ICT

Preparing students for tomorrow, bit by bit

The ICT department will help to create, share, and apply knowledge in all branches of Computer Science and ICT. We will educate students to be successful, ethical, and effective problem-solvers with a passion to innovate and create, rather than just passive consumers and users of technology.

We will develop an understanding and appreciation of all aspects of digital products, from how they work to how they look. We will foster curiosity and encourage exploration to create students who can contribute positively to the well-being of our society and who are prepared to tackle the complex 21st Century challenges facing the world.

Summary focus areas:

- Innovate, create, develop
- Solving 21st Century problems
- Active developers not passive consumers

Autumn		Spring		Summer
R070 Augmented Reality Intro	R070 Augmented Reality Assignment	Complete and Submit R070 Augmented Reality Assignment	Unit R050 and Exam Preparation	R070 Augmented Reality Intro

Homework for ICT is set weekly to support and extend the students' studies from their lessons. Work may be a mixture of practical, computer-based tasks and paper-based written work or design tasks.

Activities set as homework may be:

- Preparatory work or research ahead of a new topic or concept being discussed in lessons.
- Extension work that allows the student to explore a topic in more depth or in other contexts.
- Application work that allows students to practise skills or demonstrate abilities.

Students are expected to spend around an hour on a homework activity each week and work is marked promptly to help students to identify and understand their weaknesses to make incremental improvements over the course of the year.

Unit	Duration (lessons)	Learning Objectives/Outcomes
R070 Augmented Reality Intro	12	• Understanding how augmented reality is used • Understanding where augment reality is used • What sectors are augmented reality used within and how do they impact organisations • Where is augmented reality used? • What types of augmented reality are there and how do users interact with them • Planning and designing a project • What are triggers, assets and layers? • What are flowcharts and how are they used? • What are mind maps and how are they used? • What are storyboards and how are they used? • What are visualisation diagrams and how are they used?
R070 Augmented Reality Assignment	27	• Planning the augmented reality product • Producing Mind maps • Producing Flowcharts • Producing Mood boards • Producing Storyboards • Designing the augmented reality product • Identifying triggers • Defining Characteristics • Understanding layers and user interactions • Producing the augmented reality product • Testing the product and reviewing the production • Developing the augmented reality product
Complete and Submit R070 Augmented Reality Assignment	6	• Designing the augmented reality product • Identifying triggers • Defining Characteristics • Understanding layers and user interactions • Producing the augmented reality product • Testing the product and reviewing the production • Developing the augmented reality product
Unit R050 Theory	60	• Understanding the use of Audio • Understanding the use of Collaboration tools • Understanding the use of Leaflet • Understanding the use of Infographics • Understanding the use of Newsletters • Understanding the use of Presentations • Understanding the use of Reports

		• Understanding the use of Social Media • Understanding the use of Video • Understanding the use of Voice over Internet Protocol (VoIP) • Understanding the use of Websites • Understanding the use of Smartphone • Understanding the use of Smart TV • Understanding the use of PC/Laptop • Understanding the use of Tablet • Understanding the use of Smartboard • Application Area: Energy management • Application Area: Health • Application Area: Manufacturing • Application Area: Military • Application Area: Smart devices • Application Area: Transport
R050 Revision	9	• Revision of all topics from Year 10 and 11