Salford City Academy
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Part of United Learning

Subject: ICT/Computing

Year 8

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.

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Unit 8.1 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)

Unit 8.2 Graphics/iMedia

- Target audiences, purpose.
- 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:

Unit 8.1 Programming
Practical Tasks.

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Unit 8.2 Graphics/iMedia continued

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

Unit 8.3 2D 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.
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Assessment:

Unit 8.2 Graphics/iMedia
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)**

Unit 8.1 Programming

- Practical Tasks.

Sum

Unit 8.4 Ethics of Computing

- Sourcing content responsibly (Copyright, Creative commons, data protection)
- Technology and the environment
- Technology and the law (GDPR)
- Moral dilemmas

Unit 8.5 Computer Systems/Project

- Factors affecting CPU performance (clock speed, cache size, number of cores)
- RAM/ROM and virtual memory
- Factors affecting secondary storage (cost, capacity, speed, portability)
- Fetch execute cycle

Assessment:

Unit 8.4 Ethics of Computing
Multiple choice questions

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