

## A level Computer Science

### Why do I need to complete a bridging activity?

The purpose of this activity is to aid your preparation for advanced level study and make the transition from GCSE study as smooth as possible. Some activities are written pieces of work, some are research-based and some are practical. They should be completed to the best of your ability and they will give you the opportunity to start to showcase your talent for your chosen subjects. As these are compulsory activities, it is vital that you put in the time and effort to ensure they are completed to the highest standard.

### When should I hand this in?

You should complete this activity for the start of your first lesson in September.

### How will I be given feedback?

Feedback appropriate to the task will be given to you by your teacher.

### Summary of the activity

Example of a written based activity (see below for this full example):

1. Complete review as to your aims
2. Carry out the calculations
3. Write a 300 word essay on Computer Hardware & Software



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Student Name (to be completed by the student)

### Section A - Self-review 1

This is used to help your teacher understand your background and your experiences.

1. Did any of your school assessments contain coursework? Yes    No
  - If yes, was it an enjoyable part of study at school? Yes    No
  - If yes, did it support you in your work and support you in achieving a better grade? Yes    No
2. How many of the subjects you studied at school had coursework?
3. Are you happy to study a subject that is examined only by an examination? Yes    No
4. Do you prefer to have coursework as part of your study of business studies at college? Yes    No

### Self-review 2

This is used to help your teacher understand your background and your experiences

1. Why have you chosen to study Computer Science at A-Level?
2. What do you aim to achieve on the course?
3. What skills are you aiming to develop?

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### Section B – Calculations

#### **Binary and Hexadecimal – IN ALL CASES SHOW WORKING**

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1. Convert the decimal number 45 into binary. (2)

128	64	32	16	8	4	2	1

2. Convert the binary number 01100101 into decimal. (2)

3. Convert the decimal number 165 into hexadecimal. (2)

4. Convert the hexadecimal number B6 into decimal. (2)



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5. Convert the hexadecimal number 9B into binary. (2)

6. Convert the binary number 10010010 into hexadecimal. (1)

### **Section C – Writing Assessment**

#### **Writing Assessment – 300 Words Minimum**

Discuss the following components:

- 1) CPU –
  
- 2) RAM –
  
- 3) ROM –
  
- 4) Different types of storage devices and their capabilities
  
- 5) What is the role of an operating system and how would you contrast that to application software?