

OVERVIEW

In Year 7 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 three main areas: Digital Literacy, ICT and Computer Science.

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Unit 7.1 Impact of the Technology

- Creating secure passwords and logging onto the school system, navigating TEAMS (Assignments, One Drive, Class Notebook), accessing learning platforms
- Communicating with emails (creating folders, sending, receiving, saving attachments)
- Cyberbullying, sexting, grooming, catfishing, how to play online respectfully
- How to identify fake news, online scams

Physical Components

- Input, output and storage devices
- CPU, RAM, ROM memory, embedded systems
- Networks, the internet

Assessment:

End of Unit assessment (Online/Written- E-Safety, cyberbullying, sexting, digital footprint, malware, Physical components -CPU, embedded systems, networks, RAM ROM, Networks,

Whole Class Feedback

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Unit 7.2 Codes and Messages

- How to decrypt and encrypt using pig pen and Caesar Cipher
- Convert denary to binary, binary to denary
- Complete binary addition
- Hexadecimal
- Use sequences of binary digits to represent images and sounds

Unit 7.3 Programming

- How to create flowcharts
- Input data (using input function, use variables to store, use of casting).
- Sequence, selection and iteration (IF-ELSE, and IF ELIF-ELSE)

Assessment:

End of Unit 7.2 assessment (Online/Written- Binary- binary addition, hexadecimal)

Whole Class Feedback

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Unit 7.3 Programming

- Sequence, selection and iteration (IF-ELSE, and IF ELIF-ELSE)

Unit 7.4 Graphics

- Photopea.com
- Removing objects (Magic wand tool, polygonal lasso select tool, fill tool, patch tool, spot healing brush tool)
- Using layers
- Using text (text overlaid, fonts, colour, text wrapping)
- Purpose of digital graphics

Assessment:

End of unit assessment (Practical: programming tasks, datatypes, input/output data, selection)

Whole Class Feedback

Programming:

Useful resources for supporting your child at home:

-Teaching coding made easier (TurningLab) <https://www.turinglab.co.uk/>

Graphics:

[Sue Farrimond Tutorials - Creating Media Products \(google.com\)](https://www.google.com)