Computer science Learning Journey

In computer science we will introduce and build upon skills that were acquired in 1st school and through a range of practical activities and theory, give an understanding of how computers work including programming, digital artefacts and hardware

Welcome

E-Safety

Year 5

CS/IT
In year 5 you receive 1 lesson of CS and 1 lesson of IT. CS focusses on how computers work and creating digital artefacts. IT focusses on how to use computer applications

CS – Photography Understand how digital photography works, take images and edit them

IT – E Safety Understanding the importance of being safe on the internet.

CS - Architects Creating a 3-D model of a virtual art gallery incorporating images from the previous module

CS - DJs Creating a podcast combining your own voice, different tracks and recordings

CS – Programmers Using Scratch to create a basic maze

IT – Introduction into excel spreadsheets and formula

IT - Databases using graphs to show the best results.

CS – Problem Solvers Using Flowol to create flowcharts that control mimics of real-life

IT - Read all about it, creating a newspaper using Publisher

Computer systems

Studying what happens inside the computer, looking at Input, output , internal and external components.

E-Safety As with all years you will learn about an element of e-safety

KS3 computer science will build on the learning skills you developed in Year 5 and 6.

Year 6

E-Safety As with all years you will learn about an element of e-safety

We are advertisers. Using Audacity for recording jingles and speech. Simulation Creating a theme park using excel , formulae Introduction to game developing using Scratch.

We are simulators Using Excel to understand simulations and build models

CS – Advanced Problem Solvers Using Flowol to create more advanced flowcharts that control mimics of real-life

Data types - Looking at different data types and validity. Introducing binary and bitmap images

Year 7

Algorithms – Understanding how algorithms work, their purpose and applying it to more complex real-life mimics on Flowol

CS – Game Developers Using Scratch to create the classic Pac-Man game

Introducing the world of web designing. Understand how pages from the internet are created. Have the opportunity to design their own web page.

HCI – Understanding how humans and computers interface You will have the opportunity to create your own HCI (interactive quiz) using Hyperlinks or macros

Programming – Creating either a Shark Eating Fish game or a version of the classic game Pong using randomised features

Year 8

E-Safety As with all years you will learn about an element of e-safety

Networks Learning about how the internet works, how computers link together and 'the cloud'.

Spreadsheets Understanding validation, conditional formatting, formulae and functions whilst creating a model

Graphics – Understanding vector and bitmap images. Making edits to pictures using different tools

Games programming You will create a more advanced computer game than you have made previously

Opportunities To join the robotics club, programming robots that are created

goodbye.

Year 9 you will continue to build on your computer knowledge and skills.