



GRAPHIC COMMUNICATION

ADVANCED HIGHER

STUDY & REVISION PACK

KINROSS HIGH SCHOOL

NAME _____

TEACHER _____

COMPUTER-AIDED DESIGN & DRAUGHTING

HOMEWORK - RESEARCH THE TOPICS LISTED BELOW AND WRITE CONCISE DESCRIPTIONS

Topics	Information Gathered
<p>Knowledge and skills in applying: Recognised techniques, customs and practices across 3D modelling and 2D draughting software, including drawing and editing commands and terms</p>	
<p>Recognised techniques, customs and practices across 3D modelling and 2D draughting software, including drawing and editing commands and terms. Standard 2D draughting commands including import and export.</p>	<p>Describe the use and benefits of the following 3D CAD techniques:</p> <p>Morphing:</p> <p>Extrusion along a path (sweeps):</p> <p>Regular and irregular fillets and chamfers:</p> <p>Lofting, Blending:</p> <p>Solid and surface modelling (explain the difference between the two techniques) Solid Modelling:</p> <p>Surface modelling: <i>(Explain the difference between surface and solid modelling)</i></p>
<p>Standard 3D modelling techniques and including morphing, extrusion along a path (sweeps), regular and irregular fillets and chamfers, lofting, blending and surface modelling.</p> <p>Techniques in the production of orthographic and pictorial work using computer-aided design</p>	<p>Lofting, Blending:</p> <p>Solid and surface modelling (explain the difference between the two techniques) Solid Modelling:</p> <p>Surface modelling: <i>(Explain the difference between surface and solid modelling)</i></p>

Computer-aided Illustration

HOMEWORK - RESEARCH THE TOPICS LISTED BELOW AND WRITE CONCISE DESCRIPTIONS

Topics

Information Gathered

Knowledge and skills in applying: Professional use of rendering technology to create scenes or illustrations with visual impact

Including the use of texture mapping, bump-mapping, lighting, reflection, specular, ambience, depth-of-field, Image Based Lighting/High Dynamic Range Imagery (IBL/HDRI) and volumetrics

List of CAD Illustration and lighting techniques: explain and describe the benefits of:

Texture mapping:

Bump-mapping:

Lighting techniques:

Reflection:

Specularity:

Ambience (ambient lighting):

Depth-of-field:

Image Based Lighting/High Dynamic Range Imagery (IBL/HDRI):

Volumetrics:

Computer-aided design

HOMEWORK - RESEARCH THE TOPICS LISTED BELOW AND WRITE CONCISE DESCRIPTIONS

Topics	Information Gathered
CAD Techniques	
The use of polygons in the production of 3D graphics, including Boolean functions of add, subtract and intersect, slice.	<p>List of CAD Illustration techniques: explain and describe the benefits of:</p> <p>Use of polygons in the production of 3D graphics.</p> <p>Boolean functions of add, subtract and intersect, slice: Sketch and annotate simple graphics which explain these Boolean operations</p> <p>Add:</p> <p>Subtract:</p> <p>Intersection:</p> <p>Slice:</p>

Simulation

HOMEWORK - RESEARCH THE TOPICS LISTED BELOW AND WRITE CONCISE DESCRIPTIONS

Topics	Information Gathered
<p>Simulation Knowledge and skills in the use of:</p> <ul style="list-style-type: none">● digital testing methods, eg Finite Element Analysis (FEA) or Computational Fluid Dynamics (CFD) to simulate how parts of a 3D model would perform if produced in reality, mechanical animation	<p>Investigate and describe the benefits of the following simulation methods:</p> <p>Finite Element Analysis (FEA)</p> <p>What is it?</p> <p>How does it work?</p> <p>What benefits does it provide?</p> <p>Computational Fluid Dynamics (CFD)</p> <p>What is it?</p> <p>How does it work?</p> <p>What benefits does it provide?</p>

CAD/CAM SYSTEMS

HOMEWORK - RESEARCH THE TOPICS LISTED BELOW AND WRITE CONCISE DESCRIPTIONS

Topics	Information Gathered
<p>CAD CAM systems Knowledge and skills in the use of:</p> <ul style="list-style-type: none"> ● 3D model manipulation to prepare for CAM production ● communicating surface finish and datums ● gathering model information on volume, centre of mass and mass of the model 	<p>Investigate and describe the benefits of the following CAD/CAM methods & techniques:</p> <p>3D model manipulation to prepare for CAM production</p> <p>What is it?</p> <p>How does it work?</p> <p>Communicating surface finish and datums</p> <p>What is it?</p> <p>How does it work?</p> <p>Gathering model information on volume, centre of mass and mass of the model.</p> <p>What is it?</p> <p>How does it work?</p>

TECHNICAL GRAPHIC FILE FORMATS

HOMEWORK - RESEARCH THE TOPICS LISTED BELOW AND WRITE CONCISE DESCRIPTIONS

Topics	Information Gathered
<p>Technical graphic file formats and their use Knowledge and skills in the use of:</p> <ul style="list-style-type: none"> ● Standard Tessellation Language/stereo lithography file format (STL), ● Direct Exchange Format (DXF), ● Drawing Format (DWG), ● Virtual Reality Modelling Language (VRML) and ● 3D Studio (3DS) files 	<p>Investigate and describe the benefits of the following CAD/CAM file formats:</p> <p>Standard Tessellation Language/stereo lithography file format (STL). What is special or different about this file?</p> <p>What is it used for?</p> <p>Direct Exchange Format (DXF). What is special or different about this file?</p> <p>What is it used for?</p> <p>Drawing Format (DWG). What is special or different about this file?</p> <p>What is it used for?</p>

TECHNICAL GRAPHIC FILE FORMATS

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Topics	Information Gathered
<p>Technical graphic file formats and their use Knowledge and skills in the use of:</p> <ul style="list-style-type: none">● Standard Tessellation Language/stereo lithography file format (STL),● Direct Exchange Format (DXF),● Drawing Format (DWG),● Virtual Reality Modelling Language (VRML) and● 3D Studio (3DS) files	<p>Investigate and describe the benefits of the following CAD/CAM file formats:</p> <p>Virtual Reality Modelling Language (VRML).</p> <p>What is special or different about this file?</p> <p>What is it used for?</p> <p>3D Studio (3DS) files.</p> <p>What is special or different about this file?</p> <p>What is it used for?</p>

Desktop Publishing

HOMEWORK - RESEARCH THE TOPICS LISTED BELOW AND WRITE CONCISE DESCRIPTIONS

Topics	Information Gathered
<p>Desktop publishing Knowledge and skills in the application of:</p> <ul style="list-style-type: none">• techniques, customs and practices across a range of packages, generic terms and techniques in supporting context and audience requirements• planning strategies	<p>Consider two users (Audiences) of DTP and describe the benefits to them of DTP in printed media and/or electronic media.</p> <p>Describe the benefits of DTP in printed media and/or electronic media in general.</p> <p>Describe the benefits of DTP in printed media and/or electronic media for: User 1: A Fast food company requiring posters, menus, booklets and large scale in-store advertising materials.</p> <p>Describe the benefits of DTP in printed media and/or electronic media for: User 2: Sportswear company hoping to expand into a Scandinavian market place and requiring a web-site.</p>

DESKTOP PUBLISHING - FILE TYPES

HOMEWORK - RESEARCH THE TOPICS LISTED BELOW AND WRITE CONCISE DESCRIPTIONS

Topic	Information Gathered
<p>Desktop publishing file formats and their use</p> <p>Knowledge and understanding of:</p> <ul style="list-style-type: none">● JPEG,● PNG,● BMP,● PDF,● AI,● WMV,● AVI,● 3GP,● QuickTime file formats	<p>Investigate and describe the benefits of the following DTP file formats:</p> <p>JPEG _____</p> <p>What is special or different about this file?</p> <p>What is it used for?</p> <p>PNG _____</p> <p>What is special or different about this file?</p> <p>What is it used for?</p> <p>BMP _____</p> <p>What is special or different about this file?</p> <p>What is it used for?</p> <p>PDF _____</p> <p>What is special or different about this file?</p> <p>What is it used for?</p>

DESKTOP PUBLISHING - FILE TYPES

HOMEWORK - RESEARCH THE TOPICS LISTED BELOW AND WRITE CONCISE DESCRIPTIONS

Topic	Information Gathered
<p>Desktop publishing file formats and their use</p> <p>Knowledge and understanding of:</p> <ul style="list-style-type: none"> • • JPG, • PNG, • BMP, • PDF, • AI, • WMV, • AVI, • 3GP, • QuickTime file formats 	<p>Investigate and describe the benefits of the following DTP file formats:</p> <p>AI _____</p> <p>What is special or different about this file?</p> <p>What is it used for?</p> <p>WMV _____</p> <p>What is special or different about this file?</p> <p>What is it used for?</p> <p>AVI _____</p> <p>What is special or different about this file?</p> <p>What is it used for?</p> <p>3GP _____</p> <p>What is special or different about this file?</p> <p>What is it used for?</p> <p>Quicktime file formats</p> <p>What is special or different about this file?</p> <p>What is it used for?</p>

DESKTOP PUBLISHING- PRINTING TECHNOLOGIES

HOMEWORK - RESEARCH THE TOPICS LISTED BELOW AND WRITE CONCISE DESCRIPTIONS

Topics	Information Gathered
<p>Commercial print media Print technologies Knowledge and understanding of:</p> <ul style="list-style-type: none"> ● various printing technologies, including ● Laser, ● ink-jet, ● wide-format, ● screen printing, ● offset lithography and ● solid ink systems 	<p>Describe the special features of this process. Explain the types of printing jobs it is used for in terms of: Economy of print run size. Materials to be printed on, Print Quality, Printing speed</p> <p>Laser printing Main features</p> <p>Economy of print run size</p> <p>Materials to be printed on</p> <p>Print Quality</p> <p>Printing speed</p> <p>Ink Jet Printers Main features</p> <p>Economy of print run size</p> <p>Materials to be printed on</p> <p>Print Quality</p> <p>Printing speed</p>

DESKTOP PUBLISHING- PRINTING TECHNOLOGIES

HOMEWORK - RESEARCH THE TOPICS LISTED BELOW AND WRITE CONCISE DESCRIPTIONS

Topics	Information Gathered
<p>Commercial print media Print technologies Knowledge and understanding of:</p> <ul style="list-style-type: none"> ● various printing technologies, including ● Laser, ● ink-jet, ● wide-format, ● screen printing, ● offset lithography and ● solid ink systems 	<p>Describe the special features of this process. Explain the types of printing jobs it is used for in terms of: Economy of print run size. Materials to be printed on, Print Quality, Printing speed</p> <p>Wide-format Printing Main features:</p> <p>Economy of print run size:</p> <p>Materials to be printed on:</p> <p>Print Quality:</p> <p>Printing speed:</p>

DESKTOP PUBLISHING- PRINTING TECHNOLOGIES Cont..

HOMEWORK - RESEARCH THE TOPICS LISTED BELOW AND WRITE CONCISE DESCRIPTIONS

Topics	Information Gathered
<p>Commercial print media Print technologies Knowledge and understanding of:</p> <ul style="list-style-type: none"> ● various printing technologies, including ● Laser, ● ink-jet, ● wide-format, ● screen printing, ● offset lithography and ● solid ink systems 	<p>Describe the special features of this process. Explain the types of printing jobs it is used for in terms of: Economy of print run size. Materials to be printed on, Print Quality, Printing speed</p> <p>Screen printing, Main features:</p> <p>Economy of print run size:</p> <p>Materials to be printed on:</p> <p>Print Quality:</p> <p>Printing speed:</p> <p>Offset lithography Main features:</p> <p>Economy of print run size:</p> <p>Materials to be printed on:</p> <p>Print Quality:</p> <p>Printing speed:</p>

DESKTOP PUBLISHING- PRINTING TECHNOLOGIES Cont..

HOMEWORK - RESEARCH THE TOPICS LISTED BELOW AND WRITE CONCISE DESCRIPTIONS

Topics	Information Gathered
<p>Commercial print media Print technologies Knowledge and understanding of:</p> <ul style="list-style-type: none"> ● various printing technologies, including ● Laser, ● ink-jet, ● wide-format, ● screen printing, ● offset lithography and ● solid ink systems 	<p>Describe the special features of this process. Explain the types of printing jobs it is used for in terms of: Economy of print run size. Materials to be printed on, Print Quality, Printing speed</p> <p>Solid ink systems Main features:</p> <p>Economy of print run size:</p> <p>Materials to be printed on:</p> <p>Printing speed:</p>

DESKTOP PUBLISHING - PRINTING TECHNOLOGIES - COLOUR SYSTEMS

HOMEWORK - RESEARCH THE TOPICS LISTED BELOW AND WRITE CONCISE DESCRIPTIONS

Topic	Information Gathered
<p>Commercial print media</p> <p>Print technologies</p> <p>Knowledge and understanding of:</p> <p>quality and standards in colour printing, including an understanding of</p> <ul style="list-style-type: none"> ● RGB, ● CMYK, and ● Pantone ● edge-to-edge, bleed, gutter, registration marks, colour calibration, dots-per-inch (DPI) ● photo-reduction, ● Duplexing, ● camera-ready copy, ● paper weight, ● paper opacity, ● use of calendaring for glossy print 	<p>Investigate and describe the benefits of the following colour standards:</p> <p>RGB _____</p> <p>Where is this standard applied?</p> <p>What are it's special features?</p> <p>CMYK _____ (_____)</p> <p>Where is this standard applied?</p> <p>What are it's special features?</p>

DESKTOP PUBLISHING - PRINTING TECHNOLOGIES - COLOUR SYSTEMS

HOMEWORK - RESEARCH THE TOPICS LISTED BELOW AND WRITE CONCISE DESCRIPTIONS

Topic	Information Gathered
<p>Commercial print media</p> <p>Print technologies</p> <p>Knowledge and understanding of:</p> <p>quality and standards in colour printing, including an understanding of</p> <ul style="list-style-type: none">● RGB,● CMYK, and● Pantone● edge-to-edge, bleed, gutter, registration marks, colour calibration, dots-per-inch (DPI)● photo-reduction,● Duplexing,● camera-ready copy,● paper weight,● paper opacity,● use of calendaring for glossy print	<p>Investigate and describe the benefits of the following colour standards:</p> <p>Pantone</p> <p>Where is this standard applied?</p> <p>What are it's special features?</p>

DESKTOP PUBLISHING - PRINTING TERMS

HOMEWORK - RESEARCH THE TOPICS LISTED BELOW AND WRITE CONCISE DESCRIPTIONS

Topic	Information Gathered
<p>Commercial print media Print technologies Knowledge and understanding of: quality and standards in colour printing, including an understanding of</p> <ul style="list-style-type: none"> ● RGB, ● CMYK, and ● Pantone ● edge-to-edge, bleed, gutter, registration marks, colour calibration, dots-per-inch (DPI) ● photo-reduction, ● Duplexing, ● camera-ready copy, ● paper weight, ● paper opacity, ● use of calendaring for glossy print 	<p>Explain the following printing terms: use sketches where possible.</p> <p>Edge-to-edge printing</p> <p>Bleed</p> <p>Gutter</p> <p>Registration marks</p> <p>Colour calibration</p> <p>Dots-per-inch (DPI)</p> <p>Photo-reduction</p>

DESKTOP PUBLISHING - PRINTING TERMS

HOMEWORK - RESEARCH THE TOPICS LISTED BELOW AND WRITE CONCISE DESCRIPTIONS

Topic	Information Gathered
<p>Commercial print media Print technologies Knowledge and understanding of:</p> <p>quality and standards in colour printing, including an understanding of</p> <ul style="list-style-type: none">● RGB,● CMYK, and● Pantone● edge-to-edge, bleed, gutter, registration marks, colour calibration, dots-per-inch (DPI)● photo-reduction,● Duplexing,● camera-ready copy,● paper weight,● paper opacity,● use of calendaring for glossy print	<p>Explain the following printing terms: use sketches where possible.</p> <p>Duplexing</p> <p>Camera-ready copy</p> <p>Paper weight</p> <p>Paper opacity</p> <p>Use of calendaring for glossy print</p>

DIGITAL VISUAL MEDIA - ANIMATION

HOMEWORK - RESEARCH THE TOPICS LISTED BELOW AND WRITE CONCISE DESCRIPTIONS

Topic	Information Gathered
<p>Animation Knowledge, understanding of, and application as required of:</p> <ul style="list-style-type: none">● creation of animated graphics making use of motion-capture, stop-frame, or motion tweening● post-editing of video files and use of video graphic technologies, including blend/fade, zoom, transition and overlays	<p>Investigate and describe the benefits of the following digital animation techniques:</p> <p>Creation of animated graphics making use of:</p> <p>Motion-capture:</p> <p>Stop-frame animation:</p> <p>Motion tweening:</p>

DIGITAL VISUAL MEDIA - ANIMATION

HOMEWORK - RESEARCH THE TOPICS LISTED BELOW AND WRITE CONCISE DESCRIPTIONS

Topic	Information Gathered
<p>Animation Knowledge, understanding of, and application as required of:</p> <ul style="list-style-type: none">● post-editing of video files and use of video graphic technologies, including blend/fade, zoom, transition and overlays	<p>Investigate and describe the benefits of the following digital animation techniques:</p> <p>Post-editing of video files and use of video graphic technologies, including:</p> <p>Blend/fade</p> <p>Zoom</p> <p>Transition</p> <p>Overlays</p>

TECHNICAL GRAPHICS - Graphic Types & Techniques

REVISION MATERIAL - MAKE NOTES FROM YOUR EXPERIENCES IN THE COURSE OR FROM RESEARCH

Topics	Information Gathered
Graphic Types	Knowledge, understanding and skills in interpreting audience requirements and producing effective graphic responses for: <i>preliminary, production and promotional</i> graphics.
Preliminary: Planning (Gantt charts) manual sketching, illustration.	<p>Write briefly, describing the Audiences, Purpose and Benefits of:</p> <p>Planning (Gantt charts) Purpose: <i>Audience:</i> <i>Benefits:</i></p> <p>Manual Sketching Purpose: Audience: Benefits:</p> <p>Illustrations Purpose: Audience: Benefits:</p>

TECHNICAL GRAPHICS - Graphic Types & Techniques

REVISION MATERIAL - MAKE NOTES FROM YOUR EXPERIENCES IN THE COURSE OR FROM RESEARCH

Topics	Information Gathered
Graphic Types	Knowledge, understanding and skills in interpreting audience requirements and producing effective graphic responses for: <i>preliminary, production and promotional</i> graphics.
Production Graphics: CAD, orthographic projection, pictorials, dimensional Tolerances.	<p>Write briefly describing the Audiences, Purpose and Benefits of:</p> <p>CAD Production drawings: Audience: Engineer, assembly technician. <i>Purpose:</i> <i>Benefit:</i></p> <p>Orthographic Projection: Audience: Engineer, Building Contractor. <i>Purpose:</i> <i>Benefit:</i></p> <p>Pictorial drawings: Audience: Client, advertising team, interior designer. <i>Purpose:</i> <i>Benefit:</i></p> <p>Dimension Tolerances Audience: Manufacturer, fitters (trades), construction trades. <i>Purpose:</i> <i>Benefit:</i></p>

TECHNICAL GRAPHICS - Graphic Types & Techniques

REVISION MATERIAL - MAKE NOTES FROM YOUR EXPERIENCES IN THE COURSE OR FROM RESEARCH

Topics	Information Gathered
Graphic Types	Knowledge, understanding and skills in interpreting audience requirements and producing effective graphic responses for: <i>preliminary, production and promotional</i> graphics.
Promotion: Creative layout techniques, Interactive screens, web sites.	Write briefly describing the Audiences, Purpose and Benefits of: Creative layout techniques: Interactive screens: Web sites: General benefits of a website to an audience include: Advantages to a company include:

TECHNICAL GRAPHICS - Graphic Types & Techniques

REVISION MATERIAL - MAKE NOTES FROM YOUR EXPERIENCES IN THE COURSE OR FROM RESEARCH

Topics	Information Gathered
Graphic Techniques	Skills, knowledge and application of: creative techniques when using graphic instruments or devices, and a range of graphics media.
<p>Use of 3D CAD, Animation, 3D Printing, CNC applications</p> <div style="border: 1px solid gray; padding: 5px; margin: 10px 0;"> <p>Key Issues</p> <ul style="list-style-type: none"> ● Orientation of model ● Scaffolding ● Use of fillets and Chamfers ● Quality of finish ● Rafting ● Use of webs ● Solid v's Hollow ● Filetypes ● stl </div> <div style="border: 1px solid gray; padding: 5px; margin: 10px 0;"> <p>Key Issues</p> <ul style="list-style-type: none"> ● Orientation ● Setting Datums ● Billet size ● Tool selection ● Clearances ● Tool paths ● Surface finish </div> <div style="border: 1px solid gray; padding: 5px; margin: 10px 0;"> <p>Key Issues</p> <ul style="list-style-type: none"> ● Stop Frame versus Motion Tweening /Keyframe ● Motion Capture ● Movie File types <ul style="list-style-type: none"> □ .wmv □ .avi □ .mov □ .mpeg ● Blend/Fade ● Morphing </div>	<p>Write briefly describing the Audiences, Purpose and Benefits of:</p> <p>3DCAD Audiences: Designers (product, interior,landscape etc), Architects, Engineers (mechanical, civil,naval etc), Bio-medical industry (prosthetics, dentistry etc) Games Industry. Clients. Purpose: Benefits:</p> <p>3D Printing Audiences: Product Designers, Architects, Engineers (mechanical, automotive, aerospace etc) Bio-medical industry (prosthetics, dentistry etc) . Fashion designers. Purpose: Benefits:</p> <p>CNC Applications (Simulation) Audiences: Designers and manufacturers who use subtractive (cutting) methods to manufacture components. (Eg. Laser or Vinyl Cutters, Routers). Purpose: Benefits:</p> <p>Animation Audiences: Medical professionals or their patients. Forensic scientists. Architecture clients. Teachers and learners. Product designers and engineers. Purpose: Benefits:</p>

Drawing Standards, Protocols and Conventions

REVISION MATERIAL - MAKE NOTES FROM YOUR EXPERIENCES IN THE COURSE OR FROM RESEARCH

Topics	Information Gathered
	<p>Knowledge and skills in applying: Recognised standards, protocols and conventions in engineering and construction drawings, including line types, symbols for sections, including stepped sections according to context, display variances in use of scale, detail, layout, measurement, layering functions, materials and symbols, tolerances.</p>
Standards, protocols and conventions in engineering and construction drawings, including line types, materials and symbols.	<p>Write briefly describing the Audiences, Purpose and Benefits of: Standards, Conventions and Protocols in engineering and construction drawing:</p>
Sections and stepped sections	<p>Write briefly describing the Audiences, Purpose and Benefits of Sections and Stepped sections in engineering and construction drawing:</p>
According to context, display variances in use of scale, detail, layout, measurement, and layering functions	<p>Write briefly describing the: Audiences, purpose and benefits of: scaling, tolerances and layering in engineering and construction drawings:</p> <p>Scaling:</p> <p>Tolerances:</p> <p>Layering:</p>

Built Environment

REVISION MATERIAL - MAKE NOTES FROM YOUR EXPERIENCES IN THE COURSE OR FROM RESEARCH

Topics	Information Gathered
Creators and users	
<p>Creators and users - Knowledge and understanding of the roles and needs of designers, architects, architectural technicians, landscape architects, construction trades, building surveyors, quantity surveyors, consultant engineers, town planners, conservation bodies, communities, model makers, interior designers, suppliers, production and planning, prospective purchasers and members of the general public.</p>	<p>Select two creators and two users and describe the types of graphics and the types of graphic technologies they require in order to carry out their work.</p> <p>Creator 1: Architect Designs buildings ranging from small house extensions to large public buildings like schools, theatres and hospitals Graphic types required: Graphic Technologies required:</p> <p>User 1: Construction trades Graphic types required:</p> <p>Creator 2: Building surveyors Measures sites and buildings to give an accurate representation of existing sites and structures. They may also investigate the structural condition (rot, cracks, subsidence) and fabric (water ingress, roof condition, external walls) of an existing building. Graphic types required: Graphic Technologies required:</p> <p>User 2: Conservation bodies Graphic types required: Graphic types required:</p> <p>Creator 3: Consultant Engineers: Graphic types required: Graphic Technologies required:</p>

Built Environment

REVISION MATERIAL - MAKE NOTES FROM YOUR EXPERIENCES IN THE COURSE OR FROM RESEARCH

Topics	Information Gathered
Creators and users	
<p>Creators and users - Knowledge and understanding of the roles and needs of designers, architects, architectural technicians, landscape architects, construction trades, building surveyors, quantity surveyors, consultant engineers, town planners, conservation bodies, communities, model makers, interior designers, suppliers, production and planning, prospective purchasers and members of the general public.</p>	<p>Select one creator and one user and describe the types of graphics and the types of graphic technologies they require in order to carry out their work.</p> <p>Creator 4: Interior designer <i>Responsible for the interior design of a building, including colour schemes, tiling, wall paper, paintwork, soft furnishings and sometimes lighting.</i></p> <p>Graphic types required:</p> <p>Creator 5: Production and planning <i>Production: detailed construction information (drawings and schedules) in order to assemble a building. Planning: the creation of Gantt charts (usually by an Architect) to plan out the stages of construction.</i></p> <p>Graphic types required:</p> <p>Creator 6: Architectural Technicians <i>Will produce orthographic drawings of buildings and/or parts of buildings at varying scales from 1:200 to 1:5. They will mainly produce plans and sections that detail the construction of walls, floors and the roof and the junctions between these features. The primary role of a technician is to ensure compliance with building regulations. This means understanding the minimum size requirements for all manner of building features from disabled toilets to corridor widths to the spacing of fire dampeners in wall construction and ensuring adequate ventilation for the size of room. Technicians do not normally have any involvement with building design. Floorplans of buildings / rooms to show layout, positions of doors, windows, power sockets, light switches, plumbing and heating fittings. Elevations of Buildings showing external details, finishings, cross sections showing wall construction details.</i></p> <p>Graphic technologies required</p> <p>User 3: Prospective purchasers:</p> <p>Graphic types required:</p>

Built Environment

REVISION MATERIAL - MAKE NOTES FROM YOUR EXPERIENCES IN THE COURSE OR FROM RESEARCH

Topics	Information Gathered
Creators and users	
<p>Creators and users - Knowledge and understanding of the roles and needs of designers, architects, architectural technicians, landscape architects, construction trades, building surveyors, quantity surveyors, consultant engineers, town planners, conservation bodies, communities, model makers, interior designers, suppliers, production and planning, prospective purchasers and members of the general public.</p>	<p>Select one creator and one user and describe the types of graphics and the types of graphic technologies they require in order to carry out their work.</p> <p>Creator 7: Quantity Surveyor</p> <p>Graphic Types required:</p> <p>Graphic Technologies required:</p> <p>User 4: Suppliers</p> <p>Graphic Types required: <i>Produce highly technical graphic information to communicate how their product, i.e. a window system, is manufactured and can be constructed. Will produce 3D CAD models to communicate how components fit together along with detailed 2D production drawings to inform the manufacture of their product. Will also work with Architects and engineers to design bespoke components. Will produce details at a scale of 1:10 to 1:2 showing how their product or system is constructed and can be installed.</i></p> <p>Graphic Technologies required:</p> <p>User 5: Town planners</p> <p>Graphic Types required:</p> <p>Graphic Technologies required:</p>

Built Environment

REVISION MATERIAL - MAKE NOTES FROM YOUR EXPERIENCES IN THE COURSE OR FROM RESEARCH

Topics

Information Gathered

Creators and users

Creators and users - Knowledge and understanding of the roles and needs of designers, architects, architectural technicians, landscape architects, construction trades, building surveyors, quantity surveyors, consultant engineers, town planners, conservation bodies, communities, model makers, interior designers, suppliers, production and planning, prospective purchasers and members of the general public.

Select one creator and one user and describe the types of graphics and the types of graphic technologies they require in order to carry out their work.

Drawings are usually received physically in packages which are then scanned in to a computer system and uploaded onto a planning portal website for the public to view and comment on.

Creator 8: Building Surveyors

Graphic Types required:

Measure sites and buildings to give an accurate representation of existing sites and structures. They may also investigate the structural condition (rot, cracks, subsidence) and fabric (water ingress, roof condition, external walls) of an existing building. Produces measured drawings (plans and elevations) of existing buildings and sites prior to any design or construction, usually to a specification dictated by an Architect or client. The scale, level of detail and content of the survey depends upon the specification. Typically, detail is drawn at a scale of 1:50 to 1:100 for building information and 1:200 to 1:500 for site information.

Graphic technologies required:

User 6: Communities

Graphic Types required:

Consulted with to give input into new developments. May be invited to attend consultation events whereby developers and some members of the design team, principally architects, present drawings depicting what a new development is going to look like and how it is going to impact upon the local community. Drawings are typically those used for planning purposes (location and site plans, building plans, elevations and rendered visuals produced from 3D CAD models).

Graphic Technologies required:

Creator 9: Model makers:

Makes physical scale models of proposed building designs which are typically made from card, wood, mount board, plastics. May also build 3D CAD models and create physical models via-rapid prototyping.

Graphic types required:

Built Environment

REVISION MATERIAL - MAKE NOTES FROM YOUR EXPERIENCES IN THE COURSE OR FROM RESEARCH

Topics

Information Gathered

Creators and users

Creators and users - Knowledge and understanding of the roles and needs of designers, architects, architectural technicians, landscape architects, construction trades, building surveyors, quantity surveyors, consultant engineers, town planners, conservation bodies, communities, model makers, interior designers, suppliers, production and planning, prospective purchasers and members of the general public.

Select one creator and one user and describe the types of graphics and the types of graphic technologies they require in order to carry out their work.

Creator 10: Production Engineer

Graphic Types required:

Freehand sketches, initial computer sketches, initial computer models, 3D computer models, Manual drawings (drawing board), Orthographic drawings (assembled and parts), Technical detail drawings (sections etc), FEA Analysis, Exploded pictorial drawings, 3D prints, Animations, Flow diagrams, Parts lists, Model plans, tolerances, material details, systems diagrams, operation diagrams, instruction manuals, safety signage.

Graphic technologies required:

Creator 11: The General public

Graphic Types required:

Promotional materials such as brochures, leaflets, instructions, adverts, magazines, posters. Digital media such as Websites, digital publications, digital instructions, CD covers, DVD covers, Packaging, Logos, signage, digital applications, Digital interfaces, physical interfaces, wayfinding, animation, animated films, entertainment

Graphic technologies required:

Built Environment

REVISION MATERIAL - MAKE NOTES FROM YOUR EXPERIENCES IN THE COURSE OR FROM RESEARCH

Topics	Information Gathered
<p>Planning drawing:</p> <p>Knowledge of the use of:</p> <ul style="list-style-type: none">● electrical drawings, plumbing drawings, drainage surveys, underground surveys — storm water, foul water, services, gas, electric and telecommunications● feature surveys; textile paving, seating, lighting● topographical surveys; standards, layout and use	<p>Investigate and prepare brief notes on the following planning drawings: Who will produce them, who might use them, what content do they have and how are they produced.</p> <p>Electrical drawings:</p> <p>Drainage surveys:</p> <p>Topographical Surveys:</p>

Manufacturing and engineering

REVISION MATERIAL - MAKE NOTES FROM YOUR EXPERIENCES IN THE COURSE OR FROM RESEARCH

Topics	Information Gathered
<p>Manufacturing and engineering Creators and users - Knowledge and understanding of the roles and needs of:</p> <ul style="list-style-type: none"> ● designers, consultants ● engineering trades (civil, structural, electrical, mechanical, structural, systems) ● manufacturers, fabricators, ● model makers, test labs, materials technologists, ● specification engineers, ● Suppliers, ● production and planning. 	<p>Select one creator and one user and describe the types of graphics and the types of graphic technologies they require in order to carry out their jobs.</p> <p>User 1 Heating Engineer Graphic types required and their purpose: <i>3D Pictorial of gas / water pipe runs to show position of main inlets and outlets for water and sewage. CFD data showing optimal positions of radiators.</i></p> <p>Graphic Technologies required and their purpose:</p> <p>User 1 Interior Designer Graphic types required and their purpose: <i>3D Renderings of proposed room layouts to show positions of furniture, doors, fixtures and fittings. Floor plans,</i></p> <p>Graphic Technologies required and their purpose:</p>

TECHNICAL GRAPHICS - CREATORS and USERS

REVISION MATERIAL - MAKE NOTES FROM YOUR EXPERIENCES IN THE COURSE OR FROM RESEARCH

Knowledge and understanding of the roles and needs of those who may encounter, use, draw, read or explain any form of technical, engineering or production drawing. Describe the roles of the following professionals and describe the graphic types the use and/or produce:

**Design engineer/
Industrial Designer**

**Manufacturing
engineer**

TECHNICAL GRAPHICS - CREATORS and USERS

REVISION MATERIAL - MAKE NOTES FROM YOUR EXPERIENCES IN THE COURSE OR FROM RESEARCH

Knowledge and understanding of the roles and needs of those who may encounter, use, draw, read or explain any form of technical, engineering or production drawing. Describe the roles of the following professionals and describe the graphic types the use and/or produce:

Assembly Technician

TECHNICAL GRAPHICS - CREATORS and USERS

REVISION MATERIAL - MAKE NOTES FROM YOUR EXPERIENCES IN THE COURSE OR FROM RESEARCH

Knowledge and understanding of the roles and needs of those who may encounter, use, draw, read or explain any form of technical, engineering or production drawing. Describe the roles of the following professionals and describe the graphic types the use and/or produce:

**Conformance/
Compliance
Technician or
Engineer**

Model Maker

Test engineer

COMMERCIAL and VISUAL MEDIA - COMMON ELEMENTS

REVISION MATERIAL - MAKE NOTES FROM YOUR EXPERIENCES IN THE COURSE OR FROM RESEARCH

Topics	Information Gathered
<p>Common elements to commercial and visual media graphics</p> <p>Creators and users - Knowledge and understanding of the roles and needs of:</p> <ul style="list-style-type: none"> ● graphic designers, ● Artists, ● sales and marketing, ● Public & community, ● Advertising, ● creative industries, ● Retailers, ● Cinematic, ● Television, ● Electronic and interactive media, ● Animation, ● Web designers. 	<p>Select one creator and one user and describe the types of graphic and the types of graphic technologies they require in order to carry out their jobs.</p> <p>Creator 1: Graphic Designer Graphic types required and their purpose:</p> <p>Graphic Technologies required and their purpose:</p> <p>Creator 2 <i>Advertising designer</i> Graphic types required and their purpose:</p> <p>Graphic Technologies required and their purpose:</p> <p>User 1: Retailers Graphic types required and their purpose:</p> <p>Technologies and their purpose:</p>