

Course information for Parents

Year/Key stage: 4 Subject: Year 9, 10 and 11 Computer Science

Faculty Area	Computing	Learning Leader contact information	Mr Z. Rathor zrathor@thehazeleyacademy.com
Examination Board	AQA – Computer Science 9 - 1	Specification and QAN code	8520 601/8301/9

Subject Content

Paper 1: Computational thinking and problem solving

Computational thinking, problem solving, code tracing and applied computing as well as theoretical knowledge of computer science.

Paper 2: Written assessment

Theoretical knowledge from subject content 3–7 above.

Programming project

The programming project develops a student's ability to use the knowledge and skills gained through the course to solve a problem. Students will be expected to follow a systematic approach to problem solving, consistent with the skills described in Section 8 of the subject content. The skills developed can be applied to exam questions on computational thinking.

Additional Equipment Needed

- It is recommended that students have a suitable computing device that allows them to develop their classwork outside of lessons, using a range of subject specific programming software.
- Students will need a standard calculator for the mathematical aspects of the course and it is permitted for use in the written exam

Assessment Details:

Paper 1: Computational thinking and problem solving

Written exam set in practically based scenarios: 1 hour 30 minutes • 80 marks • 50% of GCSE Questions A mix of multiple choice, short answer and longer answer questions assessing a student's practical problem solving and computational thinking skills.

Paper 2: Written assessment

Written exam: 1 hour 30 minutes • 80 marks • 50% of GCSE Questions A mix of multiple choice, short answer, longer answer and extended response questions assessing a student's theoretical knowledge.

Component 3 - Programming project

A computer program to solve the programming project • Written report: totalling 20 hours of timetabled work. The development of a computer program along with the computer programming code itself which has been designed, written and tested by a student to solve a problem. Students will produce an original report outlining this development.

To be successful students will need to be able to:

- Develop computational thinking skills by logically breaking down decision processes to create their own algorithms and program code within Python
- Persevere with new and engaging coding languages & concepts
- Refine extended exam questions to incorporate acceptable language and point structures using past paper questions and mark schemes
- Apply mathematical skills to convert between different numbering systems used by computer systems
- Investigate real life examples how the legal framework supports individuals and businesses
- Organise deadlines and submissions using the Google Classrooms learning environment, combined with open source Google Drive and Docs

What can I do to support my child at home?

To support your child's learning we recommend the following approaches:

- Log in to Google Classrooms from home with your child, using their Hazeley account to see what they have been doing in lessons. Parents can see what tasks have been set and their deadlines.
- Ask your child to explain what code they have created in class and what it could be used for in a real life example.
- Encourage your child to develop their coding profile using CodeCademy, SoloLearn, and Snakify focusing on the Python courses. Stats are tracked by the website to allow them to revisit activities outside of the class.
- Provide access to a computing device that will allow them to code outside of the classroom environment.

Recommended resources for the course:

Websites:

AQA – Official Website:

<http://www.aqa.org.uk/subjects/computer-science-and-it/gcse/computer-science-8520>

- Google Classroom: <https://classroom.google.com/>
- CodeCademy: <https://www.codecademy.com/>
- Khan Academy: <https://www.khanacademy.org/>
- BBC Bitesize: <http://www.bbc.co.uk/education/subjects/z34k7ty>
- Teach-ICT: www.teach-ict.com

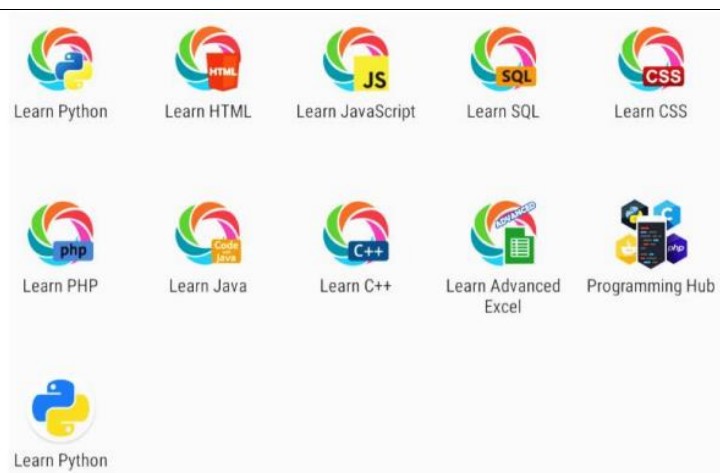
Books:

We have ensured that there is no requirement to purchase books to support your child with their learning. The books will be purchased over the summer break ready for use as of September 2018.

Apps:

There are lots of great apps available to support learning outside of the classroom, here are a few that have been tested by staff to encourage wider reading and skill development. These are available through Google Play.

Home Study & Independent Learning Parental Support Information



Teaching Staff Contact Details

Name	Role	Email	Tel
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