GCSE Examiners' Report

Digital Technology

GCSE

Summer 2024

Introduction

Our Principal Examiners' report provides valuable feedback on the recent assessment series. It has been written by our Principal Examiners and Principal Moderators after the completion of marking and moderation, and details how candidates have performed in each unit.

This report opens with a summary of candidates' performance, including the assessment objectives/skills/topics/themes being tested, and highlights the characteristics of successful performance and where performance could be improved. It then looks in detail at each unit, pinpointing aspects that proved challenging to some candidates and suggesting some reasons as to why that might be.[1]

The information found in this report provides valuable insight for practitioners to support their teaching and learning activity. We would also encourage practitioners to share this document – in its entirety or in part – with their learners to help with exam preparation, to understand how to avoid pitfalls and to add to their revision toolbox.

Further support

Document	Description	Link
Professional Learning / CPD	WJEC offers an extensive programme of online and face-to-face Professional Learning events. Access interactive feedback, review example candidate responses, gain practical ideas for the classroom and put questions to our dedicated team by registering for one of our events here.	https://www.wjec.co.uk/home/professional-learning/
Past papers	Access the bank of past papers for this qualification, including the most recent assessments. Please note that we do not make past papers available on the public website until 12 months after the examination.	Portal by WJEC or on the WJEC subject page
Grade boundary information	Grade boundaries are the minimum number of marks needed to achieve each grade. For unitised specifications grade boundaries are expressed on a Uniform Mark Scale (UMS). UMS grade boundaries remain the same every year as the range of UMS mark percentages allocated to a particular grade does not change. UMS grade boundaries are published at overall subject and unit level. For linear specifications, a single grade is awarded for the subject, rather than for each unit that contributes towards the overall grade. Grade boundaries are published on results day.	For unitised specifications click here: Results, Grade Boundaries and PRS (wjec.co.uk)

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[1] *Please note that where overall performance on a question/question part was considered good, with no particular areas to highlight, these questions have not been included in the report.*

Exam Results Analysis	WJEC provides information to examination centres via the WJEC Portal. This is restricted to centre staff only. Access is granted to centre staff by the Examinations Officer at the centre.	Portal by WJEC
Classroom Resources	Access our extensive range of FREE classroom resources, including blended learning materials, exam walk-throughs and knowledge organisers to support teaching and learning.	https://resources.wjec.co.uk/
Bank of Professional Learning materials	Access our bank of Professional Learning materials from previous events from our secure website and additional pre-recorded materials available in the public domain.	Portal by WJEC or on the WJEC subject page.
Become an examiner with WJEC.	We are always looking to recruit new examiners or moderators. These opportunities can provide you with valuable insight into the assessment process, enhance your skill set, increase your understanding of your subject and inform your teaching.	Become an Examiner	WJEC

Contents

	Page

Executive Summary

The Digital Technology GCSE examination series for summer 2024 saw an overall positive performance from candidates across the different units.

Unit 1 - The Digital World: candidates demonstrated a sound understanding of key concepts, with particularly strong performances in questions related to data storage, digital communications, and the impact of digital technology. However, some areas proved more challenging, such as explaining the digital divide and legislation around data protection and investigatory powers.

Candidates scored well on questions requiring practical application of knowledge, such as identifying social media platforms and their features, and explaining the advantages and disadvantages of using social media for business promotion. The extended writing question on the systems development life cycle was less well answered, indicating a need for further development in this area.

Unit 2 - Digital Practices: within the work submitted there was some excellent work, with many centres following the guidelines and submitting work in the correct format. The planning and development of websites, animations and games was generally well executed. The content within the asset log, in particular copyright considerations, as well as the critical evaluation of final products, were areas for improvement.

Unit 3 - Communicating in the Digital World: candidates demonstrated a good understanding of online marketing communications, impact, and audience analysis. The planning and creation of digital assets was a mixed picture, with centres needing to ensure candidates are using software that allows for higher-level skills to access the top mark bands. Evaluations of the digital assets were generally well done.

Areas for improvement	Classroom resources	Brief description of resource
General	Portal (WJEC)	Past papers, marking schemes and exemplar materials
General – administration	GCSE digital technology	Specification
General – administration	GCSE digital technology	Teacher guidance
Unit 1	WJEC Resources Website	Theory notes
Unit 1	WJEC Resources Website	Knowledge organisers
Unit 1	WJEC Resources Website	Blended learning
Unit 2 – Gamemaker	Gamemaker Tutorials (Gamemaker) Gamemaker Tutorials (Shaun Shaun Spalding)	Gamemaker tutorials

Unit 2 – Adobe Animate	Getting started with Adobe Animate (Adobe)	Adobe Animate tutorials
Unit 3 – Adobe Premiere	Adobe Premiere Pro Start to Finish Workshop Adobe Premiere Pro Manual	Adobe Premiere tutorials

DIGITAL TECHNOLOGY

GCSE

Summer 2024

UNIT 1 – THE DIGITAL WORLD

Overview of the Unit

Unit 1: The Digital World is a 1 hour 30 minutes on-screen examination worth 40% of the overall qualification. Unit 1 is an assessment (taken on-screen), comprising of a range of question types to assess specification content related to digital technology systems, the value of digital technology and perspectives on digital technology. All questions are compulsory. Areas of content include data, digital technology systems, digital communications, impact of digital systems on organisations and individuals, securing data and systems and changing digital technologies. The AOs that are assessed in this paper are AO1 - Demonstrate knowledge and understanding of digital technology systems and AO2 - Apply knowledge and understanding of digital technology systems in a range of contexts. The paper is split equally between both assessment objectives.

All areas of the specification were covered with the 2024 paper.

Comments on individual questions/sections

Q.1   **(a)**   **(i)**   Well answered by all candidates and accessible to all due to the tick box format.

   (a)   **(ii)**   Many candidates were able to achieve at least one mark of the available two with many answers demonstrating good knowledge of hard disk drives and solid-state drives. Very few candidates were able to achieve the full two marks available.

   (b)   **(i)**   Well answered by most candidates.

   (b)   **(ii)**   Extremely well answered by most candidates, in fact the best answered question of the entire paper.

   (c)   **(i)**   Well answered by all candidates and accessible to all due to the tick box format.

   (c)   **(ii)**   The majority of candidates were able to gain at least one mark out of the available two, with most of the correct answers describing how you can save the movie to the device and store it forever whereas with streaming, no storage space is taken up on the device.

Q.2.   **(a)**   This question was well answered by most candidates with smart phone being one of the most popular answers.

   (b)   **(i)**   Well answered by many candidates, with many gaining at least one mark out of the two available for stating that it is operating a device using body movements.

(b) **(ii)** Fairly well answered by many candidates with many popular correct answers stating that it can be tiring and can be a health and safety risk.

Q.3. **(a)** This question was poorly answered by most candidates. Many incorrect answers were discussing binary numbers rather than the gap between those who have access to IT facilities and those that don't.

(b) Again, this question was poorly answered by candidates and very few candidates were able to describe how the economic factor of the digital divide can influence society.

Q.4. **(a)** This question was poorly answered by most candidates. The question was accessible to all candidates as it was a gap fill type question with the first letter for each word provided, however it was not answered well.

(b) Poorly answered by most candidates.

(c) Many candidates were able to gain at least one of the two available marks for this question. Correct one-mark answers mostly included that an ISP provides Internet access to customers in their home.

(d) This question was the worst answered question of the entire paper. It was a two-mark question with most candidates showing poor knowledge of a web server and how it works.

Q.5. **(a)** **(i)** Fairly well answered by most candidates with many candidates able to state at least one principle of the Data Protection Act.

(a) **(ii)** The majority of candidates answered this question well with the most popular correct answer being a fine.

(b) Many candidates were able to achieve one of the two marks available and the most popular answer related to hacking.

(c) This question was poorly answered by most candidates with the majority not showing sound knowledge of the Investigatory Powers Act. Candidates who had not studied the specification fully either did not attempt this question or just incorrectly guessed the answer.

Q.6. This question related to the advantages and disadvantages of cloud storage and was well answered by most candidates. Many extremely impressive, detailed responses were given for this question and popular correct answers included being able to access documents at any time with an Internet connection as an advantage and for the disadvantage, security and not having access to the internet were popular correct answers.

Q.7. **(a)** This question was extremely poorly answered by most candidates. Candidates did not refer to digital devices in their answers and therefore marks could not be awarded.

(b) This part of question 7 was answered slightly better than part a. The question was asking for advantages and disadvantages of Business to Consumer (B2C) and most candidates were able to provide at least one correct answer for both.

Q.8. **(a)** This question was extremely well answered by most candidates. Many candidates demonstrated strong knowledge of different social media platforms and their features. The unit 3 controlled assessment requires candidates to have sound knowledge of social media, and this has been demonstrated within candidate responses to this examination question. Most candidates were able to explain social media platforms and their unique features to promote a business. There were three marks available for social media platform to a total of six marks and many candidates were able to achieve four marks out of six.

(b) The majority of candidates were able to give correct benefits and drawbacks of using social media to promote a business. It was impressive to see some excellent explanations that included benefits such as reaching a global audience and for the drawbacks, negative reviews and trolling.

Q.9 This question was fairly well answered by the majority of candidates. Candidates demonstrated strong knowledge of autonomous robots and were able to give examples, advantages and disadvantages. Stronger candidates were able to give solid examples of how the autonomous robots would be used for picking and packing items and advantages and disadvantages included that the robots would not need breaks and would be consistent with their work and disadvantages included the initial expense of the autonomous robots and the fact that they could put humans out of work. Most candidates achieved at least four marks out of the available eight marks and the mean mark for this question was 4.0.

Q.10. The quality of written communication was assessed on Q10 and responses were well written with few spelling and grammar errors. Stronger candidates used technical terminology well. This question was an extended writing type of question asking candidates to explain the remaining steps of the systems development life cycle. This question was only attempted by 90.5% of candidates with the mean score being just 2.6 marks out of a possible 12. Most candidate answers demonstrated poor knowledge of the systems development life cycle design, implementation, maintenance and evaluation stages. Correct popular answers that were seen explained the changeover methods in detail and testing. Weaker candidates gave limited responses that did not cover all aspects of the question and included one-word answers such as 'testing'.

Summary of key points

It was extremely clear that many 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, and these candidate responses demonstrated a lack of revision. Candidates should ensure that they have covered the full specification and they are aware of the specific examination command words to be able to achieve maximum marks.

DIGITAL TECHNOLOGY

GCSE

Summer 2024

UNIT 2 – DIGITAL PRACTICES

Overview of the Unit

Examples of good work were seen at moderation this summer with most centres providing work in the correct format and following provided naming conventions.

Very few centres did not use Adobe software when creating the website. Although the development of the website isn't restricted to any particular software package, the final outcome must be able to be opened using Adobe based software.

When completing the asset log, it is crucial to discuss copyright impact upon assets and comment on how this would impact the project. This element was overlooked by many centres.

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.

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 the data to identify a target audience.
- 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 (levels) with objectives and a scoring system. The game must include an original character and include appropriate sound effects.

Planning digital products

Website

Since the first year through many schools have taken feedback onboard regarding the planning stage and this has improved, generally this was done well with many candidates meeting the requirements of the scenario, few candidates still lacked details in:
- design content for the webpages, this should be detailed enough that a competent third party could complete the project from the designs.
- 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 provided 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 showing a clear progression from original design to post feedback design.

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.

Most candidates only partly completed the asset log misunderstanding its importance:
- Candidates failed to comment on copyright requirements beyond the fact the images were not primary images.
- Candidates gave little to no commentary on tools used when creating their assets or any difficulties they faced.

Website

Most candidates were able to use the software to produce a website that met the scenario requirement. Many showed some of the development process with an increased number obtaining feedback. 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 undertake feedback sessions 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 file type (.pdf).

Candidates cannot be awarded the top mark band where errors and bugs are still present in the products.

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.
- When completing the asset log candidates need to detail copyright issues if any are present and how this would impact the project.
- Candidates are awarded marks for the correct naming and organisation of files; this isn't an exercise use to make the moderation process easier.
- Obtaining and responding to feedback are key elements to the design and development of the digital products.
- Candidates would benefit from setting project objectives prior to the design stage, this will keep them on track during the project and help improve responses in the evaluation.

DIGITAL TECHNOLOGY

GCSE

Summer 2024

UNIT 3 – COMMUNICATING IN THE DIGITAL WORLD

Overview of the Unit

Centres that choose to use Adobe Premiere Rush and not Premiere Pro should be advised that the work will not allow candidates to achieve the highest mark band. Although Premiere Rush might be easier to use, it doesn't allow candidates to use higher-level skills to get to the highest mark band.

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) from the secure website. Centres should ensure all work is submitted in the correct format and in the correct folders.

Comments on individual questions/sections

Forms of online marketing communication
This area was generally done well. For candidates to be in the top mark band, they must discuss 4 social media platforms. They should cover in detail how the demographics differ for each of the 4 platforms and characteristics of the 4 platforms.

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. Candidates need 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. Most candidates were able to discuss the purpose, target audience/demographic to a good standard. House Style was a little weaker this year. Candidates would need to discuss the main colours that they were going to use and the style of font that they'd use for titles and for normal text. The marketing campaign tended to be missing with a lot of candidates and weak with most 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 appropriate original images, masking and 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. Candidates could also reference the refinement log when they cover the success criteria. E.g. this can be seen in session 10 of 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 authenticate that work submitted is that of the candidate.
- Candidates need to cover 4 social media platforms to be in the top mark band for Forms of online marketing communications.
- 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.
- Candidates cannot be in the top mark band for Creating digital assets without higher level skills such as the use of key frames.

Supporting you

Useful contacts and links

Our friendly subject team is on hand to support you between 8.30am and 5.00pm, Monday to Friday.
Tel: 02920 265 355
Email: DigiTech@wjec.co.uk
Qualification webpage: GCSE Digital Technology (wjec.co.uk)

See other useful contacts here: Useful Contacts | WJEC

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