



Long Term Plan

IGCSE ICT

IGCSE Computer Science



2021-2022	Autumn 1 7 weeks	Autumn 2 7 weeks	Spring 1 7 weeks	Spring 2 7 weeks	Summer 7 weeks
<p>Year 10 IGCSE</p> <p>Computer Science</p>	<p>Problem Solving</p> <p>How computer systems work</p> <p>Design, implementation and analysis of algorithms for solving problems.</p> <p>Computational problems including:</p> <ul style="list-style-type: none"> - problem-solving tasks - pseudocode - command set - flowchart symbols - Algorithms - Decomposition & abstraction 	<p>Programming</p> <p>Develop and practise programming skills, developing knowledge and skills in at least one of the following programming languages:</p> <ol style="list-style-type: none"> 1. Python 2. C# 3. Java 	<p>Programming</p> <p>Develop and practise programming skills, developing knowledge and skills in at least one of the following programming languages:</p> <ol style="list-style-type: none"> 1. Python 2. C# 3. Java 	<p>Data</p> <p>Develop ability to store and manipulate large quantities of data using binary to represent different types of data.</p> <ul style="list-style-type: none"> - learn how different types of data are represented in a computer. - Binary - Data Representation - Data storage & compression - Encryption 	<p>Computers</p> <p>Familiarisation of hardware and software components that make up a computer system and recognise that computers take many forms, from embedded microprocessors to distributed clouds.</p> <ul style="list-style-type: none"> - Machines and computational modelling - Hardware - Logic - Software - Programming languages
<p>Year 11 IGCSE</p> <p>ICT</p>	<p>Digital Devices & Connectivity</p> <p>Digital Devices - know about the range of digital devices available.</p> <p>Connectivity - know how digital devices exchange data & communicate.</p>	<p>Operating Online & Online Goods and Services</p> <p>Operating Online - understand the risks to individuals and organisations of operating online.</p> <p>Online Goods and Services - know about networks and online systems.</p>	<p>Applying Information & Communication</p> <p>Technology & Software Skills</p> <p>Applying Information and Communication Technology using a range of software applications effectively and appropriately.</p> <p>Software Skills demonstrate skills in using the software applications.</p>	<p>Revision & Exam Practice</p>	<p>Study Leave & Exams</p>