Subject	*ICT and Computing*

Introduction:

In ICT and Computing lessons students will learn how computers and computer systems work, they will design and build programs and they will understand a range of ways to use technology safely.

Classes in KS3 and the ICT in KS4 are set with an academic subject which does vary between the years. The Computer Science option classes are mixed ability.

Number of periods taught per week at each KS

- KS3 – 1 lesson per week
- KS4 – Computer Science 3 lessons per week as an option subject
- KS4 – ICT – 1 lesson per fortnight, year 11 short GCSE
- KS5 – 5 lessons per week

Contact details

- ict@yateley.hants.sch.uk

Course content:

Year 7	• Hardware, input/output devices, software • Introduction to block and touch/develop programming using MicroBits • Introduction to flowcharts using Flowol • Introduction to text based programming using Python Turtle • Creating spreadsheets as models
Year 8	• Hardware, input/output devices, software • Binary, images and sound • Introduction to text based programming using Python Turtle • Extended spreadsheets, combo boxes, VLookups etc • Databases using MS Access • Networks, HTLM and the internet • Simple Logic circuits
Year 9	• Simple Logic circuits • Solving problems using flowcharts and pseudocode • Solving programming problems using Python • Creating an app using App Inventor • Creating products for a marketing exercise
Year 10	• **ICT:** • Internet Safety • Biometrics • GPS and its uses • Addiction to computers • Connecting to the internet • Choosing a device • Setting up online accounts • **Computer Science:** • Theory topics for the OCR Computer Science GCSE • Preparation for the OCR Computer Science GCSE programming project
Year 11	• **ICT:** • Theory topics for the WJEC ICT short GCSE • **Computer Science:** • Theory topics for the OCR Computer Science GCSE • OCR Computer Science GCSE programming project
Year 12	• Theory topics for the OCR Computer Science AS level

	• Preparation for the OCR Computer Science A level programming project
Year 13	• Theory topics for the OCR Computer Science A level • OCR Computer Science A level programming project

Assessment:

KS3	KS4	KS5
• Work is submitted most lessons and marked • Most topics are graded between 1-9 • Topic grades are used to provide a final grade of the year	• Work is submitted most lessons and marked • A grade is give at each reporting point • **Computer Science GCSE:** • Additional tests are taken at end of topics • Mock paper sat by students	• Work in lesson marked and discussed • Homework assessed • Programming expertise assessed on an ongoing basis • Mock papers sat by students • Detailed feedback given on the A level project at significant points in the project cycle

Assessment criteria

Ref Progress Grid