

**Curriculum Area: Computing Science Year: 11
2015/2016**

TOPICS	YEAR CURRICULUM	HOW YOU CAN SUPPORT LEARNING AT HOME, EG. BOOKS, WEBSITES, FAMILY LEARNING THROUGH VISITS.
Fundamentals of computer systems		Computer (and other technological goods) which can be opened to demonstrate its internal components
Computing Hardware:		
Software		Royal Institution Lectures 2008 and associated resources available from RI. Most of Lecture 2, especially the first and last third, is relevant to this topic and can be shown in sections to the class
Representation of data in computer systems		
Databases		www.rigb.org/christmaslectures08
Computer communications and networking		Examples of recent news stories of computer failures – newspaper cuttings, video clips or web pages.
Programming		
Practical investigation	Controlled Assessment It requires the solution of specified problems together with an examination of how the scenario affects real-life or computing developments.	Logic circuit simulation program – several available free from the internet, but a very good one is Logically by Josh Tynjala: http://joshblog.net/projects/logic-gate-simulator/
Programming Project	Controlled Assessment This unit requires codes to be written to solve a set of three tasks.	http://computer.howstuffworks.com/computer-memory.htm Warriors of the Net (by Ericsson’s medialab). An animation of how the Internet works