# Rushcliffe School

**Everyone at Rushcliffe School will be given the chance to shine brightly**

**Preparing for Year 12 :** (Subject) Computer Science.

We want you to begin your Year 12 Studies feeling prepared and confident. Therefore, you will be tasked with completing a range of Summer Work for the subjects you plan to continue studying. If you are unsure which subjects you might want to study, you should complete work for the subjects you are considering. This will help give you a "taster" of the subject, in place of the taster lessons you would normally be receiving face-to-face. **You should expect to spend a minimum of 15 hours on each subject**. All work should be submitted to your teacher in September, however not all will require feedback.

The tasks have been categorized here, however, they may be attempted in any order or simply completed in the order of the accompanying presentation.
Answers and evidence of work is to be completed in the Accompanying presentation.

**Revision of key knowledge and skills**
*This will ensure you do not forget some of the skills and knowledge developed during your GCSE studies*

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| 5: Key terms task | 2hrs |
| 6a: An introduction to the basics of programming tasks | 6hrs |

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Or

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| 6b Advanced Programming | 6 hrs. |
| 9: Systems architecture task- Looking under the hood of the processor. | 2hrs |
| 10 Memory task- Different types of memory | 1 hr |
| 11. Storage task- Types of secondary storage | 1hr |
| 12: Types of networks | 2hrs |

**Key Skills Development**
*This will focus on ensuring you are continuing to develop the skills needed, particularly during this longer break from school*

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| 3: What is "computational thinking"? | 2hrs |
| 4: Note taking practice task | 1.5 hrs |
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**Research and/or wider reading**

*An opportunity to begin looking in more depth at the subjects you have chosen, preparing for the greater independence required in Year 12*

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| *1: "Tell me about yourself"- Why did you choose Computer Science?* | *.5 hrs* |
| 2: Independent research task, Emerging computer technology. | 2 hrs. |
| 7: Critical thinking task- Why is Computer Science important? | 2hrs |

**Submission Pieces**

*These pieces will be submitted to your teacher the first lesson in September for review and feedback*

The tasks in the outlying boxes are to be completed as part of a combined presentation which will be self assessed upon submission in September.

Technical tasks will be assesses against objective criteria.
Research tasks will be assessed for breadth, depth and structure.

**Supra-Learning Opportunities**

*Activities which will broaden your knowledge and understanding of the wider world of your subject. Things to inspire and enjoy!*

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| 8: Applying technical knowledge in context task- Augmented reality | 1.5 hrs |