Computing

Year 9

William Hulme's Grammar School
The best in everyone™
Part of United Learning

Overview

Our curriculum aims to facilitate students with knowledge, understanding and skills about three disciplines within Computing, IT, Digital Literacy and Computer Science.

In Year 9, the computing focuses to provide a balance between Creative IMedia and Computer Science side of the course. Students will be given ample opportunity to develop their coding expertise in python. This python recap builds on the year 8 python, with 2 aims, reminding students of how to use the basics of python, and providing students the opportunity to use their python knowledge in new contexts, building confidence, and providing an opportunity for some creativity in the code. Additional to coding students will complete creative subjects such as creating websites, creating comic strips, and representing sound. The purpose of these unit's service to combine creative skills along with computational thinking skills, such as coding website using HTML, linking binary to representation of images: vector and bitmap and using key BAME personalities in world of technology and design a comic strip for a specific audience. Students will once more work on further developing their experience to digital citizenship through identifying what harmful content is, how it can be used and what type of harmful content can be found on social media. The combination of these units provides a solid foundation of any students who choice to develop their knowledge and skills in either Computer Science or Creative IMedia at KS4.

Autumn Term

9.1 Going Audio Visual	9.2 Python PRIMM	Assessment
Big Question: How does binary help shape images and sound files?	**Big Question:** How do we write programs to solve simple problems?	Socrative Assessment: **Term 1:** Topic Assessment:
- How digital images are composed of individual elements? - Compute the representation size of digital images. - What is the trade-off between representation size and perceived quality for digital images. - What is compression and why it is necessary?	- Read code before you write code. - Work collaboratively to talk about programs. - Focus on code comprehension. - Use existing starter programs. - Take ownership of programs.	- Representing bitmap and audio visual. - Programming Techniques.

Spring Term

9.3 – Digital Citizenship	9.4 – Creating websites	Assessment
Big Question: How to identify harmful content on social media?	**Big Question:** How do we apply Computing Skill to produce a digital product?	Socrative Assessment: **Term 2:** Topic Assessment:
- What is harmful content? - How harmful content is used for revenge? - How to identify harmful content on social media	- What is the software development life cycle? - How to successfully plan a project - How to develop key skills in the relevant software to develop a website. - Use relevant software to develop a website for an intended audience. -	- Harmful content - Website development

	9.5 Comic Life	**Programming Activities and Assessment**	**Assessment**
Summer Term	**Big Question:** How to recognise the work of BAME personalities in the world of technology?		Socrative Assessment: **Term 3:** Topic Assessment: ■ Comic strip ■ End of year exam
	■ Researching key BAME characters that have contributed to the world of computing. ■ Why are wireframes used? ■ Identify audience and relevant software to present outcome. ■ How to create comic strips using comic life ■ How to use feedback and make improvements		

Useful Resources for Supporting Your Child at Home:	**Homework:**
BBC Bitesize Seneca Learning Quizlet IDEA	Seneca Learning, IDEA or Quizlet set on Teams