the Digital PCSO.

Computing References:

National Curriculum in England: Primary Curriculum
Early Years Foundation Stage Statutory Framework.
Mr.P ICT
Project Evolve

Computing Appendices:

Computing Intent Statement
Computing Curriculum Overview
Mr. P's ICT Year Group Objectives
National Curriculum Computing Guidelines
Computing assessment document
Resources audit

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