

Key Stage 4 Long Term Planning Year 10 2024-2025 SYLLABUS: AQA GCSE 3D Design (8205)

Curriculum Area: Art, Performance and Technology (Design Technology).)

Year 10	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Syllabus	AQA GCSE Art and Design (Three- Dimensional Design) 3D Net design and CAD/CAM awareness sessions	AQA GCSE Art and Design (Three-Dimensional Design) Theory surrounding the different materials available, their properties and uses	AQA GCSE Art and Design (Three-Dimensional Design) Project 1- Sculpture Project	AQA GCSE Art and Design (Three-Dimensional Design)	AQA GCSE Art and Design (Three-Dimensional Design) Project 2- Jewelry Project	AQA GCSE Art and Design (Three- Dimensional Design)
Knowledge	Understand and re-cap from Ks3 the various skills associated with CAD design and modelling	A more in-depth look at materials (Wood, Plastic, Metal). Their uses, how to work with them and finishes available	How sources relate to historical, contemporary, cultural, social, environmental and creative contexts	How ideas, feelings, forms, and purposes can generate responses that address specific needs be these personal or determined by external factors such as the requirements of an individual client's expectations, needs of an intended audience or details of a specific commission.	How sources relate to historical, contemporary, cultural, social, environmental and creative contexts	How ideas, feelings, forms, and purposes can generate responses that address specific needs be these personal or determined by external factors such as the requirements of an individual client's expectations, needs of an intended audience or details of a specific commission.
Skills	Model making, modelling 3D with specific CAD software. Tools which aid accurate construction and nomenclature which is industry standard	Testing materials and their various properties, cutting, sanding and finishing	Students must demonstrate the ability to: use three-dimensional techniques and processes, appropriate to students' personal intentions, for example: model making, constructing, surface treatment, assembling, modelling	Use media and materials, as appropriate to students' personal intentions, for example: drawing, materials, wood, metal, plaster, plastic and foundry materials.	Students must demonstrate the ability to: use three-dimensional techniques and processes, appropriate to students' personal intentions, for example: model making, constructing, surface treatment, assembling, modelling	Use media and materials, as appropriate to students' personal intentions, for example: drawing, materials, wood, metal, plaster, plastic and foundry materials.
Connections to previous learning	Understanding the design process explored in KS3 through the DT carousel and Art lessons	Key concepts are recalled which include health and safety in the workshop, use of specific machines/equipment	Applying the knowledge from KS3 and the early part of KS4 on the appropriate use of materials and joining techniques	Application of drawing and finishing techniques from Ks3	Remembering the more advanced skills from KS4 in model making, drawing and mounting work	Implementing the skills and techniques gained from previous projects into one complete cohesive piece of work
Assessment	Point 1 (Wk 1-8) Being able to describe or explain a concept, method or action when using the software. Point 2 Critiquing a given design, pointing to the flaws or strengths of the design Point 3 Producing an outcome which is accurate based on a given time limit	Point 1 (Wk 9-16) Written through worksheets and discussion. Being able to describe or explain a concept Point 2 End of unit test	(Wk 17-20) Complete a fully detailed portfolio of work. This can be hand written or a combination of electronic and hand-written portfolio. Assessed based on written work against AO1-AO4	(Wk 21-27) A practical piece of work which is either fully complete or partial complete but shows very good development work that has been carried out in the portfolio. Assessed based on written work and practical work a	(Wk 28-33) Complete a fully detailed portfolio of work. This can be hand written or a combination of electronic and hand-written portfolio. Assessed based on written work against AO1-AO4	(Wk 34-39 continue) A practical piece of work which is either fully complete or partial complete but shows very good development work that has been carried out in the portfolio. Assessed based on written work and practical work against AO1-AO4
Homework	Establish the importance of rapid prototyping. Use examples from school.	Homework related from the materials module on the properties of Wood, Metals and Plastics	Establish a selection of designers, what they do, make, design and their philosophy. Produce a critical review of their work and what inspires you	Produce a set of designs which complement the designers you have chosen. Explain how you may make such designs within the context of the school resources available	Establish a selection of designers, what they do, make, design and their philosophy. Produce a critical review of their work and what inspires you	Produce a set of designs which complement the designers you have chosen. Explain how you may make such designs within the context of the school resources available



Cultural Capital	Watch: 3D Printing and its benefits to society	Watch: Testing materials to destruction	Watch: History of designers and their influences Internet: research around the different designers.	Develop your designs at home and bring In at least two developed designs. Get some opinions on your designs from three family members.	After school session on practical workshop lessons.	After school session on practical workshop lessons.
Numeracy	Measuring with a ruler and using the measuring tools from the CAD software	Looking at ratios of weight to strength for the different materials	Timing: Again, pupils will need to be able to say when their product has been in the oven for the correct amount of time or to say if something has simmered for the correct length of time	Graphs: Pupils will draw graphs to show the results of a questionnaire about peer opinion on certain parts of their designs.	Timing: Again, pupils will need to be able to say when their product has been in the oven for the correct amount of time or to say if something has simmered for the correct length of time	Realisation of the final product based on all the data they have gathered about their models, test pieces and trials.
Literacy	Skimming and scanning: Pupils will read through the instructions for their task and requested to highlight key information.	Skimming and scanning: Pupils will read through the instructions for their task and requested to highlight key information.	Skimming and scanning: Pupils will read through the instructions for their task and requested to highlight key information.	Skimming and scanning: Pupils will read through the instructions for their task and requested to highlight key information.	Skimming and scanning: Pupils will read through the instructions for their task and requested to highlight key information.	Skimming and scanning: Pupils will read through the instructions for their task and requested to highlight key information.
CIAG	Measuring: Using the measuring equipment accurately. Ensuring the waste is minimized. Time: Ensuring the most efficient processes are utilised	Tolerance: Ensuring the measurements undertaken are accurate and the cutting process is also accurate so that they all fit correctly.	Market Researchers: The importance of questionnaires and how they are used. What are the advantages and disadvantages of using questionnaires? Graphic Designers: What do they do and why are they relevant to the food industry?	Architect: Designs buildings and other structures. Interior Designer: Plans and designs rooms in houses.	Architect: Designs buildings and other structures. Interior Designer: Plans and designs rooms in houses.	Product designers: Why design in the here and now, how will it evolve in the future. Exploring techniques of future proving a design.

Key Stage 4 Long Term Planning Year 11 2024-2025 SYLLABUS: AQA GCSE 3D Design(8205)

Curriculum Area: Art, Performance and Technology (Design Technology).

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Year 11	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1 [(Externally assessed work by moderator (May/June)]
Syllabus	AQA GCSE Art and Design (Three- Dimensional Design)	Component 2: Externally set assignment (Wk 9-15) AQA will provide a separate externally set assignment for each title, each with seven different starting points. Students must select and respond to one starting point from their chosen title.	Component 2: Externally set assignment (Wk 16-22) AQA will provide a separate externally set assignment for each title, each with seven different starting points. Students must select and respond to one starting point from their chosen title.	Component 2: Externally set assignment (Wk23-29) AQA will provide a separate externally set assignment for each title, each with seven different starting points. Students must select and respond to one starting point from their chosen title.	Component 2: Externally set assignment (Wk 30-38) AQA will provide a separate externally set assignment for each title, each with seven different starting points. Students must select and respond to one starting point from their chosen title.
Knowledge	How ideas, feelings, forms, and purposes can generate responses that address specific needs be these personal or	The externally set assignment provides students with the opportunity to demonstrate,	The externally set assignment provides students with the opportunity to demonstrate,	The externally set assignment provides students with the opportunity to demonstrate,	The externally set assignment provides students with the opportunity to demonstrate,



	determined by external factors such as the requirements of an individual client's expectations, needs of an intended audience or details of a specific commission.	through an extended creative response, their ability to draw together different areas of knowledge, skills and/or understanding in response to their selected starting point.	through an extended creative response, their ability to draw together different areas of knowledge, skills and/or understanding in response to their selected starting point.	through an extended creative response, their ability to draw together different areas of knowledge, skills and/or understanding in response to their selected starting point.	through an extended creative response, their ability to draw together different areas of knowledge, skills and/or understanding in response to their selected starting point.
Skills	Use media and materials, as appropriate to students' personal intentions, for example: drawing, materials, wood, metal, plaster, plastic and foundry materials.	The extended creative response must explicitly evidence students' ability to draw together different areas of knowledge, skill and/or understanding from initial engagement with their selected starting point through to their realisation of intentions in the 10 hours of supervised time.	The extended creative response must explicitly evidence students' ability to draw together different areas of knowledge, skill and/or understanding from initial engagement with their selected starting point through to their realisation of intentions in the 10 hours of supervised time.	The extended creative response must explicitly evidence students' ability to draw together different areas of knowledge, skill and/or understanding from initial engagement with their selected starting point through to their realisation of intentions in the 10 hours of supervised time.	The extended creative response must explicitly evidence students' ability to draw together different areas of knowledge, skill and/or understanding from initial engagement with their selected starting point through to their realisation of intentions in the 10 hours of supervised time.
Connections to previous learning	Understanding the design process explored in KS3 through the DT carousel and Art lessons	Key concepts are recalled which include health and safety in the workshop, use of specific machines/equipment	Applying the knowledge from KS3 and the early part of KS4 on the appropriate use of materials and joining techniques	Application of drawing and finishing techniques from Ks3	Remembering the more advanced skills from KS4 in model making, drawing and mounting work
Assessment	(Wk 1-8 continue) A practical piece of work which is either fully complete or partial complete but shows very good development work that has been carried out in the portfolio. Assessed based on written work and practical work against AO1-AO4	Students must ensure that the total submission for Component 2 evidences coverage of all four assessment objectives and evidence of drawing activity and written annotation. Students must identify and acknowledge sources which are not their own.	Students must ensure that the total submission for Component 2 evidences coverage of all four assessment objectives and evidence of drawing activity and written annotation. Students must identify and acknowledge sources which are not their own.	Students must ensure that the total submission for Component 2 evidences coverage of all four assessment objectives and evidence of drawing activity and written annotation. Students must identify and acknowledge sources which are not their own.	Students must ensure that the total submission for Component 2 evidences coverage of all four assessment objectives and evidence of drawing activity and written annotation. Students must identify and acknowledge sources which are not their own.
Homework	Produce a set of designs which complement the designers you have chosen. Explain how you may make such designs within the context of the school resources available	Respond to time scales: this could be carrying out research activities on designers, methods of assembly or finishes, sketching ideas, developing the ideas or writing up the portfolio. Look into and critique a given set of designers from the externally set assignment	Respond to time scales: this could be carrying out research activities on designers, methods of assembly or finishes, sketching ideas, developing the ideas or writing up the portfolio. Identify the parallels between the given designers. Establish the types of methods they use in designing, modelling and eventually making.	Respond to time scales: this could be carrying out research activities on designers, methods of assembly or finishes, sketching ideas, developing the ideas or writing up the portfolio. How can you develop your design based on a one of the chosen designers? Show through sketch work and annotation your methodology for designing and modelling	Respond to time scales: this could be carrying out research activities on designers, methods of assembly or finishes, sketching ideas, developing the ideas or writing up the portfolio. Put together your portfolio explaining the changes which have occurred because of the investigations carried out in class.



Cultural Capital	After school session on practical workshop lessons.	Potential visit to the local DIY store, car showroom, Art gallery, manufacturing facility. Working with a designer or client who acts as the customer/user	Potential visit to the local DIY store, car showroom, Art gallery, manufacturing facility	Potential visit to the local DIY store, car showroom, Art gallery, manufacturing facility Working with a designer or client who acts as the customer/user	Potential visit to the local DIY store, car showroom, Art gallery, manufacturing facility
Numeracy	Measuring with a ruler and using the measuring tools from the CAD software Looking at ratios of weight to strength for the different materials	Ensuring the time scale is understood, the tasks required and begin planning the stages	Establishing the required materials before starting their practical work	Potential cost of each element of the product from material cost to the use of paints/finishes	Realisation of the final product based on all the data they have gathered about their models, test pieces and trials.
Literacy	Skimming and scanning: Pupils will read through the instructions for their task and requested to highlight key information.	Skimming and scanning: Pupils will read through the instructions for their task and requested to highlight key information.	Skimming and scanning: Pupils will read through the instructions for their task and requested to highlight key information.	Skimming and scanning: Pupils will read through the instructions for their task and requested to highlight key information.	Skimming and scanning: Pupils will read through the instructions for their task and requested to highlight key information.
CIAG	Measuring: Using the measuring equipment accurately. Ensuring the waste is minimized. Time: Ensuring the most efficient processes are utilised	Tolerance: Ensuring the measurements undertaken are accurate and the cutting process is also accurate so that they all fit correctly.	Market Researchers: The importance of questionnaires and how they are used. What are the advantages and disadvantages of using questionnaires? Graphic Designers: What do they do and why are they relevant to the food industry?	Architect: Designs buildings and other structures. Interior Designer: Plans and designs rooms in houses.	Architect: Designs buildings and other structures. Interior Designer: Plans and designs rooms in houses.