

# Spalding Grammar School Sixth Form

## *Subject Information*

# Computer Science

### Entry Requirement:

*Grade 6 in GCSE Computer Science if studied or Grade 7 in GCSE Mathematics if not*

**Awarding body:** OCR

**About the subject:** This challenging specification encourages students to develop problem solving skills with an emphasis on computer programming and algorithms and allows students to build on their mathematical skills to express computational laws and processes, e.g. Boolean algebra/logic. Students will then apply these academic principles learned in the classroom to real world systems in an exciting and engaging manner.

### Assessment:

**H046/1 Computing Principles**

**H446/2 Algorithm and programming**

Students study for two theory paper exams and the content is broken into 12 separate blocks over the two-year course which is taught by subject specialists following the OCR Computer Science syllabus.

In Year 12 students study 8 of the 12 blocks:

- **Unit 1 Components of a Computer**
- **Unit 2 Systems Software and Application Generation**
- **Unit 10 Computational Thinking**
- **Unit 3 Software Development**
- **Unit 11 Programming Techniques**
- **Unit 4 Exchanging Data**
- **Unit 5 Networks**
- **Unit 12 Algorithms**

In Year 13 students study a further 4 blocks and complete the programming project:

- **Unit 9 Legal, Moral, Ethical and Cultural Issues**
- **Unit 6 Data Types**
- **Unit 7 Data Structures**
- **Unit 8 Boolean Algebra**
- **H446/3 Programming Project:** The programming project component is a practical assessment with a task that is chosen by the student and is produced in Python 3.x programming language if desired. We will start the process at the end of Year 12 and aim to finish by April in Year 13.

For a deeper explanation of the unit topics and assessment requirements, visit [www.ocr.org.uk](http://www.ocr.org.uk) and search for the GCE Computer Science Specification or ask in the department.

Students have 11 lessons of Computer Science per two-week cycle and tuition takes the form of student-led presentations, teacher-led presentations and group work. Last year one of our students was accepted to Cambridge University to study Computer Science. Please feel free to speak with the Head of Subject should you have any questions or if you wish to discuss the course further.