SUBJECT GCSE CS Year 10 LP1

In my GCSE Computer Science lessons this half term I am developing my knowledge of **Unit 1, Topic 4 Organisation and structure of data** and developing my practical skills for **Unit 2, Topic 3 Developing Computing Solutions** by using HTML tags to edit web pages and using python to create basic programs. This half term: Skills, knowledge and understanding to be developed: - **Skills (students will be able to convert between Binary, Denary and Hexadecimal notation, they will also be able to add binary numbers. Students will be able to insert HTML tags in a text document.** - **Knowledge (will know the difference between different storage types and values and what validation types are best suited for different scenarios and know all relevant HTML tags and their meaning.)** - **Understanding (students will demonstrate their understanding by using their skills and knowledge to analyse how a graphic or sound file is stored and create a webpage using HTML code only)** -			**Key Terms / Words:** Binary, Bit, Nibble, Byte, Hexadecimal, Base, Arithmetic shifts, Digital storage, Metadata, Unicode, ASCII, Integer, Boolean, Character, Real, Arrays, Verification, IDLE, variables, selection.
LP 1 – Week 1 Learning Outcomes: Unit 2 - HTML **1. Students will be able to recognise some of the basic HTML tags.** 2. **Students will know how to use these tags to create a basic webpage.**		**Success Criteria:** 1. Students have created a basic webpage and are able to view this in a browser of their choice.	**Homework LP1 1**
LP 1 – Week 2 Learning Outcomes: Unit 1 Organisation and structure of data. **1. Students will be able to convert from denary to binary and from binary to denary (8 bits).** **2. Students will know why Binary is used to deal with data on any computer system.**		**Success Criteria:** 1. Students can complete a GCSE standard question in binary conversion.	**Homework LP1 2** **Worksheet 1 – Practice of binary conversion.**
LP 1 – Week 3 Learning Outcomes: Unit 2 – HTML & Unit 1 Organisation and structure of data. **1. Students will be able to apply binary addition techniques.** **2. Students will know how to use arithmetic shifts and explain their effects.** **3. Students will understand and explain the concept of overflow.** **4. Students will be able to convert binary for up to 16 bits.**	APP1 Grade	**Success Criteria:** 1. Students can answer a GCSE question on binary addition **APP** **Short test on storage and binary conversion.**	**Homework LP1 3**
LP 1 – Week 4 Learning Outcomes: Unit 2 – HTML & Unit 1 Organisation and structure of data. **1. Students know what hexadecimal (hex) notation is, and what the purpose of this notation is.** **2. Students will be able to convert between denary and hex and binary and hex.**		**Success Criteria:** **1.** Students can complete a GCSE question on converting between denary, hex and binary.	**Homework LP1 4** **Worksheet 3 – Practice of conversion between binary, hex and denary.**
LP1 – Week 5 Learning Outcomes: Unit 1 Organisation and structure d **1. Students will be able to describe how characters are stored as a binary number.** **2. Students will be able to use the Unicode and ASCII character sets to transfer characters to binary.**		**Success Criteria:** 1. Students can write their full names in binary.	**Homework LP1 5** **Revision sheet for SA**
LP1 – Week 6 Learning Outcomes: Unit 3 Python **1. Students will be able to organise different data types into integer, Boolean, real, character and string.** **2. Students will be able to use the Python IDLE to create, edit and store python programs.**	SA Grade	**Success Criteria** **SA** **Written test on HTML and the structure of data.**	**Homework LP1 6**
LP1 – Week 7 Learning Outcomes: Unit 1 Organisation and structure **1. Students will know how graphics and sound samples are digitally stored.** **2. Students will be able to organise different data types into integer, Boolean, real, character and string.**		**Success Criteria:**	**Homework LP1 7**
LP1 – Week 8 Learning Outcomes: Unit 3 Python **1. Understand the concepts of the many programming constructs.**		**Success Criteria:** **1.** I will be able to recognise selection, sequence iteration and counts.	**Homework LP1 8**