

Welcome to the ICT and Computer Science Department

ICT and Computer Science is an essential part of life and here at Reepham High School and College we try our very best to share its importance. There is a greater demand for businesses relying on ICT systems and computer programs to support business decisions. We aim to provide a balanced curriculum of ICT and Computer Science in preparation for the working environment.

We have a strong team of **enthusiastic** teachers who **support students** to get their best possible grades.

Mr Villarde [Head of Department]

Mr Vrhovec [ICT and Computer Science Teacher]

Key Stage Three (Years 7, 8 and 9)

- A new curriculum of Computer Science has been introduced by the government in order to understand how computers work and to learn programming languages. The ICT and Computer Science department have adapted and introduced schemes of work to cater for these changes in order to prepare them for Key Stage Four in which an ICT or Computer Science qualification is an option.
- Pupils in Years 7, 8 and 9 are taught in tutor groups of mixed ability.
- Pupil receive one hour of ICT and Computer Science a week.

Key Stage Four (Years 10 and 11)

There are two option subjects for ICT and Computing:

OCR ICT GCSE - ICT discusses how to effectively use computers within an business to help solve problems and meet organisational needs. An ICT qualification will teach you how to develop and use computer applications to share, store and manage data and/or information. Topics studied include database systems, spreadsheets systems, networking and telecommunications, information security and assurance, web development and human interaction.

OCR Computer Science GCSE – Computer Science studies the fundamentals to help create and build usable applications such as video games apps and computer programs. A Computer Science qualification will focus more on the theoretical and mathematical aspects of computing. Topics studied include software development and design, algorithm analysis, computational theory, object-orientated and systems programming, data structures and computer architecture. If you enjoy Maths and, in particular, solving logical problems then you should consider studying Computer Science.

- As an option subject students receive two hours a week in Year 10 and three hours a week in Year 11.
- Currently there are lots of changes happening to the GCSE structure in all subjects. The Computer Science GCSE will reform in Sept 2016 to suit the new grading structure.

Key Stage Five (Years 12 and 13)

AQA A Level Computer Science - The introduction of Computer Science is stripping the subject back to allow students to have a detailed understanding of how the computer works so that they can create and develop their own systems. Students will look at the fundamentals including the microprocessor, data structures and network architecture amongst other topics. Additionally, students will improve their creative, logical and analytical thinking skills through developing their programming skills to adapt and construct efficient algorithms which can be applied to a variety of solutions

- AQA A Level Computer Science is an option with nine hours of class time over the two week timetable.

Accommodation and Resources

The ICT and Computer Science department is situated downstairs in the school and is made up of **2 rooms**. Most of the main school lessons are taught there and students know that this is the **place to come for help**. A level lessons are taught in the main college building.

- Each room has its own interactive whiteboard (Promethean) and its own computer for teacher use.
- The two rooms in the school have resources of 30 computers in each.
- The college computer room has 30 computers with access to scanners, green screens and graphics tablets.
- Years 10 and 11 have online resources and GCSE specific books written for the OCR courses.
- We subscribe to www.teach-ict.com and use this to teach and to set homework or classwork tasks.

Extra Curricular Activity and Trips

ICT and Computer Science is everywhere.

Students in this generation have not known life without some form of technology and therefore, through no fault of their own, can take it for granted. We think it is important

to **enhance pupils ICT and Computer Science experience** with extra-curricular activities. Some of our regular activities are listed below.

- We offer a Raspberry Pi and Scratch club.
- We run lunchtime support sessions for all year groups.
- We run an ICT and Computer Science impact day which focuses on E-safety for Gifted and talented students (Digital Champions are chosen for the school as a result of this day)
- All year groups in the school then receive an assembly showing off the resources and result of the impact day to widen awareness to whole school.
- Guest speakers from industry covering game design, app development and more.
 - We work closely with the Police to reinforce E-Safety and its importance.