



Advanced Higher
Coursework
Assessment Task



Advanced Higher Graphic Communication

Project

Assessment task

This document provides information for teachers and lecturers about the coursework component of this course in terms of the skills, knowledge and understanding that are assessed. It **must** be read in conjunction with the course specification.

Valid for session 2021-22.

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Introduction

This document contains instructions for teachers and lecturers, marking instructions, and instructions for candidates for the Advanced Higher Graphic Communication project. You must read it in conjunction with the course specification.

This project is worth 60 marks. This is 43% of the overall marks for the course assessment.

This is one of two course assessment components. The other component is a question paper.

Instructions for teachers and lecturers

This assessment applies to the project for Advanced Higher Graphic Communication for session 2021-22.

For the project, candidates have to produce a graphical response to a brief. The graphic communication brief should provide sufficient challenge to allow candidates to showcase their abilities in both technical graphics (TG) and commercial and visual media graphics (CVMG) contexts. There is no requirement for the TG and CVMG contexts to relate directly to each other. However, it may be beneficial in terms of planning and consistency if there is a central theme.

The project is:

- ◆ an open brief: candidates choose a brief for their project in discussion with their teacher or lecturer
- ◆ conducted under some supervision and control
- ◆ submitted to SQA for marking

Assessment conditions

Time

Candidates choose a brief and produce a graphic response over an extended period of time. This allows them to develop and refine their work before presenting it for assessment.

Candidates should start their project when they have developed the necessary skills, knowledge and understanding.

Supervision, control and authentication

The project is produced under some supervision and control. This means that:

- ◆ candidates do not need to be directly supervised at all times
- ◆ you can provide reasonable assistance

You must ensure that evidence submitted by a candidate is the candidate's own work.

Resources

The project is carried out under open-book conditions, but supervised to ensure that the work presented is the candidate's own.

There are no restrictions on the resources that candidates may access while producing their project.

Reasonable assistance

Candidates must carry out the project independently. However, they can receive reasonable assistance before the formal assessment process takes place. The term 'reasonable assistance' is used to balance the need for support with the need to avoid giving too much help. If candidates need more than what is thought to be 'reasonable assistance', they may not be ready for assessment or they may have been entered for the wrong level of qualification.

Candidates can seek clarification on the project assessment task if they find it unclear. In this case, you should clarify it for the whole class.

If, while working on their project, a candidate is faced with more than one possible solution to a problem, then you can discuss the pros and cons of different options with them. The candidate can then decide on a solution based on the discussion.

Once candidates have submitted their evidence, it must not be changed by anyone.

You must not provide model answers to help candidates complete any part of the project.

Please show the marking instructions to the candidates if you think that will be helpful.

Evidence

The following candidate evidence is required:

- ◆ a graphic communication project not exceeding 16 A3-sized pages (or equivalent for graphics work)

All project evidence including digital work (for example screenshots, slides and storyboards) must be printed and submitted to SQA to be marked. Do not submit electronic files for marking.

Where printed final graphics would require commercial printing equipment used in industry, the graphics should be printed using equipment available in centres. Candidates must then annotate the graphics to show which commercial processes would be used in industry.

Volume

Candidates can present their work in a variety of ways. The overall maximum size for the project must not exceed 16 single-sided A3-sized pages or equivalent. If the project page count exceeds the maximum by 10%, a penalty is applied.

More information on project submission is available on the Advanced Higher Graphic Communication subject page.

Area	Marks available	Page limit
TG preliminary planning	5	2
CVMG preliminary planning	5	2
TG graphic solution	25	5-6
CVMG graphic solution	25	5-6
Total	60	16

Candidates must complete the preliminary planning for CVMG before they produce the graphic solution for CVMG. However, candidates can complete all the CVMG work before, during or after the similar work for TG and vice versa, depending on their brief.

Marking instructions

In line with SQA's normal practice, the following marking instructions for the Advanced Higher Graphic Communication project are addressed to the marker. They will also be helpful for those preparing candidates for course assessment.

Candidates' evidence is submitted to SQA for external marking.

General marking principles

Always apply these general principles. Use them in conjunction with the detailed marking instructions, which identify the key features required in candidates' responses.

- a Always use positive marking. This means candidates accumulate marks for the demonstration of relevant skills, knowledge and understanding; marks are not deducted for errors or omissions.
- b If a candidate response does not seem to be covered by either the principles or detailed marking instructions, and you are uncertain how to assess it, you must seek guidance from your team leader.

Detailed marking instructions

TG preliminary planning (5 marks available)	
Marking guidance	Max marks
Preliminary graphics	
<ul style="list-style-type: none"> ◆ preliminary work shows clear explorative sketches that illustrate at least five different complex modelling techniques ◆ sketches provide enough information to support the progression to production graphics ◆ sketches demonstrate a high level of skill and may include complex visualisation ◆ sketches include all the following features, to a high quality: <ul style="list-style-type: none"> — indication of dimensions — appropriate technical detail — annotations to support the modelling process — combination of 2D and 3D views 	5
<ul style="list-style-type: none"> ◆ preliminary work shows explorative sketches that illustrate at least four different complex modelling techniques ◆ sketches provide enough information to support the progression to production graphics ◆ sketches demonstrate a good level of skill and may include complex visualisation ◆ sketches include most of the following features, to a high quality: <ul style="list-style-type: none"> — indication of dimensions — appropriate technical detail — annotations to support the modelling process — combination of 2D and 3D views 	4
<ul style="list-style-type: none"> ◆ preliminary work shows explorative sketches that illustrate at least three different complex modelling techniques ◆ sketches provide enough information to support the progression to production graphics ◆ sketches demonstrate a basic level of skill and may include complex visualisation ◆ sketches include most of the following features, to a good quality: <ul style="list-style-type: none"> — indication of dimensions — appropriate technical detail — annotations to support the modelling process — combination of 2D and 3D views 	3

TG preliminary planning (5 marks available)	
Marking guidance	Max marks
<ul style="list-style-type: none"> ◆ preliminary work shows explorative sketches that illustrate at least two different complex modelling techniques ◆ sketches provide just enough information to support the progression to production graphics ◆ sketches demonstrate a basic level of skill ◆ sketches include some of the following features, to an acceptable quality: <ul style="list-style-type: none"> — indication of dimensions — appropriate technical detail — annotations to support the modelling process — combination of 2D and 3D views 	2
<ul style="list-style-type: none"> ◆ preliminary work shows explorative sketches that illustrate at least one different complex modelling technique ◆ sketches provide just enough information to support the progression to production graphics ◆ sketches demonstrate a very basic level of skill ◆ sketches include a limited range of the following features: <ul style="list-style-type: none"> — indication of dimensions — appropriate technical detail — annotations to support the modelling process — combination of 2D and 3D views 	1
<ul style="list-style-type: none"> ◆ preliminary work of a limited standard that struggles to illustrate any modelling technique that is complex enough for this level ◆ sketches provide limited information that does not support progression to production graphics ◆ sketches demonstrate a poor level of skill and do not support visualisation of a product ◆ sketches include very limited detail of (or none of) the following features: <ul style="list-style-type: none"> — indication of dimensions — appropriate technical detail — annotations to support the modelling process — combination of 2D and 3D views 	0

CVMG preliminary planning (5 marks available)	
Marking guidance	Max marks
Preliminary graphics	
<ul style="list-style-type: none"> ◆ preliminary work shows a high level of creativity and planning that is relevant to the graphics being developed ◆ preliminary work is fully relevant to the chosen graphics ◆ preliminary graphics include work for appropriate digital- and print-based graphics ◆ the graphics produced cover all the following areas: <ul style="list-style-type: none"> — colour space — colour details — file type and compatibility issues — images to source and/or use — transitions (animations) — graphic format (for example canvas size) — print requirements 	5
<ul style="list-style-type: none"> ◆ preliminary work shows a good level of creativity and planning that is relevant to the graphics being developed ◆ preliminary work is mostly relevant to the chosen graphics ◆ preliminary graphics include work for appropriate digital- and print-based graphics ◆ the graphics produced cover many of the following areas: <ul style="list-style-type: none"> — colour space — colour details — file type and compatibility issues — images to source and/or use — transitions (animations) — graphic format (for example canvas size) — print requirements 	4
<ul style="list-style-type: none"> ◆ preliminary work shows a satisfactory level of creativity and planning that is relevant to the graphics being developed ◆ preliminary work is mostly relevant to the chosen graphics ◆ preliminary graphics include work for appropriate digital- and print-based graphics ◆ the graphics produced cover some of the following areas: <ul style="list-style-type: none"> — colour space — colour details — file type and compatibility issues — images to source and or/use — transitions (animations) 	3

CVMG preliminary planning (5 marks available)	
Marking guidance	Max marks
<ul style="list-style-type: none"> — graphic format (for example canvas size) — print requirements 	
<ul style="list-style-type: none"> ◆ preliminary work shows a limited level of creativity and planning that has some relevance to the graphics being developed ◆ preliminary work links to the chosen graphics ◆ preliminary graphics include work that is mostly appropriate for digital- and print-based graphics ◆ the graphics produced cover a few of the following areas: <ul style="list-style-type: none"> — colour space — colour details — file type and compatibility issues — images to source and/or use — transitions (animations) — graphic format (for example canvas size) — print requirements 	2
<ul style="list-style-type: none"> ◆ preliminary work shows a basic level of creativity and planning that is relevant to the graphics being developed ◆ preliminary work has basic links to the chosen graphics ◆ preliminary graphics may only include work for either digital- or print-based graphics ◆ the graphics produced cover one or two of the following areas: <ul style="list-style-type: none"> — colour space — colour details — file type and compatibility issues — images to source and/or use — transitions (animations) — graphic format (for example canvas size) — print requirements 	1
<ul style="list-style-type: none"> ◆ preliminary work is very basic and fails to communicate the intent or content of the graphic items ◆ limited quality in the work ◆ very few or none of the following areas are communicated: <ul style="list-style-type: none"> — colour space — colour details — file type and compatibility issues — images to source and/or use — transitions (animations) — graphic format (for example canvas size) 	0

CVMG preliminary planning (5 marks available)	
Marking guidance	Max marks
— print requirements	

TG graphic solution (25 marks available)		
Marking guidance		Max marks
a	Modelling techniques: <ul style="list-style-type: none"> ◆ clear link to preliminary explorative sketches (1 mark) — if changes have been required, appropriate annotation should support this change to achieve the mark 	3
	<ul style="list-style-type: none"> ◆ all five modelling techniques represented (2 marks) ◆ three or four modelling techniques represented (1 mark) ◆ two or fewer modelling techniques represented (0 marks) 	
b	Component drawings: <ul style="list-style-type: none"> ◆ all component drawings produced accurately ◆ appropriate and full dimensions that would enable manufacture ◆ sectional views for all components are appropriate and relevant 	5
	<ul style="list-style-type: none"> ◆ all component drawings produced, most accurately ◆ appropriate dimensions that would enable manufacture with only some estimation and/or interpretation required ◆ sectional views for most components are appropriate 	4
	<ul style="list-style-type: none"> ◆ only key component drawings are produced, with some missing ◆ most dimensions are included but estimation would be required to enable manufacture ◆ sectional views for some components are appropriate 	3
	<ul style="list-style-type: none"> ◆ only key component drawings are produced, with some missing ◆ most dimensions are included but lots of estimation would be required to enable manufacture ◆ limited range of sectioning 	2
	<ul style="list-style-type: none"> ◆ only key component drawings are produced, with some missing ◆ limited dimensioning with some key sizes missing ◆ limited range of sectioning with little clarity added 	1
	<ul style="list-style-type: none"> ◆ some component drawings are produced but lack clarity and accuracy ◆ limited dimensioning with many key sizes missing ◆ no sections, or limited range of sectioning that does not add clarity to the component 	0
	<ul style="list-style-type: none"> ◆ some component drawings are produced but lack clarity and accuracy ◆ limited dimensioning with many key sizes missing ◆ no sections, or limited range of sectioning that does not add clarity to the component 	0
c	Assembly drawings: <ul style="list-style-type: none"> ◆ accurately assembled components showing no overlaps; appropriate hidden detail (1 mark) ◆ sectioned with appropriate cutting plane position (1 mark) ◆ exploded views with appropriate alignment and positioning (1 mark) 	3

TG graphic solution (25 marks available)		
Marking guidance		Max marks
d	<p>Technical detail (evidence taken from across all production drawings):</p> <ul style="list-style-type: none"> ◆ 1 mark for each relevant, correct application and demonstration of the following, up to a maximum of five: <ul style="list-style-type: none"> — removed and/or partial and/or revolved sections — stepped sections — enlarged views — surface finishes — manufacturing detail and information — range of motion — continued views — tolerancing 	5
e	<p>Simulation:</p> <ul style="list-style-type: none"> ◆ simulation is appropriate to the product being tested and graphics provided are clear (3 marks) ◆ simulation appears to be appropriate, but the graphics provided require some interpretation (2 marks) ◆ simulation has been carried out but unclear if it is appropriate (1 mark) ◆ no simulation carried out (0 marks) 	3
f	<p>Standards and conventions:</p> <ul style="list-style-type: none"> ◆ correct across all drawings (3 marks) ◆ some inconsistencies (2 marks) ◆ limited adherence (1 mark) <p>Evidence will come from:</p> <ul style="list-style-type: none"> — dimensioning — third-angle projection symbol — suitable scale(s) — titles and annotations — line types — labels — title blocks 	3
g	<p>Technical renders:</p> <ul style="list-style-type: none"> ◆ high quality with appropriate use of all relevant areas detailed below (3 marks) ◆ good quality with appropriate use of all relevant areas detailed below (2 marks) ◆ fair quality with appropriate use of all relevant areas detailed below (1 mark) 	3

TG graphic solution (25 marks available)	
Marking guidance	Max marks
Evidence will come from use of the following: <ul style="list-style-type: none">— texture mapping— bump mapping— materials— image-based lighting— specularly	

CVMG graphic solution (25 marks available)		
Marking guidance		Max marks
a	Digital-based graphic:	
	<ul style="list-style-type: none"> ◆ the creation of layouts, illustrations, renders and/or animations are appropriate to and serve their purpose on all occasions ◆ layouts, illustrations, renders and/or animations are clear and provide all the required detail ◆ excellent understanding of the use of CVMG techniques ◆ appropriate CVMG techniques are applied to a very high standard 	9-11
	<ul style="list-style-type: none"> ◆ the creation of layouts, illustrations, renders and/or animations are appropriate to and serve their purpose on almost all occasions ◆ layouts, illustrations, renders and/or animations are clear and provide almost all the required detail ◆ very good understanding of the use of CVMG techniques ◆ appropriate CVMG techniques are applied to a high standard 	7-8
	<ul style="list-style-type: none"> ◆ the creation of layouts, illustrations, renders and/or animations are appropriate to and serve their purpose on most occasions ◆ layouts, illustrations, renders and/or animations are clear and provide most of the required detail ◆ good understanding of the use of CVMG techniques ◆ appropriate CVMG techniques are applied to a good standard 	5-6
	<ul style="list-style-type: none"> ◆ the creation of layouts, illustrations, renders and/or animations are appropriate to and serve their purpose on some occasions ◆ layouts, illustrations, renders and/or animations are generally clear and provide some of the required detail ◆ basic understanding of the use of CVMG techniques ◆ CVMG techniques are applied to a basic standard 	3-4
	<ul style="list-style-type: none"> ◆ the creation of layouts, illustrations, renders and/or animations are appropriate to and serve their purpose on only a few occasions ◆ layouts, illustrations, renders and/or animations lack clarity and omit significant aspects of the required detail ◆ limited understanding of the use of CVMG techniques ◆ CVMG techniques are applied to a limited standard, which may have adversely affected production quality 	1-2
	◆ insufficient evidence produced	0

CVMG graphic solution (25 marks available)		
Marking guidance		Max marks
b	Print-based graphic:	
	<ul style="list-style-type: none"> ◆ the creation of layouts and illustrations are appropriate to and serve their purpose on all occasions ◆ layouts and illustrations are clear and provide all the required detail ◆ detailed understanding of the use of CVMG techniques ◆ appropriate CVMG techniques are applied to a very high standard 	9-11
	<ul style="list-style-type: none"> ◆ the creation of layouts and illustrations are appropriate to and serve their purpose on almost all occasions ◆ layouts and illustrations are clear and provide almost all the required detail ◆ very good understanding of the use of CVMG techniques ◆ appropriate CVMG techniques are applied to a high standard 	7-8
	<ul style="list-style-type: none"> ◆ the creation of layouts and illustrations are appropriate to and serve their purpose on most occasions ◆ layouts and illustrations are clear and provide most of the required detail ◆ good understanding of the use of CVMG techniques ◆ appropriate CVMG techniques are applied to a good standard 	5-6
	<ul style="list-style-type: none"> ◆ the creation of layouts and illustrations are appropriate to and serve their purpose on some occasions ◆ layouts and illustrations are generally clear and provide some of the required detail ◆ basic understanding of the use of CVMG techniques ◆ CVMG techniques are applied to a basic standard 	3-4
	<ul style="list-style-type: none"> ◆ the creation of layouts and illustrations are appropriate to and serve their purpose on only a few occasions ◆ layouts and illustrations lack clarity and omit significant aspects of the required detail ◆ limited understanding of the use of CVMG techniques ◆ CVMG techniques are applied to a limited standard, which may have adversely affected production quality 	1-2
	◆ insufficient evidence produced	0

CVMG graphic solution (25 marks available)		
Marking guidance		Max marks
c	<p>Continuity:</p> <ul style="list-style-type: none"> ◆ evidence of clear continuity between the digital- and print-based graphics, for example shared colour schemes, style and/or brand, shared graphics, common logo use (3 marks) ◆ evidence of an attempt to connect the digital- and print-based graphics; mostly successful in sharing colour schemes, logos and other aspects; likely that one or more element does not connect well (2 marks) ◆ limited continuity between the digital- and print-based graphics; any connection may be limited to a shared colour or a single logo (1 mark) ◆ no clear continuity or connection between the digital- and print-based graphics (0 marks) 	3

Instructions for candidates

This assessment applies to the project for Advanced Higher Graphic Communication for session 2021-22.

This project is worth 60 marks. This is 43% of the overall marks for the course assessment.

It assesses the following skills, knowledge and understanding:

- ◆ planning and preliminary graphics
- ◆ solution graphics for technical graphics (TG)
- ◆ solution graphics for commercial and visual media graphics (CVMG)

Your teacher or lecturer will let you know if there are any specific conditions for doing this assessment.

The brief you select should provide sufficient challenge to allow you to showcase your abilities in both TG and CVMG contexts. The contexts do not need to be directly related, but you may find it easier to plan and be consistent if there is a central theme.

Evidence

You must produce a project with a maximum of 16 A3-sized pages (or equivalent for graphics work) covering the following areas:

Area	Marks available	Page limit
TG preliminary planning	5	2
CVMG preliminary planning	5	2
TG graphic solution	25	5-6
CVMG graphic solution	25	5-6
Total	60	16

You must complete the preliminary planning for CVMG before you produce the graphic solution for CVMG. However, you can complete all the CVMG work before, during or after the similar work for TG and vice versa, depending on your brief.

Before you begin

Before starting your project, please read SQA's publication 'Your Coursework' available on [SQA's website](#).

Guidance on identifying a brief

The project allows you to develop your knowledge of graphic communication and to apply this knowledge in a context you find interesting.

You will develop and apply skills you will need for your future study or career, including planning, problem solving and presentation.

You must choose a context for your project and ask your teacher or lecturer to approve it. A list of possible contexts is given at the end of this document. (Please note this list is not exhaustive or prescriptive.)

Your brief for TG and CVMG does not need to be connected. However, it is likely that the brief you choose for TG will connect directly to the CVMG aspect focused on promoting the same product.

Your brief for TG should contain enough complexity to allow you to achieve all the available marks. Your teacher or lecturer will help you choose an appropriate brief. Any product you choose should enable at least five complex modelling techniques from the following list to be applied:

- ◆ free-form modelling (morphing)
- ◆ extruding along a path
- ◆ lofting
- ◆ irregular fillets
- ◆ irregular chamfers
- ◆ blending
- ◆ surface modelling

Your focus may be an existing product and/or product line, or it may be a product and/or product line that you have designed or created.

It may be possible to complete your project within your centre, but you could also consider a project that might require collaboration with a university, college or local industry. Your teacher or lecturer can advise you on this.

Project brief checklist

When choosing a context for your project, you should consider the following questions:

- | | | | |
|---|---|---------------------------------|--------------------------------|
| 1 | Will your project allow you to apply graphic communication knowledge and skills in both TG and CVMG? | yes
<input type="checkbox"/> | no
<input type="checkbox"/> |
| 2 | Will your project allow you to develop skills in planning and problem solving? | yes
<input type="checkbox"/> | no
<input type="checkbox"/> |
| 3 | Will you be able to complete your project in the time available? | yes
<input type="checkbox"/> | no
<input type="checkbox"/> |
| 4 | Can all potential barriers to you carrying out your project be overcome? (for example health and safety issues, permissions, and logistics) | yes
<input type="checkbox"/> | no
<input type="checkbox"/> |
| 5 | Do you have access to any necessary expertise, resources and equipment? | yes
<input type="checkbox"/> | no
<input type="checkbox"/> |

If you answer 'No' to any of these questions, you will need to reconsider your idea for your project.

Producing a project proposal and outline plan

Once you have decided on a context for your project, you should produce a **short** project proposal, showing how you will allocate the time available, and any resources you may need to access. This helps your teacher or lecturer to decide whether your proposed project is appropriate. They can also check that you can access any specific resources.

Your proposal should include:

- ◆ a basic description of your project brief
- ◆ how your project fulfils the following requirements:
 - applies relevant knowledge and skills
 - develops skills in planning and problem solving
 - is feasible within the timescale
 - all barriers to completion can be overcome
 - all required expertise, resources and equipment are available
- ◆ an outline of the key activities, the time you think you will need to spend on it and possible target dates for completion
- ◆ an indication of any special resources you think you will need to access

When you have written your proposal and outline, you must discuss it with your teacher or lecturer and get their approval to continue.

Keep your approved project proposal and outline plan. Although this is not assessed, it helps to ensure that your project is well targeted and planned.

The next page is a useful template for presenting your project proposal and outline plan to your teacher or lecturer. There is space for them to make comments and indicate their approval of your proposal and outline.

Remember to consult the list of possible contexts at the end of this document. These are only ideas, and you may have more ideas of your own. Be sure to discuss any idea or context with your teacher or lecturer.

Project proposal and outline plan

Your outline plan could be a simple table as shown below.

Advanced Higher Graphic Communication project proposal (include this with your final submission)			
Candidate name: _____			
Brief description of project proposal: _____			

Task		Time allocated	Target date
1	TG preliminary planning		
2	CVMG preliminary planning		
3	TG graphic solution		
4	CVMG graphic solution		
Special resources that might be required:			
Approved by:			

Check the final submission date with your teacher or lecturer. Insert an appropriate target date for each activity to allow you to complete your project in good time.

When you have obtained approval you are ready to begin.

TG preliminary planning (5 marks)

Preliminary graphics: 5 marks

Using your chosen product as a focus, you should produce a range of explorative sketches that demonstrate how you will produce a 3D CAD model of your product. The sketches should demonstrate:

- ◆ five different modelling techniques from:
 - free-form modelling (morphing)
 - extruding along a path
 - lofting
 - irregular fillets
 - irregular chamfers
 - blending
 - surface modelling
- ◆ indication of dimensions
- ◆ appropriate technical detail
- ◆ annotations to support the modelling process
- ◆ a combination of 2D and 3D views

Your 3D CAD modelling should include complex extrusions and/or revolves as required.

Note: you should present your TG preliminary planning on a maximum of two **single-sided** A3 pages.

CVMG preliminary planning (5 marks)

Preliminary graphics: 5 marks

Your preliminary graphics should clearly demonstrate a range of creative approaches to your chosen brief. Your planning should address both the digital- and print-based graphics to be produced.

Digital-based graphic

For the digital-based graphic you may wish to produce one of the following types of media:

- ◆ website
- ◆ interactive displays
- ◆ promotional animation

The graphic item must be multiple screens and/or pages or, in the case of an animation, at least two minutes of material.

Print-based graphic

For the print-based graphic you may wish to produce one of the following types of media:

- ◆ magazine spreads (minimum two double-page spreads)
- ◆ promotional brochure (minimum four pages)
- ◆ suite of graphic items that contains at least three of the following items:
 - business card
 - promotional postcard
 - product advertisement (for example bus liner, hoarding)
 - any other suitable graphic item

It is likely that your preliminary graphics will take the form of:

- ◆ thumbnails
- ◆ visuals
- ◆ preliminary animations
- ◆ explorative sketches

Within your graphics you should address the following details:

- ◆ colour space
- ◆ colour details
- ◆ file type and/or compatibility issues
- ◆ images to source and/or use
- ◆ transitions (animations)
- ◆ graphic format (for example canvas size)
- ◆ print requirements

You should also apply design elements and principles to create visual impact. Annotate your work, giving justification for your choice.

Note: you should present your CVMG preliminary planning on a maximum of two **single-sided** A3 pages.

TG graphic solution (25 marks)

- a Demonstrate complex modelling techniques **(3 marks)**
- Ensure that the modelling techniques link to your explorative sketches created during planning.
 - If you have changed the modelling techniques since the planning stage, you must include annotations to that effect in the technical drawings.
 - Evidence for this section will be in the component and assembly drawings.
- b Detailed component drawings including sections, fully dimensioned and appropriate to the chosen product **(5 marks)**
- c Assembly drawings including relevant sections and exploded views appropriate to the chosen product **(3 marks)**

- d At least five appropriate technical details, including: **(5 marks)**
- removed and/or partial and/or revolved sections
 - stepped sections
 - enlarged views
 - surface finishes
 - manufacturing detail and information
 - range of motion
 - continued views
 - tolerancing
- e Appropriate simulation carried out on the product and/or components **(3 marks)**
- Evidence may come from simulations such as finite element analysis (FEA), computational fluid dynamics (CFD), or any other relevant simulation.
 - Evidence should be presented as appropriate screen grabs or printouts.
- f Application of standards and conventions across all TG **(3 marks)**
- g Technical renders should include appropriate use of the following: **(3 marks)**
- texture mapping
 - bump mapping
 - materials
 - image-based lighting
 - specularly

If you produce an animated render, you must supply evidence in hard copy format (for example slides, screenshots, storyboards), complete with timings if required.

All project evidence including digital work (for example screenshots, slides and storyboards) must be printed and submitted to SQA to be marked. Do not submit electronic files for marking.

Note: you should present your TG graphic solution on a maximum of six **single-sided** A3 pages.

CVMG graphic solution (25 marks)

Although there is no requirement for your TG and CVMG graphics to be related, you must ensure that the digital- and print-based graphics for CVMG work relate to each other.

- a Produce one digital-based graphic item **(11 marks)**
- The graphic item should be in a format ready for digital publishing.
 - Graphics should be appropriate for the media chosen.
 - Digital evidence must be supplied in hard copy format (for example slides, screenshots, storyboards) complete with timing information where required.

- b Produce one multipage print-based graphic item (11 marks)
The graphic should:
- be presented in a pre-press format
 - be set in the appropriate manner ready for commercial printing
 - contain all relevant graphics
 - be of the appropriate print quality
- c Ensure continuity between digital- and print-based graphics (3 marks)
- Digital- and print-based graphics should interconnect effectively so that they clearly communicate the same style and/or brand. Evidence of this may come in the form of colour schemes, shared graphics, shared graphic styles, and common logos.

Note: you should present your CVMG graphic solution on a maximum of six **single-sided** A3 pages.

Possible project contexts

Here are some examples of possible contexts you may like to consider. Talk to your teacher or lecturer about the design opportunities within these contexts, or other contexts of your choice, to ensure the context you choose is suitable for your project.

- ◆ retailing and promotional
- ◆ engineering themes
- ◆ commercial products
- ◆ community issues and events
- ◆ health and wellbeing
- ◆ environmental
- ◆ sports
- ◆ transport
- ◆ video gaming graphics
- ◆ school, college and learning environments
- ◆ entertainment
- ◆ national events
- ◆ international charities
- ◆ built environment
- ◆ travel
- ◆ leisure
- ◆ campaigning
- ◆ architecture
- ◆ news media and communications
- ◆ theatre

Administrative information

Published: August 2021 (version 1.2)

History of changes

Version	Description of change	Date
1.1	Detailed marking instructions – reference to specification removed from TG preliminary planning and CVMG preliminary planning.	November 2020
1.2	No changes; however, dates amended to apply to session 2021-22.	August 2021

Note: you are advised to check SQA’s website to ensure you are using the most up-to-date version of this document.

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