



The Brades Lodge

Long Term Planning for: Design Technology

KS4 – Y10 focusses on the selection, or continuation of topics and advancing development of skills directly contributing to GCSE 3D DESIGN coursework.

Planning is broken down into appropriate and relevant impact categories: **AO1, AO2, AO3 and AO4**. This enables reiteration of skills from earlier KS3 but also development of those skills, leading to contributing pieces for the GCSE coursework (60%). Differentiation is maintained throughout overall practice and learning outcomes. Projects are individualised and student led for engagement.

YEAR 10

LONGER TERM PROJECT/SKILLS DEVELOPMENT/COURSEWORK CONTRIBUTIONS

AUTUMN TERM		SPRING TERM		SUMMER TERM	
AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
AO1,AO2 FOCUS	AO1,AO2,AO3 FOCUS	AO2,AO3 FOCUS	AO2,AO3,AO4 FOCUS	AO3,AO4 FOCUS	AO3,AO4 FOCUS
<p>Intent:</p> <p>Highly individualised projects; Students are given a range of topics to explore or can select their own through tutorials.</p> <p>AO1 Focuses on developing research and explorative skills appropriate to design technology.</p> <p>AO2 Focuses on developing ideas which are directly linked to research.</p> <p>AO3 Focuses on developing ideas and refining and selecting designs to reach competent and relevant outcomes which are appropriate to areas explored</p> <p><i>Intrinsic and selective, AO1 and AO2 should begin to appear relevant and informative of one and other.</i></p>		<p>Intent:</p> <p>Highly individualised projects; Students are given a range of topics to explore or can select their own through tutorials.</p> <p>AO2 Focuses on developing ideas which are directly linked to research.</p> <p>AO3 Focuses on developing ideas and refining and selecting designs to reach competent and relevant outcomes which are appropriate to areas explored</p> <p>AO4 Focuses on drawing conclusions and developing selected ideas to the point of a relevant outcome.</p> <p><i>Intrinsic, holistic and selective, AO1, AO2 and AO3 should begin to appear relevant and informative of one and other. AOs can appear as and alongside each other and one piece of work may contribute to all AOs where others are more specific to each band.</i></p>		<p>Intent:</p> <p>Highly individualised projects; Students are given a range of topics to explore or can select their own through tutorials.</p> <p>AO3 Focuses on developing ideas and refining and selecting designs to reach competent and relevant outcomes which are appropriate to areas explored</p> <p>AO4 Focuses on drawing conclusions and developing selected ideas to the point of a relevant outcome. Ideas do not have to be 'finished' but do need to conclude areas that have been highlighted/addressed.</p> <p><i>Intrinsic, holistic and selective, AO3 and AO4 should appear relevant and informative of one and other. Linking back to AO1. There should be a flow. AOs can appear as and alongside each other and one piece of work may contribute to all AOs where others are more specific to each band.</i></p>	



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Implementation:

Lesson content to cover specialist researching, recording, written annotation and some theory/process work, such as;

- Independent collection of relevant primary research
- Effective use of cameras for recording primary research
- Widening collection of secondary research
- Developing research in line with chosen theme
- Specific and competent target market research and consideration
- Clear consideration of the target user (discussing vs market)
- Consideration of design problems
- Refinement of design problems to inform project choices
- Design skills spanning all styles covered in KS3 with relevant selection
- Development of accurate use of pencil to create design ideas
- Use of other mediums to improve initial ideas
- Use of computer aided design where required
- Independent development or supported where required by differentiation
- Independent use of laptops

Lessons to incorporate:

- A range of drawing medium
- Laptops
- Safe use of internet
- Technical drawing skills reiterated
- Presentation techniques
- Assessment breakdown
- Portfolios
- Peer support and feedback
- Short tasks and detailed examples
- Regular demonstrations

Implementation:

Lesson content to cover specialist researching, recording, written and theory work, such as;

- Independent CAD/CAM skills utilised
- Modelling and creating prototypes from a variety of materials
- Development
- Photography
- Resin casting where appropriate
- Printing fabrics where appropriate
- Laser cutting materials
- Selection and consideration of ideas for development
- Photoshop
- Google sketch up where appropriate
- 2D design
- Concluding and evaluation of elements in design

Lessons to incorporate:

- Short tasks mainly teacher led.
- Peer support and feedback
- White boards
- Portfolios
- Model making
- Prototype development
- CAD/CAM soft and hardware
- Use of laptops
- Independent use of isometric grids.
- Starters and plenary
- Summative/formative assessment
- Use of Arbor and parent portal communication.
- Reflective practice and adaptive teaching

Impact:

Implementation:

- Supported development of ideas in line with theme
- Model making skills progressed
- Further design skills appropriate to topic
- Skills development CAD/CAM for outcomes
- Skills development practical for independent competencies
- Woodworking skills such as joinery, shaping and finishing to be advanced as appropriate to the learner

Lessons to incorporate:

- Short tasks mainly teacher led.
- Use of practical equipment and machine tools.
- Hand tools
- Adhesives
- Presentation techniques
- Portfolios
- Peer support and feedback
- White boards
- Laptops
- Editing softwares
- Starters and plenary
- Summative/formative assessment
- Use of Arbor and parent portal communication.
- Reflective practice and adaptive teaching

Impact:



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- Starters and plenary
- Summative/formative assessment
- Use of Arbor and parent portal communication.
- Reflective practice and adaptive teaching

Impact:

To enable students to learn from a range of GCSE Assessment objective focus areas:

- AO1 Research and recording skills
- AO2 Ideas and inspiration
- AO3 Recording and developing ideas

Learners should have independently considered a theme or topic for their GCSE that they wish to explore. This independent thinking impacts engagement and allows student led development of work under relevant and crucial processes but also in alignment with AO1-AO4 of 3D design at GCSE. Initial skills such as research and taking inspiration from relevant sources are expected to be introduced early in AUTUMN 1 and progressed towards the close of the half term where skills will be assessed and impact recorded. Learners should have embedded basic skillsets in secondary and primary research, as well as drawing relevant conclusions. Literacy should have developed where key language and use of specialist terminology is encouraged and seen in annotation.

To enable students to learn from a range of focus areas:

- AO2 Ideas and inspiration
- AO3 Recording and developing ideas
- AO4 conclusions and outcomes

Learners should be able to apply a deeper understanding of research to a design and make appropriate and relevant choices for selection, development and future refined outcomes with some independence. Individual pathways allow progress through a range of practical explorations such as model making. Students will have learned about approaches which are relevant and desired by the working world of engineering, graphic design, brand and marketing, digital development, advertising, Joinery, Creative design, architecture, spatial design, and more.

Confidence should have developed and resilience be established as part of overall impact of DT lessons.

To enable students to learn from a range of focus areas:

- AO3 Recording and developing ideas
- AO4 conclusions and outcomes

Learners should be able to apply relevant conclusions drawn from research, ideas and development to a range of outcomes. Learners may enter Y11 with the skills to advance to higher level learning pathways (targeted at 4 or higher at GCSE).



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KS4 – Y11 - Refinement and selection of GCSE 3D DESIGN coursework Aug-Jan.

In January, externally set task is set, which runs until April.

10 hour practical assessment follows a short portfolio.

Planning is broken down into appropriate and relevant impact categories: **AO1, AO2, AO3 and AO4**. This enables reiteration of skills from earlier KS3 but also development of those skills, leading to contributing pieces for the GCSE coursework (60%). Differentiation is maintained throughout overall practice and learning outcomes. Projects are individualised and student led for engagement.

YEAR 11

LONGER TERM PROJECT/SKILLS DEVELOPMENT/COURSEWORK CONTRIBUTIONS

AUTUMN TERM		SPRING TERM		SUMMER TERM	
AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
AO1,AO2,AO3,AO4 FOCUS	AO1,AO2,AO3,AO4 FOCUS	EXTERNALLY SET TASK AO1,AO2,AO3,AO4	10 HOUR ASSESSMENT PREPARATION		
<p>Intent:</p> <p>Highly individualised projects will continue to be refined; Students revisit gaps in portfolio and enhance existing work. Refining skills and outcomes is paramount for completion of 60% Portfolio task.</p> <p>AO1 Focuses on developing research and explorative skills appropriate to design technology.</p> <p>AO2 Focuses on developing ideas which are directly linked to research.</p> <p>AO3 Focuses on developing ideas and refining and selecting designs to reach competent and relevant outcomes which are appropriate to areas explored</p> <p>AO4 Focuses on drawing conclusions and developing selected ideas to the point of a relevant outcome. Ideas do not have to</p>		<p>Intent:</p> <p>EXTERNALLY SET TASK; Students are given a range of topics to explore or can select their own through tutorials. Depending on the class, we will choose one topic for ALL learners or possibly split into the range.</p> <p>AO1 Focuses on developing research and explorative skills appropriate to design technology.</p> <p>AO2 Focuses on developing ideas which are directly linked to research.</p> <p>AO3 Focuses on developing ideas more deeply and refining and selecting designs to reach competent and relevant outcomes which are appropriate to areas explored</p> <p>AO4 Focuses on drawing conclusions and developing selected ideas to the point of a relevant outcome/practical piece.</p>		<p>Intent:</p> <p>Implementation:</p> <p>Impact:</p>	



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be 'finished' but do need to conclude areas that have been highlighted/addressed.

Intrinsic, holistic and selective, AO1, AO2, AO3, AO4 should clearly appear relevant and informative of one and other. AOs can appear as and alongside each other and one piece of work may contribute to all AOs where others are more specific to each band.

Implementation:

Lesson content to cover specialist researching, recording, written annotation and some theory/process work, such as;

- Independent collection of relevant primary research
- Effective use of cameras for recording primary research
- Widening collection of secondary research
- Developing research in line with chosen theme
- Specific and competent target market research and consideration
- Clear consideration of the target user (discussing vs market)
- Consideration of design problems
- Refinement of design problems to inform project choices
- Design skills spanning all styles covered in KS3 with relevant selection
- Development of accurate use of pencil to create design ideas
- Use of other mediums to improve initial ideas
- Use of computer aided design where required
- Independent development or supported where required by differentiation
- Independent use of laptops

Lessons to incorporate:

- A range of drawing medium
- Laptops

Intrinsic, holistic and selective, AO1, AO2, AO3, AO4 should clearly appear relevant and informative of one and other. AOs can appear as and alongside each other and one piece of work may contribute to all AOs where others are more specific to each band.

Implementation:

Lesson content to cover specialist researching, recording, written and theory work, such as;

- Independent CAD/CAM skills utilised
- Modelling and creating prototypes from a variety of materials
- Development
- Photography
- Resin casting where appropriate
- Printing fabrics where appropriate
- Laser cutting materials
- Selection and consideration of ideas for development
- Photoshop
- Google sketch up where appropriate
- 2D design
- Concluding and evaluation of elements in design

Lessons to incorporate:

- Short tasks mainly teacher led.
- Peer support and feedback
- White boards
- Portfolios
- Model making
- Prototype development
- CAD/CAM soft and hardware
- Use of laptops
- Independent use of isometric grids.
- Starters and plenary



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- Safe use of internet
- Technical drawing skills reiterated
- Presentation techniques
- Assessment breakdown
- Portfolios
- Peer support and feedback
- Short tasks and detailed examples
- Regular demonstrations
- Starters and plenary
- Summative/formative assessment
- Use of Arbor and parent portal communication.
- Reflective practice and adaptive teaching

Impact:

To enable students to learn from a range of GCSE Assessment objective focus areas:

- AO1 Research and recording skills
- AO2 Ideas and inspiration
- AO3 Recording and developing ideas

Learners should have independently considered a theme or topic for their GCSE that they wish to explore. This independent thinking impacts engagement and allows student led development of work under relevant and crucial processes but also in alignment with AO1-AO4 of 3D design at GCSE. Initial skills such as research and taking inspiration from relevant sources are expected to be introduced early in AUTUMN 1 and progressed towards the close of the half term where skills will be assessed and impact recorded. Learners should have embedded basic skillsets in secondary and primary research, as well as drawing relevant conclusions. Literacy should have developed where key language and use of specialist terminology is encouraged and seen in annotation.

- Summative/formative assessment
- Use of Arbor and parent portal communication.
- Reflective practice and adaptive teaching

Impact:

To enable students to develop and complete a short portfolio with a range of focus areas:

- AO1 Research
- AO2 Ideas and inspiration
- AO3 Recording and developing ideas
- AO4 conclusions and outcomes, 3D/practical responses

Learners should be able to apply a deeper understanding of research to a design and make appropriate and relevant choices for selection, development and future refined outcomes with independence. Individual pathways allow students to have made self-led and teacher supported progress through a range of practical explorations such as model making. Students will apply learned approaches which are relevant and desired by the working world of engineering, graphic design, brand and marketing, digital development, advertising, Joinery, Creative design, architecture, spatial design, and more. Confidence should have developed and resilience be established as part of overall impact of DT lessons.



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