



The tasks set below have been chosen to reflect different units in the course: Unit 5 Data Modelling and Unit 1 Information Tech Systems. By undertaking these tasks, you will gain an insight into the type of work you will be required to complete throughout the two years.

## How will the tasks support your understanding of the course?

The tasks set below will give you an opportunity to demonstrate the key skills of data analysis

## What skills will you begin to develop by completing this work?

1. Data analysis skills through the manipulation of set data.
2. Knowledge and application skills by researching and responding to examination questions



## TASK 1- (Linked to Unit 5: Data Modelling)

**The purpose of this task** is for you to become familiar with using MS Excel by collating and presenting data. You will then demonstrate key skills in data analysis and manipulation in order to provide meaningful results.

### Resources required

MS Excel/ google sheets/ or any spreadsheet software

MS Word or any word processing software

**Submit via** Screenshots in a word document or an attachment emailed to

[m.akbar@derbymoortech.derby.sch.uk](mailto:m.akbar@derbymoortech.derby.sch.uk)

Subject of the email should be your **Full name – step into Sixth Form submission 1**

### Useful resources

<https://www.highspeedtraining.co.uk/hub/a-beginners-guide-to-excel/>

## TASK 2- (Linked to Unit 1: Information Technology Systems)

**The purpose of this task** is for you to gain an understanding of the key topics included in the Unit 1 specification and apply this knowledge to given scenarios.

### Resources required

MS Word or any word processing software

**Submit via** a word document as an attachment emailed to [m.akbar@derbymoortech.derby.sch.uk](mailto:m.akbar@derbymoortech.derby.sch.uk)

Subject of the email should be your **Full name – step into Sixth Form submission 2**

### Useful resources

Part 1 - BTEC Level 3 - Information Technology  
<https://www.youtube.com/watch?v=idbhIU3ubkE&list=PLd8uNPGNmEMe8YPOdZJLFr-Wuwark7Qaz&index=3>



## TO DEEPEN YOUR UNDERSTANDING



### Additional resources



YouTube

<https://www.youtube.com/watch?v=idbhIU3ubkE&list=PLd8uNPGNmEMe8YPOdZJLFr-Wuwark7Qaz&index=3>



**(There are 27 parts in total)**

Together we succeed

Achievement

Aspiration

High Expectations

Community

## TASK 1- (Linked to Unit 5: Data Modelling)

Please follow the tutorial provided in task 1 resources before you begin this task – complete as many optional activities required in order for you to gain confidence in Ms Excel.

1. The purpose of this task is to use MS Excel to create an information workbook for health conscious individuals. You will help inform and regulate their eating and exercise behaviours in order to increase, decrease or maintain their weight. *Your spreadsheet model will be based on existing information online/ Apps.*
2. Open up a blank excel document and save as my Health information.
3. On one sheet collate information on different foods or meals in one column and the calories consumed in another.
4. On a separate sheet collate information on different exercises and the calorie expenditure per hour. Put the name of the exercise in one column and the calories expended in another
5. Now find an online calculator which works out a person's base calorie expenditure (TDEE Calculators)
6. Work out what formula is used for the TDEE calculator to make its calculations
7. Now on a separate sheet – create an input form for an individual's gender, age, height, weight and lifestyle.
8. Using a formula show them what their base calorie expenditure is.
9. On separate sheets create an input form for an individual's food/meal intake using a formula to calculate their total calorie intake. Do the same for the amount of exercise they complete and calories expended.
10. Screenshot all your sheets on a word document and show any formulas used.
11. Email this to m.akbar@derbymoort.derby.sch.uk Subject of the email should be your **Full name – step into sixth form submission 1**

## TASK 2- (Linked to Unit 1: Information Technology Systems)

Please view the you tube video(s) as you work through this task, to help deepen your understanding

1. Open up a word document – Title Unit 1 exam: Information Technology Systems with your full name
2. First subheading – knowledge
3. I want you to find out everything you can about wired networks (like we have at school) and wireless networks (like you have at home) include what they are, advantages and disadvantages of each
4. I then want you to find out what a PAN is, how you set it up, advantages and disadvantages of using a PAN.
5. Second subheading – Application – copy the question below and answer (hint- look at the number of marks available to work out how many points and explanations you should provide – please write in full sentences and refer to Jacky and the scenario in your answer)

*Jacky travels to college by train and uses her laptop to do internet research during her journey. The train company provides a free internet connection; however, Jacky prefers to set up a personal area network (PAN) between her laptop and mobile phone.*

*(i) Explain **one** advantage of using a PAN to connect to the internet. (2 marks)*

*(ii) Explain **one** disadvantage of using a PAN to connect to the internet. (2 marks)*

*(iii) Jacky's friend has a tablet computer. Jacky would like to give her friend access to the PAN. Describe the steps that they need to follow to allow the friend to gain access. (4 marks)*

6. Email this to m.akbar@derbymoort.derby.sch.uk Subject of the email should be your **Full name – step into sixth form submission 2**