

Computing - Year 7

In year 7 we want students to be well equipped with key ICT skills that they can apply immediately into all the subjects they study. We have introduced G Suite tools that are cloud-based and accessible from both home and school, work online or offline, anytime, and on any device. These tools encourage collaboration, creativity, and critical thinking, and work one-on-one or with the whole class. Students can store and organise assignments, documents, homework or classwork securely and access them any time. They learn about search engines, word processing, presentation and email to work collaboratively and apply research skills into all curriculum areas.

Students then move into image processing where they learn about target audience and purpose of digital contents. They recognise that digital publications can be represented in many forms. They use their research skills from the previous unit to obtain content from the world wide web and apply filters to narrow down their searches to select appropriate content for their target audience. They will show an awareness for the quality of digital content collected and use a variety of image processing software to manipulate and present digital content to achieve given goals. They make adjustments when evaluating and repurposing it for different audiences. Students will produce digital graphics such as logos, seasonal/religious/festive cards and film posters.

We then introduce the online safety concepts. Students learn about the importance of communicating safely and respectfully online. They appreciate the need for keeping personal information private. Students will be fully aware of what to do and who to speak to when concerned about contents or being contacted. With increased use of social media and online gaming outside the school we want to ensure that all our students are confident, feel secure and know that they are in control of situations that may arise. We will cover a range of topics in this unit which includes - social networking, protecting personal information, cyberbullying, digital footprint and how to stay safe online.

Computer systems are regularly evolving. New systems and products are constantly emerging into the market. We would like our students to be able to recognise the different parts of the computer system and their functions. In this unit the students will research into some of the latest ICT gadgets and products such as wearable technology, game console, smart phone, tablet PC, laptop and desktop. Students will identify and analyse the different parts, such as input device, output device, memory and cpu. At the top level students would appreciate that most of these systems follow a similar design process known as system architecture.

In the summer term we teach programming to year seven using Scratch. This builds upon their primary school experience of using block based coding in Scratch. Students will write code to create computer games. Programming helps students to learn to solve problems. The ability to solve problems will equip them with valuable skills that they can use to overcome any adversity they face. Programming computer games helps students to learn to code while having fun. It provides them with a challenge and helps them to develop resilience. They can try and try again until they succeed and produce the results they are looking for.

With the teacher's help the students will complete a classic pacman style project on maze game with collectables, enemies, obstacles and different levels of difficulty. Students will then do a project of their own choice. They will use their creativity to turn their vague idea into something effective. They need to be able to see the large picture and break it down into smaller manageable tasks in order to complete the project in an effective manner.