Overview

In Year 8 students develop a range of skills that allow them to get a better understanding of different sectors of computing. Students will begin to develop their skills in 3 main areas: Digital Literacy, ICT and Computer Science.

The students build upon previous skills learnt to develop and enhance their knowledge and understanding. For example, further develop Python skills from Year 7 to Year 8. Students with further develop their graphic skills and understanding of iMedia theories.

Autumn

Unit 8.1 Animation
- Creating a frame by frame animation, use a range of animation tools including keyframes, onion skinning, layering, squash and stretch, use tweening, stage, frame and frame rate
- Creating interactive buttons, add basic ActionScript to animation, creating digital animation for an AI robot

Unit 8.2 Graphics
- Use a variety of tools (selection tools, manipulating layers, layer styles, feathering, cloning and healing. Gradient effects, text special effects, blur, sharpen, smudge tools)

Assessment:
Practical Tasks. End of Unit assessment (Online/Written/Practical)
- **Section A** – short knowledge recall questions which interleave previous topics.
- **Section B-** target audiences, purpose, Propp's characterisation theory, genre, relationship between genres and how they form conventions)
- **WCF (whole class feedback)**

Spring

Unit 8.3 iMedia
- Analyse the relationship between audience, purpose and product.
- Propps Characterisation Theory
- Levi-Strauss (Binary Opposites)
- Genre-recognise genres and how they form conventions.

Unit 8.4 Programming
- Input data (using input function, variables, casting), Output data (using print function, use of arithmetic operators)
- Sequence, selection and iteration(IF-ELSE, and IF ELIF-ELSE)
- Counter-controlled iteration (For loops), Condition-controlled iteration (WHILE loops), Turtle (Turtle module)

Assessment:
End of Unit assessment (Online/Written/Practical)
- **Section A** – short knowledge recall questions which interleave previous topics.
- **Section B-** target audiences, purpose, Propp's characterisation theory, genre, relationship between genres and how they form conventions)

Summer

Unit 8.5 AI and Machine Learning
- AI used in decision making
- Strengths and weaknesses of machine

Unit 8.6 Networks

Networks
- Definition, types, Packet switching, WAN/LAN

Home Networks
- WiFi Security, Firewall

Data Representation
- Recap Binary, Hexadecimal

Assessment:
End of Unit assessment (Online/Written/Practical)
- **Section A** – short knowledge recall questions which interleave previous topics.
- **Section B-** CPU, RAM, ROM, virtual memory, fetch execute cycle).
- **WCF (whole class feedback)**

Useful resources for supporting your child at home:

Programming: Teaching coding made easier

(TurningLab) https://www.turinglab.co.uk/, www.wickeditor.com,

Graphics: Sue Farrimond Tutorials (google.com),

App: (FREE)
Pixlr,
Snapseed