What makes me a Computing Expert?

MANOR PARK INFANT SCHOOL & NURSERY

Learning Together, Success Forever

Why is computing important at our school?
(Vision Statement)

Intent

Our children are living in a world surrounded by devices, and technology is changing the lives of everyone. Computing within schools can therefore provide a wealth of learning opportunities and transferrable skills within Computing lessons and across other curriculum subjects. Through the study of Computing, children will be able to develop a wide range of fundamental skills, knowledge and understanding that will prepare them for KS2 and equip them for the rest of their lives.

Implementation

At Manor Park Infant School and Nursery, computing is taught throughout the school, following our computing progression of skills. In F1 and F2, computing is planned and taught through adult directed teaching as well as it being part of the enhanced and continuous provision. Parents are also encouraged to send observations of their children using, recognising and talking about technology via Tapestry, an Online Learning Journal. All children are encouraged to select and use technology for particular purposes. All children learn how to use an iPad and how to log on to the school network. They are encouraged to use the iPads effectively and for a clear purpose, for example using the timer or taking photographs and learning how to modify them.

When children enter KS1, they will begin computing within the National Curriculum. Knowledge and skills are taught progressively, allowing the children to embed their learning over time.

We believe that **Computer Science** teaches the principles of information and computation. It involves creating and debugging simple programs using code. At Manor Park Infant School and Nursery we introduce the language of Computer Science in different contexts and begin with using precise verbal instructions (algorithms), for example, instructing a friend on how to get to a certain point across the room. We then move on to the using the Bee-bots to program in order to get from A to B. Finally, the children create their own programs on

Purple Mash. The children will need to 'fix' their games and Bee-bot programmes as they go wrong, 'debugging' their own code.

Information Technology is taught in units, and used to enhance other areas of the curriculum. Our children use technology purposefully to create, organise, store, manipulate, retrieve and send digital content. They learn to use the internet to search for information, use the keyboard to type text, make modifications to their work including changing the font size and colour, and to save and retrieve their work. The children use iPads to access a variety of age appropriate apps and take their own photos and videos, learning how to manipulate these images.

At Manor Park Infant and Nursery School we believe that **Digital Literacy** is the ability to creatively and critically use digital tools and technologies to express, research, communicate, collaborate and share in a safe way. We teach **Online Safety** as an explicit part of our curriculum through Computing and PSHE. Children are taught how to keep safe in the digital world and the steps to take if problems or worries arise. We discuss issues such as; keeping personal information private, trusting people and sources online and treating others online respectfully.

All of our children have access to a bank of laptops and iPads to support their learning. We have interactive whiteboards in every classroom and these are used daily to further enable and enhance learning.

Impact

After the implementation of the computing curriculum, children at Manor Park Infant School and Nursery will be digitally literate and able to join the rest of the world on its digital platform. They will be equipped, not only with the skills and knowledge to use technology effectively and for their own benefit, but more importantly – safely. The biggest impact we want for our children is that they understand the consequences of using the internet and that they are also aware of how to keep themselves safe online.

As children become more confident in their abilities in Computing, they will become more independent and key life skills such as problem-solving, logical thinking and self-evaluation become second nature.

Curriculum Overview

At Manor Park Infant and Nursery school computing is taught in discreet units as well used to enhance the curriculum. Below are the units we teach, when they are taught and the order they are taught in:

All Unit Summary

Predominant Area of Computing*		
Computer Science	Information Technology	Digital Literacy

*Most units will include aspects of all strands.

Early Years (Reception)

Rather then a scheme with set lessons, the early years resources are designed to integrate into the day-to-day routine and set-up of an early years setting with opportunities for using Mini Mash or Purple Mash as part of the Early Years curriculum to support children in working towards early learning goals.

In addition, there are units of suggested ideas that focus on computing skills specifically, that can also be provided as opportunities for learning as part of the topics in other areas to give children a sound basis to explore topics using technology and to be ready for progressing through the Computing curriculum. These are as follows and are designed to be integrated and linked to wider early years curriculum areas. These have been loosely classified into the three streams but there is overlap between all three streams.

Mouse and Trackpad Skills	Keyboard Skills	Drawing skills	Robots	Sounds	Photography
Technology Around Us	Hardware	Safety and Privacy	Quizzes	Using Purple Mash with an Individual Login	

Year 1

	Unit 1.1	Unit 1.2	Unit 1.3	Unit 1.4	Unit 1.5	Unit 1.6	Unit 1.7	Unit 1.8	Unit 1.9
	Online Safety & Exploring Purple Mash	Grouping & Sorting	Pictograms	Lego Builders	Maze Explorers	Animated Story Books	Coding	Spreadsheets	Technology outside school
Number of lessons	4	2	3	3	3	5	6	3	2
Main tool			2Count		2Go	2Create A Story	2Code	2Calculate	

Year 2

	Unit 2.1	Unit 2.2	Unit 2.3	Unit 2.4	Unit 2.5	Unit 2.6	Unit 2.7	Unit 2.8
	Coding	Online Safety	Spreadsheets	Questioning	Effective Searching	Creating Pictures	Making Music	Presenting Ideas
Number of lessons	6	3	4	5	3	5	3	4
Main tool	2Code		2Calculate	2Question 2Investigate		2Paint A Picture	2Sequence	

Our computing curriculum ensures progression throughout the year groups. See knowledge progression overview.

What are the key concepts in computing at our school?

The three concepts in our computing curriculum are:

- Computer Science – this covers programming (both block-based and text-based), including computational thinking using web-based software such as Scratch. Pupils in Key Stage 1 will write code to program physical and on-screen objects, interactive games and use text-based language.

- Information Technology – this covers the use of applications to create digital content, including document creation and editing, video making, digital art, graphic design, animation and 3D modelling.

- Digital Literacy – covers skills to find, evaluate, utilize and share using technologies and the internet.

How will we know the children learn well in Computing at our school?

How well do children learn in Computing?	Evidence
Pupils can use the knowledge and vocabulary they have learnt to verbally articulate their understanding. They show that they can retain facts.	Classroom Visits Learning Walks Pupil Voice
Pupils can use knowledge they've learnt and transfer to a structured Computing activity. Showing they can retain facts and show an understanding of their learning.	Classroom Visits Learning Walks Pupil Voice
Pupils show a natural curiosity for problem solving.	Classroom Visits Learning Walks Pupil Voice
Use of progression documents allows pupils skills to develop through year groups	Classroom Visits Learning Walks Pupil Voice