



ACADEMY  
GREAT BARR

# Curriculum Guide – Year 9

## Computer Science

Curriculum Director: Mrs K Kinsella

### Members of Staff who teach Year 9:

- Mr R Bennett (Learning Consultant)

### Exam Board and Specification:

[OCR](#)

### How the course is assessed:

- 1) Computer systems (1hr:30mins) Written paper – 40%
- 2) Computational thinking, algorithms and programming (1hr:30mins) Written paper - 40%
- 3) Programming project (20 hours) – 20%

### What we do in year 9:

Approximate Dates	Big Question/ Theme	Key Learning Outcomes
Autumn Term 1	Introduction to Python Programming	Develop software using a high-level, general-purpose, programming language.
Autumn Term 2	Computer hardware and Software	Understand the purpose of hardware and software in the context of computing
Spring Term 1	Data Representation	Understand how and why the different ways data is represented in computing.
Spring Term 2	Algorithms and Computational Logic	Construct and apply logic to computational problems
Summer Term 1	Networks	Define and understand how computers communicate.
Summer Term 2	Advanced Python Programming	Develop software using advanced Python techniques.

For more information and guidance please visit: [www.mrfraser.org/](http://www.mrfraser.org/),  
[www.computerscienceuk.com](http://www.computerscienceuk.com), [www.codecademy.com](http://www.codecademy.com),  
[www.neuroproductions.be/logic-lab](http://www.neuroproductions.be/logic-lab),



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# Curriculum Guide – Year 10

## Computer Science

Curriculum Director: Mrs K Kinsella

### Members of Staff who teach Year 10:

- Mrs E Blake (Assistant Vice Principal – Data and Standards)

### Exam Board and Specification:

[OCR](#)

### How the course is assessed:

- 1) A451 Written paper 1 hour 30 mins - 40%
- 2) A452 Controlled assessment 30% (20 Hours)
- 3) A453 Controlled assessment 30% (20 Hours)

### What we do in year 10:

Approximate Dates	Big Question/ Theme	Key Learning Outcomes
Autumn Term 1	A453 - Introduction to Controlled Assessment – Programming Project.	Programming baseline and project preparation
Autumn Term 2	A453 Programming Project	N/A
Spring Term 1	A452 Practical Investigation	N/A
Spring Term 2	Computer Systems, Hardware and Software	Understand what a computer is and the purpose of hardware and software.
Summer Term 1	Databases and Representation of Data	Understand how and why the different ways data is represented and stored.
Summer Term 2	Networking	Define and understand how computers communicate

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[www.neuroproductions.be/logic-lab](http://www.neuroproductions.be/logic-lab),



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# Curriculum Guide – Year 11

## Computer Science

Curriculum Director: Mrs K Kinsella

### Members of Staff who teach Year 11:

- Mr R Bennett (Learning Consultant)

### Exam Board and Specification:

[OCR](#)

### How the course is assessed:

- 1) A451 Written paper: 1 hour 30 mins - 40%
- 2) A452 Controlled assessment 30% (20 Hours)
- 3) A453 Controlled assessment 30% (20 Hours)

### What we do in year 11:

Approximate Dates	Big Question/ Theme	Key Learning Outcomes
Autumn Term 1	A453 - Introduction to Controlled Assessment – Programming Project.	Programming baseline and project preparation
Autumn Term 2	A453 Programming Project	N/A
Spring Term 1	A452 Practical Investigation	N/A
Spring Term 2	Computer Systems, Hardware and Software	Understand what a computer is and the purpose of hardware and software.
Summer Term 1	Databases and Representation of Data	Understand how and why the different ways data is represented and stored.

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[www.computerscienceuk.com](http://www.computerscienceuk.com), [www.codecademy.com](http://www.codecademy.com),  
[www.neuroproductions.be/logic-lab](http://www.neuroproductions.be/logic-lab),