

Curriculum Plan

Department: Design Technology

Vision statement:

“Within the **disciplines of Design and Technology** we aim to **provide an underpinning** of all curriculum areas **encouraging independence** leading to **successful Global Citizens**”

Analytical writing, evaluative writing, descriptive writing, instructive language. Measuring and weighing, proportion and graphs, analysis of data, volume, materials analysis, the work of other designers (historical context). Science of food, material properties.

IT development of ideas, presenting work, research and analysis, CAD CAM.

Self-directed learning, independent outcomes, individual outcomes, teacher self and peer evaluation.

Designing and the environment, ethical decisions, food providence, finite and non-finite resources, cultural respect, food and packaging legislation.

Strapline:

Design,develop,make,evaluate.

Curriculum Story:

We increase students' knowledge and understanding of materials and processes by practising practical and designing skills on a spiral curriculum.

Projects are planned to be knowledge rich and develop designing and making skills.

Students experience working with a wide range of tools and materials.

Students have the opportunity to look at the work of other designers.

Students have the opportunity to create personal responses when give a set design brief.

Projects are well planned with support materials to engage all students.

Skills Developed:

All projects are underpinned with the following:

Understanding a design brief.

Responding to a design brief.

Creating initial ideas.

Developing ideas.

CAD/CAM.

Making high quality outcomes.

Review and evaluate final outcomes.

Students also gain and understanding of material/ingredient provenance.

Working properties of materials/ingredients.

Man made and natural timbers.

Year 7: Product Design – Adjustable phone/tablet stand

Year 7 undertake a rotation consisting of two 18 week projects during the academic year.

Topics	Why we teach this	Links to last topic	Links to future topics	Key skills developed	Cultural capital opportunities	Links to whole school curriculum
Health and safety in the workshop.	We teach this to ensure all students are aware of the health and safety expectations of working in a design and technology workshop.	N/A	Health and safety is integral in keeping students safe in the DT workshop. This is revisited at the start of every project.	How to act responsibly in the DT workshop.		
Understanding a design brief.	A design brief is an integral part of Design and Technology projects. It is the foundation of all projects from KS3 through to KS4.	N/A	All projects start with a design brief. These build in complexity in future projects.	How to understand and break down a design brief.		
Writing a design brief.	Writing their own design brief enables students to understand the expectations of the project. This sets expectations for future projects.	N/A	Students will be expected to write individual design briefs in future projects.	Analytical skills. Design brief writing skills.		
Researching existing products.	This is taught to enable students to gain an understanding of the work of other designers. This research help in the design of their own products.	N/A	Product analysis is undertaken in every Dt project.	Analytical skills are developed enabling students' to respond to the work of other designers.		
Natural timbers.	Students will gain an understanding of where timber comes from and the differences between hard and soft woods.	N.A	During years 7,8 and 9 students will gain knowledge of a range of timbers. In year 7 the focus is natural timbers , year 8 focus on man-made timbers with	Students will gain a good understanding of the provenance of different types of woods and timbers, costing and common uses.		

			year 9 focussing on metals and alloys.			
Tools and their uses.	This is taught to enable students to understand the name and uses of specific tools we use in DT. It also covers the looking after and maintenance of tools.	N/A	Students will use a wide range of tools and machinery when making their final outcomes. Year 7 focus on hand tools whereas year 8 and 9 introduce a wider range of hand tools as well as machinery.	A good understanding of tools and their uses. Development of DT terms and vocabulary. A good understanding of how to maintain tools. The working parts of tools.		
Initial design ideas.	This is taught to enable students to develop a range of design ideas. It also helps with the avoidance of design fixation.	N/A	Generating initial ideas is generic throughout the DT curriculum at all key stages. Drawing techniques are an integral part of the design process.	Creativity. Drawing techniques. Communication of ideas.		
Developing design ideas – including 3D drawing.	This is taught to enable students to develop the skills to develop initial ideas into a final design solution. It covers an range of drawing skills including drawing in 3D to communicate ideas.	N/A	Developing initial ideas is generic throughout the DT curriculum at all key stages. Drawing techniques are an integral part of the design process. Drawing in 3D enables students to successfully communicate their design ideas.	Analysis of existing ideas through annotation. How to change and developing a design idea. How to refine ideas. Collaborative design.		
Making final outcome.	We teach this to enable students to develop their making skills. They are encouraged to make a well made individual response which meets the design brief.	N/A	Students are expected to make a final outcome in every DT project. These build in complexity in year 8,9 and KS4.	Measuring and proportion. The manipulation of hand tools and materials. The working properties of timber. Finishing techniques.		
Testing and evaluation.	This is taught to enable students develop the skills to be able to test and evaluate the	N/A	Testing and evaluation is an integral part of the DT curriculum. It is	How to analyse the success of their product.		

	success of a product. It also develops critical thinking and data analysis through evaluation.		included in every project.	Comparing final outcome to design brief. Understanding and analysis of peer feedback. Analysis of data. Responding to data analysis.		
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Year 8: Product Design – Wooden Kit Car

Year 8 undertake a rotation consisting of two 18 week projects during the academic year.

Topics	Why we teach this	Links to last topic	Links to future topics	Key skills developed	Cultural capital opportunities	Links to whole school curriculum
Health and safety in the workshop.	We teach this to ensure all students are aware of the health and safety expectations of working in a design and technology workshop.	Students will do a refresher of health and safety protocols covered in year 7	Health and safety is integral in keeping students safe in the DT workshop. This is revisited at the start of every project.	How to act responsibly in the DT workshop.		
Understanding a design brief.	A design brief is an integral part of Design and Technology projects. It is the foundation of all projects from KS3 through to KS4.	Students will be given a more in depth design brief than in year 7 with a more client centred focus.	All projects start with a design brief. These build in complexity in future projects.	How to understand and break down a design brief.		
Writing a design brief.	Writing their own design brief enables students to understand the expectations of the project. This sets expectations for future projects.	Reference to brief writing in year 7 with an emphasis on client focussed designing.	Students will be expected to write individual design briefs in future projects.	Analytical skills. Design brief writing skills.		
Researching existing products.	This is taught to enable students to gain an understanding of the work of other designers. This research help in the design of their own products.	References made to product analysis in year 7 with an emphasis on more in-depth analysis. Using ACCESSFM to analyse a product.	Product analysis is undertaken in every DT project.	Analytical skills are developed enabling students' to respond to the work of other designers. Using the work of other designers as inspiration.		
Man made timbers.	Students will gain an understanding of the production techniques involved in manufacturing man-made timbers.	References made to natural timbers and the introduction of the manufacture of man-made timbers.	During years 7,8 and 9 students will gain knowledge of a range of timbers. In year 7 the focus is natural timbers, year 8 focus on man-made timbers with year 9 focussing on metals and alloys.	Students will gain a good understanding of the provenance of different types of woods and timbers, costing and common uses.		

Tools and their uses.	This is taught to enable students to understand the name and uses of specific tools we use in DT. It also covers the looking after and maintenance of tools.	References made to the tools used in previous project and the introduction of a wider range of tools and machinery.	Students will use a wide range of tools and machinery when making their final outcomes. Year 7 focus on hand tools whereas year 8 and 9 introduce a wider range of hand tools as well as machinery.	A good understanding of tools and their uses. Development of DT terms and vocabulary. A good understanding of how to maintain tools. The working parts of tools. The safe operation of DT workshop machinery.		
Initial design ideas.	This is taught to enable students to develop a range of design ideas. It also helps with the avoidance of design fixation.	References made to the drawing techniques learnt in year 7.	Generating initial ideas is generic throughout the DT curriculum at all key stages. Drawing techniques are an integral part of the design process.	Creativity. Drawing techniques. Communication of ideas.		
Developing design ideas – including 3D drawing.	This is taught to enable students to develop the skills to develop initial ideas into a final design solution. It covers an range of drawing skills including drawing in 3D to communicate ideas.	References made to the development skills taught in year 7 with a greater emphasis on accuracy and dimension.	Developing initial ideas is generic throughout the DT curriculum at all key stages. Drawing techniques are an integral part of the design process. Drawing in 3D enables students to successfully communicate their design ideas.	Analysis of existing ideas through annotation. How to change and developing a design idea. How to refine ideas. Collaborative design.		
Making final outcome.	We teach this to enable students to develop their making skills. They are encouraged to make a well made individual response which meets the design brief.	Revisit of skills taught in year 7. Manipulation of tools to create a wider range of components.	Students are expected to make a final outcome in every DT project. These build in complexity in year 8,9 and KS4.	Measuring and proportion. The manipulation of hand tools and materials. The working properties of timber. Finishing techniques.		
Testing and evaluation.	This is taught to enable students develop the skills to be able to test and evaluate the success of a product. It	Reference made to evaluation and testing skills taught in year 7. Greater emphasis on analytical writing.	Testing and evaluation is an integral part of the DT curriculum. It is included in every project.	How to analyse the success of their product. Comparing final outcome to design brief.		

	also develops critical thinking and data analysis through evaluation.			Understanding and analysis of peer feedback. Analysis of data. Responding to data analysis.		
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Year 9: Product Design – Recycled Lamp

Year 9 undertake a rotation consisting of two 18 week projects during the academic year.

Topics	Why we teach this	Links to last topic	Links to future topics	Key skills developed	Cultural capital opportunities	Links to whole school curriculum
Health and safety in the workshop.	We teach this to ensure all students are aware of the health and safety expectations of working in a design and technology workshop.	Students will do a refresher of health and safety protocols covered in year 8.	Health and safety is integral in keeping students safe in the DT workshop. This is revisited at the start of every project.	How to act responsibly in the DT workshop.		
Understanding a design brief.	A design brief is an integral part of Design and Technology projects. It is the foundation of all projects from KS3 through to KS4.	Students will be given a more in depth design brief than in year 8 with a more client centred focus and recycled materials.	All projects start with a design brief. These build in complexity in future projects.	How to understand and break down a design brief.		
Writing a design brief.	Writing their own design brief enables students to understand the expectations of the project. This sets expectations for future projects.	Reference to brief writing in year 8 with an emphasis on the use of recycled materials.	Students will be expected to write individual design briefs in future projects.	Analytical skills. Design brief writing skills.		
Researching existing products.	This is taught to enable students to gain an understanding of the work of other designers. This research help in the design of their own products.	References made to product analysis in year 8 with an emphasis on more in-depth analysis. Using ACCESSFM to analyse a product.	Product analysis is undertaken in every DT project.	Analytical skills are developed enabling students' to respond to the work of other designers. Using the work of other designers as inspiration.		
Man made timbers.	Students will gain an understanding of the production techniques involved in manufacturing man-made timbers.	References made to natural timbers and man-made timbers and the introduction of the metals and alloys.	During years 7,8 and 9 students will gain knowledge of a range of timbers. In year 7 the focus is natural timbers, year 8 focus on man-made timbers with year 9 focussing on metals and alloys.	Students will gain a good understanding of the provenance of different types of woods and timbers, costing and common uses.		

Tools and their uses.	This is taught to enable students to understand the name and uses of specific tools we use in DT. It also covers the looking after and maintenance of tools.	References made to the tools used in previous project and the introduction of a wider range of tools and machinery.	Students will use a wide range of tools and machinery when making their final outcomes. Year 7 focus on hand tools whereas year 8 and 9 introduce a wider range of hand tools as well as machinery.	A good understanding of tools and their uses. Development of DT terms and vocabulary. A good understanding of how to maintain tools. The working parts of tools. The safe operation of DT workshop machinery.		
Initial design ideas.	This is taught to enable students to develop a range of design ideas. It also helps with the avoidance of design fixation.	References made to the drawing techniques learnt in year 7 and 8.	Generating initial ideas is generic throughout the DT curriculum at all key stages. Drawing techniques are an integral part of the design process.	Creativity. Drawing techniques. Communication of ideas.		
Developing design ideas – including 3D drawing.	This is taught to enable students to develop the skills to develop initial ideas into a final design solution. It covers an range of drawing skills including drawing in 3D to communicate ideas.	References made to the development skills taught in year 7 and 8 with a greater emphasis on accuracy and dimension and the development of ideas using CAD/CAM.	Developing initial ideas is generic throughout the DT curriculum at all key stages. Drawing techniques are an integral part of the design process. Drawing in 3D enables students to successfully communicate their design ideas.	Analysis of existing ideas through annotation. How to change and developing a design idea. How to refine ideas. Collaborative design.		
Making final outcome.	We teach this to enable students to develop their making skills. They are encouraged to make a well made individual response which meets the design brief.	Revisit of skills taught in year 7 and 8. Manipulation of tools to create a wider range of components.	Students are expected to make a final outcome in every DT project. These build in complexity in year 8,9 and KS4.	Measuring and proportion. The manipulation of hand tools and materials. The working properties of timber. Finishing techniques.		
Testing and evaluation.	This is taught to enable students develop the skills to be able to test and evaluate the success of a product. It	Reference made to evaluation and testing skills taught in year 7 and 8.	Testing and evaluation is an integral part of the DT curriculum. It is included in every project.	How to analyse the success of their product. Comparing final outcome to design brief.		

	also develops critical thinking and data analysis through evaluation.	Greater emphasis on analytical extended writing.		Understanding and analysis of peer feedback. Analysis of data. Responding to data analysis.		
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Year 10 - Project 1 - Storage Boxes – Salvador Dali

Using the theme of storage for inspiration students will work on an extended project for the portfolio unit of their GCSE, working through all four assessment objectives and concluding with final outcomes in the Autumn term of year 11.

Topics	Why we teach this	Links to last topic	Links to future topics	Key skills developed	Opportunities for cultural capital	Links to whole school curriculum
Autumn 1: Artist research and contextual studies						
Artist/designer research	Artists research: to address AO1 – starting points: Surrealism Salvador Dali	Research and analysis skills learnt during KS3 projects.	Research and recording skills needed for Externally set task.	Selection of appropriate images and artist to inform own work Layout/composition of selected images Presentation of work.	Looking at the work of other designers/artists.	
Autumn 2: skills development						
	To address AOs 3 and 2 Recording observations and use of a range of materials Artists' research then ideas for 2D work to satisfy the criteria for the specification.	References made to drawing techniques covered during KS3 projects.	Drawing and designing skills needed for Externally Set Task	Creativity. Drawing techniques. Communication of ideas.		
Making a box joint - process	To address AOs 3 and 2 Recording observations and use of a range of materials	References made to skills learnt during KS3 projects.	Making skills link directly to Externally Set Task.	Making skills – manipulation of tools. Measuring and proportion. Finishing techniques. Analysis of outcome.		
Spring 1: Development of ideas, reviewing and experimentation						
Making a storage box	Reviewing, refinement and development of ideas to meet the criteria for AOs 1 and 2 Experiments with different artists'	References made to skills learnt during KS3 projects.	Making skills link directly to Externally Set Task.	Making skills – manipulation of tools. Measuring and proportion. Finishing techniques. Analysis of outcome.		

	styles, materials and techniques					
Spring 1: Development of ideas						
	Reviewing, refinement and development of ideas to meet the criteria for AOs 1 and 2 Experiments with different artists' styles, materials and techniques	References made to skills learnt during KS3 projects. References made to drawing techniques learnt during KS3 projects.	Development of ideas link directly to Externally Set Task.	Drawing and rendering skills. Communication of ideas. Drawing in 2D and 3D. Annotation of design ideas. Linking their work to the work of others.		
Spring 2: Further development of ideas, reviewing and experimentation						
	Further reviewing, refinement and development of ideas to meet the criteria for AOs 1 and 2 Students select media and design for final development.	References made to skills learnt during KS3 projects. References made to drawing techniques learnt during KS3 projects.	Development of ideas link directly to Externally Set Task.	Drawing and rendering skills. Communication of ideas. Drawing in 2D and 3D. Annotation of design ideas. Linking their work to the work of others.		
Summer 1: Working towards final outcomes – realising intentions in a personal response						
	Students working on final pieces and finishing techniques linking work to Salvador Dali.	Links made to skills and techniques learnt during KS3 projects.	Skills link directly to Externally Set Task.	Drawing and rendering skills. Communication of ideas. Drawing in 2D and 3D. Annotation of design ideas. Linking their work to the work of others.		
Summer 2: Working towards final outcomes – realising intentions in a personal response						

	Students working on final pieces and finishing techniques linking work to Salvador Dali. Evaluation of final outcome.	Links made to skills and techniques learnt during kS3 projects.	Skills link directly to Externally Set Task.			
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Year 11 - Project 2 – Animal Lamps – Phillipe Stark						
Using the theme of animal lamps for inspiration students will work on an extended project for the portfolio unit of their GCSE, working through all four assessment objectives and concluding with final outcomes in the Autumn term of year 11.						
Topics	Why we teach this	Links to last topic	Links to future topics	Key skills developed	Opportunities for cultural capital	Links to whole school curriculum
Autumn 1: Artist research and contextual studies						
Artist/designer research	Artists research: to address AO1 – starting points: Philippe Stark	Research and analysis skills learnt during KS3 projects.	Research and recording skills needed for Externally set task.	Selection of appropriate images and artist to inform own work Layout/composition of selected images Presentation of work.	Looking at the work of other designers/artists.	
Autumn 2:						
	To address AOs 3 and 2 Recording observations and use of a range of materials Artists' research then ideas for 2D work to satisfy the criteria for the specification.	References made to drawing techniques covered during KS3 projects.	Drawing and designing skills needed for Externally Set Task	Creativity. Drawing techniques. Communication of ideas.		
Final outcome	To address AOs 3 and 2 Recording observations and use of a range of materials	References made to skills learnt during KS3 projects.	Making skills link directly to Externally Set Task.	Making skills – manipulation of tools. Measuring and proportion. Finishing techniques. Analysis of outcome.		
Spring 1: Students working on their choice of five themes provided by OCR						
Externally assessed unit (exam project)	<ul style="list-style-type: none"> • Artists' research • Initial ideas • Primary research 	Same sequence of activities from initial ideas through to final outcomes – follows same process as year 10 projects.	As stated above.	Time management and sequence of activities from artists' research and initial ideas through to personalised outcomes.		
Spring 2: Students working on their choice of five themes provided by OCR						

Externally set unit (exam project)	Development of ideas <ul style="list-style-type: none"> • Experimentation with media/techniques • Further development 	As stated above	As stated above	As stated above		
Summer 1: Students working on their choice of five themes provided by OCR						
	<ul style="list-style-type: none"> • Further developments • Final piece plan • Final outcomes 	As stated above	As stated above	As stated above		