Unit 5: Digital Publishing Production

Resource Pack for BTEC Level 1 / Level 2 in Creative Digital Media Production

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Contents

Teacher's Introduction

This resource has been designed to cover the content in Pearson BTEC Level 1 / Level 2 (First) in Creative Digital Media Production specification for *Unit 5: Digital Publishing Production*.

It contains information sheets containing all of the key theory for each Learning Aim, in the same order as the Unit 5 specification. Interspersed throughout the theory are objectives, key terms, questions and tasks.

Before you start: Two of the tasks in this resource require learners to load certain images; a zip file containing these images can be downloaded from zzed.uk/BTEC-Unit5

In addition to the information sheets are the following:

- *Practical Task* – a scenario-based task requiring learners to demonstrate the skills, knowledge and understanding of the unit to research, plan, produce, edit and evaluate a digital publishing production.
- *Learner Checklist* – encourages learners to take control of their progress by helping them identify where they can improve. Can be used for both peer and self-assessment.
- *Crossword* – a fun activity to reinforce the unit's key terminology.
- *Worksheets and Templates* – included to help with practical work that learners will complete during the unit.

Suggested answers to each question in the information sheets, as well as the crossword solution, can be found on pages 36–39. *Please note that these are not exhaustive and there may be alternative acceptable answers.*

Important: All tasks in this resource are designed to provide **practice only**, and are **not** designed or intended as a way for learners to provide evidence for the unit.

Aim A – Digital Publishing Oppor

Objectives:

- ✓ To know what digitally published products are and how they are used.
- ✓ To understand the progression from traditional print material and met impact upon the production, distribution and demonstrational process

WHAT ARE DIGITALLY PUBLISHED PRODUCTS

A digitally published product is any kind of product that was once solely p format but is now primarily or additionally released in the digital domain.

A number of examples are:

- ***E-papers:*** This mainly refers to the release of newspapers for on an e-reader, such as those found on mobile phones, tablets an dedicated e-reading devices. They can be produced in two format
  1. an exact copy of the physical paper available in a digital form that replicates the turning of pages, much like a physical boo this is normally a chargeable service.
  2. Apps and websites that provide news stories, articles and oth optimised layout for digital devices – this is normally a free s that its chargeable counterpart.

  Overall e-newspapers offer an additional advantage over tradition digital audio-visual content can be easily embedded rather than r separately find it.
- ***E-magazines:*** These follow the same principles as e-newspapers; however, there are a large number of e-magazines that are not available in a traditional printed format due to the opportunity of easily creating an online news presence.

  They are normally distributed through emails in the form of newsletters, e-books and leaflets. They can also be displayed using **HTML** in a traditional website format and flash versions that feature page-turning animations.
- ***Adverts:*** Adverts are traditionally published as posters, flyers, billb publications such as newspapers. Digital versions can be in a wide image, video, animation and sound and also include innovative in quizzes and games.
  An advantage of digital publications is that they allow the produc would be possible if it was static, and also aim to draw the a
- ***Digital and CD covers:*** These are now generally produced or edited usi and distributed digitally with the product. With audio albums and i embedded within the file so that the user can always see it when p
- ***Flyers and leaflets:*** Although prominently featured online through social media platforms, traditionally-printed flyers and leaflets are events and services – the digital format is simply uploaded onto t

- ***Training material:*** Traditionally made available in visual and text-based formats; however, digital versions are now offered as audio visual guides that are useful in work situations where there is a ne to visually demonstrate a situation rather than explain it on paper
- ***E-books:*** An e-book is a digital publication of text, images or both that is intended to be read in the same format as a traditional boo on a computer or other electronic device, e.g. an e-reader.
  An e-reader is a purpose-built device intended to display and layo text in an optimised way for the display size. However, e-books ca be read on most electronic devices such as tablets and smartphon

Questions:

1. What is a digitally pr[illegible]oduct? (1 mark)
2. Suggest an a[illegible] of an e-newspaper over a traditional print
3. N[illegible]e four ways that e-magazines are distributed and display

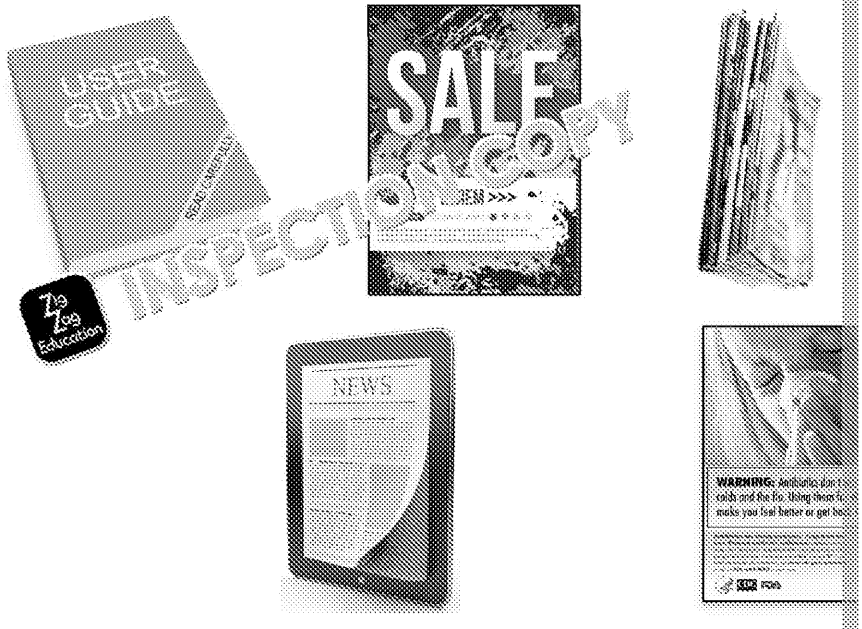
HOW ARE DIGITAL PUBLISHING PRODUCTS U

Digital products that are published are used for a variety of purposes with sectors, sometimes to gain or entice an emotion or reaction from the aud

- **To inform** – These products aim to provide the audience with use
- **To educate** – Presents information in a way that intends to be eas
- **To entertain** – Displays media that aims to keep the viewer amus
- **Market/promote a product** – Advertises a product or service in a f
- **Promote an event** – Displays information about an event for an a
- **Provide advice or support** – These products provide important inf health guidance.

Questions:

4. Identify the purpose of each of the publications below: (6 marks)



WHERE ARE DIGITALLY PRODUCED PRODUCT

Digital publishing products can be published in a variety of ways, for exar

- Online over the Internet where they can be made available to viev download, and thus open to be transferred. Some products such a books are sometimes only available once a fee has been paid, whi others such as album artwork are included within products.
- E-books that are published are usually offered within the webstor the device used. However, they are also widely available online ar be viewed on other digital devices other than specialised e-reader

  There is an extensive range of websites and other online sources w download e-books both for free and to purchase.
- Products designated for smart devices (mobile phones and tablets mostly compatible across a wide range of digital devices that feat to read external data.
- Digitally produced products can also be stored electronically in a and depending on their use viewed on most digital devices. The fi a network
- Digitally produced products can also be printed and then displaye traditional manner.
- Some products are specially created or adapted for use on games TV screens. These products are obtained through the Internet or o

Questions:

5. What is the main form of distribution for digitally produced produ
6. What is an e-book? (1 mark)

TRADITIONAL PRINTING AND PUBLISHING T
AND TECHNIQUES

'Traditional publishing' describes methods by which a work is physically p
aid of computer technology – as is the modern method used to create a p
way.

Techniques

There are two main families of printing techniques: **intaglio** and **relief**.

Relief printing means that the design and ink ar[illegible]ed on the plate or printing block; these sections are transfe[illegible]red onto the resultant surface after pressure has been applied.

In intaglio printing the image is cut into the printing block surface; this recess h[illegible]e ink and any excess is removed. The design is transferred to the su[illegible]e once pressure is applied.

Etching is a printing technique that utilises a copper plate coated in an ac

1. The design or image is scratched into the copper plate using an et
2. Once finished, the entire plate is then dipped into an acid that dis metal is exposed – where the acid-resistant material was remove
3. The remainder of the material is removed and the plate covered in grooves form the overall design.
4. The leftover ink is removed and the plate is put through a printing other material – this causes the print from the copper plate to tra

Linocut is a method of printing where a design is cut into a sheet of **linole** and printed onto another surface such as fabric or paper.

1. The design is first cut into the lino and then rolled over with an in
2. The lino is then pressed (by hand or mechanically) onto the desire image of the raised areas will be transferred.

Another printing method is **screen-printing** which is commonly used to pr

1. A mesh is first attached to a square frame which is placed over a s and the printing surface.
2. Ink is poured onto the mesh and evenly [illegible]poured over the stenc squeegee.
3. When the screen and ste[illegible]re lifted from the printing surface th substance c[illegible]e added in order to increase the durability of

Lithogra[illegible]a method of relief printing.

1. A raised design is produced on a printing plate.
2. The plate is then first coated in water and then ink. The ink only s that are not wet or saturated with water – the raised parts of the
3. The printing plate is then attached to a roller where the design is paper as it's fed underneath the roller.

Questions:

7. What are the differences between intaglio and relief printing tec
8. Describe the process of printing with linoleum. (2 marks)
9. Using the information provided, categorise the following printing t intaglio printing: (5 marks)

   Etching, Linocut, Lithography, Letterpress and Rotogravure.

Technology

Letterpress printing is one of the oldest forms of printing. It is a technique of relief printing that uses a printing press to produce a design onto a surface.

There are two different types of printing devices used in letterpress printing: platen press and rotary press.

Using a rotary press makes it possible to print onto a continuous roll of paper, which was done in the past when newspapers were printed.

A platen press uses two surfaces: the bed and the platen. The platen is a smooth backing for the paper and the bed holds the raised plate to be printed.

Within this method a surface plate with the raised letters or design is inke of the paper. The surface plate can be made up of various blocks from a la typically made from metal.

When the plate is pressed into the paper the force of the press can result in the resultant print having an embossed appearance. For this reason this method of printing is still used by those who value the effect and historical nature of hand-made prints.

In **rotogravure** printing there are two cylindrical rollers positioned one above the other. The image is etched into a cylinder plate attached to the lower roller; the upper roller is smooth, and paper is fed in-between them.

The lower roller is partially submerged within a pool of ink; as it rotates, excess ink is removed using a doctor blade as it runs along the plate surface before being pressed onto the paper.

Questions:

10. State the names of the two printing devices within letterhead print
11. In rotogravure printing, which roller holds the image to be printed

Printing

A **photocopier** is a machine used to create copies of documents and imag
xerography.

A photocopier works through a number of stages:

1. The user places the document face-down onto the glass of the copier.
2. The document is then scanned by a bright light. Light reflects from the document, although more light reflects back fro the black (inked) areas.
3. A 'shadow image' of the document is for by the photoconduct component that reads and meas es lig ntensity. The photocon rotating conveyor belt c d a chemical called selenium.
4. As the conve ates it carries the 'shadow i ' a with it; a drum filled with ink coats t with small pieces of ink called **toner**.
5. Due to an electrical charge given to the toner, it sticks to the 'shadow image' which creates an inked image of the document being copied.
6. A sheet of paper is given an electrical charge and fed towards the conveyer belt.
7. When the paper is near to the conveyer belt holding the ink, the electrical charge causes the toner to transfer onto the paper.
8. The paper is then pressed through two hot rollers that infuse the ink onto the paper before it comes out of the photocopier.

Key
✓

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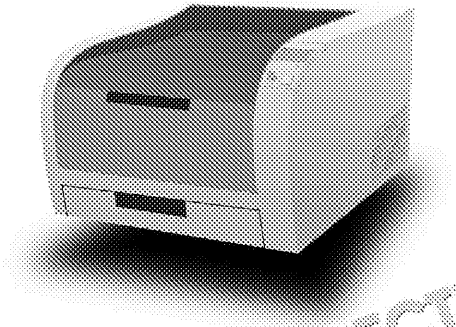
There are two main types of printers – laser and inkjet – that differ in the transferred to the paper and the type of ink itself.



A **laser printer** is a non-impact printer, photocopier, it uses electrical charges When a document is sent to the printe an image of the document and then dr electrical charges.

The drum is coated in toner once it has ges in the form of the docume ransferred to a piece of paper and atta and pressure.

Within a **t printer** there are a number of cartridges containing ink. The printer head is a component that mixes and releases the ink using a number of small nozzles. The printer head moves across the paper as it's funnelled through the printer and ink is sprayed from the nozzles onto the paper, forming the letters and images.

The main differences between inkjet and laser printers are:

- **The type of ink used** – Toner is a powdered form of ink while the liquid, meaning that it requires a little time to dry. Toner also gen ink which means that it's cheaper to run over time.
- **Type of paper used** – Because inkjets print with wet ink some por types of paper, such as those containing fibres, are unsuitable as t ink can bleed or smudge along the fibres. Laser printers, however, don't suffer from this problem as they use toner and can, therefor use all types of paper.
- **Cost** – Inkjet printers are generally cheap in price, laser printers a not; although, due to the cost and frequ[illegible] buying new ink cartridges it can work out cheape[illegible] a laser printer if a l number of prints are to be [illegible] over time.

Que[illegible]s:

12. S[illegible]ne advantage and two disadvantages of inkjet printers. (3
13. What's the difference between toner and ink? (2 marks)
14. Explain the process that bonds toner to paper in a photocopier. (3

PUBLISHING IN THE DIGITAL AGE: TECHNOLOGY

Less printing

Within this digital age of instant and global communication there is invar

Due to the prevalence of computers, smart devices and fast digital comm broadband, it makes more sense for certain formats to become more popu printed counterparts.

One example is the use of email in comparison to printing and sending a document (for example bank statements); there are a number of benefits such as the ease and speed of automated emails compared with the time and costs involved in printing and distributing the documents. Paperless systems also bring obvious environmental benefits.

Using adverts as another example, online ad[illegible] generally cheaper f individuals and organisations to tak[illegible] ha[illegible] traditional printed ones. Furthermore, they can be [illegible] tailored and aimed towards certain people by using da[illegible] search engines.

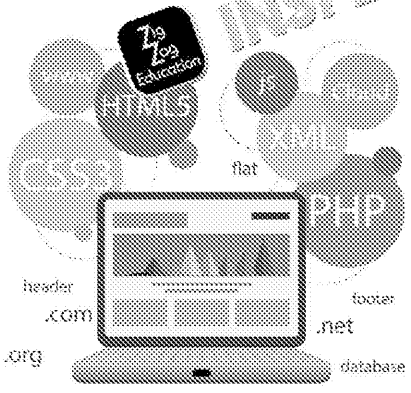
Cost is [illegible] another factor for magazine and newspaper publishers' enth subscription versions of their newspapers – it omits the costs and efforts recycling unsold papers, printing and distribution.

Desktop publishing software

Desktop publishing software can best be described as a type of application that helps the user to create and layout documents – it is used to produce text and image pieces that are similar to, or greater than, the works created by traditional typography and printing methods.

Materials that are created using this type of software range from menus and flyers to posters and promotional displays.

Desktop publishing software is particularly set[illegible] for projects that need n[illegible] themes such as flyers and bookl[illegible] al[illegible]ough it can also be used to forma[illegible] such as magazines.



Multi-media capture and inte[illegible]

Within digital products such as online [illegible] magazines, it's possible to fully integra[illegible] external websites and content with rel[illegible]

Most online video libraries such as You[illegible] embed videos in any HTML-supported [illegible] code to do so. Hyperlinks are also sup[illegible] applications and publications.

Advantages of digital publishing

There are a number of advantages to modern digital publishing methods.

Audience reach is one of the main advantages of using digital publishing [illegible] opportunity to reach global markets and audiences for content. This is pa[illegible] publishing niche products, as it means that a product that would have ha[illegible] exposure in traditional publishing has the opportunity to be noticed by a [illegible]

Key term

- ✓ **Demographic:** A study relating to population structure based on factors such as age, ethnicity, sex, nationality and employment[illegible]

For example, a shop selli[illegible] horror in a town of 1,000 [illegible] gain much interest. Howe[illegible] co[illegible]ell the same prod[illegible] a[illegible]l market of millions [illegible] likelihood of interest incr[illegible]

Conven[illegible]ls plays an important factor in the rise of digital publishin[illegible] there ar[illegible]ciated savings when traditional publishing techniques are e[illegible] consumers to buy products such as books from t heir smart devices mean[illegible] Additional factors of devices such as portability, screen size and resolutio[illegible] content can be shown in a comparable quality to that produced using trad[illegible] transferred from location to location.

With devices and computers almost constantly connected to the Internet, [illegible] for information to be updated in real time; for example, news articles can [illegible] obviously isn't possible with a newspaper.

COMBINING IMAGES, TEXTS, GRAPHICS AND
ELEMENTS IN DIGITALLY PUBLISHED PRODUC

The relationships between the elements within a product are usually clos
related. Within a text-based product all the text will relate to each other;
remains true with the addition of other elements such as
graphics, images, audio and video.

Text is sometimes added to other elements and media in order
to aid the viewer's understanding of the product in situations
when the principal element – be it video, audio or image –
isn't deemed to be clear and understandable to the audience.

One such example is a video clip in a foreign language where
subtitles are added in order for the viewer to understand.

Interacti responsive elements can also be added to digital
publications, although mainly for entertainment purposes; for example, q
the readers' knowledge upon a certain subject or topic.

Questions:

15. What is desktop publishing software used for? (1 mark)
16. State two advantages of digital publishing for consumers. (2 mark

Aim B – Use of Digital Publishing Technolog

Objectives:

- ✓ To understand how digital assets and materials are sourced and importe
- ✓ To be able to identify a variety of digital tools used to produce digital p

ACQUISITION OF DIGITAL MEDIA

Generating material

Digital material such as photos, video, audio graphics and text can be cre hardware peripherals or using additional devices and then transferring th

Generating text requires nothing more than a computer and keyboard – y although it is currently possible to input text using most digital devices su

Audio can be digitally created using a music production application that g synthetic instruments. It can also be directly inputted and recorded onto t instrument using a microphone and audio interface.

Digital images and graphics can be created by:

- By taking an image using a digital camera. Most cameras allow th control and change certain properties that can impact quality such exposure value and resolution
- Using a graphics tablet, this is a computer input device that allows images that are then digitised and inputted onto the computer.

- Using specialised software to draw and edit images, shapes and m types of software it's usually possible for the user to emulate hand methods of producing graphics.

  They also feature a number of effects and filters that can be used

Videos and other moving images can be created by:

- Using a video camera, as most cameras and smart devices such as have the ability to record high-quality video. It may also be possib computer or laptop using an inbuilt or camera accessory, althoug for some circumstances.
- Using specialised software to draw and animate still images, shap either 2D or 3D.

Sourcing material

Not all materials and assets need to be created. It is perfectly acceptable to person, provided there are no copyright restrictions.

The Internet remains an excellent source of information as advanced searc requirements can all be specified. Internet libraries also exist where users for different uses. When sourcing material online it's important to ensure are suitable for use.

Importing material

Images can also be found offline, as scanners and cameras provide the ab computer. For good measure, it's best to source image at the largest dim need to scale them. This is particularly important with bitmap images as t

Images for print should be sourced at a minimum of 200–300 dpi to main

Questions:

17. State two methods by which images or graphics can be created. (
18. 'The Internet remains an excellent source of material and assets.' Suggest a reason for this sentence. (1 mark)

DIGITAL TOOLS TO IMPORT MATERIALS

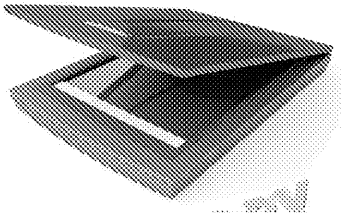
Scanning

A scanner is an electronic device that is used to capture graphic images and documents on a computer, thereby converting them into the digital domain.

Key term

- ✓ **DPI:** a s calculat can fit i of imag higher t and de

When scanning images, in particular photographs, it's important to scan in documents at a minimum of 300 **dpi** (dots per inch) as this ensures that the images will retain sharpness and quality when displayed on a digital display.



File transfer

File transfer describes the movement of file and data between digital inf network or connection. A wired network such as the Internet allows data downloaded worldwide, which acts as a source to import materials for a p

There are a few wireless communication methods used to transfer data between devices; Bluetooth is one such example – a telecommunications specification that allows data to be sent and received easily using a short-range wireless connection.

Another method of short-range wireless communication is NFC (Near-field communication) that allows users of smaller devices such as mobile phones and tablets to transfer small amounts of data by moving devices closer to one another.

File formats

A file format is a method in which image information is stored (or compre

Compression describes the process of gaining an accurate representation of data without degrading the quality to an unacceptable level. The reduction in file size allows more files to be stored and reduces the time required for files to be sent, received or downloaded over a network connection.

Key
✓
✓

There are a number of different file formats used for storing image data depending on its use, and the types supported by a computer can vary depending upon the software installed on it.

The most common image file formats are described below:

- **TIFF** – Tagged Image File Format (TIFF) is commonly used within the printing and publishing industry, and typically results in large file sizes. Multiple layered images can be stored in a TIFF file and it employs a **lossless** compression method.
- **JPG** – Joint Photographic Experts Group (JPG) is a file type that wa photographic images and uses a **lossy** compression. It is commonl digital cameras and displaying images over the Internet.
- **GIF** – Graphics Interchange Format (GIF) is widely supported onlin simple animations. However, GIF only supports up to 256 distinct replace colours outside this palette.
- **PNG** – Portable Network Graphics (PNG) was originally developed colour channels, full transparency and lossless compression. Altho support animation.
- **BMP** – Bitmap (BMP) is used for any type of bitmap image. It does TIFF and results in very large files; it also uses a lossless compres
- **PDF** – Portable Document Format (PDF) is a format used to captur document, including images and text. Within a PDF the text can b highlighted and copied – although it is not easily edited.

  Examples of PDF publications include digital magazine articles, br information/training documents.
- **DOCX** – Microsoft Word Open XML Format Document file Office O developed by Microsoft for displaying presentations, spreadsheets a This can include text, images, charts, tables, objects, styles and form will open the same on every device.

Questions:

19. Explain an advantage of storing an image in a JPEG format in co
    TIFF
    GIFF
20. Describe an advantage of using lossless compression and suggest user would prefer to work with this compression method. (2 marks
21. Using worksheet Ⓐ, compare the following file types:
    TIFF PNG GIF
    JPG BMP DOCX

USING DIGITAL TOOLS TO PRODUCE DIGITAL PU

Most desktop and image processing applications feature autocorrect tools automatically adjust certain settings such as colour and contrast to impro

At times this can be beneficial, and actually develops and improves the in results can look strange; therefore, it's usually best to learn how each set manually manipulate the image.

Listed below are a range of tools and techniques used within digital publ

Scaling

Scaling is a tool that enables an image or sh... to be resized – from a reference point, you can enlarge the object by dragging it outwards or shrink it by dragging it inwards. It should be noted that increasing the image size generally has a proportional connection to file size – meaning that the larger the image, the larger the file size.

While it is possible to enlarge an image safely, rescaling beyond a certain point will show a noticeable decrease in quality and could show evidence of pixellation. This is particularly evident when enlarging low-resolution images.

Shear tool

The shear tool is used to skew an object horizontally or vertically to give impression of depth, dimension and perspective.

Cropping

Cropping an image involves cutting an image down to a specified section, e areas. You may want to crop an image to fit it to a specific dimension or to Sometimes cropping involves trimming away a little detail around the edge component of an image and discard everything else.

Cropping an image does not change the resolution or image quality; it only

The image above shows an example of cropping accompanied by the symbol applications.

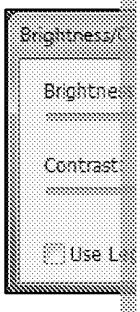
Task:

Using a desktop publishing application, open the file 'Politicians.jpg'.

Using the scale and crop tool, enlarge the image and remove the man o edited image as 'Politicians_cropped.jpg'.

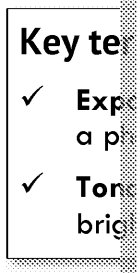
Brightness

The **exposure** of an image might not always be correct. It could be underexposed by appearing too dark, or overexposed by being too bright. The brightness/contrast adjustment enables simple changes to be made to th e tonal range of the selected image. Increasing the brightness expands highlights and decreasing it expands shadows.

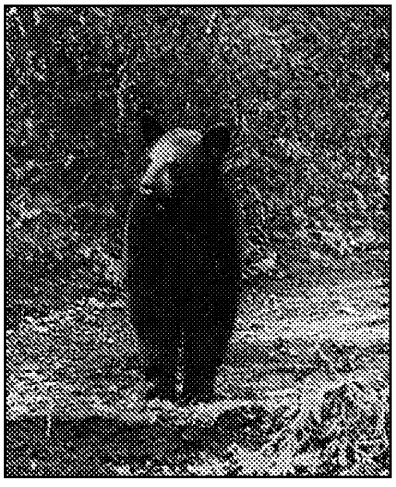


Contrast

Contrast means the difference between two states, in this case referring to the difference between two **tonal** **s** – increasing the contrast makes dark tones da ke ar light tones brighter.



Maximising the cor s will make the image dichromatic and cor re of black and white. Reducing the contrast will do t posite, eventually making the image completely grey.



The photographs above show an example of adjusting contra

The photograph to the left is dark and unclear; by reducing the contrast a increases the amount of grey and appears more clearly.

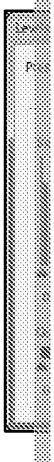
Although it is possible to adjust both the brightness and contrast of an im shouldn't be considered as a substitute for a wel ed photo.

Levels

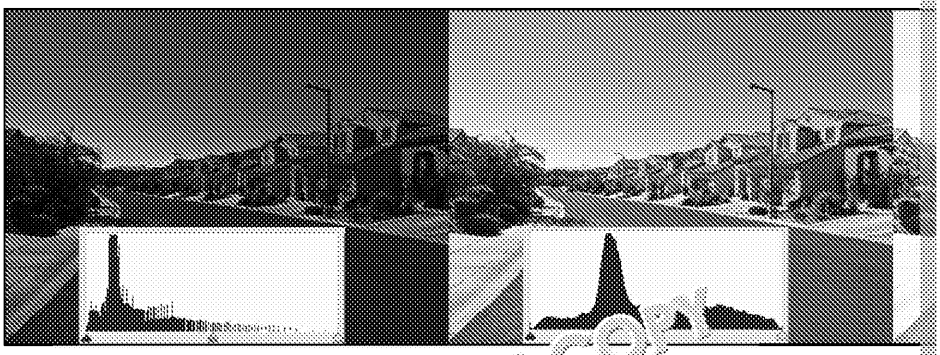
Levels allows the user t st the tonal range and colour balance of an image; this is tuning the intensity levels of the shadows, midtone ighlights.

A histogram provides a graphical illustration of pixel distribution at each colour intensity level. Within a histogram, shadow detail is shown in the left part of the histogram, midtones are shown in the middle and highlights on the right.

By looking at a histogram it also gives the opportunity to see the overall tonal range and identify the need for tonal corrections.



Look at the example below; an overexposed image has detail in the highl
has detail in the shadows and a properly (evenly) exposed image has deta



Underexposed Evenly exposed

Task:

Using an image processing application, open the file 'Nature_reserve.
Attempt to evenly expose the image using the levels, brightness and contrast tools.

Does the final image look as expected? Has there been a deteriora of quality?

Colour adjustment

Different image-manipulation software may have different tools and options for colour management, but all produce similar outcomes.

Colour balance is a measure of red, green and blue in an image and can be used to simply change the colour of an image or correct other mistakes; for example, correcting photos taken at an incorrect **white balance**.

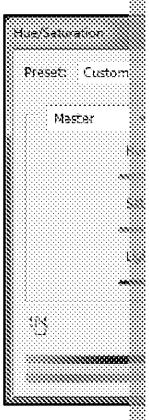
Another example is reducing the yellow of an incandescent light bulb to a neutral white colour; this is known a adjustment.

Adjusting the saturation allows the user to specify the colour intensity within the image.

Reducing saturation levels will result in a greyscale image. Increasing the saturation will result in a much more intensely coloured, and often artificial-looking image.

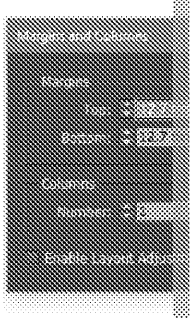
Key ter

✓ **Whit** defi the c app



Page layout

Page layout refers to the margins and columns displayed within a document.



Margins are a visual border that provide a frame to the content and support the layout structure, in addition to supplying a 'resting place' for the viewer.

There are also other considerations for margins when the product is to be printed:

- Ensuring that an image frame won't cover so[illegible] of the content. In need to be larger.
- If the print is to be bound [illegible] when compiling a book, margin be considered.

Columns are styles of vertical boundaries that split a document and help composition of a document. The purpose of columns is to divide the docu where assets such as text can be arranged and measured accurately.

Image manipulation

Most desktop publishing and image manipulation software works using layers. This allows an image to be compiled while keeping individual assets separate; therefore, effects and adjustments can be applied to specific parts of an image.

For example, adding a new text layer will mean that the text and image will remain separate, giving the user the ability to edit or delete the text without a corresponding effect on the underlying image.

These types of software will also feature their own native file format; allowing the user the ability to reopen and make further adjustments to the image while retaining the individual layers.

Text

Text is a common element within almost all digital publications. Most sof basic text facility, allowing the user to add their desired text to a docume additional styling to text, such as changing the colour, embossing or addi

The table below details some text functions within desktop publishing software.

Text tool T	Allows the user to define a text field where tex
Text spacing	Adjusts the amount of space between each cha
Line spacing (leading)	Adjusts the vertical space between lines of typ
Text warping	Distorts the shape of the text vertically or hori specify the amount of distortion and the degre
Text wrapping	Wraps text around an object so that the text fo outline.
Spell checker	Checks the spelling and grammar of text to en

Composition

Composition describes the layout of the overall image, and how it's used to influence the perspective or emotional state of the audience.

Key term

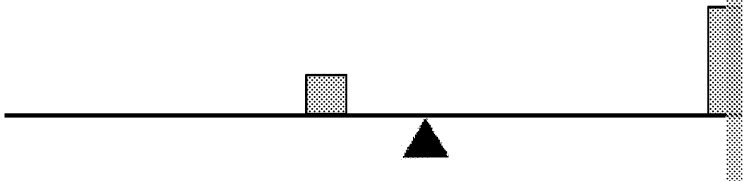
✓ **Compo** constitu text an audien

Looking at the image below you can see two elements of image composition: the 'rule of thirds' and symmetry.

Symmetrical balance is achieved by evenly distributing the visual elements.

This pro focus t ntre of the in

To demonstrate how placement and positioning can attract the attention image of a scale below.



The elements are positioned unequally, and it's assumed by the view that and the scale would tilt towards the right. By composing the components viewer's attention is drawn to the right, and encourages the thought proc

Placement

The placement of text and images is not only closely related to composit purposes such as being used to provide detail and explanation. Placemen combination with styling can also be used to increase the readability of te uppercase, colour, boldness and italics can also lead a piece of text to ha

Task:

Using a kt ishing application, create a new document.

Create rgin and three columns – dividing the document into three

Now experiment using the text tool and the features mentioned to c

Have you noticed how layers work?

NAMING, LOGGING AND STORING DIGITAL MAT

File naming conventions

Naming files correctly makes them significantly easier to locate, such as w
within large folders. One method of naming a file is by using its descripti
kitten called 'DSCN004.jpg' could be renamed 'Black_kitten.jpg'.

In addition to naming [illegible] correctly, the containing folder should als
method is [illegible] folder and image with the current day, month and
the pho[illegible]e uploaded, e.g. 'Black_kitten_05042015.jpg' (5th April 201

File organisation is important as it allows files to be found easily and avo
deleted. This is particularly relevant if working within a team using a shar
of files.

Appropriate file formats

It should also be noted that a file should be saved within a format that is
the format and device it will be displayed on.

The table below lists some formats and compares instances of correct an

Format:	Correct use:	
PDF	Scanned documents to be digitally distributed without the need to change them. When preserving a document in which layout is imperative.	Docume edited.
AVI	When burning video content onto a DVD for use in a DVD player.	Stream
JPEG	Image files for use on the Internet.	Image f printing

Archiving

Archiving is the process of storing files in a safe area away from the comp
be placed on a CD, external hard drive or memory stick, which is then cle
safe pla[illegible]ar[illegible]ive is an additional safeguard, ensuring that files won't

Questions:

22. State the reason why it's important to keep files and folders organ
23. Suggest one advantage of naming and storing files correctly. (1 m

Aim C – Producing Material for Digita

Objectives:

- ✓ To develop a concept for a digital publishing product.
- ✓ To undertake the pre-production process.
- ✓ To produce a digital publishing product.

DEVELOP CONCEPTS FOR A DIGITAL PUBLISH

Initial ideas development

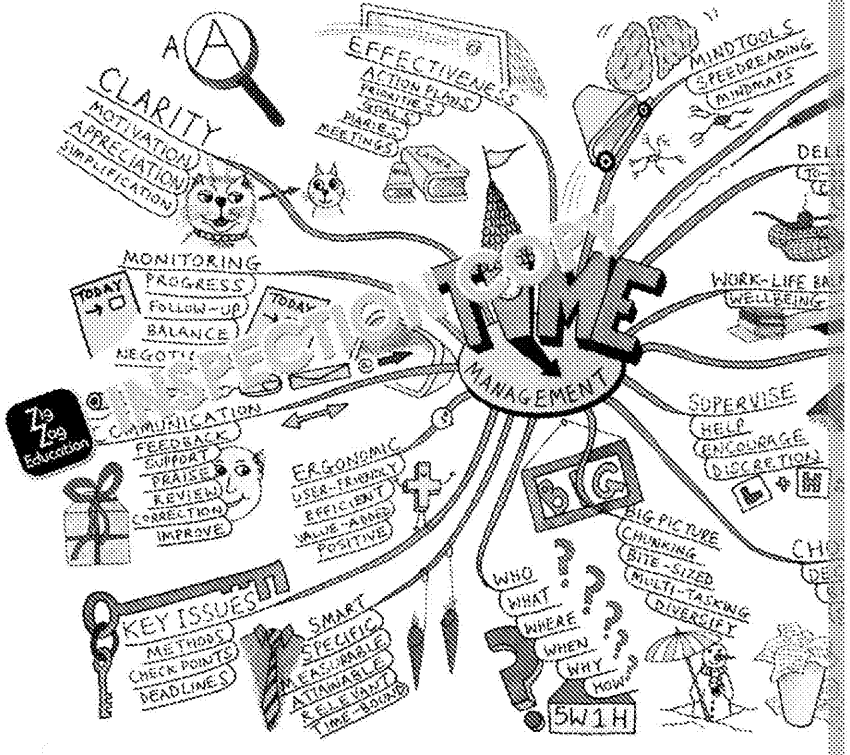
To develop and progress an idea or concept for a product there are a num
first undertaken to avoid producing an underdeveloped idea.

Mind map / spider diagram

A spider diagram is a useful method of generating ideas when created inc
Within a group, every member should contribute words and ideas which a
strength and relation to the central idea and written down; this in turn sh
words, colours and images.

A mind map is described as an extension of a spider diagram; images and colours are also used to further represent the central idea. It could be thought of as a tree, where the centre is the main idea, thicker branches are subtopics and thinner branches are the finer details. The thicker branches should be drawn first and then diverge from the central text.

Spider diagrams / mind maps can be created by hand and then scanned digitally using a scanner. They can also be created on a computer using hardware and a software application.



Mood board

In order to create a mood board first you must decide upon the central th
mood board is based.

If compiling the mood board on paper then a wide range of source materi
newspapers, magazines and material could be cut and pieces used within
and images can be drawn for use. There are no strict instructions or restri
board, only that the things included are somewhat related or provide insp

Task:

You've been employed to create a poster about the royal family. Cre
about things you could includ[illegible] your poster.

Digitally ng a mood board may be easier due to the abundance of in
on the Internet. With a digital mood board it's also possible to provide an
websites related to the topic.

Word-processing, presentation and image-manipulation software are all e
can be used to digitally compile a mood board.

Questions:

24. What is the purpose of a spider diagram? (1 mark)
25. What is the purpose of a mood board? (1 mark)

Research

It might also be necessary to conduct some research prior to undertaking idea, as this could lead to the further advancement and generation of ide

There are two research methods: primary and secondary.

- Primary research describes research that is undertaken first-hand; interviews, observations or giving out questionnaires. This type of undertaking a project that has a small amount of previous researc
- Secondary research involves gathering existing data and research conclusions. Examples of secondary research include looking up i in newspapers.

Data can be categorised into two ... qualitative and quantitative.

Qualitative data is information such as opinions and views that hold mea intervie... open-ended questionnaires.

Quantitative data is statistical data that can be used to create graphs and usually collected from experiments and closed questionnaires.

It's usually most useful to use a combination of primary and secondary research methods that can gain both qualitative and quantitative data. When performing research for a digital media project certain research methods, such as focus group interviews, and the analysis of similar projects can hold some of the most beneficial value, as they allow you to see the type of end product and also understand what the target audience wants.

Examples of primary and secondary research sources are listed in the table be

Primary research sources	Seconda
Interviews	Academic re
Questionnaires	
Focus groups	
Competitor analysis	
Surveys	

Questions:

26. Explain the difference be... primary and secondary research.
27. Identify one ... and one traditional research source. (2 marks
28. P... a ... example of a research source and explain if it provide qu...tative results. (2 marks)

Current practices and products

Another method of idea generation is to look at similar products and curr
and strategic management; this is known as 'competitor analysis'. Compe
closely at other work, e.g. ideas and products that, in principle, may be sir
not meant to be copied or plagiarised. The purpose is to identify the stren
before beginning your own work, allowing you to learn from previous mis
improve your product.

In terms of current digitally published products that could be looked into
media publications such as newspapers and magazines that can be freely
such as posters and DVD covers that can be found using most search engi

Consider publishing platform

When producing a digital prod portant to consider the platform
onto which it will be r this could lead to a fundamental shift in
develop

For text- d content for mobile devices, the amount of text should be a
factor to consider; with a smaller screen, a large amount of text will use a
larger amount of the screen space and maybe even require the user to scr
to continue reading. Additionally, this relates to the location in which the
user will read the content, e.g. reading somewhere in transit such, as on a
bus or train, would require the amount of text shown to be shortened or
summarised, possibly with the option of reading it in full if desired.

Any product released across multiple platforms should also be fully respon
sizes change depending on the display size of the device used. This princip
as it means people using smaller devices such as mobile phones and tablet

With printed products there are a number of factors to consider such as in
consequently, the quality of the image when it's printed), readability of te
as where it's going to be displayed.

Lastly, the file format will need to be compatible across different devices
For example, text within a HTML web page and PDF is mostly readable ac
devices; however, other formats such as ePUB (default format for e-books
to install additional software before viewing.

Review initial ideas

Although often overlooked when planning a pro or there is an impor
within a project and modify them in light of the sources made available
prove useful to present the ide ar outside individual and gain some
an individual or memb e demographic which the product is aimed

Critical g and self-evaluation can be thought of as processes that c
reflectio h of which are vital factors in this stage.

Here are some examples of questions you could ask yourself when review

- What are the overall aims of the product?
- Do my aims directly correlate to my idea?
- Is it appropriate for the publishing platform?

The use of analytical and evaluative questions forces the user to form ans
and reason.

Examples of analytical questions:

- How...?
- Why...?
- What are the reasons for...?
- What is the relationship between... and...?
- What are the possible solutions to these issues?

Examples of evaluative questions:

- What are the advantages or disadvantages of...?
- Is... clear or unclear?
- Is there support for my opinion?
- Is ... appropriate for the project?

Trial layout

A trial layout is usually the final stage of the design process – a type of v
used to provide a realistic representation of the finalised project. It can th
feedback and showcase a range of designs that are representative to the

A trial layout should take note of all the important design and usability fa
remember the following:

- Composition
- Layout
- Clarity
- Selection and use of colours
- Publishing platform and related considerations
- **Target audience** and demographic
- Fitness for purpose

Key terms

✓ **Target** a
of peop
viewers
e.g. stu

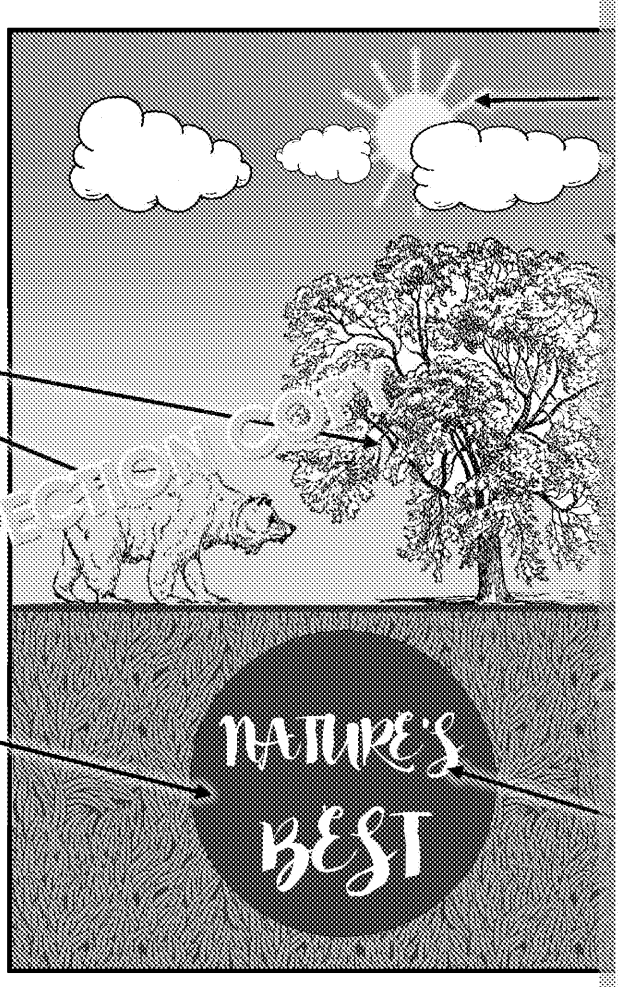
The content of a trial layout for a visual product such as posters usually in

- Images
- Graphics
- Logos
- Text

It can be designed by hand and use ... sure that the included content
presented; it can also include annotations with descriptions and justificat
can then be digitised using hardware such as a scanner, computer, camer

Another ... is to produce a digital mock-up of the design using compu
processing, publishing, image editing or presentation software.

Below is an annotated example of a visualisation diagram for a poster:



Questions:

29. State the four pieces of content that can be included within a visualis
30. Give two examples of computer application software that can be us (2 marks)
31. What is the purpose of a trial layout? (1 mark)

PRE-PRODUCTION FOR A DIGITAL PUBLISHIN

Pre-production for a digitally produced product sh[illegible] include a portfolio have been used in preparation to develop th[illegible] product concept.

A wide range of elements sh[illegible] included:

- Screenshots [illegible] influences and inspirations found through the [illegible] ch[illegible] of the project.
- [illegible]ources such as images, videos and text that will be used w[illegible] sourced from external locations. **Template** Ⓑ
- A location recce (and associated risk assessment) if any film produ[illegible] undertaken as part of the project. **Template** Ⓒ
- A 'shot list' detailing the photographs taken, if applicable **Templa**
- List of any equipment or props used in the creation of the product
- Mock-ups of the product that could display to others the finalised [illegible] computer-generated images, thumbnails and annotated sketches.

PRODUCTION OF A DIGITAL PUBLISHING PRO

Gathering and preparing materials

The first stage when producing a digital product is to gather together all resources that you intend to use throughout the project.

Any text that will be included should first be written, or sourced, and che its accuracy using a spell checker or similar software. Factual information statistics, has to be cross-checked against its source to ensure its reliabili

The same principle applies to tables, graphs and charts that display factu as it's vital that any information presented as objective fact truly is.

Images to be included with the product that are not sourced should be digitisation of a photo or using image-manipulation software. It should b prepared digitally in the correct format for use.

Interactive elements to be included with online and electronic publicatio language appropriate for their use and display platform. Most elements c provide a direct link to the media source.

The collection of material can then be edited in terms of size, readability purpose.

- When sourcing interactive elements such as video and audio files, legal concerns such as copyright and intellectual property rights.

Combining materials

Although quality and aesthetics are subjective in nature, there are still de be given attention when combining materials for the product design and factors such as the readability, text size and the quality of images, and ae symmetry, the psychology of colour and the placement of materials and i

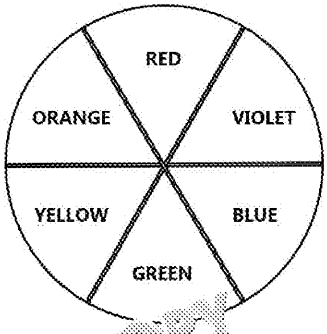
Materials such as images and video should be positioned in an inclusive v related text; therefore, the viewer can easily see what they're related to. C clearly displayed underneath the relevant image where they can be easily

The use of colour is also important as it can help to convey emotion, thou audience. When choosing colours it's important to think about colour psy audience.

Common examples includ

- Pink as a traditionally feminine colour, used to symbolise love an
- Blue, as the colour of the ocean and the sky, is seen as constant in and creates a sensation of trust and security. It's commonly used i communication and business.
- Red can signify energy, warning and urgency. In the UK, most red prohibitive and give orders.
- Green, as the omnipresent colour in the natural world, often symb or health.
- Orange can represent warmth, energy and friendliness.

The chosen colours should also complement one another; it may be usefu
colours within a **colour wheel**.



White space describes the absence of content and can be used to draw th
towards a certain aspect by making it stand out against the background. I
text and increase readability.

Questions:

32. Define 'composition'. (1 mark)
33. Suggest a reason why green is used as the colour for recycling ar
34. State one way in which the use of white space could be used to g
viewer. (1 mark)

The placement of interactive materials such as hyperlinks and audio clips
product where it is still appropriate and easy to find, i.e. underneath cont
embedded within words – usually indicated from being underlined and c

> Are you up for the challenge? If this job seems like somethin
> then you can contact us by email, Facebook, or alternatively
> can talk to one of our employment advisors.

Example showing how clickable hyperlinks appear when embedde

The intelligibility of text and images should be adapted for the sight rang
those with slight visual impairments; in this case the size and quality of t
it can be clearly understood by all. Images should also be of high quality
shown to the audience.

Publishing product on a publishing platform

The product should be tested for readability and interactivity on the platf
publish. This helps to ensure that no mistakes were made during the pr
decrease quality and usability.

With both images and text, the resolution in which they are displayed is a
be tested across the various media where the product will be published. V
of the text is also important due to potential intelligibility issues, as prev

Interactive elements such as applications should be tested not only for the
speed of interaction – overly slow response times will lead users to becom

Unit 5: Digital Publishing Production –

For this task you must plan, produce and review a digital media publication. learning outcomes and main tasks included within this guide.

Scenario – The Town Times

The local newspaper of your town is in trouble; weekly subscriptions are down and the editor believes it's due to an increasing youth population who now use the Internet as a primary information source. The newspaper – *The Town Times* – currently has no online presence, although it puts links to online content within its articles.

The editor wants you to develop a digital newspaper that can be read across a wide range of devices and publishing platforms; however, he doesn't know much about the Internet and wants to know its potential when used for this product.

Task 1 – Research

➥ This task covers **Learning Aim A**

Within this task you are required to produce an illustrated report about the digital publishing methods. This is to be compared and contrasted against within newspaper publication.

You need to explore:

- Digital content that is published.
- How digitally published content is used.
- How content such as text, images, graphics, videos and interactive for use.
- The platforms on which this digital content is displayed.
- A comparison of digital and traditional publishing methods.
- Advantages and limitations.

Task 2 – Planning

➥ This task covers **Learning Aims B and C**

This task entails the creation of a sample digitally produced product whic
demonstration to show the benefits to the editor – the sample product is

To complete this task, you should do the following:

- Detail how digital tools and resources are used to source, import a
- Make use of digital tools to produce a sample product.
- Use a range of images, text, video, audio ar[illegible]iphics to produce
  showing how the digitally produced [illegible] will function.

Don't forget:

- Version [illegible] the organisation and storage of digital assets.
- [illegible]nsrer options.
- Digitisation of materials.
- Appropriate file formats.

Task 3 – Creation

➥ This task covers **Learning Aim C**

Having researched the product, you will now develop the product that yo

It should also include:

- Different publication platforms.
- Justification of main ideas.
- Explanation of any elements changed from proposal.
- Annotated screen shots of the development phase.

Unit 5: Digital Publishing Production

Learning Aim A: Know about digital publishing opportunities

Mark band	What is needed
Level 2 Distinction	Have you **compared** and **contrasted** the uses of a wide range of published products, giving a range of strengths and limitations?
Level 2 Merit	Have you clearly explained how digitally published products are
Level 2 Pass	Have you provided a **clear** description of the uses of a **range** of published products?
Level 1	Have you provided a **brief** description of the uses of **one to three** published products?

Mark band	What is needed
Level 2 Distinction	Have you given a **clear**, **detailed** and **evidenced** assessment of the advantages of digital publishing in comparison to traditional m
	Have you provided a range of **detailed examples**?
Level 2 Merit	Have you **assessed** the advantages of digital publishing in comparison to traditional methods?
	Have you provided **one to three examples**?
Level 2 Pass	Have you **described** a range of advantages of digital publishing in comparison to traditional methods?
Level 1	Have you **outlined** one to three advantages of digital publishing in comparison to traditional methods?

Mark band	What is needed
Level 2 Distinction	Have you given a **clear**, **detailed** and **evidenced** assessment of h images, graphics and interactive elements are combined in a di published product?
Level 2 Merit	Have you **assessed** how text, images, graphics and interactive e combined in a digitally published product?
Level 2 Pass	Have you given a **clear** and **det il** d scription of how text, im graphics and interacti e ts are combined in a digitally pu product?
Level 1	e you given a **brief** description of how text, images, graphics interactive elements are combined in a digitally published prod

Learning Aim B: Understand the technical requirements for digital aud

Mark Band	What is needed
Level 2 Distinction	Have you made **creative** and **innovative** use of tools to source a digital content?
Level 2 Merit	Have you made **relevant** and **effective** use of tools to source and digital content?
Level 2 Pass	Have you made **suitable** use of tools to source and import digita
Level 1	Have you made **ba** ed use of tools to source and impo content?

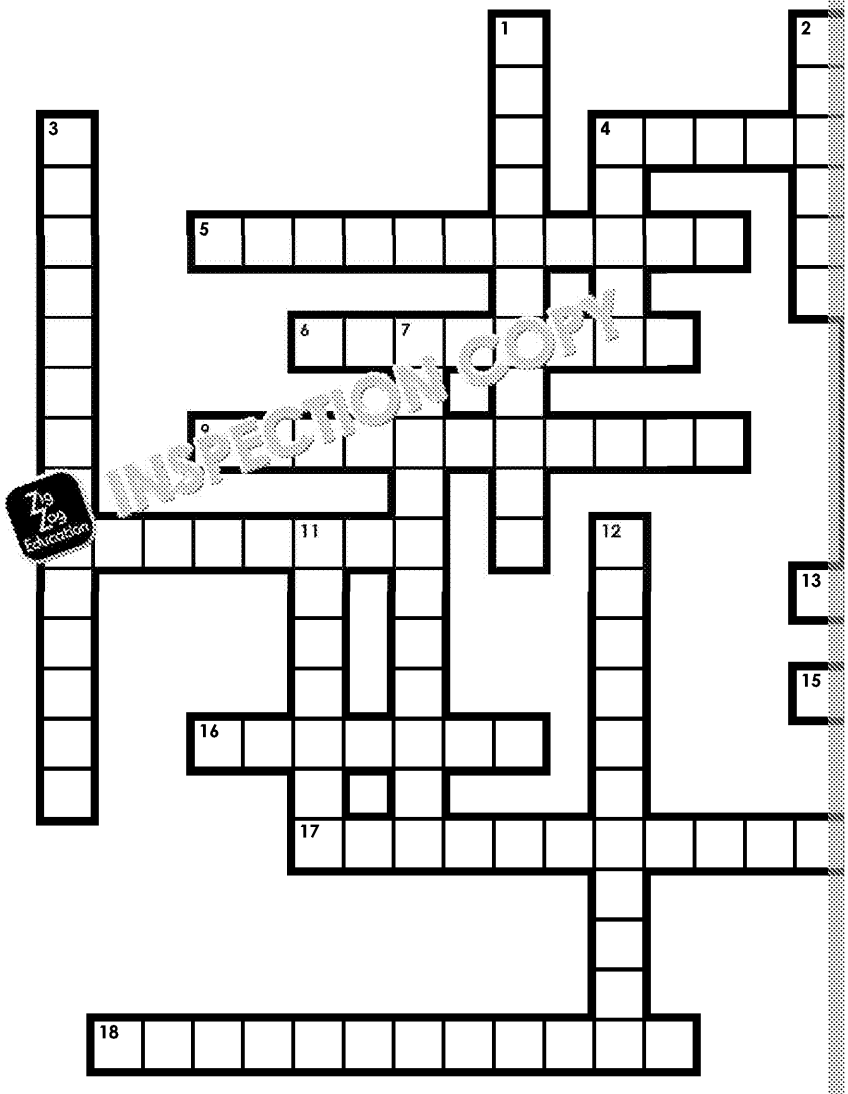
Mark band	What is needed
Level 2 Distinction	Have you demonstrated **confident** and **comprehensive** use of dig for publishing production?
Level 2 Merit	Have you demonstrated **relevant** and **effective** use of digital too publishing production?
Level 2 Pass	Have you demonstrated **appropriate** use of digital tools for publ duction?
Level 1	Have you demonstrated **basic** or **limited** use of digital tools for publishing production?

Learning Aim C: Produce material for digital publication

Mark band	What is needed
Level 2 Distinction	Have you developed a concept for a digital publishing product t **imaginative** and **unique** through **wide-ranging** and **inclusive** pla
Level 2 Merit	Have you developed a concept for a digital publishing product t **innovative** and **creative** by undertaking both **detailed** and **clear**
Level 2 Pass	Have you developed a concept for a digital publishing product t **appropriate** for use with an **adequate** amount of planning?
Level 1	Have you developed a ***basic*** concept for a digital publishing pro with **minimal** planning?

Mark band	What is needed
Level 2 Distinction	Have you digitally produced an **innovative** and **imaginative** pub product that shows **confidence** and **assertiveness** in the interpre brief?
Level 2 Merit	Have you produced a digital publishing product that is both **effe creative** and demonstrates a **competent** and **knowledgeable** inte of the brief?
	Have you digitally [illegible] a **creative** and **effective** publishing
Level 2 Pass	Have you produced a digital publishing product that is **appropri** and demonstrates **suitable** interpretation of the brief?
Level 1	Have you produced a **basic** digital publishing product that only **minimal** and **basic** interpretation of the brief?

Unit 5: Digital Publishing Production



Across

4 The range of brightness within a photo. (5,5)

5 A spatial measure used to define the number of pixels that can fit into an inch. (4,3,4)

6 The amount of light within a photo, determined by the quantity of light reaching the image sensor. (8)

9 The layout of assets that constitutes the overall image, such as text and i[illegible]s. [illegible])

10 A printing method where an [illegible] is cut into a block surface; the [illegible] transferred to the surface once [illegible] has been applied. (8)

13 A co[illegible] markup language used to creat[illegible] pages. (4)

15 A compression technique which aims to remove unnecessary data from the image. (5)

16 A printing technique that utilises a copper plate coated in an acid-resistant material. (7)

17 A specific group of people who are the intended viewers or recipients. (6,8)

18 The process of defining colour casts, to ensure that the colour white in reality also appears white in the photo. (5,7)

Down

1 The process of representation the quality to

2 A printing met raised surface; surface once

3 A printing met designs onto

4 A powder form

7 A machine us documents an

8 A type of print

11 A method of into a sheet of transferred an such as fabric

12 A study relatin based on fact nationality an

14 A compressio size is reduce

Answers

QUESTIONS

1. A digitally produced product is any kind of product that was once solely format but is now primarily or additionally released in the digital domai

2. One mark for any of the following: (1 mark)
   - *Additional multimedia content.*
   - *Can link directly to websites.*
   - *Option of interactive content.*

3. One mark given for each correct answer. (4 marks)
   - *Email*
   - *E-book*
   - *Le[illegible]do[illegible]*
   - *H[illegible]ebsite*

4. From left to right: (6 marks)
   to educate, to promote an event, to entertain, to promote a product, to infor

5. Online, over the Internet. (1 mark)

6. An e-book is a digital publication of text, images or both that is intende as a traditional book on a computer or other electronic device. (1 mark)

7. One mark for each correct answer. (2 marks)
   - *In intaglio printing the image is cut into the printing block surface, and*
   - *In relief printing the printing block surface is raised.*

8. Both correct answers required for full marks: (2 marks)
   - *The design is first cut into the lino and then rolled over with an ink.*
   - *The lino is then pressed onto the desired surface where a mirror print i transferred.*

9. One mark given for each correct answer: (5 marks)

Relief printing	Intaglio pr
Lithography	Etchin
Letterpress	Linocu
Rotogravure	

10. Both correct answers required for any marks: (2 marks)
    - *Platen printing*
    - *Rotary printing*

11. The lower roller [illegible]ch image. (1 mark)

12. 1 mark for up to two negatives, 1 mark for one positive: (3 marks)
    - Wet ink can smudge. *(negative)*
    - Ink tends to be expensive. *(negative)*
    - Certain porous papers are unsuitable. *(negative)*
    - The printers are cheap to purchase. *(positive)*

13. One mark for each point raised: (2 marks)
    - Toner is a powered form of ink.
    - Ink is in liquid form.

14. Toner is given a small electrical charge; the paper is also given an elect through the photocopier that makes the toner stick to the paper's surfac

15. Desktop publishing software is used to create and layout documents. It and text works. (1 mark)

16. One mark for each correct answer: (2 marks)
    - Global library of products
    - Convenience
    - Real-time information and updates

17. One mark each for any two of the following: (2 marks)
    - *Using a graphics tablet.*
    - *Using specialised computer software.*
    - *Hand-drawn and digitised using a camera or optical scanner.*

18. One mark for any one of the following: (1 mark)
    - *Global internet with worldwide reach.*
    - *Advanced search options.*
    - *Vast amount of information.*

19. One mark for each advantage: (2 marks)
    - *TIFF files can be quite large, and memory constraints in digital cameras needs to be low if possible.*
    - *GIF only supports a 256 colour palette; with photography this will likely replaced.*

20. Both points required for marks: (2 marks)
    - *The resultant image retains all the original data.*
    - *When editing or manipulating an image.*

21.

Format	Common Uses	Advantages
TIFF	*Images within the printing and publishing industry.*	*Lossless compression – retains maximum amount of image data.*
JPG	*Storing photos on digital cameras. Displaying photos on the Internet.*	*Small file size – ideal for web use and email.* *Widely supported on web.*
PNG	*Web development. Images also containing graphics.*	*Lossless compression.* *Supports full transparency.* *Supports full colour palette.*
BMP	*All images*	*Lossless compression.* *Displays realistically.*
GIF	*Simple animations.*	*Widely supported online.* *Small file size.* *Easy to create.*
DOCX	*Word processing documents.*	*Widely supported.* *Can include objects, tables, charts and formatting.*

22. Keeping files and folders organised makes them easier to find, especiall
(1 mark)

23. Using version control can reduce the likelihood of accidentally deleting

24. To help generate ideas. (1 mark)

25. One mark for each correct answer from: (2 marks)
    - *Can be used as a visual tool.*
    - *Helps to assist in generating ideas.*
    - *Helps to gain a feel/look for the product.*

26. Primary research has been undertake[n] by [yourself], while secondary rese
people. (2 marks)

27. One mark [for each] correct answer: (2 marks)
    - Th[e] Internet as an electronic information source.
    - Any one from magazines, books, newspapers, journals, reports or pu
    information source.

28. Answer must be one of the following mentioned within the resource (on
source and another for the identification of the type of source): (2 marks
    - *Interview – quantitative results.*
    - *Questionnaire – can be either quantitative or qualitative, depending w*
    - *Focus group – qualitative.*
    - *Survey – can be either quantitative or qualitative, depending whether*

29. One mark for each correct answer from: (4 marks)
    - *Images*
    - *Graphics*
    - *Logos*
    - *Text*

30. One mark for each correct answer from: (1 mark)
    - *Word processing*
    - *Image manipulation*

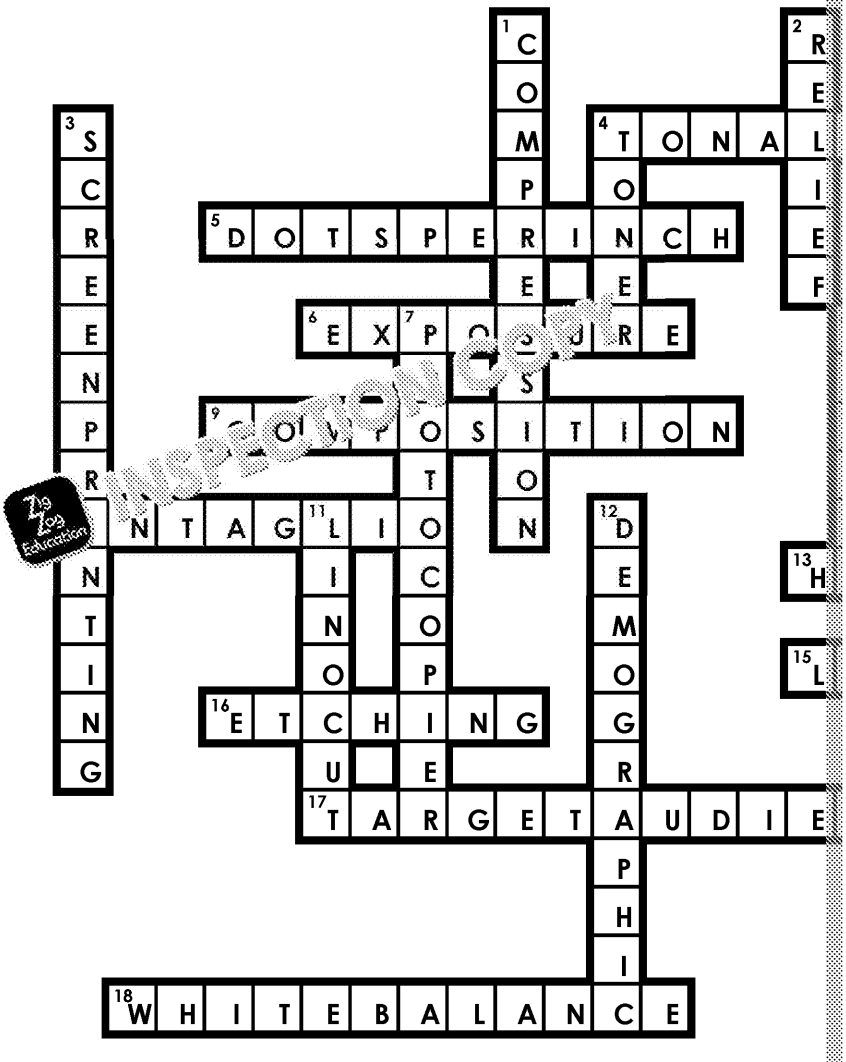
31. To allow the viewer to visualise the end product and see the justificatio
(1 mark)

32. Composition is defined as the [arrangement] of [design]; the method in which a pie

33. One mark for [each] of the following: (2 marks)
    - A[ssociation] with health and the natural world.
    - Co[nventional] representation.

34. One of the following answers: (1 mark)
    - *Provides emphasis for another image element*
    - *Increases readability*

CROSSWORD



Ⓐ Comparison of File Formats

File format	Common uses	Advantages
TIFF		
JPG		
PNG		
BMP		
GIF		
DOCX		

Ⓐ Asset List

Asset	File name	Date Acquired	Resources	Sou

Asset	File name	Date Acquired	Resources Required	Sc

Ⓑ Location Recce

Production title: .....

Crew: .....

Location: .....

Date of production: .....

Date of recce: .....

Local condition: • Any known proble If ye lea (including s in ormation)	No ☐ Yes ☐	
• Aid needed? If yes, please detail name, address and contact numbers for each person/organisation • Permission needed? • Protective clothing needed? If yes, please detail	No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐	
Equipment position: • Any obstructions? • Easy to reach and safe?	No ☐ Yes ☐ No ☐ Yes ☐	
Requirements: • Power available? If no, please detail alternative arrangements • Sound equipment	No ☐ Yes ☐ No ☐ Yes ☐	
Anticip pr • P • Ot	No ☐ Yes ☐ No ☐ Yes ☐	
Other considerations: • Security considered • Welfare considered (transport, food, first aid, etc.)		

Location Details

Location address: .....

Contact name: .....

Telephone no.: .....

Emergency Services

Police: 999 (Emergency)

Hospital: .....

101 ext. (L

Power Problems

No. of power outlets: .....

Location of circuit breakers: .....

© Risk Assessment

Production title: .....

Date of shoot: .....

Location: .....

Date of risk assessment: .....

	Persons who may be harmed	Property which may be damaged

Ⓓ Shot List

Shot #	Location	Shot description	Crew

Ⓔ Prop/Equipment List

Shot #	Shot description	Prop	Eq