UKS2 Computing Curriculum and Knowledge Map

St Ralph Sherwin
Catholic Multi Academy Trust

Key Stage 3

Students will learn key computing concepts including algorithms, programming and computer hardware.
They will study these concepts and learn how to use this knowledge to solve problems using computer technology.
They will learn to apply this knowledge and consider the ethical implications of the world of computing, and how these computing can best help serve the community. They will reflect on Catholic social and ethical teaching and its implications for computing.
They will consider how using computers effectively can enhance wellbeing and change the world for the better.

Pentecost - Programming B: Sensing Movement
I can create a program to run on a controllable device (bas).
I can explain how to use a conditional statement to compare a variable to a value (adv).
I can recommend ways to find and fix bugs in my own and others' programs (deep).

Lent - Data & Information: Introduction to Spreadsheets
I can create a spreadsheet to plan an event (bas).
I can explain how formula can be used to produce calculated data (adv).
I can recommend suitable ways to present different sets of data (deep).

Pentecost - Creating Media: 3D Modelling
I can create a 3D model using CAD (bas).
I can explain the uses of different digital tools when creating isometric models (adv).
I can propose improvements to an existing digital 3D model (deep).

Lent - Programming A: Variables in Games
I can define a 'variable' as something that is changeable (bas).
I can explain why a variable is used in a program (adv).
I can justify the design choices of my own project that I have created (deep).

Advent - Creating Media: Web page Creation
I can describe how a website is created using HTML coding (bas).
I can explain the importance of the ownership of images (copywrite) (adv).
I can justify the need for navigation paths and previewing pages (deep).

Pentecost - Programming B: Selection in quizzes
I can describe the purpose of conditional formatting (bas).
I can design and create a program which uses selection (bas).
I can explain how selection directs the flow of a program (adv).

Advent - Computing Systems and Networks: Communication & Collaboration
I can describe how to use digital communications (bas).
I can compare and contrast different methods of online communication (adv).
I can summarise how search engines work, including how search results are selected and ranked (deep).

Year 6

Pentecost - Creating Media: Introduction to vector graphics
I can create a vector drawing by combining different shapes (bas).
I can describe how to create, manipulate, edit and save an image as a vector graphic (bas).
I can explain how to use different tools to achieve a desired effect (adv).

Lent - Data & Information: Flat-file databases
I can describe how to use a computer program to organise data and extract information (bas).
I can create paper-based and computer-based databases (bas).
I can explain how to group, sort and select data (adv).

Advent - Creating Media: Video Production
I can describe how to access, manipulate and save a video file (bas).
I can create a video using a digital device and use software to edit it (bas).
I can explain the impact of choices made when making and sharing a video (adv).

Lent - Programming A: Selection in physical computing
I can describe how to set conditions when executing an algorithm (bas).
I can describe how to use IF Statements when creating a condition (bas).
I can compare a count-controlled loop with a condition-controlled loop (adv).

Advent - Computing Systems and Networks: Systems and Searching
I can describe how to share information safely across a network (bas).
I can describe how to use search engine results to give a desired outcome (bas).
I can explain how search results are selected (adv).

Year 5

LKS2

The Internet, audio production, repetition in shapes, data logging, photo editing, repetition in games.