



**HAMPSTEAD SCHOOL**

Learning together Achieving together

Y11 – Y12

Summer Bridging Tasks

2025

ICT AAQ

Name: \_\_\_\_\_

- You should spend some time during the summer holidays working on the activities in this booklet.
- You will be required to hand this work in during your first lesson at the start of Year 12 and the content may be used to form the basis of your first assessments.

- You should try your best and show commitment to your studies.
- We are really looking forward to you coming to Hampstead School Sixth Form and studying Information Technology

# Bridging Work – AAQ in IT: Data Analytics

## Fundamentals of Data Analytics

- **Task 1 – Big Data**

Complete a mini research project and find out the following information and create a 1-page infographic containing all of the information:

1. What is Big Data
2. What are three examples companies that use Big Data
  - a. What do these companies use this data for
  - b. How do the companies earn money from this data
3. What are the benefits to a company using big data
4. What are the limitations to a company using big data
5. What advice would you give to a company thinking of using big data

- **Task 2 – Data gathering**

There are many different ways of gathering data that companies use, I want you to find two pros and two cons to each of these data gathering methods. Store this in a table like below:

Method	Pros	Cons
Focus Groups		
Interviews		
Observations		
Questionnaires		
Transaction Tracking		
Social Media Tracking		

- **Task 3 – Jobs in Data Analytics**

Complete the table below finding the information about the below jobs that people have in Data Analytics.

Job Title	Description of the Job	Tasks they complete	Software they use	What is the average salary
Artificial Intelligence Scientist				
Data Analyst				
Data Architect				
Data Engineer				
Data Scientist				
Database Administrator				

Machine Learning Engineer				
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### Spreadsheets for Data Modelling

- **Task 1 – Spreadsheet Skills**

You will need to watch and practice the skills that you develop from this tutorial here. It is on the basics of Excel.

<https://www.youtube.com/watch?v=wBjCjCkBcMg>

- **Task 2 – Holiday Planning**

You now need to practice these skills by making a holiday planning spreadsheet. You need to pick one place to travel to and you are going to find out the following information and put it into a spreadsheet.

Information to find:

- Three options of flights to this place, including cost
- Three options of hotels/accommodation, including cost
- Five activities that you would like to do in this place and the cost
- The average cost for breakfast, lunch and dinner
- How much it costs to go from your house to the airports
- How much it costs to go from the airport to the accommodation
- How much spending money for other purchases you are going to have.

You will then need to put all of this information into a spreadsheet and use the skills of formatting and formulas you learned through the tutorial to calculate the cost of each of the holiday plans.