Subject	Year	Term
Computer Science	12	Summer

Topic
Programming, exchanging data, coursework

Content - Intent

Prior Learning (Topic)	Programming, system software, Computational thinking, software development

Programming. The use of an IDE to develop/debug a program, and the fundamentals of programming including recursion and
the concepts of OOP, while recognising that some students may have had little previous experience of programming and
others will already be seasoned programmers.
Exchanging data. compression and encryption, databases and SQL, transaction processing.
Program development for component 3 of the A level, including analysis, design, implementation and evaluation

Future Learning	Network, coursework

What Knowledge and Skills will be Taught (Implementation)	How will your understanding be assessed and recorded (Impact)
Start of the coursework project, analysis, design, implementation and evaluation	Drafts of analysis, design and development of software to be handed in and marked. On going intervention and marking of coursework as it arises. Year 12 mock exam
E-R diagrams, SQL to select, insert, edit, delete records. Normalisation through first, and second normal form to third normal form. How each part of ACID works in transactional databases, Referential integrity	Worksheets and homework sheets sourced form PGonline, in the style of exam questions. End of unit assessment. Regular assessment to test previous learning through the use of past papers

How can parents help at home?
Ensure homework is completed on time. Class notes are being finished and summarised at home. There is preparation for Mock Exams.

Helpful further reading and discussion (Including reading and Vocabulary List)

Reading	Vocabulary Lists
Theory textbook – *ISBN 978-1910523056* OCR AS and A Level Computer Science, by Heathcote and Heathcote Programming Textbooks- *ISBN - 978-1910523193* Tackling A Level Projects in Computer Science for OCR H446 *ISBN - 978-1484260463* Modern C++ for Absolute Beginners *ISBN - 978-1838648572* Beginning C++ Game Programming	Normalisation Referential integrity Validation Verification ACID Not D-type flip flop Adder Half adder