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# **GCSE EXAMINERS' REPORTS**

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**GCSE  
DIGITAL TECHNOLOGY**

**SUMMER 2023**

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# DIGITAL TECHNOLOGY

## GCSE

Summer 2023

### UNIT 1

#### General Comments

This exam was completed electronically by the majority of candidates. This was the first exam of the GCSE Digital Technology qualification. The exam had a 50/50 split of both AO1 and AO2 mark allocation and covered all areas of the Digital Technology specification content. Prior to the examination, candidates were given the opportunity to complete a trial run of the new online format using the Sample Assessment Materials (SAMs) to prepare them for the new online Unit 1 exam.

#### Comments on individual questions/sections

- Q.1**
- (a) Well answered by the majority of candidates and accessible to all due to the tick box format.
  - (b)
    - (i) Many candidates were able to state what is meant by analogue data, with many achieving the mark for stating it is data displayed as a wave.
    - (ii) Most candidates were able to state that digital data is ones and zeros, binary or data stored on a computer.
    - (iii) Very few candidates achieved the full three marks available. Many gained marks for stating that there would need to be an analogue to digital converter (ADC). To increase marks candidates could have included answers that included the sampling process.
  - (c) Fairly well answered due to the table format. Marks were lost with candidates entering just the number 8 instead of stating 8 bits and stating that there were 1000 bytes in 1 kilobyte instead of 1024 bytes.
- Q.2**
- (a) Many candidates were able to achieve at least one mark of the available two with many answers demonstrating strong knowledge of applications software. Very few candidates were able to describe bespoke software.
  - (b) The majority of candidates achieved at least one mark here for answers that stated that anti-virus software can scan for viruses.
  - (c) For this question, answers seen tended to achieve either zero marks or the full three marks available depending on whether they had studied the specification fully.
- Q.3**
- (a) Question 3 as a whole was the worst answered question of the whole exam. Part (a) was to complete the three missing stages of the Systems Development Life Cycle and full marks were awarded to those candidates that had studied the specification fully whereas weaker candidates just entered in random words.
  - (b) Extremely poorly answered by the majority of candidates. Where marks were awarded, it was mainly for responses stating the costs and benefits of introducing a new system.

- Q.4** The majority of candidates had not fully studied the specification and had absolutely no clue who Sir Tim Berners-Lee and Lady Ada Lovelace were. Where candidates had studied the specification, they were able to achieve at least two marks for stating Lady Ada Lovelace was the first to realise computers could do more than just calculate numbers and Sir Tim Berners-Lee invented the World Wide Web (WWW).
- Q.5** (a) Question 5 as a whole was attempted by all candidates and was one of the best answered questions of the exam. Many candidates were able to explain issues with using online sources and strong answers included detailed explanations, often with examples, about biased information and out of date information.  
 (b) This question was well answered with the stronger candidates explaining about checking multiple sources and using trustworthy, reliable sources such as the BBC website.
- Q.6** (a) Question 6 as a whole was the second worst scoring question on the exam. Candidates who had not studied the specification fully either did not attempt this question or just incorrectly guessed the answer. Stronger candidates were able to gain at least one mark for stating that the new system starts immediately.  
 (b) The majority of candidates received no marks for this part of the question. Weaker candidates did not read the question carefully and gave advantages and disadvantages of a cashless system for school lunches rather than the 'big bang' method.
- Q.7** Extremely well answered by many candidates. It was impressive to see some excellent explanations that included advantages such as faster delivery times and the benefits surrounding patients who live in remote areas. Disadvantages included battery life, job losses and the expense of the drones.
- Q.8** (a) Most candidates were able to achieve at least one of the available three marks for answers relating to sending customers special offers by email.  
 (b) Many extremely impressive, detailed responses were given for this part of Q8. Explanations regarding advertising on social media were popular answers with the stronger candidates explaining in detail how a business could use social media influencers to promote their products. The use of targeted advertising by tracking a customer's Internet activity was also a popular answer. The majority of candidates who had not fully studied the specification were able to give correct responses due to their own strong knowledge and experience of social media advertising.
- Q.9** (a) (i) Stronger candidates were able to achieve full marks for stating that an active digital footprint was data intentionally submitted online and giving a correct example. Marks were lost with weaker candidates mixing up an active digital footprint with a passive digital footprint.  
 (a) (ii) Stronger candidates were able to achieve full marks for stating that a passive digital footprint was data collected without the user's knowledge and giving a correct example. Marks were lost with weaker candidates mixing up a passive digital footprint with an active digital footprint.  
 (b) Weaker candidates gave answers relating to how the company could monitor their employee's online activity. Stronger candidates were able to describe the potential impact on the employee.

**Q.10** The quality of written communication was assessed on Q10 and as a whole, responses were well written with very few spelling and grammar errors and stronger candidates used technical terminology well. Weaker candidates gave limited responses that did not cover all areas of the question, with the majority giving answers about accidental destruction. One-word answers without explanation such as 'viruses' were also quite common amongst the weaker candidates. Stronger candidates were able to explain in detail malicious and deliberate damage and security measures that could protect networks, digital systems, transmitted and stored data. It was evident that not all candidates had studied all aspects of the specification.

### **Summary of key points**

It was clear that some centres had learnt the content of the specification and many candidates achieved outstanding results. It was also evident that some candidates did not prepare using the whole specification content.

# DIGITAL TECHNOLOGY

## GCSE

Summer 2023

### UNIT 2

#### General Comments

This specification requires candidates to undertake the one scenario that is made available to candidates. This year's scenario "Love to Learn" requires candidates to develop data informed digital products for Adventure Cymru an outdoor activity centre. Digital products include a three-page website containing either a small video game or animation. In addition to the scenario candidates are advised on the importance of being organised throughout the project. They are provided with several files and are instructed on the naming of files and folders, they are also instructed on where work should be saved. Examples of good work were seen at moderation this summer.

#### Comments on individual questions/sections

##### Section A: Interrogating Spreadsheet Data

Candidates should provide evidence of Section A in the *Analysis Log* and a *Completed Survey Spreadsheet*.

- Using a range of techniques and functions candidates were required to organise and cleanse given data. The cleansed data allowed the candidate to identify target audience, trends and needs.
- This scenario required candidates to remove duplicate, unnecessary spaces, identify blank cells, round up and convert text to upper case.
- The data analytics required candidates to copy cleansed data to a new worksheet, sort data by age, use a range of functions (5) to analyse age. Use an appropriate function to analyse gender at birth. Use a different function to analyse new activity preference. Use a different (non-number in cell) representation to analyse game start and end positions.
- Candidates were required to provide a visual representation and produce two suitable charts from their analysis justifying their choices.
- Candidates are required to carry out two further relevant investigations using the advanced techniques of what-if analysis and pivot tables.
- Most candidates were able to process data using some cleansing and sorting techniques. Calculate most outcomes accurately. Illustrate some data trends using appropriate charts.
- Many candidates were able to use mostly relevant cleaning and sorting techniques to thoroughly cleanse data. Accurately calculate outcomes and use **different** functions. They evidenced data trends using appropriate charts. Many candidates were also able to carry out further investigations using advanced techniques.
- Most candidates evidenced their work correctly, few failed to include the spreadsheet and the *Analysis Log*.

## **Section B: Data-informed digital products**

Candidates are required to evidence the planning, developing, testing and evaluating process in one file - *Development Log*. Any images that are included must be documented in the *Assets Log*.

### **Website requirements**

Candidates are required to design a website of at least three pages with a hierarchy (not all pages are accessible from every page) – one page must contain either the game or the animation. Another page must contain links to evidence. Candidates should include accessibility features and the website should contain no horizontal scrolling.

### **Animation requirements**

The animation should be between 20 and 30 seconds long and include an original cartoon character. Sound (at least one must be original) should be included - music, voiceover, incidental noise or any combination of these. The animation must include different scenes that are navigable e.g. pause, forward, replay.

### **Game requirements**

The game should be set in a maze that has different playable layers with objectives and a scoring system. The game must include an original character and include appropriate sound effects.

## **Planning digital products**

### **Website**

This was generally poorly undertaken. Many candidates failed to meet the requirements of the scenario and failed to:

- design content for the webpages
- organise their workspace with folders, files and documents. Many failed to use the correct file type (.pdf)
- provide evidence, in the *Development Log*, of obtaining and responding to feedback.

### **Animation and Game**

This was generally well executed with most candidates provide designs that a competent third party would be able to meet some of the requirements of the scenario. However, many candidates failed to obtain and respond to feedback from test users. Candidates can only be awarded the higher mark band where they have responded to feedback to further develop their work.

## **Developing digital products**

### **Assets**

This was generally poorly undertaken although most candidates used the *Assets Log* to evidence the gathering of some assets. Many failed to evidence all assets and the tools used to prepare the content.

## **Website**

Most candidates were able to use the software to produce a website that met some of the scenario requirement. Many showed some of the development process. Fewer obtained feedback. A large minority failed to follow their designs.

This is an area where many centres failed to appreciate that top mark band required candidates to use the software to produce a professional website that met all the requirements of the scenario, detailed and clear development logs are maintained. Candidates must be able to critically evaluate feedback throughout the development process to establish the view and feelings of the target audience and make changes where appropriate.

## **Animation and Game**

Many candidates were able to use the software to produce the animation/game that met some of the scenario requirements. Many showed the development process and obtained feedback. Fewer made changes based on the feedback. Again, candidates must be able to critically evaluate feedback throughout the development process to establish the view and feelings of the target audience and make changes where appropriate to achieve the top mark band. Many candidates provided the source files.

## **Testing complete products**

Testing of the games/animations were usually of a good standard however many website links failed to open the correct page or document. Many documents were not of the correct type. Candidates cannot be awarded the top mark band where errors and bugs are still present in the products. Few candidates used a different document to evidence this work.

## **Evaluating completed products**

This was generally poorly answered many evaluations were descriptive and failed to consider the extent to which the final digital products meet the scenarios aims and objective and the target audience. Higher band marks require future developments and improvements to be discussed. Few candidates offered valid and detailed suggestions for future improvements. Few candidates used a different document to evidence this work.

## **Summary of key points**

- The development log is the vehicle for evidencing the planning, development, testing and evaluation.
- Correct organisation of the workspace not only helps in the moderation process candidates are awarded marks.
- Obtaining and responding to feedback are key elements to the design and development of the digital products.
- Candidates should research features of professional website before designing and development work before undertaking this work.



# DIGITAL TECHNOLOGY

## GCSE

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### UNIT 3

#### **General Comments**

Centres are to be commended for the presentation of their evidence of candidates' work. Many centres faced difficulties in the use of new software and this was reflected in some centres requesting additional time.

Very few centres did not use Adobe software. This made viewing the evidence of how the digital asset was created impossible. Centres are reminded that they should use Adobe software and make use of the Refinement Log to evidence skills that might not be obvious in the final digital asset.

Centres should also be aware of the controlled conditions of this unit. Candidates are not to receive templates or store work outside their secure accounts. Candidates should not receive copy of the Specimen Assessment Materials (SAMs).

#### **Comments on individual questions/sections**

##### **Forms of online marketing communication**

This area was generally done well. Most centres submitted work that was in a similar style to the SAM. Some centres chose to use a different structure but still covered the different demographics and characteristics of social media platforms to an excellent standard.

##### **Impact of online marketing communications**

In this area, the benefits were well documented, but the risks were not. With a minority of candidates, the risks were not appropriate. Only a minority of candidates were able to give valid risks and link these to the given brief.

##### **Analysis of audience needs**

This area was generally done well. Most candidates were able to give an objective analysis of the given scenario, identifying opportunities and objectives. The objectives were generally a strength for most candidates. Candidates did struggle more with the digital marketing communications strategy. This is where we would expect the candidate to discuss how they would like their digital asset to appear on social media.

##### **Plan digital asset**

This area was generally done well. The majority of candidates were able to discuss the purpose, target audience/demographic and house style to a good standard. The marketing campaign tended to be missing with a lot of candidates and weak with the majority of candidates who did include it.

### **Creating digital assets**

This area was a mixed. Some centres noted on their submissions the technical difficulties they experienced. This was also the main area where centres tended to be generous with their assessment. If a candidate has created a digital asset, where they have added images, text, transitions and audio in a basic but satisfactory way, that is suitable for the target audience and suitable for the brief, this should be considered satisfactory, and be put in mark band 3. To be considered for mark band 4 or 5, the candidate should also show higher level skills. These could include zoom effects, changing speed, changing the colour of the images using keyframes, adding original images, masking and many more.

### **Evaluating digital assets**

This area was generally done well. Where centres could improve would be further use of adjectives in the evaluation and more detail in the Refinement Log.

### **Summary of key points**

- Centres should use software that allows for their digital asset to be opened in Adobe software for the purpose of moderation.
- Candidates are not to receive templates or store work outside their secure accounts. All work must be supervised and the teacher must be able to sign to say it's the candidates work.
- Candidates should not receive copy of the Specimen Assessment Materials (SAMs).
- If a candidate has created a digital asset, where they have added images, text, transitions and audio in a basic but satisfactory way, that is suitable for the target audience and suitable for the brief, this should be considered satisfactory, and be put in mark band 3.



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