

## 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, developing Scratch (block code) to Python (text-based code) in Year 8. Students will further develop their graphic skills and understanding of iMedia theories.

## Aut

**Unit 8.1 Programming (Microbits)**

- Explain/debug how variables are used in programs
- Write programs that use random number variables
- Evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
- Practical experience of writing computer programs in order to solve problems.
- Practical programming (*for example: bitdice, at home activity picker, cookie tin alarm, door alarm, step counter, emotion badge*)

**Assessment:**

Practical assessment of project work

## Spr

**Unit 8.2 Graphics**

- [www.photopea.com](http://www.photopea.com)
- Removing an object
- Letter Focus
- Interleaving and layering type
- Props Theory (Characterisation)

**Assessment:**

Practical assessment of a variety of tools used to create a product for a client.

## Sum

**Unit 8.3 Programming (Python)**

- [www.replit.com](http://www.replit.com)
- Python Basics- Functions (output/input statements)
- Use of data types in programming
- Casting
- If/else statements
- Creating lists
- Python Turtle

**Assessment:**

Practical assessment of programming project tasks.

**Useful resources for supporting your child at home:**

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

**Microbit:** [Projects | micro:bit \(microbit.org\)](https://projects.micro:bit(microbit.org)) practice online without a microbit at home.

**Graphics:** [Sue Farrimond Tutorials \(google.com\)](https://suefarrimond.com), snapseed App