

Curriculum Area: Year 11 Computing

2017/2018

Topics	Year Curriculum	How you can support learning at home, eg. books, websites, family learning through visits
Controlled Assessment	AP1	<p>Computer Science Website from BBC introduces the topics which we will be covering in Y7.</p> <p>Please encourage your students to understand the main elements.</p> <p>http://www.bbc.co.uk/education/subjects/z34k7ty</p>
<p>Ethical, legal, cultural and environmental concerns You should understand:</p> <ul style="list-style-type: none"> • how to investigate and discuss Computer Science technologies while considering: • ethical issues • legal issues • cultural issues • environmental issues • privacy issues • how key stakeholders are affected by technologies • environmental impact of Computer Science • cultural implications of Computer Science 	AP2	<p>Computer Science Website from BBC introduces the topics which we will be covering in Y7.</p> <p>Please encourage your students to understand the main elements.</p> <p>http://www.bbc.co.uk/education/subjects/z34k7ty</p>

<ul style="list-style-type: none"> • open source vs proprietary software <p>Legislation relevant to Computer Science:</p> <ul style="list-style-type: none"> • The Data Protection Act 1998 • Computer Misuse Act 1990 • Copyright Designs and Patents Act 1988 • Creative Commons Licensing • Freedom of Information Act 2000 		
<p>Computational logic You should understand:</p> <ul style="list-style-type: none"> • why data is represented in computer systems in binary form • simple logic diagrams using the operations AND, OR and NOT • truth tables • combining Boolean operators using AND, OR and NOT to two levels • applying logical operators in appropriate truth tables to solve problems <p>Applying computing-related mathematics:</p> <ul style="list-style-type: none"> • + • - • * • / • Exponentiation (^) • MOD • DIV 	AP3	<p>Computer Science Website from BBC introduces the topics which we will be covering in Y7.</p> <p>Please encourage your students to understand the main elements.</p> <p>http://www.bbc.co.uk/education/subjects/z34k7ty</p>

<p>Producing robust programs You should understand:</p> <p>Defensive design considerations:</p> <ul style="list-style-type: none"> • input sanitisation/validation • planning for contingencies • anticipating misuse • Authentication <p>Maintainability:</p> <ul style="list-style-type: none"> • comments • indentation • the purpose of testing <p>Types of testing:</p> <ul style="list-style-type: none"> • iterative • final/terminal • how to identify syntax and logic errors • selecting and using suitable test data 	<p>AP4</p>	<p>Computer Science Website from BBC introduces the topics which we will be covering in Y7.</p> <p>Please encourage your students to understand the main elements.</p> <p>http://www.bbc.co.uk/education/subjects/z34k7ty</p>
<p>Systems software You should understand:</p> <ul style="list-style-type: none"> • the purpose and functionality of systems software • operating systems: • user interface • memory 	<p>AP5</p>	<p>Computer Science Website from BBC introduces the topics which we will be covering in Y7.</p> <p>Please encourage your students to understand the main elements.</p> <p>http://www.bbc.co.uk/education/subjects/z34k7ty</p>

<ul style="list-style-type: none"> • management/ multitasking • peripheral management and drivers • user management • file management • utility system software: • encryption software • defragmentation • data compression • the role and methods of backup: Full/ Incremental 		
Exam Period	AP6	

