



Your Guide to Year 11 Computer Science

Assessment Criteria

Every half term students are assessed using national curriculum levels and sub levels. Each assessment is marked using this criteria which outlines the differences between each level. This is given to students at the beginning of the school year. A copy is attached for your perusal.

Expectations of Students			
Students are expected to come equipped with appropriate stationary. They also need to read their teachers comments in their books and act on the feedback given. Students are expected to complete their progress tracking in the front of their books after every assessment.			
Year 11	Topic Title and unit	What students will be learning	How you can specifically help your child
HT1	A453 project Computer hardware Binary logic	Understand standard programming techniques State the purpose of the CPU Describe the function of the CPU as F-D-E instructions in memory Explain common characteristics of CPU's Explain why data is represented in CS in binary form Understand and produce simple logic diagrams Produce a truth table from a given logic diagram	Encourage them to revisit the work they have completed during the lesson. Ensure they complete their homework. Which can be found on https://www.showmyhomework.co.uk If they have any concerns about any topic they are covering, please do not hesitate to contact Mrs George, email address is below or telephone the school if you would like to speak to her. Tel: 01527 523088
HT2	A453 project Memory	Continue to develop skills to understand standard programming techniques Be able to design a coded solution to a problem Describe the difference between RAM and ROM Know the purpose of RAM and ROM. Understand the need for virtual memory. Know what flash memory and cache memory are. Discuss how changes in memory technologies are leading to innovative computer designs.	
HT3	A453 programming project Input and output devices (recap) Algorithms Control flow Handling data in algorithms	Develop suitable algorithms Design suitable input and output formats Identify suitable variables and structures. Identify test procedures. Understand the need for input and output devices. Describe suitable input and output device for a wide range of computer controlled situations. Discuss input and output devices for users with specific needs.	
HT4	A453 programming project Secondary storage (recap) Software Testing	Create a coded solution fully annotating the developed code to explain its function Test solution and identify successes and any limitations. Explain the need for secondary storage. Describe common storage technologies. Select and justify choices of suitable storage devices and storage media for a given application. Explain the need for different functions of an operating system. Describe the purpose and use of common utility programs. Discuss merits of custom written, off the shelf, open source and proprietary.	
HT5	A452 and A453 deadline week 1 Units (recap) Number (recap) Character	Define different terms eg kilobyte and understand the need to convert into binary Convert denary to binary, denary to hexadecimal and visa versa. Addition of binary Explain the use of hexadecimal numbers to represent binary numbers. Explain the use of binary codes to represent	



	<p>Images, sound and instructions Databases Computer communication s and networking (Recap) Internet (Recap)</p>	<p>characters. Explain the term character set. Explain examples of ASCII and Unicode. Explain the representation of an image and the need for metadata. Discuss the effect of colour depth and resolution Explain how instructions are coded as bit patterns and how computers distinguish between instructions and data. Describe a database and explain the use of data handling software. Describe the principle features of a DBMS and how DBMS allows the separation of data applications. Understand the relationship between entities and tables. Understand components of a relational database. Understand logic operators. Explain key fields and describe methods of validating data. Discuss different types of networks, topologies, hardware/software, security and network policies. Describe the Internet and hardware required. Explain the need for IP and importance of HTML. Describe common file standards and importance of compressing file and the difference between different compression types.</p>	
HT6		Exam 07-07-17	

Key dates and what students will be doing

Contact details

Name:

Email: