

# BTEC Level 3 National Extended Certificate in Information Technology

## Summer Work

You will be studying 4 units for this BTEC Level 3 qualification, which is equivalent to an A Level. The four main units are:-

- Unit 1: Information Technology Systems
- Unit 2: Creating Systems to Manage Information
- Unit 3: Using Social Media in Business
- Unit 6: Website Development

**Website Link:** <https://qualifications.pearson.com/en/qualifications/btec-nationals/information-technology-2016.html#tab-1>

**Link to full specification:** (select **Extended Certificate** and download)

<http://qualifications.pearson.com/en/qualifications/btec-nationals/information-technology-2016.coursematerials.html#filterQuery=category:Pearson-UK:Category%2FSpecification-and-sample-assessments&filterQuery=category:Pearson-UK:Document-Type%2FSpecification>

The following tasks have been designed for you to complete over the summer. This will enable you to have a good handle on some of the key concepts that we will be introducing in September. **Summer work is compulsory so please make sure you have this done.**

### Task 1: Research task

Write a report/essay in no more than one page (size 12 font) on why companies use databases. You can use the Internet for research. Within your report: -

- Introduce what a database actually is (can you find a definition that you understand)
- Give examples of 2 different companies who would use a database and what they actually do with the database (the purpose)
- What are the advantages of using an electronic database to store information? (2 please)
- What are the disadvantages of using an electronic database to store information? (2 please)
- Your conclusions on databases and do you think they are a good thing?

## Task 2: Key terms on databases

Below is a series of questions that require you to investigate some of the key terms that you will be required to know from September. Use the web resources given to answer the following questions

[http://www.teach-ict.com/as\\_a2\\_ict\\_new/ocr/AS\\_G061/311\\_data\\_info\\_knowledge/data\\_info\\_knowledge/miniweb/index.htm](http://www.teach-ict.com/as_a2_ict_new/ocr/AS_G061/311_data_info_knowledge/data_info_knowledge/miniweb/index.htm)

1. Explain what is meant by the term 'data'. Also give a clear example using a student as a context.
Answer:
Example:

2. Explain what is meant by the term 'information'. Also give a clear example using a college as a context.
Answer:
Example:

3. Explain what is meant by the term 'knowledge'.
Answer:

Use this web resource to answer the following questions:

[http://www.teach-ict.com/as\\_a2\\_ict\\_new/ocr/AS\\_G061/315\\_database\\_concepts/terminology/miniweb/pg4.htm](http://www.teach-ict.com/as_a2_ict_new/ocr/AS_G061/315_database_concepts/terminology/miniweb/pg4.htm)

4. Describe what is meant by a table in a database. State what it does and try to give a clear example from a database that a college may have.
Answer:
Example:

5. Describe what is meant by a record in a database. State what it is and try to give a clear example from a database that a college may have.
Answer:
Example:

6. Describe what is meant by a field in a database. State what it is and try to give a clear example from a database that a college may have.
Answer:
Example:

7. Describe what is meant by a relational database. Explain in your own words the difference between this and what is called a flat file database. You can use screen shots if this will help.
Answer:
Example:

8. Describe what is meant by a primary key in a database. Also explain a benefit of having a primary key. In your answer try to use a context (a situation) to show your understanding.
Answer:
Example:

### Task 3

**Social Media Task:** Using your knowledge of different social media, I want you to look at and discuss different forms of social media. Complete the boxes below. I have done the first one for you as an example. Try to get 3 key features (what you can do or what happens on the social media site) and at least 2 types of target audience.

Social media	Key features of this type of social media	Target audience
Facebook	<p>Allows user to connect to their friends or find other users virtually throughout the world.</p> <p>Allows user to post updates on what they are doing / where they are or where they have been.</p> <p>Allows users to share videos / posts on various different interests.</p> <p>Allows companies / clubs or societies to advertise events by posting up details of a particular event.</p>	<p>People who want to know what their friends or family are doing.</p> <p>People who are interested and want to “follow” / keep up to date with what is going on around a particular interest or event.</p> <p>Businesses / organisations who want to promote / publicise their products or services that they are offering.</p>
Twitter		
Instagram		
Linkedin		
Pinterest		
YouTube		