

Higher Computing Science

Support Strategies

Course Structure

The Higher Computing Science course consists of these units and develops these key skills and knowledge:

Software Design & Development (SDD)	Web Design & Development (WDD)
<p>Problem solving and practical skills within SDD</p> <ul style="list-style-type: none">● Modular program development● Software analysis, design, implementation, testing and evaluation● Explaining how programs work● Data types and structures, standard algorithms, pre-defined functions, file handling● Creating efficient programs to solve advanced problems	<p>Advanced practical problem-solving skills in WDD</p> <ul style="list-style-type: none">● Analysis: Functional and end-user requirements● Design: Visual layout and wireframes for a multi-level website● Implementation of multi-page websites using HTML, Cascading Style Sheets (CSS) and JavaScript● Testing website functionality● Evaluation of fitness for purpose & usability
Database Design & Development (DDD)	Computer Systems (CS)
<p>Problem solving and practical skills within DDD</p> <ul style="list-style-type: none">● Developing relational databases via the stages of analysis (functional and end-user requirements)● Design: Entity relationship design, cardinality (types of relationships), entity-occurrence diagrams● Implementation: Code SQL queries and explaining SQL code● Testing of SQL operations● Evaluation for fitness for purpose	<ul style="list-style-type: none">● Data representation including binary forms, text and graphics● Factors affecting system performance● Environmental impact of CS● Intelligent Systems● Security Implications

Please see the link here for how your assessments (exam and assignment) have been modified for session 2020-2021: https://www.sqa.org.uk/sqa/files_ccc/modification-summary-report-computing-science.pdf

Revision Websites

BBC Bitesize https://www.bbc.co.uk/bitesize Secondary → Scotland → Higher → Computing Science	Concise notes covering all four units of the course with some self-assessment tasks.
Scholar https://scholar.hw.ac.uk/index.html	More detailed notes, including some practical tasks and self-assessment questions. Online tutor sessions with lessons on key topics are available here: https://scholar.hw.ac.uk/sessions.html
Google Classroom	Your Google Classroom class provides your lessons along with additional revision resources and practical tasks to help prepare you for the assignment
SQA Past Papers and Assignments & Course Specification https://www.sqa.org.uk/sqa/56924.html	Find links to past papers and previous assignments (coursework) to practise and the course specification which details course contents - a useful checklist for your revision.

Exam Technique & Assignment Improvement Tips

See your teacher for additional targeted help and attend our after-school revision sessions when we begin to offer them again. Additional tips to help you with the exam and assignment:

Exam: For 2020-2021 worth 80 marks - 2 hours

- Regular practice of past papers and comparing your answers to the marking instructions as part of your regular revision outside of class is critical preparation.
- Practising questions that are seen as more challenging first is a good idea - tackle these when you are fresh - then attempt the questions that you find less difficult later.
- Question types that pupil responses show need more practice for this course:
 - Writing/explaining or completing code using pseudocode for SDD, SQL, HTML, CSS, JavaScript
 - Parameter passing

Assignment/Coursework: For 2020-2021 worth 40 marks - Open book, completed in class within 6 hours

- Keep up-to-date with all practical tasks/catch up at home by seeing resources and booklets in Google Classroom that provide tasks and help when in school or at home.
- Work through previous years' assignments - in addition to the tasks that you will complete in class. Your teacher can provide you with additional tasks to practise.