



Statement of Curriculum Intent Design Technology – KS 3 and 4

Through an inspiring, rigorous and practical 'Art and Design Technology' curriculum, learners are taught to think creatively, applying their developing skillsets to a range of projects relevant to the real world.

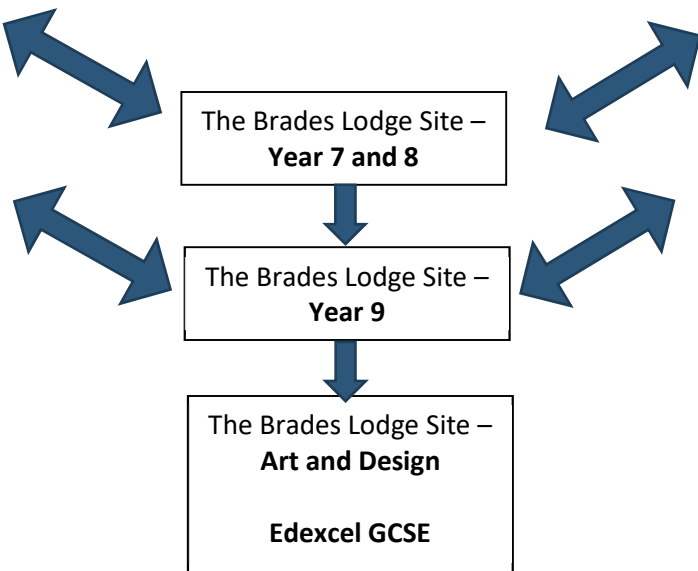
Our children and young people are inspired by engineers, designers, architects and artists, enabling them to create a range of structures, and products whilst solving problems in a variety of contexts, considering their own and others' needs, wants and values.

Work often links to other disciplines such as mathematics, science, engineering, computing and art.

Design Technology Pathways at Shenstone Lodge School

Academic support:
1-2-1 sessions
Off-site trips
SkillsWorkshops
Use of IT to engage learners
Variety of topics to suit needs

Pastoral support:
Mentoring
Wellbeing team
Small class sizes
Trusted adults
Trauma informed practice



Long term plan is subject change and rearrangement depending on the needs of learners.

Planning is broken down into appropriate and relevant impact categories which link to GCSE focal points AO1 to AO4.

These categories at KS3 are: **Theory and processes**, **mostly designing**, **mostly making** and **creative and technical skills**. This enables reiteration of skills where categories can be repeated throughout the year, OR can be stripped back to 3 projects a year where required, selected from the full range in order to maintain differentiation throughout overall practice and learning outcomes.

Year 7	THEORY AND PROCESSES	MOSTLY DESIGNING	MOSTLY MAKING	MOSTLY DESIGNING	MOSTLY MAKING	CREATIVE/TECHNICAL SKILLS
	AUTUMN TERM 1	AUTUMN TERM 2	SPRING TERM 1	SPRING TERM 2	SUMMER TERM 1	SUMMER TERM 2
	INTRO TO DT	CAD/CAM DEVICE STAND	DESK ORGANISER	TOYS	TOYS	MECHANICS/FORCES AND MOTION
	<p>Flexible project; students will explore and learn about a variety of theoretical topics and creative processes.</p> <p>Lesson content to cover a range of skill sets such as</p> <ul style="list-style-type: none"> • Safe use of PPE • Intro to simple drawing/mediums • /technical/expressive approaches • Hand tools intro • Machine tools intro <p>Lessons to incorporate:</p> <ul style="list-style-type: none"> • Short tasks - Mainly teacher led. • Buzzer fun responses • Quizzes • Starters and plenary • Booklet work • Peer support and feedback 	<p>Flexible project; Focused on developing design and technical skills alongside imaginative and creative thinking which is appropriate to design technology problems, as well as general life skills. A range of tasks broaden skills sets and understanding.</p> <p>Lesson content to cover specialist skills and understanding such as</p> <ul style="list-style-type: none"> • Research introduction (mostly secondary) • Target market • Design skills • CAD/CAM <p>Lessons to incorporate:</p> <ul style="list-style-type: none"> • Short tasks mainly teacher led. • Peer support and feedback • White boards • Starters and plenary 	<p>Flexible project; Focused on developing practical skills appropriate to manufacture and design technology, as well as general / afterschool life.</p> <p>Lesson content to cover specialist practical, written and theory work, such as;</p> <ul style="list-style-type: none"> • Introduction to use of a ruler • Simple conversions and measurement such as MM-CM • Intro to use of Tenon saw • Intro to use of disc sander • Simple joinery <p>Lessons to incorporate:</p> <ul style="list-style-type: none"> • White boards • Booklet work • Peer support and feedback • Short tasks mainly teacher led. • Starters and plenary 	<p>Flexible project; Focused on developing design and technical skills alongside imaginative and creative thinking which is appropriate to design technology problems, as well as general life skills. A range of tasks broaden skills sets and understanding.</p> <p>Lesson content to cover specialist skills and understanding such as</p> <ul style="list-style-type: none"> • Research introduction (mostly secondary, some primary) • Target market intro • Simple application of design skills • CAD/CAM <p>Lessons to incorporate:</p> <ul style="list-style-type: none"> • Short tasks mainly teacher led. • Peer support and feedback • White boards 	<p>Flexible project; Focused on developing students practical skills appropriate to manufacture and design technology, as well as general / afterschool life.</p> <p>Lesson content to cover specialist practical, written and theory work, such as;</p> <ul style="list-style-type: none"> • Use of a ruler • Conversions and measurement • Use of Tenon and coping saws • Use of disc sander • Joinery <p>Lessons to incorporate:</p> <ul style="list-style-type: none"> • White boards • Booklet work • Peer support and feedback • Short tasks mainly teacher led. • Starters and plenary • Summative/formative assessment 	<p>Flexible project; Focused on developing students technical, specialist skills appropriate to modern and traditional design technology / afterschool life / careers.</p> <p>Lesson content to cover specialist skills and understanding such as</p> <ul style="list-style-type: none"> • Mechanics • input • Output • Forces • Motion <p>Lessons to incorporate:</p> <ul style="list-style-type: none"> • Short tasks mainly teacher led. • Peer support and feedback • Tech products • Lego • Construction and model kits • Starters and plenary • Summative/formative assessment

	<ul style="list-style-type: none"> • Summative/formative assessment • Use of Arbor and parent portal communication. • Reflective practice and adaptive teaching <p>To enable students to recognise appropriate use of a variety of tools and machines appropriate to DT.</p> <ul style="list-style-type: none"> • To demonstrate safe and effective use of a variety of tools and processes. <p>To enable students to learn about a range of processes and show basic understanding of these new approaches through acquiring basic skillsets.</p>	<ul style="list-style-type: none"> • Summative/formative assessment • Use of Arbor and parent portal communication. • Reflective practice and adaptive teaching <p>To enable students to learn from a range of focus areas:</p> <ul style="list-style-type: none"> • Practical • Written work • Booklet work <p>Learners should be able to apply understanding of research to a design and make appropriate choices for outcome with guidance.</p>	<ul style="list-style-type: none"> • Summative/formative assessment • Use of Arbor and parent portal communication. • Reflective practice and adaptive teaching <p>To enable students to learn from a range of focus areas:</p> <ul style="list-style-type: none"> • Practical • Written work • Booklet work <p>Learners should also be able to describe how various materials look, choose words that describe and explain the use of materials. They should be able to describe the simple physical properties of a variety of manufacturing materials by looking at and touching or using other practical approaches</p>	<ul style="list-style-type: none"> • Starters and plenary • Summative/formative assessment • Use of Arbor and parent portal communication. • Reflective practice and adaptive teaching <p>To enable students to learn from a range of focus areas:</p> <ul style="list-style-type: none"> • Practical • Written work • Booklet work <p>Learners should be able to apply understanding of research to a design and make appropriate choices for outcome with some guidance.</p>	<ul style="list-style-type: none"> • Use of Arbor and parent portal communication. • Reflective practice and adaptive teaching <p>To enable students to learn from a range of focus areas:</p> <ul style="list-style-type: none"> • Practical • Written work • Booklet work <p>Learners should also be able to describe how various materials look, choose words that describe and explain the use of materials. They should be able to describe the simple physical properties of a variety of manufacturing materials by looking at and touching or using other practical approaches</p>	<ul style="list-style-type: none"> • Use of Arbor and parent portal communication. • Reflective practice and adaptive teaching <p>To understand the forces around us and how they impact our everyday lives. How mechanics can be applied to future careers and the understanding of components and mechanical devices used in daily life.</p>
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Year 8

MOSTLY MAKING	CREATIVE/TECHNICAL SKILLS	MOSTLY DESIGNING	MOSTLY MAKING	MOSTLY DESIGNING	CREATIVE/TECHNICAL SKILLS
AUTUMN TERM 1	AUTUMN TERM 2	SPRING TERM 1	SPRING TERM 2	SUMMER TERM 1	SUMMER TERM 2
PASSIVE AMPLIFIER AND DEVICE STAND	LOGO AND BRAND DESIGN	ANIMAL SHELTERS	ANIMAL SHELTERS	3D GAME	LASER CUT CLOCKS
<p>Flexible project; Focused on developing practical skills appropriate to manufacture and design technology, as well as general / afterschool life.</p> <p>Lesson content to cover specialist practical, written and theory work, such as;</p> <ul style="list-style-type: none"> • Independent use of a ruler • Conversions and measurement in MM-CM • Use of digital grids and CAD • Independent use of Tenon saw • Independent use of disc sander • Joinery <p>Lessons to incorporate:</p> <ul style="list-style-type: none"> • White boards • Booklet work • Peer support and feedback • Short tasks mainly teacher led. Starters and plenary • Summative/formative assessment • Use of Arbor and parent portal communication. 	<p>Flexible project; Focused on developing students technical, specialist skills appropriate to modern and traditional design technology / afterschool life / careers.</p> <p>Lesson content to cover specialist skills and understanding such as</p> <ul style="list-style-type: none"> • Intro to graphic design • What is graphics • How can it be applied? • Intro to Semiotics • Colour theory intro • Brand awareness • Logo/visual research intro <p>Lessons to incorporate:</p> <ul style="list-style-type: none"> • Short tasks mainly teacher led. • Peer support and feedback • Tech products • Existing design visuals and objects • Printing and practical approaches • Starters and plenary 	<p>Flexible project; Focused on developing design and technical skills alongside imaginative and creative thinking which is appropriate to design technology problems, as well as general life skills. A range of tasks broaden skills sets and understanding.</p> <p>Lesson content to cover specialist skills and understanding such as</p> <ul style="list-style-type: none"> • Developing research • Target market • Target user (discussing vs market) • Design skills • CAD/CAM skills development <p>Lessons to incorporate:</p> <ul style="list-style-type: none"> • Short tasks mainly teacher led. • Peer support and feedback • White boards • Model making • CAD/CAM software and hardware • Use of laptops • Independent use of isometric grids. 	<p>Flexible project; Focused on developing practical skills appropriate to manufacture and design technology, as well as general / afterschool life.</p> <p>Lesson content to cover specialist practical, written and theory work, such as;</p> <ul style="list-style-type: none"> • Independent use of a ruler • Independent use of a metal rule • Conversions and measurement 3D and 2D • Accurate and independent use of Tenon saw • Independent and safe use of disc sander • Developing basic Joinery <p>Lessons to incorporate:</p> <ul style="list-style-type: none"> • White boards • Booklet work • Peer support and feedback • Short tasks mainly teacher led. • Practical lessons • Practical recording • Use of cameras 	<p>Flexible project; Focused on developing design and technical skills alongside imaginative and creative thinking which is appropriate to design technology problems, as well as general life skills. A range of tasks broaden skills sets and understanding.</p> <p>Lesson content to cover specialist skills and understanding such as</p> <ul style="list-style-type: none"> • Research development, primary and secondary. • Target user and Target market • Design skills appropriate to topic • Skills development CAD/CAM • Skills development practical • Woodworking skills such as joinery, shaping and finishing. <p>Lessons to incorporate:</p> <ul style="list-style-type: none"> • Short tasks mainly teacher led. 	<p>Flexible project; Focused on developing students technical, specialist skills appropriate to modern and traditional design technology / afterschool life / careers.</p> <p>Lesson content to cover specialist skills and understanding such as</p> <ul style="list-style-type: none"> • CAD • CAM • Graphic design • Appropriate and relevant selection of research • Appropriate and relevant development of design work <p>Lessons to incorporate:</p> <ul style="list-style-type: none"> • Short tasks mainly teacher led. • Peer support and feedback • Tech tools • CAD programmes • CAM machinery • Mechanisms • Starters and plenary • Summative/formative assessment

	<ul style="list-style-type: none"> • Reflective practice and adaptive teaching <p>To enable students to learn from a range of focus areas:</p> <ul style="list-style-type: none"> • Practical skills • Booklet work <p>Learners should also be able to describe how various materials can be used, choose words that describe and explain the use of materials. They should be able to describe the simple physical properties of a variety of manufacturing materials. Students should be developing independence with practical approaches. Students should be able to independently make selections of tools which are appropriate and use them safely.</p>	<ul style="list-style-type: none"> • Summative/formative assessment • Use of Arbor and parent portal communication. • Reflective practice and adaptive teaching <p>To understand the use of brand, visuals, graphics etc that is all around us and how their use impacts upon our everyday lives. How understanding of graphics and advertising can be used for and applied to future careers and the understanding of BRAND. Learners should be able to use effective mediums to communicate their ideas.</p>	<ul style="list-style-type: none"> • Starters and plenary • Summative/formative assessment • Use of Arbor and parent portal communication. • Reflective practice and adaptive teaching <p>To enable students to learn from a range of focus areas:</p> <ul style="list-style-type: none"> • Practical • Written work • Booklet work <p>Learners should be able to apply understanding of research to a design and make appropriate choices for outcome with some independence</p>	<ul style="list-style-type: none"> • Use of laptops • Starters and plenary • Summative/formative assessment • Use of Arbor and parent portal communication. • Reflective practice and adaptive teaching <p>To enable students to learn from a range of focus areas:</p> <ul style="list-style-type: none"> • Practical • Written work • Booklet work <p>Learners should also be able to describe how various materials look, choose words that describe and explain the use of materials. They should be able to describe the simple physical properties of a variety of manufacturing materials by looking at and touching or using other practical approaches</p>	<ul style="list-style-type: none"> • Use of practical equipment and machine tools. • Hand tools • Adhesives • Peer support and feedback • White boards • Starters and plenary • Summative/formative assessment • Use of Arbor and parent portal communication. • Reflective practice and adaptive teaching <p>To enable students to learn from a range of focus areas:</p> <ul style="list-style-type: none"> • Practical • Written work • Booklet work <p>Learners should be able to apply understanding of research to a design and make appropriate choices for outcome.</p>	<ul style="list-style-type: none"> • Use of Arbor and parent portal communication. • Reflective practice and adaptive teaching <p>To understand how drawing, design, creating imagery etc can be used to make a real product. Learners should be able to independently make selections in 2D design and begin to select appropriate materials for laser cutting with some independence. Some learners could have started to use the laser cutter independently, with understanding of settings.</p>
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KS3 – Y9 focusses on selection of topics and development of skills relevant to GCSE 3D DESIGN pathway.

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 9	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>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>Lesson content to cover specialist researching, recording, written annotation and some theory/process work, such as;</p> <ul style="list-style-type: none"> • Collection of primary research • Use of cameras with some support for recording primary research • Collection of secondary research • Developing research 		<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>Lesson content to cover specialist researching, recording, written and theory work, such as;</p> <ul style="list-style-type: none"> • CAD/CAM skills development • Modelling and creating prototypes from a variety of materials 		<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> <p>Lesson content to cover specialist researching, recording, written and theory work, such as;</p> <ul style="list-style-type: none"> • Supported development of ideas in line with theme 	

- Target market research and consideration
- Target user (discussing vs market)
- Design skills spanning all styles
- 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
- Starters and plenary
- Summative/formative assessment
- Use of Arbor and parent portal communication.
- Reflective practice and adaptive teaching

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
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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

- 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

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 students to have made self-led and teacher supported 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,

- 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

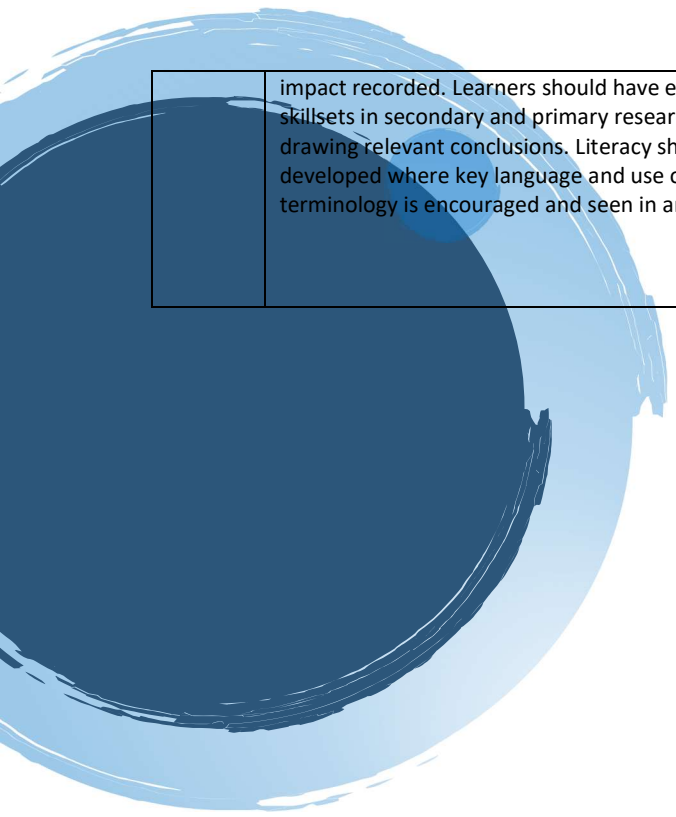
Lessons to incorporate:

- 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

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.



	<p>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.</p>	<p>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.</p>	
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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	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>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>Lesson content to cover specialist researching, recording, written annotation and some theory/process work, such as;</p> <ul style="list-style-type: none"> • 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 		<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>Lesson content to cover specialist researching, recording, written and theory work, such as;</p> <ul style="list-style-type: none"> • Independent CAD/CAM skills utilised • Modelling and creating prototypes from a variety of materials • Development 		<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> <ul style="list-style-type: none"> • Supported development of ideas in line with theme • Model making skills progressed • Further design skills appropriate to topic • Skills development CAD/CAM for outcomes 	

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

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

- 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

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

- AO2 Ideas and inspiration
- AO3 Recording and developing ideas
- AO4 conclusions and outcomes
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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 students to have made self-led and teacher supported progress through a range of practical explorations such as model making. Students will have learned about approaches which are relevant and

- Skills development practical for independent competencies
- Woodworking skills such as joinery, shaping and finishing to be advanced as appropriate to the learner

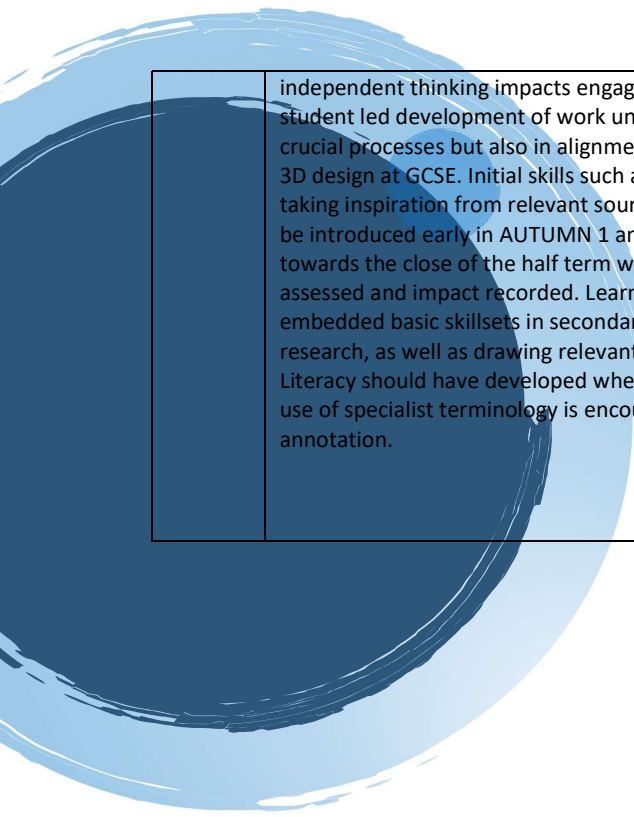
Lessons to incorporate:

- 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

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).



	<p>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.</p>	<p>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.</p>	
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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	AUTUMN TERM		SPRING TERM		SUMMER TERM
	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1 and 2
	AO1,AO2,AO3,AO4 FOCUS	AO1,AO2,AO3,AO4 FOCUS	EXTERNALLY SET TASK AO1,AO2,AO3,AO4	10 HOUR ASSESSMENT PREPARATION	

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.

AO1 Focuses on developing research and explorative skills appropriate to design technology.

AO2 Focuses on developing ideas which are directly linked to research.

AO3 Focuses on developing ideas and refining and selecting designs to reach competent and relevant outcomes which are appropriate to areas explored

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.

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.

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

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.

AO1 Focuses on developing research and explorative skills appropriate to design technology.

AO2 Focuses on developing ideas which are directly linked to research.

AO3 Focuses on developing ideas more deeply and refining and selecting designs to reach competent and relevant outcomes which are appropriate to areas explored

AO4 Focuses on drawing conclusions and developing selected ideas to the point of a relevant outcome/practical piece.

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.

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

Externally set examinations

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

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

- 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

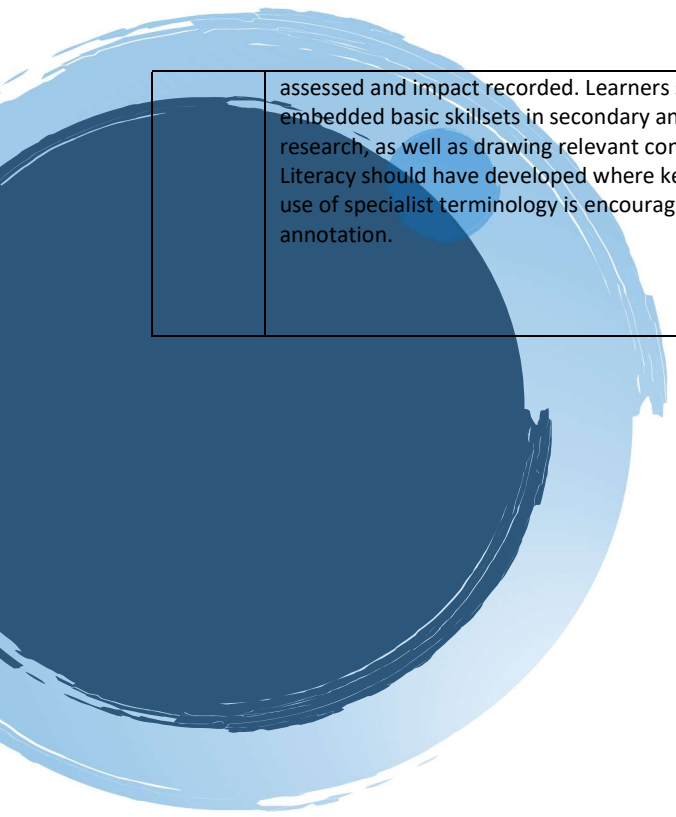
To enable students to develop and complete a short portfolio with a range of focus areas:

- 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.



	<p>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.</p>		
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