ALL SAINTS' COMPUTING LEARNING JOURNEY

In computing, children build on 3 key concepts ***code, communicate and connect*** which are known as our knowledge gems. Each year children build their knowledge and skills from previous learning and collect knowledge gems and applied through our 'big ideas' lens.

All Saints' Church of England Primary School, Newmarket

KS3

Code
K= Know how to create and programme a code onto a micro:bit. S= Design, write and debug to accomplish a specific goal- communicate and connect.

Code
K= Understand what variables are and relate them to real world examples. S= Design, write and debug programmes- communicate and connect

Communicate
K= Understand what a spreadsheets is and how to use formulas.
S= Use spreadsheets to plan an event and answer questions.

Communicate
K= Know what makes a good web page and how websites link together. S= Use technology, respectfully, safely and responsibly- connect

Connect
K= Understand 3D modelling and 3D printers. S= Design, develop and improve a 3D digital object- communicate.

Connect
K= Search engines and rankings. S= Using a variety of software, including internet services- communicate and code.

UKS2

Programming B | Programming A | Data | Creating Media B | Creating Media A | Computer systems and Network

YEAR SIX – DIAMOND

Connect
K= Understanding of how computer systems is transferred between devices. S= How networks offer opportunities for collaboration- communicate

Communicate
K= Use digital devices to draw vector diagrams.
S= Use online vector drawing tools to preset

Communicate
K= Know the history of video and animation. S= Capture, manipulate and edit video- connect

Connect
K= Know how flat-file databases organize data. S= Navigate a flat-file database.

Code
K= Know what a micro controller is. S= Explain how simple algorithms work and detect errors- connect and communicate

Code
K= Know how conditions and selections cane be used to modify programmes. S= Detect and correct errors in algorithms.

YEAR FIVE – AMETHYST

Computer systems and Network | Creating Media A | Creating Media B | Data | Programming A | Programming B

Code
K= Know difference between count-controlled and infinite loops. S= Modify existing animations using repetition

Code
K= Understand repetition and loops in programming. S= Writing and debugging programmes.

Connect
K= Know how and why data is collected overtime. S= Use a data logger.

Communicate
K= Knowing how digital images can be changed and edited, resaved and reused. S= Select, use and combine a variety of software- connect

Communicate
K= Input and output devices for digital audio. S= Use digital device to record audio content- connect

Connect
K= Internet is a network of networks. S= Identify multiple services of the internet- communicate

Programming B | Programming A | Data | Creating Media B | Creating Media A | Computer systems and Network

YEAR FOUR – SAPPHIRE

LKS2

Connect
K= Understanding digital devices (inputs, processes and outputs). S= Understand computing networks and the internet- communicate

Communicate
K= Stop frame animation.
S= Use digital devices to design and accomplish a goal.

Communicate
K= Know the terms text, images, templates and orientation.
S= Use desktop publishing software to create and present information.

Connect
K= Understand what a branching database is.
S= Create branching database.

Code
K= Know what motion, sound and event blocks are in Scratch. S= Write and debug programmes.

Code
K= Know how sequencing and programming enable sprites to move. S= Write a programme to move a sprite.

YEAR THREE – EMERALD

Computer systems and Network | Creating Media A | Creating Media B | Data | Programming A | Programming B

Code
K= Know that sequences and commands have an output. S= Modify designs to create their own quiz questions in Scratch- communicate and connect

Code
K= Understand instructions and sequences and predict outcomes. S= Execute precise instructions.

Connect
K= Understand what data means and how it is collected on a tally chart. S= Use technology to store and retrieve digital content- communicate

Communicate
K= Understand the difference between digital and non-digital music S= Use Chrome Music Lab to make digital music.

Communicate
K= Devices that capture photographs, edit and improve them. S= Use technology to create, store, manipulate and retrieve content.

Connect
K= How technology improves the world. S= Identify rules that keep us safe online- communicate

Programming B | Programming A | Data | Creating Media B | Creating Media A | Computer systems and Network

YEAR TWO – TOPAZ

KS1

Connect
K= Technology in their everyday lives (mouse, keyboard). S= Common uses of technology beyond school- communicate

Connect
K= Tools for digital painting.
S= Use technology to create and store content.

Communicate
K= How they type and manipulate text on the computer.
S= Use technology to create and manipulate content.

Communicate
K= Know what data and communication is.
S= Manipulate digital content.

Code
K= Knowing what the commands are on a beebot and how to use them. S= Understand what algorithms are and debug programmes – connect and communicate

Code
K= Understand how a project looks using sprites and backgrounds. S= Create and debug simple programmes

YEAR ONE – AMBER

Computer systems and Network | Creating Media A | Creating Media B | Data | Programming A | Programming B

Connect: Mouse skills, QR codes, talking pictures, phonics play

Communicate: Firework pictures and Rangoli patterns, phonics play, 2 Animate, filming each other, know and talk about their health and well-being (screen time), explain reasons for rules, know right from wrong, express their ideas and feelings.

Code: Beebots, instructions, exploring how things work, following rules

Computing- linked to classroom themes and continuous provision

EYFS – RUBY