



Examiners' Report January 2012

GCSE ICT 5IT03 01

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Introduction

This was the first examination series for Unit 3 for the new GCSE in ICT. This unit differs in many respects to Unit 1 of the qualification but we can also draw a number of key similarities.

Firstly, both written papers use an untiered paper structure allowing all candidates to access all grades. As such the paper is designed to gradually increase in difficulty with more higher grade components later in the paper.

Secondly, the paper is written within a context to allow students to demonstrate application of understanding rather than producing rote answers. Use of the context should allow candidates to continue to apply ideas gained in earlier questions to other questions throughout the paper. As in unit 1 common 'command words' are used which should allow candidates to clearly understand the type and level of response that is required.

The key difference however between this and unit 1 is that the focus of this exam is on an understanding of a range of practical skills; namely Exploring Digital Design. It is essential therefore that candidates develop the skill, knowledge and understanding for this unit in a practical manner wherever possible.

Due to its 'design' nature the papers for this unit will make use of a range of visual stimulus to allow pupils to access the scenario more readily. They will be expected at times to be able to produce plans and sketched designs for a given scenario. The more 'practical' nature of parts of the exam are designed to engage candidates and allow them to show their understanding in a range of ways.

Question 1 (a) (i)

The majority of candidates scored two or three marks on this question with most candidates successfully identifying the need to improve the consistency and/or the legibility of the font used in the main text and title.

Here the candidate gains 3 marks.

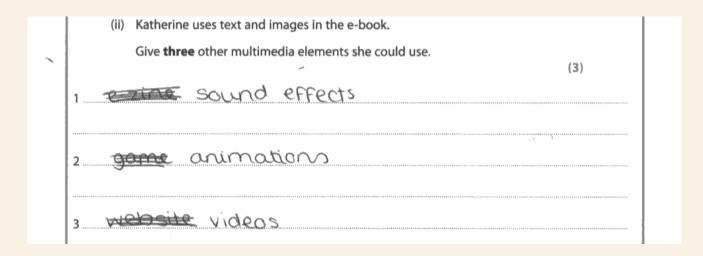
	Answer ALL questions.			
	estions must be answered with a cross in a box \boxtimes . If you change your mind about an er, put a line through the box \boxtimes and then mark your new answer with a cross \boxtimes .			
1 (a) Figu	1 (a) Figure 1 shows a page from the e-book. Katherine knows it could be improved.			
	One improvement that could be made to the page is to correct the spelling of the word 'defenses'.			
	State four other ways in which the page could be improved.			
	(4)			
1 Use	consistent and easy to read gent			
2 Add	Clour to the image			
3 Mo	e the title up so It doesn't overlap with			
the	image			
4 Ma	be the back and sorward arrows boxes the			
Sou	ne sire to improve consistency.			
4				



Where candidates did not gain marks this was usually due to inaccurate or vague responses such as "add colour" without any reference to how colour adding would improve the page.

Question 1 (a) (ii)

The majority of candidates were able to identify at least 2 additional multimedia elements with a significant number gaining all three marks.





The candidate successfully answers the question by identifying three multimedia elements. Correct terminology is used.

(ii)	Katherine uses text and images in the e-book.
	Give three other multimedia elements she could use.
	(3)
1 hy	perlinks - buttons to take you to another
ρα	Se
2 M	usic files and sounds
3	ound effects.



Á recurring answer by a number of candidates which prevented them from achieving 3 marks was identification of "hyperlink" as a multimedia feature.

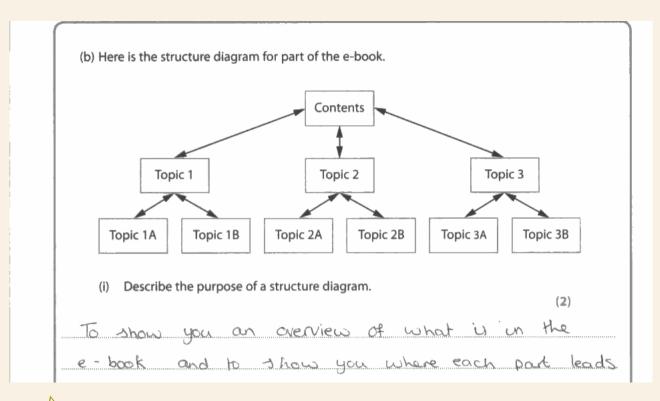


It should be stressed to candidates that while many multimedia products will contain hyperlinks in terms of digital design these should be considered as a way to achieve user interactivity.

Question 1 (b) (i)

This was one of the least well answered questions. While about half of candidates managed to gain one mark by identifying that the structure diagram showed how the pages of the e-book will be linked, only a small number gained two marks as very few identified that it also showed what pages it will contain.

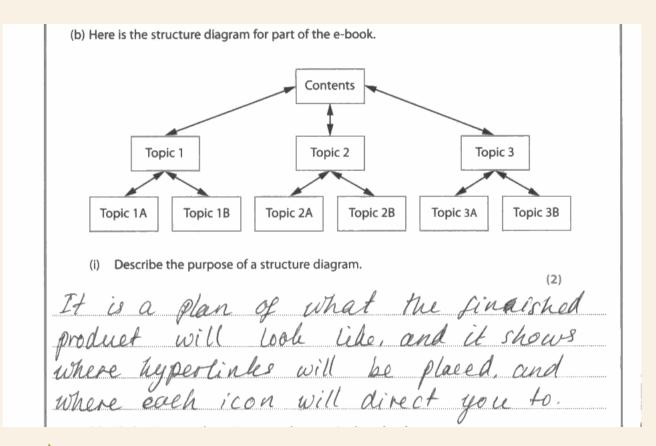
Many responses were vague and showed only a superficial knowledge of how structure diagrams work, showing that many candidates had not had exposure to using these documents in a practical context.





Here the candidate gains 2 marks for showing an understanding of the diagram showing content and how they are linked. However, the quality of the response could be improved.

Many candidates were unaware or the purpose of different design documents.





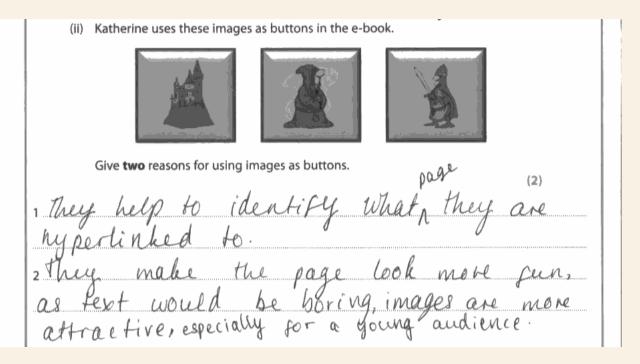
Here is a common mistake where a candidate's response implies all design documents will "show you what it looks like".



Centres could improve candidate performance by delivering this part of the curriculum in a practical context in particular through the links with other units in this qualification.

Question 1 (b) (ii)

The vast majority of candidates were able to achieve one mark on this question, with the majority of these successfully identifying that the images would appeal to the target audience (children). Answers in this and other questions can be improved by students considering reasons for using images in products other than to be aesthetically pleasing.





Here a candidate shows a good understanding of purpose of images as buttons gaining two marks.



Reasons such as increasing accessibility reducing the amount of reading required and reflecting the theme of the product and therefore improving user experience, should be highlighted with candidates.

Question 1 (b) (iii)

A generally well answered question with the vast majority of candidates gaining two or three marks. Responses were generally technically accurate with candidates demonstrating a clear awareness of how to achieve consistency.

Where responses were less successful candidates tended to focus on only one design element such as colour or font

(iii) Katherine wants to make the pages of the e-book consistent.

State three ways in which she can do this.

(3)

1 Have the Scine faith Size font on each page

2 Have the same colour scheme on each page

3 Have the Same font Style on each page.



Here a candidate focuses on one feature (font) so is unable to achieve all three marks.



When responding to such questions candidates should group their responses by type e.g. consistency of colours, consistency of font.

(iii) Katherine wants to make the pages of the e-book consistent.

State three ways in which she can do this.

(3)

1 NAWL A CONSISTENT COLOUR SCHEME.

2 NAWL AW THE LEXT BY SAME

3 USE BUTTON LIVE NOME AND SEATCH.

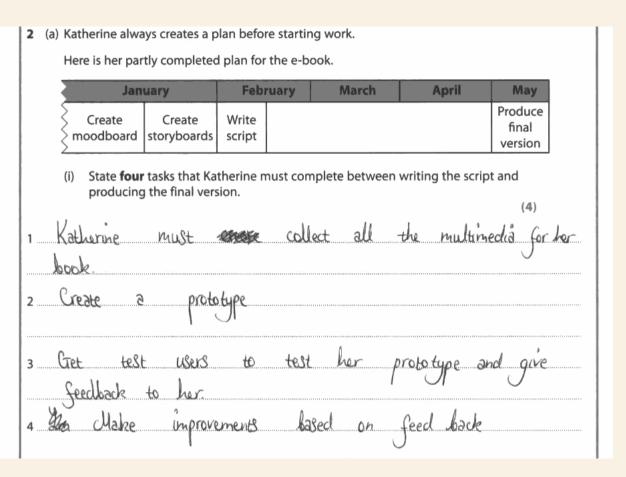
WE SAME EUCH HIME.



Question 2 (a) (i)

Candidate responses to this question were generally quite weak with only a very small number gaining all four marks. Many candidates focused too much on the initial design documentation rather than the development process of the digital products.

Where candidates were more successful it was clear from their responses that centres had given candidates a clear overview of the process of product development and the stages required.





A response showing a good understanding of the processes involved.

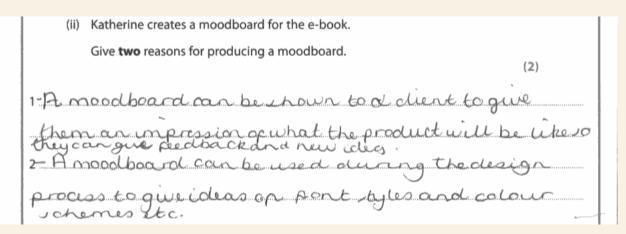


In developing delivery of this aspect of the qualification centres should consider the way that candidates are made aware of "the iterative approach to design and development" or "the system life cycle" both in theoretical and practical terms.

Question 2 (a) (ii)

Candidate responses on this question again showed the vast majority of candidates only had a superficial understanding of the use and purpose of design documentation. While about half of candidates had enough understanding to gain one mark, only a very small number of candidates were able to provide an adequate explanation of the purpose of a moodboard to gain two marks.

A significant number of candidates did not gain any credit and in a large number of these cases candidates' descriptions were of the purpose of a storyboard and not of a moodboard.





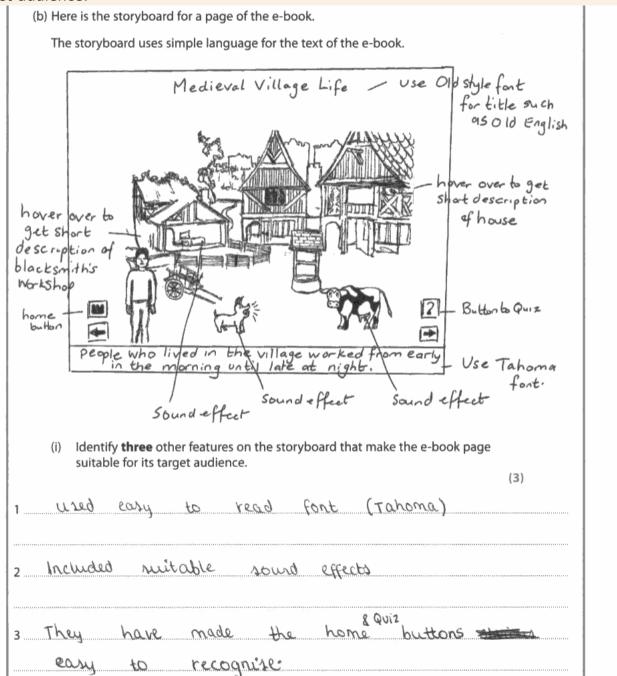
Here a candidate shows an understanding of the purpose of the moodboard, in particular to convey preferences and ideas.



It is recommended that centres provide candidates with opportunities to explore all types of design documentation in a range of contexts to enable candidates to fully understand their purpose and application.

Question 2 (b) (i)

A generally well answered question with most candidates gaining some credit. Candidates on the whole were able to identify features of the storyboard that were suitable for the target audience.





 $ilde{\mathsf{A}}$ correct response showing an understanding of the features of the storyboard.

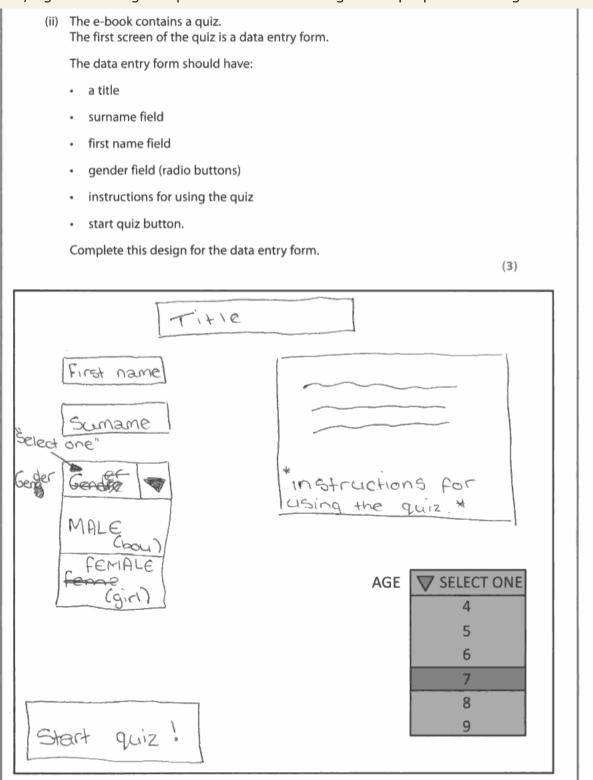


In questions such as this, candidates could improve their performance by ensuring that they make use of the stimulus material given and contextualise their answers. For instance a response such as "images" does not demonstrate enough understanding of the given material. However, "cartoon style images that children would like" would show a clearer understanding of how the target audience is being catered for.

Question 2 (b) (ii)

Nearly all candidates were able to access this question, with a very large majority of candidates gaining all three marks. However, there were significant weaknesses observed in a large number of candidates' storyboards. In particular candidates did not make significant distinction between the different elements on the plans. For example it was often very difficult to tell the difference between text boxes, data entry boxes and buttons; again showing a superficial understanding of the purpose of design documentation.

It was often very difficult to tell the difference between text boxes, data entry boxes and buttons; again showing a superficial understanding of the purpose of design documentation.





Here we can see an example of a response that makes little or no distinction between buttons, text boxes and data entry fields.



Plans should be able to be used by third parties with little or no input from the plan's creator; this would not have been possible with many of the candidates' responses seen.

Question 2 (b) (iii)

The majority of candidates were aware of a function of a drop down menu and were able to identify a reason for including it. Where candidates were less successful in their responses this was often due to insufficient explanation of a point. i.e. candidates make reference to it being "easier" but with no justification.

(i	ii) Explain why K	atherine ha	is used a drop dow	n menu	for the age field	d.	
	,					((2)
p=pp=======+i+++++++	To red	uce	the amou	NVF	of typin	19, and	26
	reduce	the	the amount	of	options	s so	<i>that</i>
	Ghere		less.		•		
101111111111111111111111111111111111111	error.	PERSONAL PROPERTY OF THE PERSONAL PROPERTY OF					J .

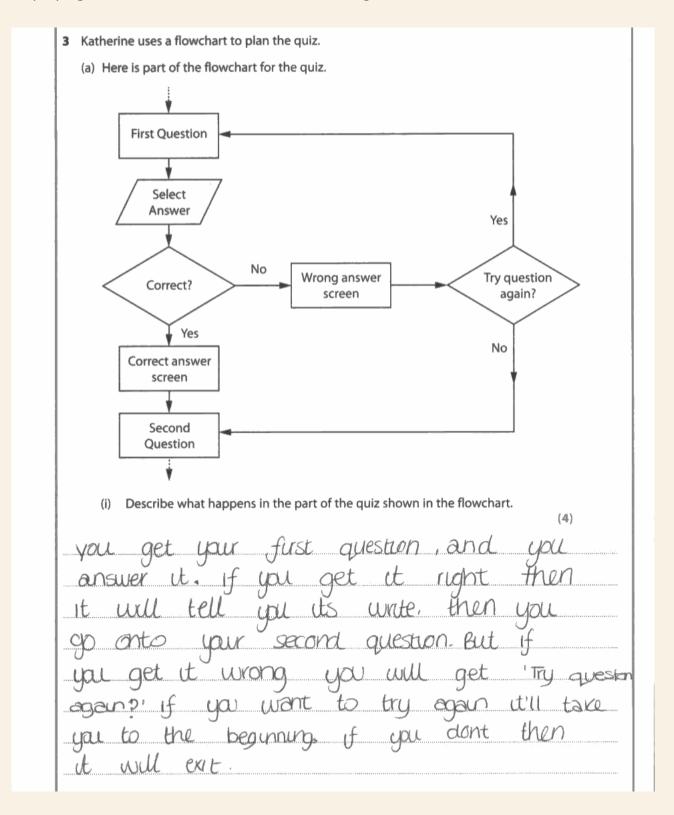


Candidate shows a good understanding of the function and purpose of a drop down menu.

Question 3 (a) (i)

This question was generally well answered with the majority of candidates gaining all four marks and almost all candidates achieving some success.

Where candidates were less successful it was generally due to the construction of their responses which led to skipping steps in the logic, such as missing out the description of displaying the "correct answer screen" following a correct answer.





An example where the candidate shows an awareness of the logic of the diagram but misses some steps in their response.

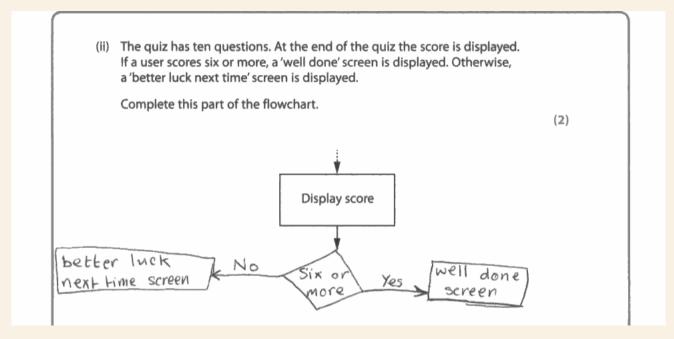


Practice "talking through" the logic of flow charts. Get students to explain them to each other.

Question 3 (a) (ii)

While a majority of candidates gained two marks for this question it was not answered as successfully as 3 (a) (i) despite them both requiring an understanding of flow charts. It was clear that many did not have experience of using flowcharts as a method of providing information.

While candidates are not expected to necessarily use correct flow chart symbols (it is the demonstration of correct logic that is assessed here), it was clear that where they had been exposed to the use of flow charts and symbols they showed a greater understanding of the construction of logical data flows and as such were often more successful at this question.

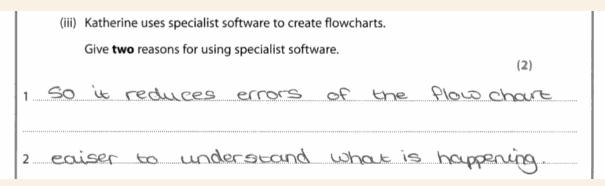




Question 3 (a) (iii)

Responses to this question were often weak with the majority of candidates not achieving marks. While this question was intended as a higher grade discriminator, responses from even the more able candidates were often not well constructed.

Candidates often reverted to generic answers such as "easier". Specialist software is often more complex to use due to its specialist nature but would make creating flow charts easier as it may provide templates and/or the standard flow symbols.





Here a candidate is unsuccessful in gaining marks as their responses are too general. The candidate could improve this answer by explaining how/why it reduces errors



To improve performance on questions relating to specialist software, candidates should consider the need for and the benefits/drawbacks of such software in the context of the question.

Question 3 (b) (i)

Candidate performance on this question was good with a large majority of candidates showing an understanding of the requirements to seek permission to take the video. However some candidates still clearly misunderstand who/where to seek permission when taking photographs and videos in public places.

(b) John is a photographer. Katherine has asked him to produce some video clips for the quiz.

(i) John wants to film at a local castle.

State what he must do to comply with legal requirements before he starts filming.

(1)

Cet permission for any people who are filmed in the castle for the wideo to be used.



Here the candidate understands the idea of seeking permission but displays a common misconception.



It is advised that centres explore this issue of permission with candidates so that a greater understanding is developed.

Question 3 (c) (ii)

The majority of candidates were able to successfully identify one way to reduce the file size of the image but only a small number successfully identified two methods. Where candidates were less successful this was often due to general misconceptions.

G	ive two ways he can do this.	(2)
		(2)
1 He 4	uld use vector gaphics rather don the De	pomp graphic
	0 /	/ / /
		iniminiming-minnintmississanintintrinima
2 He son	ld reduce the quality of the photograp	che



Many candidates suggested that the image be "cropped" but did not mention that in order for this to reduce the file size it would need to be done in graphic software. Where candidate performance can be improved is by identifying the changing of file type to reduce file size.

(ii) John wants to reduce the file size of one of the photographs.		
Give two ways he can do this.	(3)	
C/2012 12 12 12 12 12 12 12 12 12 12 12 12 1	(2)	
1 Change the Image pormat	niiginga minininginii nainausus	
Can No Vondavina	alintrollo galunganyangalihitari ta	
2 COD The Magara	***************************************	



Here we see an example of common misconceptions.

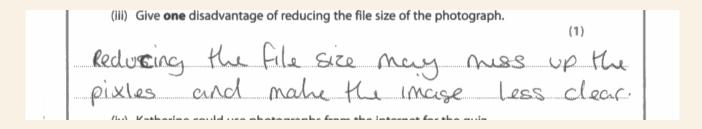


Candidates should be made aware that just changing the file type may not reduce the file size. Answers of this type should be more detailed and should identify how changing the file type might reduce the file size, such as changing to a vector image.

Question 3 (c) (iii)

Candidate performance here was generally good, with a large majority of candidates providing responses that showed an understanding of disadvantages of reducing the file size of images; the most popular answer being the loss of quality of the image.

Candidate performance could be improved however through better use of more technical language.





Here we see a response where a candidate shows an understanding of the effects of changing the file but does not have adequate technical vocabulary to translate this to an effective answer.

Question 3 (c) (iv)

Performance on this question was generally good with the majority of candidates gaining at least one of the two marks available. Many candidates were clearly aware of potential issues relating to copyright but often these were not expressed clearly or some misconceptions were evident.

ı	(iv) Katherine could use photographs from the internet for the quiz.
ı	State two disadvantages of doing this.
ı	(2)
	, The mage might be copyright and you would
	have to waste time getting permission.
	2 You might get better quality images if you took them
	your self.



A good understanding of the implications of copyright and an alternative given which gained credit.

While it is important that the candidates are aware that copyright may restrict use of images, it should be noted with candidates that being copyrighted is not in itself a disadvantage.

	Catherine could use photographs from the internet for the quiz.	
	tate two disadvantages of doing this.	
	./	
1	they may be a subject of copy right	
2	the images may contain vivo viruses and	
2		
hannedarien	be unsaye to use	



Here a candidate refers to copyright as a disadvantage, therefore not showing a full understanding.

Question 4 (a) (i)

Candidate performance here was generally good with a majority of candidates gaining both marks. While most students demonstrated some understanding of the different types of audio, many responses lacked accurate technical language

Many candidates used generic terms such as "speech" "voice" and "music" rather than the technically correct terms from the specification. As a result many candidates were limited to one mark instead of two.

4	(a)	Kat	therine is adding audio to her e-book.		
		(i)	One type of audio Katherine could use is sound effects.		
			Give two other types of audio she could use.	(2)	
1 .,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	S	ecting Video Ruideo Chips		
2		5.0	ecting/talking	umineentateurimenna	



The candidate here is perhaps attempting to say narration or voice-over with use of "speaking" and video clips. However it is unclear so only one mark was gained.



Use the technical language listed in the specification with students. It will help them when constructing answers.

Question 4 (a) (ii)

A small majority of candidates gained credit on this with only a quarter achieving all four marks.

Again here, as in other questions, candidates showed an awareness of copyright concerns but a lack of deep understanding was evident; many candidates cited images being subject to copyright as the disadvantage itself rather than the need to seek permission and/or the resulting costs and time.

(ii)	Katherine now needs to source her sound effects.
	Give two ways she could do this, and give one disadvantage for each. (4)
1	she could get them off the intenet
Disadvan	tage 1 Mile many be copy ughts on them
2 Sh	clip ort which purs sound
	tage 2 Mey may not have what she is



Here the candidate is showing awareness of copyright but does not explain the issue of copyright deeply enough.

Question 4 (a) (iii)

The majority of candidates were able to gain at least one mark but only a very small number achieved two or three marks.

Many responses did not consider the need to achieve balance, or the impact not having good balance will have.

(iii) Explain why balance needs to be considered when combining different types of audio.

(3)

Balance needs to be considered as combining different audio can cause sound to be muffled as the Combining audio reduces the quality of sounders.

Et as the audio is too busy.



Here the candidate considers how balance may affect the quality of sound and gains one mark. The candidate could improve this by linking ideas as to the effect that this might have on the overall quality of the product and the experience of the user.



When answering "explain" questions try to link ideas and reasons. An example in the given context may help.

Question 4 (b)

The majority of candidates gained one mark here through clear understanding of the need for subfolders in which to organise the files. Only a small number showed an understanding of the need to set up a suitably named parent folder and to correctly name files to ensure that their content and purpose is easily identifiable.

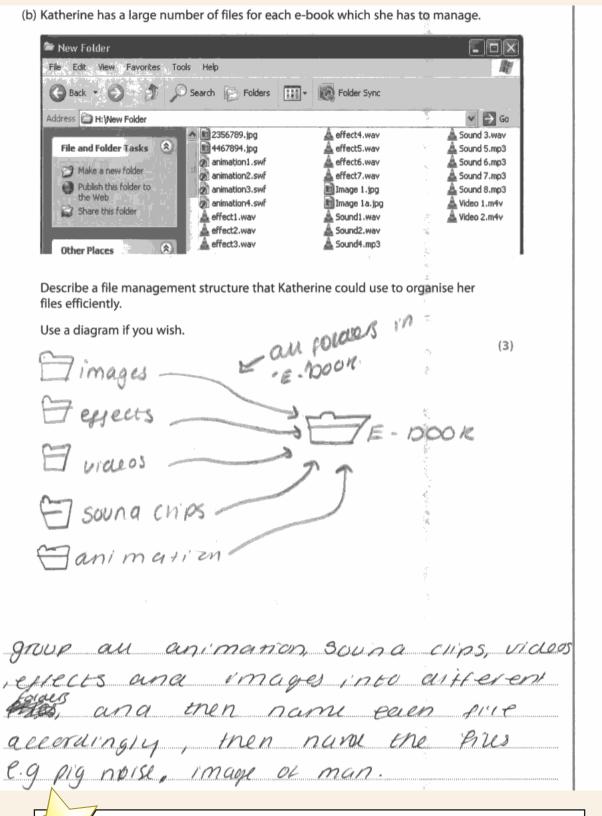
While candidates could write an explanation or draw a diagram, often those who showed an understanding of structure diagrams performed better in this question.

(b) Katherine has a large number of files for each e-book which she has to manage. 🚔 New Folder File Edit View Favorites Tools Help Search Folders Folder Sync Address H:\New Folder ₩ → G0 2356789.jpg 🟝 effect4.wav 🔔 Sound 3.wav File and Folder Tasks 🛕 Sound 5.mp3 14467894.jpg 🔔 effect5.wav animation1.swf 📤 effect6.wav Sound 6.mp3 Make a new folder effect7.wav Sound 7.mp3 animation2.swf Publish this folder to the Web animation3.swf Image 1.jpg Sound 8.mp3 animation4.swf Mage 1a.jpg Video 1.m4v Share this folder effect1.wav 🟝 Sound1.wav 🗸 Video 2.m4v 📤 effect2.wav 🖺 Sound2.wav 🚊 effect3.wav 🙇 Sound4.mp3 Other Places Describe a file management structure that Katherine could use to organise her files efficiently. Use a diagram if you wish. (3)

tathrino caudorgonize hor files into 3 different folders; mages, soundfiles & vicles. So sho con when shos Looking for a file it will be easier to find and will be a lot more organized.



A common one mark answer focusing on the need for subfolders.

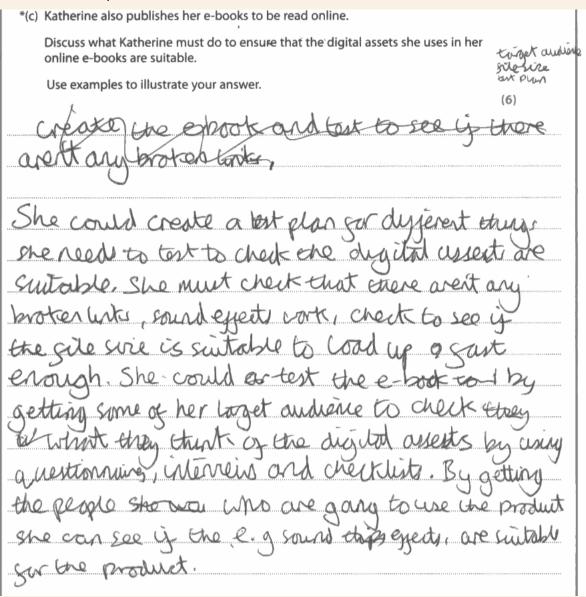




Here the candidate makes good use of the "diagram" to organise their thoughts which is then supported by an explanation; the candidate gains three marks.

Question 4 (c)

This question was not successfully answered by the majority of candidates. While the extended questions are used as a higher grade differentiator only a minority of candidates gained any marks here. The most common mistake by here was in focusing responses on how assets make products suitable for different audiences rather than how assets must be prepared to ensure products are suitable for use on the internet.





Here the candidate provides a level 1 answer. While the candidate refers to the product being online they do not support their statements with any solid examples of how the assets themselves could be prepared to make the book function efficiently online.

*(c) Katherine also publishes her e-books to be read online.

Discuss what Katherine must do to ensure that the digital assets she uses in her online e-books are suitable.

Use examples to illustrate your answer.

(6)

Any mages that are used example a yechor He corrections which bruser and devices run tests on lots of (Total for Question 4 = 18 marks) surable



The candidate produces a good level 3 answer, identifying a number of properties of assets that would make them suitable for use online. These have been justified through examples such as identifying the potential for a range of different devices to access them.

Question 5 (a) (i)

A majority of candidates gained 1 of the two marks available here but only a small number managed to gain both. Many candidates identified the need to correct the link as part of the action required but only a small number showed an awareness of the need to retest once a link has been "corrected."

Question 5 (b) (i)

The majority of candidates achieved one mark on this question with a small number achieving two marks; almost no candidates achieved all three marks. Most candidates were able to identify the fact that the designer would be getting feedback from the target audience (children). While quite a large number of candidates made reference to getting feedback from the teachers very few candidates were specific enough as to why feedback would be needed from this particular group.

- (b) Katherine takes the e-book into some local primary schools for the children to use.
 - Explain why she needs to gather information from the children and their teachers.

(3)

She needs to make sure that her product is suitable to her target and ence she needs to guther information on whather or not her product is going to work sell she also needs to check if any improvement can be



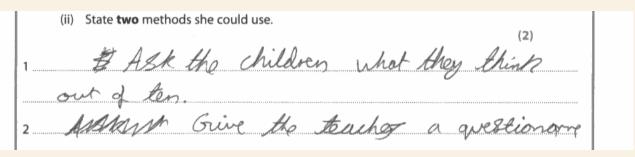
Here the candidate refers to use of the target audience to test the product but does not explore the other reasons for testing in the school. The candidate gains 1 mark.



To improve performance here, candidates should ensure that when referencing different test users responses they identify why each group is used. This question also required consideration of the location of testing: candidates should consider any intended location of a product and the impact this will have on the product. This leads to the requirements of and reasons for location based testing.

Question 5 (b) (ii)

Responses to this question were mostly successful with a very large majority of candidates achieving at least one mark and the majority of those achieving two marks. Generally candidates showed an awareness of the different methods of eliciting user feedback but in a large number of responses the quality of technical language could be improved.





Here the candidate shows an awareness of conducting an interview to gain feedback but does not use correct terminology.



Ensure students are aware of the correct technical vocabulary as used in the specification. It will help with both short and extended answer questions.

Question 5 (c)

Most candidates gained at least one mark out of a potential four here with the majority scoring two or three marks. Generally candidates demonstrated an awareness of a range of accessibility features but were often let down by their explanation in part ii.

(c) Katherine wants to ensure that her e-books are accessible.	
(i) Identify two accessibility features she could use.	
1 read the page about option	(2)
2 bigger fort Size	
(ii) Explain why Katherine needs to use accessibility features in her e-books.	(2)
C. H. alam cal	(2)
so we e-boxes can be used by a wigor way	e) avelience
and also to comply with government accessibility low	



Å common misconception in 5 (c) (i) - having a bigger font size is not the accessibility feature. Students should be made aware that the accessibility feature must be to alter the size according to need.

Question 5 (d)

Candidates generally performed better in this extended response question compared to 4c. Most candidates were able to achieve some credit here with most producing answers on the edges of mark band 1 and mark band 2 (two or three marks). While most candidates were able to identify different design characteristics of different user groups, responses did not always translate in to how these features directly affect user interfaces.

*(d) It is important that designers consider the characteristics of their target audience when designing digital products. Discuss how the characteristics of target audiences affect the design of a user interface. (6)The different characteristics of a target audience affect the user interface in many different ways, for example; if target audience is a much younger range of people, then there wry need to be a lot of Sumple interacting, to keep them interested, and so that it's easy for them to use However, if your your target audience is a group of people much more skilled with IT. the interface/interaction may not have to be as large and obvious. This may also mean the page could have various links and a large Structure diagram however with a younger audience you may only be able to have one or two links to keep it simple, although within the entire thisping page, there will need a lot of small interactions along the way otherwise the young child bored keed if there's not enough, or drays on for too long.



The candidate produces a level 2 answer with reference to how a range of characteristics would suit the audience's preferences and needs.



Many candidate responses focused colours and fonts; performance could be improved by considering features such as usability of the interface, the skill level of the user, frequency of use of the product amongst other things.

Paper Summary

Given that this was the first assessment opportunity for this unit candidates generally did well. They generally made good attempts at all questions with very few 'blank' pages seen, a sign that they have a broad understanding and that candidates of all abilities are accessing the paper.

Candidates on the whole had a good idea of audience characteristics and key concepts such as copyright have clearly been explored with students. Many candidates were aware of the existence of copyright and some of the restrictions this may place on digital products and their assets. When discussing improvements of designs, candidates often had a strong sense of audience and were able to identify key features of design that applied to those audiences.

Where performance was less strong candidates had clearly not experienced the topics in a practical situation. In particular their understanding and application of design documentation was an area where improvements can be made. This is a practical skills unit and candidates will benefit from applying these skills in a range of practical situations.

Many candidates also did not make use of the scenario-based questions to assist their responses. Performance in all questions (including the extended writing questions) could have been improved by applying the response more readily to the question. Centres should work with candidates to develop their ability to respond appropriately to the question within the given context, so that they can apply understanding rather than produce rote answers.

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