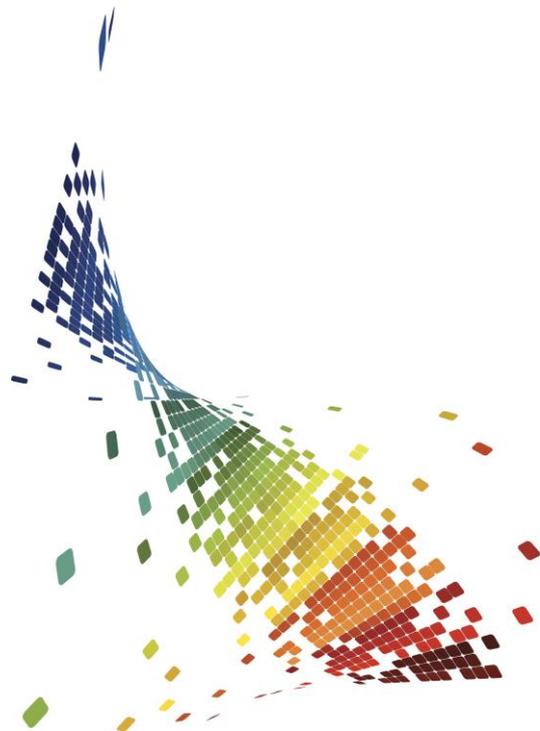


Course Handbook

Cambridge International AS & A Level Digital Media & Design 9481

Available for examination at AS Level in June and November 2019.

Available for examination at AS & A Level in June and November 2020 and 2021.



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Introduction

This guide is designed to support the delivery of Cambridge International AS & A Level Digital Media & Design 9481. The best motivation for a learner is a real passion for their subject. The syllabus helps learners develop abilities which are valued in higher education. These include a deep understanding of their subject's higher order thinking skills such as analysis, critical thinking and problem solving, presenting ordered and coherent arguments, and independent learning and research.

The syllabus is focused on approaches to contemporary practices in digital media and design and provides opportunities for learners to develop their personal practice and skills in a wide range of contemporary techniques. The syllabus is also designed to accommodate a wide range of interests, materials and resources to be explored.

This is a creative course for aspiring artists who are interested in working with digital media. The syllabus is not designed for learners who are solely concerned with competence as technicians. Therefore, you will wish to encourage independent creative expression and the development of a critical and reflective practice among your learners.

The guide is intended to support teachers across the three broad areas of study:

- Digital photography
- Moving image
- Mobile and multimedia applications

Planning

This guide is applicable to those delivering the AS Level qualification comprising Components 1 and 2, and the A Level qualification comprising Components 1, 2 and 3. It is designed to provide one possible structure for the less-experienced teacher or a starting point for those who are new to either the qualification or to Cambridge. There are of course, other ways to approach planning.

There are three routes of delivery for Cambridge International AS & A Level Digital Media & Design.

- Route 1: candidates take all AS components in the same examination series.
- Route 2: AS Level is completed in one year and A Level is staged over two years.
- Route 3: all components are taken in the same examination series at the end of two years of study.

Route	Component 1	Component 2	Component 3
1 AS Level only	✓	✓	
2 A Level (Two year staged route A Level) Year 1	✓	✓	
2 A Level (Two year staged route A Level) Year 2			✓
3 Linear A Level	✓	✓	✓

Our suggested approach outlines how an initial phase of planning could focus on creative processes and workshops, a middle phase could focus on interpretation and personal initiative, and a final phase could focus on the components to be assessed (according to the route you have chosen) as well as further developing the skills of reflection and refinement.

Skills and understanding

The qualification is grouped into three broad areas of study. You do not have to cover all three areas of study to deliver this qualification and learners can complete the components in any single area of study or in any combination of them. Therefore, this guide supports the teaching of skills and understanding which are common to all areas of study. You should stress the importance of the learner's personal response and the creative journey undertaken in fulfilling a design brief, whether it is generated by the candidate or set by Cambridge. As learners are working to a brief, completed work should have an intended application.

You should develop skills in your learners from the outset, increasing the intensity of these as the course progresses. Instead of requiring your learners to demonstrate complicated processes or technical expertise, encourage your learners to select the most appropriate media, techniques and processes relevant to their chosen idea and their level of skill. Introduce opportunities to use skills and/or processes as a means to record, investigate, develop and communicate ideas. Learners should understand the relationship between technical ability and creative activity. The skills and understanding which are common to all areas of study are:

- researching and exploring resources, techniques and processes
- selecting and organising information
- generating ideas and starting to develop technical skills to present their ideas
- reflecting and refining ideas and designs as their work develops.

Aims of the qualification

Learners should appreciate that this qualification encompasses a broad range of activity from animation to web design, news and weather graphics, film and video, VFX to games and app design. These activities are affected by a range of influences and exist in multiple contexts. Learners should come to appreciate the differences between the diversity of digital media in terms of their influences and contexts. This is evident in the portfolio themes for Component 1. Consider the difference between a documentary film about Boundaries and an interactive map based on the theme Travel, for example.

As a teacher you should be wary of learners concluding the creative process too early before significant progress has been made, in order to access the full range of marks available. The design process is iterative and may repeat operations or experiments as the learner focuses on the desired result. Aside from the internet, there are vast amounts of data and information available to learners. Information should not be automatically accepted as appropriate, useful or even accurate. Learners should adopt an enquiring posture that balances curiosity for ideas with concern for relevance. The direction of their creative thinking should be evident in what they choose to put into their portfolios.

The creative industries are mediated by the relationships with clients and audiences. Learners should be aware that creative briefs have a target audience, and an objective in mind. Learners should ensure that the development of their work is appropriate for the constraints of the brief and the character of the audience. They should expose their work to the scrutiny of other people to gain valuable insight into their progress. You may wish to find innovative ways to do this. The qualification is concerned with design using digital media to communicate the significant aspect of a theme or brief. An essential requirement of the assessment is creativity and innovation. When approaching a chosen theme or brief, learners should understand what constitutes *meaning* in that context. Learners should use a “working” assumption about what they intend to communicate: information, polemic, narrative or entertainment, for example. Retaining a clarity of vision will not only help learners to continue to develop their idea, but to seek original and persuasive ways to communicate.

Assessment objectives

The assessment objectives apply to all components equally and holistically. This is shown in the weighting tables below.

Assessment objectives as a percentage of each component

	Component 1	Component 2	Component 3
AO1 Research and record	25%	25%	25%
AO2 Explore and select	25%	25%	25%
AO3 Develop ideas	25%	25%	25%
AO4 Produce	25%	25%	25%

Assessment objectives as a percentage of each qualification

	AS Level	A Level
AO1 Research and record	25%	25%
AO2 Explore and select	25%	25%
AO3 Develop ideas	25%	25%
AO4 Produce	25%	25%

You should plan teaching and learning to reflect this distribution and avoid a disproportionate emphasis on particular assessment objectives. Remember that learners must clearly demonstrate evidence of their activity which can be attributable to each assessment objective. You should carefully reflect on the content and requirements of each of the assessment objectives as you deliver the qualification and support your learners. The external assessment will be based solely on the assessment objectives.

Assessment objective 1: Research and record

This assessment objective is concerned with the learner's ability to collect and investigate ideas. While recording ideas, learners may wish to use a broad variety of approaches which are consistent with contemporary practice. Learners will use both primary and secondary sources. Primary sources could include personal photography, drawing, interviews, recording conversations, collecting "raw" data, or personal moving image recordings. Secondary sources could include web sites, books, magazines, exhibition or gallery visits, or broadcasts/podcasts.

An indiscriminate collection of images or text from the internet will not suffice for an appropriately critical approach or demonstrate that the learner is using appropriate sources. The internet is however, a valuable tool and learners are encouraged to make best use of it. However, this assessment objective will be most securely addressed where the results of any research activity are probed for the insight they provide to the learner. Learners should examine what they have collected and apply a degree of scrutiny to their research results. Learners could be encouraged to apply a variety of approaches to their analysis and not simply rely on a descriptive commentary. They may consider visual/pictorial analysis, close reading, or connecting related elements. Work for this assessment objective will provide a sound starting point and enable the learner to progress.

Assessment objective 2: Explore and select

This assessment objective is concerned with the learner's ability to make discoveries through working with a range of media, materials or technology, and to improve their work as it progresses. Although learners can complete the assessment components in a single area of study, this will not limit the opportunity to explore media. Learners will need to demonstrate that the media, materials and technology they are using are appropriate for the ideas they have. For example, an idea can be expressed through different applications of technology including the use of colour/black and white, lighting or digital manipulation.

The learner will reflect on their investigations and select the most appropriate media for their idea(s). As they conduct their exploration, it is important that learners recognise the properties or characteristics of the media they are using. Learners will show how they creatively exploit these properties or characteristics. The learner will need to undertake sufficient work in different applications to be able to make informed and reliable selections for the progress of their ideas. Learners should be encouraged to consider a broad range of media which are applicable to their ideas; these may include digital, paper-based, three dimensional or multi-media applications. Learners will think about how their ideas are evolving as they work in different media. Records of reflections, reviews or evaluations will make comparisons between the learner's progress and the brief they are working on.

Assessment objective 3: Develop ideas

This assessment objective is concerned with the learner's ability to make discriminating judgements about the development of their ideas. It is also concerned with the expression of ideas or concepts which are in response to a brief. The learners' ideas may range from documentary to dramatic, abstract, narrative, imaginary or promotional concepts. Learners will benefit from applying a range of techniques to develop ideas. You could direct learners to try typical approaches to idea development such as visualisations, storyboarding, or roleplaying. Learners may then wish to use more sophisticated techniques which are appropriate for the work they are developing. To address this assessment objective, learners will demonstrate that they have investigated and tested their creative ideas. Ideas should be examined for their visual and conceptual content. The quality of the learners' investigations will depend on the degree to which strengths and weaknesses are recognised, unexpected results are considered, and concepts are scrutinised.

Learners are strongly discouraged from developing their ideas in isolation. This approach will frustrate marking in this assessment objective. Learners are preparing for work in what is frequently a collaborative industry. They should share their ideas with others and record their opinions. The learner should recognise the value of these opinions and demonstrate how such feedback has affected the development of ideas. The constraints of the brief should be applied to judgements made about the learner's developing ideas. Learners should have a clear understanding of the constraints of a brief, whether it is generated by themselves or set by Cambridge International. Whilst applying this understanding, a learner should be able to identify the elements of a strong idea. They may focus on graphic ideas more than perceptual ideas, or vice versa. This qualification is concerned with creativity and communication. Learners should be reminded that they should establish an appropriate balance between form and content.

Assessment objective 4: Produce

This assessment objective is concerned with the learner's ability to produce a personal response in digital media. This assessment objective is most associated with a proposal in Component 1 and final outcomes in Components 2 and 3. However, centres should be mindful of assessment objective 4 when working on supporting studies in Components 1 and 3 and on the written analysis in Component 3. Learners will need to demonstrate that the production of a digital response is the result of evaluative, reflective and critical thinking. In an evaluative approach, learners will make an honest appraisal of the progress they have made and the work or proposal they have produced. A secure foundation for this approach could be the learner's original interpretation of the brief. Using this the learner could identify key measures of success. These could be used as starting points to consider what has been produced. In a reflective approach, learners will adopt a serious and thoughtful view of their work. This approach will be attentive to details of process, technique and creative expression.

The learner will avoid superficial descriptions of their responses which do not take account of important technical progress or significant creative developments. Critical thinking will be characterised by the learner's ability to take open-minded judgements which are based on the evidence of their work. The learner will adopt a disciplined approach with a balanced degree of doubt as they seek to avoid false or easily made assumptions. They should demonstrate their personal engagement and independence of vision. Learners are required to make connections between digital elements and design elements. Learners should

demonstrate that their work uses the techniques and processes of digital media which are most appropriate for their creative response. Skill and creativity will be brought together in the final work or in a proposal.

1: Key concepts

Key concepts are a way of considering the syllabus content from a set of over-arching vantage points which provide teachers and learners with a different perspective on the qualification. Key concepts are essential ideas that help learners develop a deeper understanding of their subject and make connections between different aspects of creative design practice. They can reveal innovative ways of understanding and interpreting significant aspects of the syllabus. Key concepts which are carefully introduced and developed, will help to underpin the teaching of the course. They should help learners to gain depth and breadth of subject knowledge, confidence in innovating knowledge and skills, subject vocabulary and a command of the subject in preparation for higher education.

The descriptions listed below should reveal to you how key concepts fit together with other aspects of the course taught to the whole class such as skills workshops for example. They may also help as you decide on the order of teaching to identify priorities in the learning experience. Schemes of work will describe where key concepts are delivered as discrete “one-off” activities or an on-going notion about good practice which is frequently visited.

1.1 Communication

Communication is essential in this qualification. The designer will communicate with an audience or users of their product, and with others in what is frequently a collaborative industry. The quality of communication that a designer achieves is influenced by factors such as the choice of media and methods of communication. Effective communication can be frustrated by any number of factors including technology, cultural perspectives and the profile of a target audience. Learners should become aware that good communication is not an automatic result of design work unless it is successfully received by the recipient. Learners need to understand that designers communicate through the means at their disposal. They should not assume that communication will be effective unless the designer is in command of all of the visual (and audio) elements in the work.

Effective communication is also the result of clarity of intention – literally, what is the message? Learners will concentrate on developing visual language. Visual language can be thought of as having a vocabulary such as colour, line, tone, shape and texture. The grammar of visual language can be thought of as the way in which the vocabulary is assembled in a way that makes sense.

Designers working in digital media may also use sound. Learners wishing to communicate using sound should give careful consideration to the preparation of participants/actors, copyright, effective recording techniques and appropriate software. Where it is used, learners will monitor and review the quality and focus of oral communication.

Communication activities can be used at the beginning of the course as a fun way to introduce the challenges of communication. Throughout the course, teachers can revisit the specific topic of communication. This could be thought of as interruptive, and a disturbance to the “flow” of creative activity. This is done to counterbalance any sense of misplaced self-assurance. Learners could be challenged from time to time to “test” the quality of their communication in a forum or group discussion. Other learners could, for example, be asked to describe what they understand from a learner’s design work. Also, as design work and technical work can become complicated, learners can be challenged to state in the simplest possible terms what they are seeking to communicate. This can be compared with work produced so far.

Communication activities

Learners are positioned in two parallel rows facing each other. Each learner in one row is given a short message to communicate to the person opposite them. The rows are placed as far apart as possible but still within hearing distance. The learners then communicate their message in which ever way they choose. The recipient notes the message as they understand it. Success will be judged by the accuracy of communication.

Objective – effective communication takes place in the recipient.

Illustrate a short passage of text using the simplest visual forms, shape, line and “flat” colour. Limit the activity to 30 minutes.

Objective – effective visual communication uses visual language.

1.2 Creativity

Creativity is at the heart of a designer’s processes and naturally informs learner activity throughout the course. Learners will creatively use software, equipment and technology. The notion of creativity embraces a cluster of ideas such as inventiveness, inspiration, vision, imagination and originality. Curiosity is a primary driver of creativity. An inquisitive approach is as much a tool for discovery as a means of remaining open-minded and sensitive to opportunity. Creative learners will be encouraged to probe and interrogate sources, ideas and experience. ‘I wonder if...’, ‘What happens when?’ and ‘Where haven’t I looked yet?’ could be typical of a creative practitioner. Curiosity can be expressed as much in persistent observing and recording as in the determined development of ideas. A curious designer will not rely on a received set of assumptions or take things at face value, but rather will investigate, check and test.

Creative technical practice will evolve a sense of vision. The learner’s understanding of a concept will help to shape the response to a brief. For example, could a concept of *transparency* shape a photographic response to the theme Water? A grasp of concept can provide the learner with insight into the subject and foresight into creative challenges. Learners could be encouraged to build their creative vision through their responses to experiences or teacher-led activities using an ideas journal. This could help learners to maintain and review their creative process and the evolution of ideas. It can also act as a storehouse of potential creative solutions.

Learners are strongly encouraged to bring their imaginative faculties to their creative expression. Imagination is associated with a sense of wonder, invention and connectivity. Learners should find almost inexhaustible opportunities to develop their creativity during the course.

In addition to visual activity, learners should recognise the creative potential of:

- image manipulation
- scripts
- interactivity
- location
- story boards
- costume
- set design
- environment design
- characterisation
- animation.

To complement their studies learners may also consider the creative potential of:

- illustration
- graphic design and typography for multimedia
- graphic design and typography for the internet.

Creativity activities

The learner's imagination can become a fertile ground for creative activity. Towards the beginning of the course, teachers could introduce activities which aim to raise learner's confidence in their own abilities and enable learners to express ideas from imagination. They could include:

- blind drawing of an imagined object or character
- recalling a dream in a set of simple sentences
- imagining an emotion by creating a collage or digital montage

Objective – recognising the value of imagination.

1.3 Innovation

Key to the notion of innovation is the selection of techniques and processes that communicate a message in the most effective way. This will require experimentation with processes, approaches and technologies. This is fundamental to design with digital media. Learners should be encouraged to experiment within and across a range of digital media and areas of study. This can present practical and theoretical challenges. A combination of physical and digital activity can provide unanticipated solutions. Combining media can literally invent a unique creative response. For example, experiments with wet or dry art materials could be scanned to provide backgrounds for digital illustrations, games or storyboards. Photographic images can be transferred to digital manipulation applications and adapted to provide images for apps, websites or animations. An innovative approach may well take a theme or concept as a creative starting point and apply unexpected approaches to its expression. For example, a Fashion Show theme which may be expected to start with digital photography and a focus on garments or models, could take a completely different perspective and focus on the audience and their reactions in visual or audio recordings. Such an approach could provide dynamic and original access to concepts such as, *the collection, the designer, style and a narrative*.

Innovative approaches are not necessarily dependent on creating something totally new. Learners may also consider ways to adapt and improve existing practice. Teachers should be mindful of the dangers of plagiarism. However, learners who re-think or re-model could apply simplifications, improvements and efficiencies which invent a particularly appropriate solution to the task in hand. Digital design is an ever-changing and constantly evolving landscape. Sometimes ideas and concepts can be short-lived. However, examples of modern, novel and new ideas and approaches are readily available to learners in print or in online formats. Learners will seek to keep up with trends and stay informed.

Teachers may consider the use of 'instant' open ended activities which provide a challenging and engaging learning experience. These could be unified by a theme, topic or concept or cluster of skills. Teachers may wish to consider the use of worked examples/demonstrations. The use of worked examples brings particular benefits to learners. These include a sense of the length of processes, key stages, sequencing, anticipating problems and resource implications. You will wish to encourage a willingness to innovate, build confidence, and help develop an awareness of new ways of looking at things.

Innovation activities

The qualification should present learners with a variety of design challenges. An openness to accident and risk is a critical aspect of creative innovation and problem solving. Open-ended challenges which are fun and spontaneous can be used to generate self-expression and unique responses among learners. A single starting point could be used such as 'self portrait' or 'illustration of a favourite word or phrase'.

Objective – encourage innovative responses to a concept or theme

Once learners have had an opportunity to reflect on the activity, teachers could emphasise notions of innovation, inventiveness and inspiration with a worked example. Using a worked example, a teacher could trial different interpretations of the starting point, describe a number of initial ideas, and suggest different creative responses, illustrate responses through different media. Throughout the demonstration the teacher would continue to revisit the relationship between media and interpretation. This would be explored through a number of cycles or iterations. The activity should challenge learners to devise their essential message and invent creative responses through appropriate media.

Objective – recognise the key aspects of an innovative approach.

1.4 Intention

Learners should be clear about their starting point. This will depend on an understanding of a theme and the research the learner has undertaken. For example, should a theme like Digital Museum be understood as a collection of digital devices and products or as the digital contribution to the activity of a physical museum? The learner's intention or purpose can also come from personal ideas or feelings. The learner could reflect, 'what do I like best about museums', 'what are the sights and sounds I associate with a museum?' Having a clear starting point will support the learner as they begin to interpret the brief. The learner's intention can take the shape of a specific target such as a *five-minute animation including three characters*, or a broader goal such as *interactivity* or *information rich*. Once a firm starting point is established, a learner's intention can evolve as their work develops. Learners should recognise the importance of adapting their intention as they work with different media and receive feedback from others. Learners with clear intentions could produce a plan or "road map" for the proposed activity. This approach can assist learners to record and analyse information which is relevant to their ideas, describe a strategy to deal with problems and preserve motivation, and a process to measure success where intentions change. Towards the end of a project the plan or road map can be used to demonstrate a commitment to personal vision through a reflective and critical digital response.

Changes in intention should be recognised as the result of a fluid and dynamic relationship with ideas and the media used to communicate them. For example, in a project based on a Digital Museum, a learner intends to make an animated guide. During their research, they discover that the museum attracts its visitors principally through one exhibit. The learner changes their focus to that exhibit. Another learner intends to make a film about visitors attending the museum. During first-hand observations in the entrance hall, they notice how the architect has used the space and used light to reflect the significance of the building. The learner changes their focus to a multi-media response to scale and light.

Intention activities

“Good design – bad design”.

Learners are asked to suggest a series of measures against which they will make judgements about the design of objects. These may include measures like quality, attractiveness or weight. The learners are then asked to review some designed objects in everyday use such as a credit card, a pen or a sports shoe. The learners should use the measures they have previously agreed, to assess the design of the objects. The teacher will then discuss the results with the learners. The teacher introduces the following topics for discussion:

- how easy or difficult was it to make the judgements?
- was it necessary to introduce other criteria to make more secure judgements?
- were the “right” measures used?
- what may be better measures?

The teacher could use the remaining time to introduce more reliable measures. In the example above this could be the idea of fitness for purpose rather than quality, branding and identity rather than attractiveness, or usability rather than weight. Examples of mobile media, moving image or digital photography could be used.

Objective – encourage clarity of intention.

1.5 Reflection

Learners should adopt a reflective approach throughout the course. Effective designers take a critical view of their work and value the feedback of others, as a way to learn and a means to measure success. Where learners are encouraged to be critical, this should not be confused for being negative or unfavourable about their own work. Instead learners should apply a systematic, if not diagnostic, scrutiny to what they have done and that they intend to do. This approach will apply equally to the work with ideas as it will to work with media, techniques and processes. A reflective approach will demonstrate how the learner is sensitive to creative and practical experiences. Reflective learners will develop a mindset which is analytical, astute and discriminating. Such learners will be unwilling to automatically work with normal assumptions, will be cautious about online (or other) forums, and will seek to make their own reliable judgements. Critical reflection and feedback will support a more coherent development of ideas. Feedback from others provides valuable insight into the progress of the learner’s work. Learners should understand how important such feedback can be however critical or challenging this may appear. Learners should practice and develop effective ways to share ideas and creative work, and to gather opinions and reactions. While peer review can often be helpful, a broader approach is recommended. This could include a diversity of age and gender, a greater degree of expertise, or a sample of a target audience, for example. Learners could be encouraged to employ diverse methods to share and gather information.

For example:

- a questionnaire with a short preamble
- group discussion
- interview with expert/practitioner, or target user
- dedicated social media site.

Learners could also adopt a collaborative approach, as a means to reflect on their ideas. For example, a learner could produce a ‘mini project’ for their peers, based on an idea they are working on. While participating with peers, the learner would observe progress, note particular difficulties and record significant opportunities. The reactions of the participants could be gathered at the end. Learners may also consider the use of techniques like ‘role play’ to reflect on questions posed by designers and clients, or designers and audiences, for example.

Reflective activities

Active reflection/thinking outside the box

Activities which encourage active reflection, avoid passive learning and accepting the status quo. Activities could be designed around the following starting points.

Challenging assumptions

What have we assumed about the target audience? How do we know these assumptions are reliable? How can we test these assumptions? What can we find out about the target audience? What can we find out about our assumptions?

Active opposition

What is the most inappropriate response to the brief? What would be the least effective way to research this topic?

Reverse thinking

What will the client/audience receive? What would be the process in reverse from production to responding to the brief?

Blank state

What will I learn about my idea or my progress if I use a tool or technique I have never used before? What will I learn about my idea or my progress if I ask a complete stranger?

Oppositional thinking

How could a proposed project be most effectively challenged or disrupted? What happens if I adopt a directly opposite set of ideas? What happens if I disturb my visual material by tearing and collaging, crushing and scanning, or folding and shaping? What happens if I rework my visual material by focusing on colour, tone, texture, movement or image?

Objective – encourage responses informed by critical reflection.

1.6 Research and context

Learners should avoid making final design decisions based on superficial or unreliable research. Research activity and an understanding of context can indicate a learner's independent creative process. Primary research helps designers to develop their ideas and refine their practice. Primary research is original research and is an immediate first-hand account of an idea or concept. First hand research could include:

- drawing
- notes
- diaries, letters or interviews
- survey data or statistics
- photographs
- video
- audio recording.

In addition to gathering information, learners could develop their observation and listening skills. This is done in order to heighten sensitivity to ways in which experiences and ideas are communicated. Learners may produce written observations which distinguish between visual characteristics and recognise geometry, pattern, or colours, for example. Sound recordings can be scrutinised for content, punctuating noises, layers of sounds, patterns of words, or key words, for example.

Learners will recognise the development of digital media and design in cultures other than their own. This will typically (but not exclusively) involve secondary research. An appreciation of the work of other practitioners and broader creative movements will benefit the learner's exploration of ideas, improve their practice, and understand how their work connects with its intended audience. Learners may undertake visual

investigations and analysis of examples of the work of others. Visual analysis would scrutinise a work using separate and distinct areas of focus. For example the expressive use of:

- colour
- tone and texture
- line and shape
- images, motifs or symbols
- order, structure or movement.

Where learners undertake visual analysis, this should not to be confused with analysing digital images. Analysing digital images is a technical method for measuring information in digital photographs. Beyond digital media and design, learners would be encouraged to research:

- graphic design and typography
- comics and graphic novels
- traditional photography
- fine art – painting and sculpture
- traditional animation and cartoons
- conceptual and performance art.

Learners may also benefit from research into:

- theatre
- dance
- poetry/literature
- popular and classical music.

Learners may conduct a literature review. This would involve texts which contribute to the learners' understanding of the focus of the brief. As learners are reviewing passages of text they should remember that they are looking for insight rather than information. Teachers should also be in a position to advise on reputable sources of print or internet documents on Digital Photography, Moving Image and Mobile and Multimedia applications.

An indiscriminate collection of material from the internet will not suffice for an appropriately critical approach or demonstrate that the learner is using appropriate sources. The internet is however, a valuable tool and learners are encouraged to make best use of it.

Learners should consider research using podcasts, blogs, forums, broadcast catch-up services etc.

Key concept link to assessment objectives

	AO1	AO2	AO3	AO4
Communication			✓	✓
Creativity		✓		✓
Innovation	✓	✓		
Intention	✓		✓	
Reflection			✓	✓
Research & context	✓	✓		

2: Planning and preparation

As stated earlier in the introduction, you can structure a course around a single area of study or create a course which includes a combination of two or three areas of study. The choice of content will depend on the interests of teachers and learners as well as the resources and expertise available at the school. You do not have to cover all three areas of study to deliver this qualification. Candidates can complete the components in any of the areas of study. Learners and teachers will need to decide which areas of study they are going to focus on given the expertise in the school and the capabilities of the learners. Schools will consider which medium or media are they going to focus on and the equipment that is available.

2.1 Initial phase

You may wish to use an initial induction episode to introduce any important online documentation, assessment objectives with practical illustrations, and health and safety guidance. The induction can be used as an opportunity to anticipate any potential challenges or misconceptions. These may range from the difference between primary and secondary research to the role of feedback and critical evaluation. It will be important during an induction episode to preserve initial enthusiasm and creative energy. You may wish to use ice-breaker activities or creative games. These will at best be fun, practical and collaborative.

You would be well-advised to avoid assuming the proficiency of their learners or their range of technical skills. Introductory skills workshops will provide learners with sufficient capability to begin work. They will also act as a diagnostic method to determine the skills profile of a group. The technical content of the workshops will depend on resources available locally and the chosen area(s) of study. In addition to specific techniques, workshops would also focus on different approaches to concepts and ideas, and on the practice of a variety of artists and designers. The emphasis would be on building creative confidence as well as technical confidence. The qualification caters for artists rather than technicians.

It is expected that workshops would include the following as a minimum:

- digital imaging
- digital image manipulation
- design theories
- contextual referencing
- visual language and communication
- evaluation and testing

You will want to add to this list according to local circumstances and to revisit these topics throughout the course. As an alternative, workshops can be embedded into the initial projects in the first year. You are advised to approach the development of both technical and artistic skills holistically. This will be done by attempting a series of projects that incorporate all the assessment objectives. The first year of study should focus on introducing skills and knowledge which are common to all areas of study. Schools will need to incorporate a process that builds the acquisition of skills and facilitates practice. Therefore, projects will focus on creative themes rather than specific techniques. These projects can increase in intensity and difficulty as learners' progress through the course. Learners may work several times on a given project (or parts of a project) and select the best of these attempts.

2.2 Middle phase

Teachers should develop projects which are more open to interpretation and can be led by the candidate. The learners should be exposed to more creative responsibility. They should take the initiative and be proactive. The projects provided by the teacher will be structured to support both creative and technical skill development. Learner's work should demonstrate the influences of their research and investigations. They are required to materially demonstrate this process. In order to be awarded marks, learners will show how the work of other practitioners has affected their original thinking and influenced the media and materials used, the development of ideas, and the direction of their work. Learners should not rely on a final piece alone to express the influence of research, the extent of selection media and the evolution of concepts. Significant amounts of marks can be attracted across assessment objectives where this process is carefully

documented. Schools will recognise the importance of teaching and learning to achieve this. Teachers will focus on:

- developing a learner's ability to take an open-minded approach to research
- helping learners to avoid research activities which restrict investigations
- providing opportunities to challenge ideas and challenge assumptions
- encourage a variety of approaches to idea development
- directing learners to seek feedback on their work and on the communication of ideas
- advising on the documentation of research, selection of media and development of ideas
- supporting the critical evaluation of creative work.

2.3 Final phase

Teachers will provide support for learners working on Components 1, 2 and/or 3. Teachers will wish to carefully balance appropriate levels of input with the learner's requirement to express originality of vision. Teachers may wish to provide generic exercises in class time on topics such as research, use of media, idea development and testing and concept presentation to support learners. Learners will need to demonstrate a critical awareness of their work and be able to review and reflect on it as well as refining their ideas in the light of critical feedback. Teachers should encourage learners to use critical feedback to innovate and effectively communicate ideas.

Suggested 2-year course structure – Year 1 AS Level

Term	Topic
One	Skill building and rotation workshops. The term could include a few short projects based on the coursework briefs. The focus should be on ideas generation, research and some underpinning technical skills in one or more areas of the syllabus.
Two	Component 1: Selecting a theme from the coursework briefs and producing the work to be assessed. Start planning for Component 2.
Three	Component 2. The externally set task. End of term 3, writing an Outline Proposal Form for Component 3.

Suggested 2-year course structure – Year 2 A Level

Term	Topic
One	Component 3. Planning, research, development, testing/feedback/changes, resolution and reflection. There could still be some element of taught lessons to cover more of the key concepts eg project management, user testing/feedback, semantics, design theory, research skills for the written aspect and presentation and evaluation skills. Candidates are strongly advised to submit an outline proposal form. Learners should reflect on their progress and evaluate the success of their work throughout the year.
Two	Component 3. Enough time should be set aside for the research and completion of the project before the submission date. Candidates should divide their time into research, development, testing and resolving creative solutions, with steps along the way to review progress and refine ideas.
Three	Component 3. Completion and submission with integrated written analysis of 1000–1500 words.

Suggested linear course structure A Level – Year 1 (of two year course)

Candidates submit all three components in the same exam series but may have completed their studies over a two year period. Candidates wishing to complete the whole A Level in one year should ensure that they have met the suggested guided learning hours in the syllabus.

Term	Topic
One	Skill building and rotation workshops. The term could include a few short projects based on the coursework briefs (see mini-projects). The focus should be on ideas generation, research and some underpinning technical skills in one or more areas of the syllabus. There could still be some element of taught lessons to cover more of the key concepts e.g. project management, user testing/feedback, semantics, design theory, research skills for the written aspect, and presentation and evaluation skills.
Two	Complete Component 1 Coursework Portfolio.
Three	Continue with skill building workshops but use the specimen paper and past papers (when available) as a template for the structure of component 2. Introduce component 3 and explain the difference in the nature of the components.

Suggested linear course structure A Level – Year 2 (of two year course)

Term	Topic
One	<p>Learners should reflect on their progress and evaluate the success of their work throughout the year and area areas to develop.</p> <p>Develop and submit Outline Proposal Forms for Component 3.</p> <p>Focus on preparation for Component 2 Externally Set Task. Candidates should have at least 4 weeks preparation before they complete the test and the paper can be given out to candidates as soon as it is released and completed at any time within the test window.</p>
Two	<p>Component 2. The externally set task.</p> <p>Component 3. Enough time should be set aside for research, development, testing/feedback/changes, resolution, reflection and completion of the project before the submission date. Candidates should divide their time into research, development, testing and resolving creative solutions, with steps along the way to review progress and refine ideas.</p> <p>Include time to complete the written element of Component 3.</p>
Three	Complete and submit all components to Cambridge International.

3: Skills and understanding common to all areas of study

Working in digital media and design requires learners to achieve a balance of diverse skills:

- researching and exploring resources
- applying techniques and processes
- selecting and organising information
- generating ideas and starting to develop technical skills to present ideas.

These apply to all three areas of study and should be embedded in the programme for all candidates.

Schools are expected to spend some time during the first year of study introducing these skills to support an understanding of principles of design and to allow learners to become familiar with different media, accumulate practical skills and experiment with smaller projects.

Learners will develop skills in both evaluating and improving their design work, and in illustrating/explaining this process.

Learners will exercise critical judgements and be mindful of the cultural context in which design decisions are made.

Activities in schools should also allow learners to gain knowledge and understanding of:

- working to a brief
- ethical considerations of digital media and design
- critical and contextual understanding
- design theories
- drawing for design
- formal elements of design
- evaluation and testing of designs.

Illustrated examples of skills, knowledge and understanding

On the pages that follow you will find a series of examples of the kind of work that learners might produce as they develop the skills described above.

Researching and exploring resources

Matilde Gattoni. b.1974



An award winning artist, based in Milan, who shows in her photos, a strong connection between people and a changing environment



ARTISTS INFLUENCE

In my choices for artists I was looking for people whose images showed an immediate connection between environment and people. Photographers that have managed to tell a story just with one picture., sending a message instantly.

With these two photos I took at the Tudor shaft informal settlement, I tried to show a strong relationship between the people and their poverty stricken existence. This man is living on and between radioactive mine dumps and he is digging in the rubbish dump for something to keep existing. I dulled the colours to express this dreary way of life.



These ladies r washing their clothes in basinson top of the mine dump. But is the water being used really clean? They live in such a toxic environment, it is almost an ironic scene.

All these photographs taken by myself at the Tudor Shaft and the pits were edited in Windows 10 Photo editor in order to enhance and create specific viewpoints of interest.

Mitchell Krog.



An award winning South African photographer who has a strong background in environmental and conservation fields. He strongly believes that it is difficult to save what cannot be seen.



I have decided to concentrate on the angle of what cannot be seen. These illegal miners, also known as the Zama Zamas, can be seen down in the West Wits Pits. Huge open pits left unrehabilitated by the mining company. These men dig down in the disused mine and use mercury to get the gold out of the rocks. An extremely dangerous and noxious practice.



These people are as discarded and forgotten as the open pits. They are also as dangerous. Much gang warfare is rife around this illicit mining.

In this example the learner has recorded research two photographers. The learner has then produced a series of photographs on location, in response to the photographers they have researched.

This work seeks to explore ideas of people within a changing environment and ideas of visual exploration.

The learner demonstrates their critical and contextual understanding in the selection of photographers they have looked at.

The learner also demonstrates ethical considerations as the images are digitally manipulated to reflect the circumstances of the subjects.

Researching and exploring resources



These photographs have all been edited in windows 10 editor in order to enhance features and colours and make them more visually effective

In this work the learner has focused more closely on the resources available for research into the theme. The learner has used the physical environment, landscapes and damaged equipment as sources for exploration. The learner carefully controls the use of colour and texture in the landscape photographs demonstrating their understanding of aesthetics and formal elements. The powerful depiction of pipes standing in water makes use of visual language to express the industrial impact the learner is seeking to communicate. This indicates an understanding of drawing for design. The learner clearly demonstrates an understanding of formal elements in the bold use of lines and circles in the photograph of pipes in water.



Pipes that carry the harmful water from the mines and tailings to dam sites are littered around the lands. As the photographs show they are layered with the sediments of the heavy metals.



The high level of copper in the water can be seen as a green residue around the edges of this puddle in a tailing.

Techniques and processes

Dillion Marsh b. 1981



A young South African artist, who is strongly connected to our relationship with the world around us. He sees CGI as a means to revealing underlying textures or dynamics that pure photography cannot show. His work I have shown here is from an exhibition For What It's Worth. He worked out how much gold/precious metals that had been extracted to produce the waste of the mine dump. I find it incredibly interesting and visually powerful. It gets the message across with a strong statement. The scale of sacrifice versus gain.



ARTISTS INFLUENCE



Using Dillion's thinking and technical influences, I have used a Kruger rand, which is pure gold and photoshopped it into the interior of the pipes that take the water from the tailings to the dams. The pipes are thick with toxic sediments, showing what the water contains. These pipes are also discarded all over the landscape. They are so heavy they cannot even be stolen to be used elsewhere, and so filled with impurities, they cannot be sold off as scrap metal. So one tiny precious shiny coin leaves a tainted littered landscape behind!



I used more Kruger Rands showing under the surface of a polluted dam.



The true price of gold should be questioned.



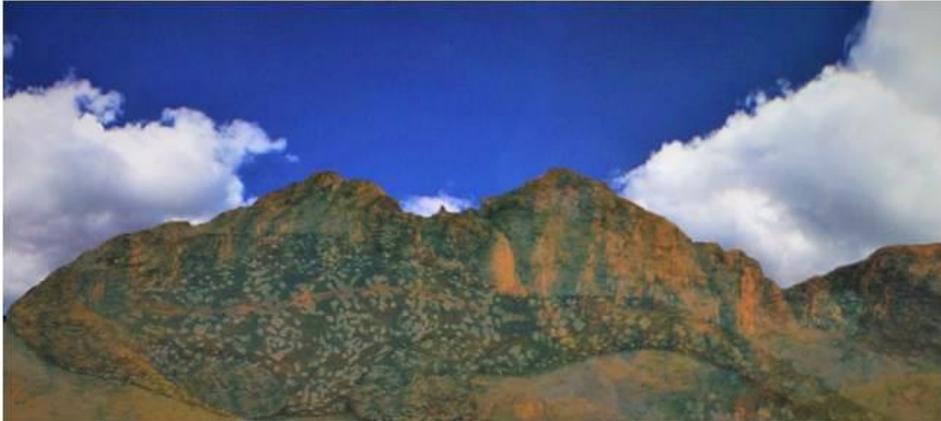
All my photos were edited in the GIMP platform to create the effects seen here.

Here, the learner has acknowledged the technical influence of another artist. The learner has used the process of digital manipulation to create images which combine ideas and develop the theme. The learner makes use of design theories of harmony, order and balance – in reverse, to create contrasts. The learner presents images of pipes, a dam and coins in a disorderly relationship. The learner seeks to visually represent an imbalance within a sustainable environment.

Generating ideas and starting to develop technical skills to present ideas

SURREAL INFLUENCES ON MY LANDSCAPE DIGITAL PHOTOGRAPHY

— FINISHED COMPOSITIONS



Here I have taken a sky from one of my landscape photos and combined it with the Crag/mountain picture in an effort to create a more powerful landscape view. The dragon mountain boundary. Reality and imagination united, a dreamscape that is definitely influenced by the Surrealists.

EDIT: GIMP Edit: bring the edited lizard and mountain from previous page. That edit = Gimp Edit: underlay mountain, overlay lizard, blend opacity 90%. Save and open in Windows10 photoeditor, filter: Sahara, Adjust: Light -90, colour 0, density 64, vignette +30. Gimp Edit: blend overlay lizard/mountain underlay sky. Use paintbrush to erase until blue sky shows thru.

My narrative, is telling the story here of the village, the young boy and the old poacher. The past, the present and the future are all captured here. Bound by the boundary of the Sani Pass formed by the Drakensberg mountains.



EDIT: 3 photos to make one. GIMP Edit: Blend underlay village and overlay boy: open as layer mask, opacity 100% erase everything around boy to leave him on the landscape. Save. Then open this image in Gimp, blend with the overlay old man, opacity 100%, erase everything to leave old man on landscape. Airbrush shadows at their feet to ground them in the scene.

In these images the learner is generating ideas about Boundaries. The learner is developing technical skill in image manipulation and in the recognition of the influences of both first hand, and contextual sources. The learner explains that ideas presented in this work are more firmly connected to their exploration of the theme. The learner demonstrates they understand evaluation and testing of design. Judgements about the suitability of design decisions can be seen in the notes the learner has made about digital editing.

Templates to adapt for coursework themes

Schools may provide short projects, based on the coursework briefs, to develop skills, knowledge and understanding common to all areas of study. These projects would focus on one aspect of a coursework brief and an individual area of study. For example:

Emotions – short project, preparation for a documentary

Skills and techniques	Theme	Focus	Research	Proposal
Order of activities:	Develop your own idea or concept for a piece of digital work to be included in an exhibition based on emotions.	Expressing feeling without words	Artists who explore intense emotions or self-awareness	A documentary about love
			Three: Storyboards and image making through photography, modelling, drawing and/or illustration	
Techniques and processes		Two: Briefing participants/actors, casting		
Selecting and organising information	One: Researching locations, if needed, for filming or for site-specific works			

Emotions – short project

Knowledge and understanding:	Theme	Focus	Research	Proposal
	Develop your own idea or concept for a piece of digital work to be included in an exhibition based on emotions	Expressing feeling without words	Artists who explore intense emotions or self-awareness	A documentary about love
Working to a brief	Planning for a specific digital outcome			
Ethical considerations			Copyright and intellectual property integrity	
Drawing for design	Expression and meaning			

Travel – short project, Ideas for mobile or multimedia application from signage research

Skills and techniques	Theme	Focus	Research	Proposal
Order of activities:	Explore the theme of travel creatively	Street furniture or signage	Signage designer - Margaret Calvert	Visuals for an interactive display, map or game
Researching and exploring resources			One: Composition and viewpoints	
Techniques and processes		Three: Planning, preparing equipment and resources		
Generating ideas and starting to develop technical skills to present ideas	Two: Idea generation through drawing, concept art, narrative image making			

Travel – short project

Knowledge and understanding:	Theme	Focus	Research	Proposal
	Explore the theme of travel creatively	Street furniture or signage.	Signage designer - Margaret Calvert	Visuals for an interactive display, map or game
Working to a brief		Constraints (software and technology restrictions, accessibility)		
Ethical considerations		Making judgements about factors affecting the designs, people and technologies researched		
Formal elements	Aesthetics, positive and negative space			

Digital poetry – short project: Still image advertising material from videos of poetry performers

Skills and techniques:	Theme	Focus	Research	Proposal
Order of activities:	Work to be included in a digital poetry and spoken word festival	Digital poetry, rap music, slam poetry, traditional poetry	Artists who use text and/or lighting in their work and conceptual artists who use text	Advertising for the festival
Techniques and processes				Three: Choosing appropriate formats, resolutions and content enhancement
Selecting and organising information			One: Selecting, editing and manipulating video sequences of own work using a range of appropriate equipment	
Generating ideas and starting to develop technical skills to present ideas		Two: Selecting, editing and manipulating digital images		

Digital poetry – short project

Knowledge and understanding:	Theme	Focus	Research	Proposal
	Work to be included in a digital poetry and spoken word festival.	Digital poetry, rap music, slam poetry, traditional poetry	Artists who use text and/or lighting in their work and conceptual artists who use text	Advertising for the festival
Critical and contextual understanding			Drawing on cultural connections and personal experiences	
Design theories				Unity, harmony, balance, form and function, and semiotics
Evaluation and testing		Making changes based on user testing and feedback		

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