



*For every child to meet their potential and
'live life in all its fullness.' John 10:10.*

Policy: IT & Computing Policy

Policy Written: September 2019

Policy Renewed:

September 2020	No Amendments
September 2021	Changes to Early Years end of year goals due to new Early Years Framework being implemented September 2021.

Next Renew Date: September 2022

Intent:

At Hindsford CE Primary School, we strive to deliver a high-quality computing curriculum which equips pupils to use computational thinking and creativity to understand and change the world.

It is therefore the intent of the IT & Computing Curriculum to:

- Develop the core understanding of the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming.
- Equip our children to use information technology to create programs, systems and a range of content.
- Ensure that pupils become digitally literate (able to use, and express themselves and develop their ideas through, information and communication technology) – at a level suitable for the future workplace and as active participants in a digital world.
- Promote safe and sensible use of technology

Implementation:

Early Years:

In the Early Years, opportunities are presented to support the children in their development of skills in the use of technology through a range of activities. For example, when working with the teacher, children may be given tasks such as taking the photographs or making sound recordings.

The children in Early Years also have access to our Immersion Room, set of class laptops and technology equipment such as the Bee Bots or remotely control cars. Technology is also integrated into the role-play areas. For example, a telephone and computer may be accessible in a doctor's surgery role play. Observations are made of the children accessing technology in school and also conversations with children regarding the use of technology at home are recorded.

The most relevant statements for computing are taken from the following areas of learning:

- Personal, Social and Emotional Development
- Physical Development
- Understanding the World
- Expressive Arts and Design

3 & 4 Year Olds	Personal, Social and Emotional Development	<ul style="list-style-type: none"> • Begin to make sense of their own life-story and family's history.
	Physical Development	<ul style="list-style-type: none"> • Match their developing physical skills to tasks and activities in the setting.
	Understanding the World	<ul style="list-style-type: none"> • Explore how things work.
Reception	Personal, Social and Emotional Development	<ul style="list-style-type: none"> • Show resilience and perseverance in the face of a challenge. • Know and talk about the different factors that support their overall health and wellbeing: sensible amounts of 'screen time'.
	Physical Development	<ul style="list-style-type: none"> • Develop their small motor skills so that they can use a range of tools competently, safely and confidently.
	Expressive Art & Design	<ul style="list-style-type: none"> • Explore, use and refine a variety of artistic effects to express their ideas and feelings.
ELG	Personal, Social and Emotional Development	Managing Self: <ul style="list-style-type: none"> • Be confident to try new activities and show independence, resilience and perseverance in the face of challenge. • Explain the reasons for rules, know right from wrong and try to behave accordingly.
	Expressive Art & Design	Creating with Materials: Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.

Years 1 to 6:

In Key Stages 1 and 2, computing is taught in discreet, weekly, hour-long lessons using lesson plans and resources from 'Kapow Primary'. However, these materials may be supplemented, or even replaced, by other resources at the class teachers' discretion in order to ensure that the highest quality lessons are delivered.

Lessons are delivered in the classroom where children have access to a class set of laptops and iPads. Some lessons however lessons may be delivered which develop the understanding of computing and computational thinking and these will be delivered without the use of technology.

Each lesson is based around delivering one or more of the national curriculum objectives and includes an Attention Grabber, Main Event and Wrapping Up structure.

The Attention Grabber (10-15 minutes): Offers context for the lesson in an engaging manner to capture the interest of pupils and develop enthusiasm for the subject.

The Main Event (30-40 minutes): The main event is the part of the lesson where the children are exposed to new learning, linked to the national curriculum objectives.

Wrapping Up (10 minutes): Wrapping up is an opportunity in the lesson for children to consolidate, summarise or evaluate their learning.

Hindsford's computing curriculum is both knowledge and skills based within three main areas of learning: Computer Science, Information Technology and Digital Literacy (including e-Safety).

Computer Science:

Develop the core understanding of the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming.

The skills in this area are focused on Hardware, Networks and data representation, Programming, and Computational thinking. In computational thinking, we focus on 4 pillars: decomposition; pattern recognition; abstraction; and algorithm Design. In some year groups, these principles are taught discreetly (for example, Year 4). However, these fundamental principles are recapped frequently through a variety of opportunities. At the end of a teaching sequence, once the objective have been met, the class teacher may choose to include a discreet lesson focusing on computational thinking. The children learn the basics of programming using the block-coding program, Scratch Junior, before moving on to learn the language of Python as this is the program used at our local feeder high school.

Information Technology:

Equip our children to use information technology to create programs, systems and a range of content.

Our curriculum offers a broad range of platforms for the children to develop their skills when using software, using email and the internet, using data and their understanding of the wider use of technology.

Digital Literacy and e-Safety:

Ensure that pupils become digitally literate (able to use, and express themselves and develop their ideas through, information and communication technology) – at a level suitable for the future workplace and as active participants in a digital world.

To promote safe and sensible use of technology.

Whilst using a range of platforms, the children also focus on how to access digital content safely and with an appropriate amount of scrutiny. In order to prepare children for the working world, the children learn how to work safely online and also how to work collaboratively.

To highlight the importance of e-Safety with the children, we hold an annual e-Safety day during the Spring Term. This links to the PHSE curriculum.

Impact:

The intended impact of the Computing curriculum is that the majority of children in each year group are working at or exceeding the expected level for their age.

In addition, it is the intended impact that the children:

- will be inspired by the IT & Computing Curriculum and want to learn more.
- show the progression in their skills and knowledge.
- can discuss their learning and remember what they have learnt.
- can talk about their first-hand experiences of using and engaging with the technology.

The impact of the children's learning will be assessed by:

- Carrying out regular learning walks to assess the quality of teaching and learning being delivered.
- Holding regular pupil voice sessions to assess how much knowledge the children are retaining overtime and how able they are to recall this. These sessions will focus on asking the children questions about the learning that is documented in their class IT & Computing Log Book.

- During Curriculum Governor Days, the children will be asked about their learning in reference to the work in their IT & Computing Log Book linked to the Medium-Term Plans.
- Photographic evidence will be posted on the school blog.
- The pace of learning will be viewed via the quantity of work in the children's IT & Computing Log Book.

Health & Safety/Security:

In order to keep our school computers virus free, we use anti-virus software, no software from home will be installed on school computers. Pupils bringing in work on portable devices must have them scanned first or saved. Where teachers are transferring files between their home and school, their first choice should be to log on to the school network remotely they must have up to date virus protection software on their home computers. All disks and USBs must be scanned before use. Sophos security is installed on all computers in school.

Immersion Room:

Hindsford has an immersion room in school to be used across the curriculum, not just in ICT. Children and staff should follow the rules on the use of the room:

- The fire door must be pointed out
- No more than 40 children and staff in the room
- Equipment to be respected
- Temperature controlled
- All disks, pen drives are to be scanned with anti-virus software before use