Year 7
ICT and Computing

Introduction and Overview

Departmental Aims
- To deliver outstanding standards in teaching and learning throughout the curriculum.
- To develop pupils understanding of the impact that ICT has on society.
- To prepare pupils to embrace changes in technological advancements in ICT and Computing.
- Allow pupils creativity to flourish and give them high quality skills to compete in creative and technological industries.
- To develop pupils capabilities of computational thinking.
- Create strong cross curricular links to allow pupils to use their ICT skills as a means to progress in all other subjects.
- Give pupils skills to become safer more responsible users of digital devices.
- To develop a culture of life-long learning.

E-safety – pupils begin Sir John Talbot's School undertaking an in depth topic surrounding safe and responsible use of digital devices. Issues such as cyber bullying are discussed with emphasis on the effect that cyberbullying has on the victim. With a view that pupils will become more conscious of the knock on effects and be more proactive about helping themselves and each other if they were to fall victim. Online threats, misuse of social networking and security measures to keep digital devices safe from hackers and viruses are just some of the other topics covered in this important unit. A critical review of some of the ways students can keep themselves safe is also undertaken.

Planning a Trip – this topic is designed to give pupils a flavour of the type of project based work they will undertake at KS4. Pupils will use creative software packages to design and create a logo and website along with learning how to effectively search for and source information from the Internet. Pupils will undertake a consistent approach to each part of the topic from the initial planning stages, creating the products and culminating in an evaluation. We use professional software packages at Sir John Talbots School such as Fireworks and Dreamweaver to ensure that our pupils will be able to compete in the work place.

Scratch programming – This visual programming software introduces pupils to programming in a fun and interactive way. Pupils learn that programming only works if the building blocks of the program are using the correct instructions and placed in the correct order. Pupils can create games in scratch and program them to have a working score for example.

Small Basic – An introduction to textual programming using a language that is designed to make programming easy and approachable for novice users. Pupils are challenged to write sequences of accurate instructions developing their mathematical and analytical mind. Students become quizzical problem solvers who are not afraid to get it wrong if it means they learn from their mistakes to get it right next time.

Databases – pupils will learn what databases are and how they are useful in organising and processing data. They will learn how to collect data and set up flat file and relational databases and search them to retrieve data using simple and advanced searching techniques including SQL. Students will learn about DBMS and the role of databases in the world of work.

How to support your child

- Check your child's exercise book regularly and talk to them about their work. Feel free to make comments in their exercise book.
- Check Milk regularly to monitor your child's homework and encourage them to complete tasks thoroughly.
- Encourage your child to explore computer programing sites such as code.org.

- Download Small Basic (this is open source and completely free) onto your personal computer and encourage your child to practice their skills at home.

Web links

http://smallbasic.com/
https://code.org/learn
https://www.khanacademy.org/hourofcode
https://www.thinkuknow.co.uk/
http://www.bbc.co.uk/