GCSE Computer Science
Exam Board: Edexcel

Course Description:
Our Year 9 course acts as a foundation year for GCSE where students get a firm grounding in much of the theory and practical skills involved in the subject. Students follow our in-house scheme of work designed to give them the skills necessary to be successful in the qualification they will complete in years 10 and 11; Edexcel's Computer Science GCSE.

Course content:

Term 1:
- **Hardware and Software –** investigating these fundamental components of every computer system.
- **How the web works –** exploring the theory behind the Internet and World Wide Web.

Term 2:
- **Virtual Pet –** a scratch-based programming unit, where students create their own digital 'Tamagotchi'.

Term 3:
- **Databases –** students learn about many of the vital applications of databases in our digital world and gain hands-on experience at using Microsoft Access to create and interrogate a database.

Term 4:
- **Image Manipulation –** Investigating how images are created and stored digitally, as well as learning some cool Photoshop skills.

Term 5:
- **HTML and CSS –** an introduction to web design using HTML coding.

Term 6:
- **Future Technology –** a unit where students explore the potential impact of emerging technologies.

Extra-Curricular Opportunities:
- Photography club (digital editing and image manipulation skills)
- Kodu Club
- Programming Club

Useful websites:
http://www.teach-ict.com
http://www.computingatschool.org.uk
www.digizen.org
http://www.bbc.co.uk/education

Important information:
Generally speaking, Computer Science is a more academic subject than ICT. There is a heavy emphasis on theory work, whereas ICT focusses more on the practical and creative use of software.

The subject is taught in two lessons per week in one of our dedicated IT suites. All lesson materials are digital and hosted on the school VLE. Students do not have exercise books; all work is produced digitally and saved to their Guilsborough network accounts.

Provision for the Most Able:
Students in Computer Science are not set, but are taught in mixed-ability groups. To properly extend and challenge the most able, our schemes of work are differentiated to include a wide range of extension tasks for students identified as more-able/gifted and talented.

Assessment:
Students in Computer Science are continually assessed in lessons. The digital nature of the on-screen work means that teachers are able to easily see what a student is doing and give them on-going feedback as they progress through the tasks in a unit of work. Additionally, students are assessed on the work they have done at the end of each unit and given feedback on their successes and how they can further improve.