



Subject Design and Technology

Curriculum vision

An inherent aspect of the human condition is the need to create. Art and technology subjects are a positive reflection of the human experience and through each individual discipline students in our subjects have the power to influence others.

Art and technology subjects are about escapism, in our lesson's students celebrate expression; this helps them to understand the world around them and improves mental wellbeing. Art and technology subjects develop life skills. Students in our subjects learn process and improve through practise. Students in our subjects recognise that mastery will lead to freedom to expression.

The art and technology subjects are part of our cultural and social identity. Art and technology students are accepting of others; our subjects have the power to break down barriers, uniting people with a sense of pride and enjoyment. Through art and technology subjects' students learn to appreciate their environment, and in so doing should always aim to improve it.

Students will demonstrate passion and enthusiasm for our subjects through understanding, self-discipline, mastery and intellectual thinking. Art and technology lessons provide you with something different and meaningful. In our lessons you will feel pride, ownership and recognise the value of your own and others' work.

Passion is at the core of art and technology subjects, where students create and share. Our subjects are a celebration of expression, and the enjoyment students feel in art and technology lessons. Art and technology subjects are of the utmost importance, our overarching aim is to encourage independence and ambition. Students in our subjects recognise and encourage values such as resilience, equality, support, trust, and honesty. The art and technology subjects are part of a broad education, in these lessons' students appreciate the interconnectivity of the world around them.

Art and technology subjects focus on expression, interpreting and appreciating aesthetics. Students in our subjects explore meaning, making implicit concepts and ideas explicit. Students in our subjects share and communicate what they have learnt and understood. They access emotions, change perceptions and generate connections with their audience.

In our subject students will become creative lifelong learners. These subjects will provide them with access to the creative, food and design industries.

Throughout years 7, 8 and 9 students will complete term-long projects in each of the three specialist areas of Design and Technology, Textiles and Food Technology. The order in which these projects will be completed will vary for each student.

Year 7		Year 8		Year 9	
Project Overview	Why this? Why now?	Project Overview	Why this? Why now?	Project Overview	Why this? Why now?
D&T Mechanical Card	In this project, students are introduced to using the design process to come up with a finished piece. The mechanical card teaches creativity while working to a specification and encourages creativity in designing.	D&T Chocolate Bar Display	This project serves as a continuation of the use of the design process, but in more depth. Students are introduced to analysing products to inform their own designs, and it takes their 3D drawing to the next level with one point perspective, while still maintaining a high level of creativity.	D&T Iconic Designers	The year 9 project aims to improve student's 3D drawing and designing skills by focusing on a wide range of iconic designers giving the opportunity to not only learn about their style, but to design a wide range of products using each designer as inspiration. This project sets up year 9 designers well for choosing D&T as an option in KS4.
Textiles Embellished Seascape	This project serves as an introduction to basic core textiles skills that students may not have encountered before. They have the opportunity to use creative skills developed in primary school, with a material area new to them. Students learn about the work of textile artists Shaun Kardinal and Francesca Colussi Cramer.	Textiles Aerial Weaving	This project builds on textile skills from year 7 and allows students to develop their interest in textiles by focusing on an influential artist, Tammy Kanat, while still allowing for creativity in their work. Students will learn a new diverse practical skill, which contrasts with the skills learned in Year 7.	Textiles Print and Stitch	In year 9, another textile artist, Angie Lewin, is introduced along with the high-level skill of poly-tile printing, used alongside embroidery skills learned in year 7. Embroidery is used to further embellish one of the poly-tile prints. This project prepares students to consider textiles as a form of art if they continue it into KS4.
Food Introduction to Food	In this module students are introduced to the Eatwell Guide in order to make more informed choices of food and develop healthier eating habits. The practical sessions are to ensure safe use of the oven and hob, boiling and simmering plus safe use of knives	Food Nutrition and raising agents	This module develops further understanding of the Eatwell Guide focusing on macro nutrients. In addition, the practical work focuses on the use of raising agents in pizza dough and American muffins plus adapting a pasta sauce for nutritional balance.	Food Nutrition and the Consumer	This module focuses on safe preparation and cooking of high-risk foods and the prevention of cross contamination when using them. There is a focus on developing accuracy in cutting skills and increasing the pace of work. Students will have to make their own choices in the future so the topic of food labelling will support their informed choices of food.



Curriculum Overview - Key Stage 4 and 5 – Design and Technology

Term 1

	Autumn 1	Why this? Why now?	Autumn 2	Why this? Why now?
Year 10	Specialist Technical Principles - Timbers	Year 10 begins with an overview of timbers as a material. As part of this students will study types of timbers and boards, their origins and their stock forms. They will learn about how timbers and other are chosen for different purposes with a focus on the mechanical and physical properties of materials. Environmental issues associated with product design is studied in depth with sustainability at the heart of what is being taught. Students will then learn about and experience a number of different woodworking techniques that they can use in their projects going forwards.	4 Joint Box	In this half terms practical project, students will take their knowledge of timbers and how they are used and apply it to their project where they will cut a number of woodwork joints. This project serves to hone their making skills and secure knowledge of workshop tools, processes and machinery.
Year 11	NEA: Section B: Design Brief and Specification Section C: Initial Ideas Section D: Development of Ideas	The focus on the NEA is coming up with a wide range of design ideas that are suitable and realistic for their project brief, and this section is completed now as it gets students thinking creatively, and drawing on their knowledge from year 10 about timbers, their properties, their uses, and environmental issues associated with using them.	NEA: Section D: Development of Ideas	Students will begin to develop their ideas and look at how their product might be made commercially for their NEA – they can draw on the examination theory being learned as part of this and consider if their product is environmentally friendly, are the materials being used from a renewable source, and what might happen to their product at the end of its life.
Year 12	Theory: Timbers and papers and boards Project: Design movements, Iconic designers, lamp design and development	Over the course of the year students will cover a range of material areas in depth, and they will start in Autumn 1 learning about timbers and paper / boards. This will include how to work with them and manipulate them using various processes.	Theory: Metals and Polymers Project: Making the lamp	The next two material areas that students will study are metals and polymers. This gives them an overview of how to work with these materials and incorporate them into their designing. For the projects, students will now have a final lamp design to make and will



		<p>The first project of the year will be based on design movements and iconic designers. Once a study into a range of movements and designers has been conducted, students will design and develop an idea for a lamp based on one movement of their choosing. The focus of this project will be to develop their designing skills.</p>		<p>spend their lessons this half term making it, using and learning a wide range of practical skills including CAD/CAM. A diary of making will be recorded and presented as a portfolio of their skills at the end.</p>
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Term 2

	Spring 1	Why this? Why now?	Spring 2	Why this? Why now?
Year 10	Pewter Trinket	<p>The pewter trinket project gives students a wider set of practical skills – using CAD/CAM but also introduces the design process and methods that designers use to come up with ideas. Students will also be working with another material – pewter – and learning how to manipulate it to suit their needs.</p>	Extended Design and Make project (Mock NEA)	<p>The project this half term gives the students a lot more independence as for the first time, more freedom is given over the choice and design of the product, and students will be required to analyse and investigate products as part of their research and analyse their own product in terms of its environmental impact. A brief consisting of 4 possible projects will be given to the students for them to choose from.</p>
Year 11	NEA: Section E: Realising Design Ideas	<p>Students will spend the majority of this half term making the product that they designed for their GCSE NEA. Using a range of skills that they have learned in KS3 and year 10, picking up new ones as they go and developing skills they</p>	NEA: Section E: Realising Design Ideas Section F: Testing and Evaluation	<p>The NEA making process finishes during this half term, around mid March, as students then move onto testing and evaluating their product ready to hand in, in time for the school deadline of end of Spring 2.</p>



		learned during the development stage, their final ideas will be realised ready for testing and evaluation.		
Year 12	<p>Theory: Composites, modern and smart materials</p> <p>Project: Education</p>	<p>The final material areas to be covered are composites, modern and smart materials. This will arm students with a wide range of knowledge that will set them up well for their project.</p> <p>The project this term is based on the word "Education". Students can take this in any way they wish to, and choose to produce a product that will educate others in any topic of their choosing.</p> <p>The focus will be on research and development while working closely with a client to come up with their final idea.</p>	<p>Theory: Industrial and commercial processes, digital design and manufacture, design development, health and safety and intellectual rights</p> <p>Project: Education</p>	<p>The next section of theory for this year will cover topics relating to design and technology in the wider world. Industrial and commercial processes, digital design and manufacture, design development, health and safety and intellectual rights will be covered in depth.</p> <p>For their project, students will turn their attention to making their product with a high quality final outcome completed by Easter.</p>



	Summer 1	Why this? Why now?	Summer 2	Why this? Why now?
Year 10	Extended Design and Make project (Mock NEA)	This half term serves as a continuation of the previous one, and students will have the opportunity to make the product that they designed in the previous half term. Using a range of skills they have already learned, and picking up new ones as they go along, students will come out with a portfolio of design and making skills leaving them well prepared for the start of their NEA project.	NEA (project): Section A: Investigating the context	In the final half term of year 10, students will begin their GCSE NEA (non exam assessment) project worth 50% of their grade. The contexts are released by the exam board on June 1 st , and the focus is on analysing and researching the task before the summer holidays so discussions around their design idea can be had over the summer holidays, and students return in year 11 to embark on the designing and making sections.
Year 11	Core Technical Principles, plus revision	With NEA completed and handed in, focus turns to examination theory where revision of topics from year 10 happens, and students are introduced to the names and uses of a variety of other materials, preparing them fully to take on the D&T A Level with an excellent knowledge of the relevant topics.		
Year 12	NEA	Students will begin their A Level NEA project after Easter, with lesson time focusing solely on this, while incorporating designing and making principles alongside it. While the project is not linear, the focus will be on researching and developing a wide range of ideas alongside a client of their choosing.	NEA	Students will continue with their A Level NEA, with the focus on development and planning the making of their product. This ensures that they are able to utilise all the skills they have learned throughout year 12 in a timely manner.



Wider reading

Competitions & Associations

- Rotary Technology Tournament
- Design Ventura
- Arkwright Scholarship

Places to visit

- Design Museum, London
- V&A, London
- Natural History Museum and Science Museum, London

Revision Guides

AQA Design and Technology: timber, metal-based materials and polymers

GCSE AQA Design and Technology for grade 9-1 exam: Complete revision and practise (CGP)

Academic Reading

“The Design of Everyday Things” – Don Norman

“Invisible Women: Exposing data bias in a world designed for men” – Caroline Criado Perez

“Dieter Rams: As little design as possible” – Sophie Lovell

“Ten Principles for Good Design: Dieter Rams” – Cees W. de Jong

Curriculum Overview - Key Stage 4 – Food Technology

Term 1

	Autumn 1	Why this? Why now?	Autumn 2	Why this? Why now?
Year 10	<p>Theory: Unit 1: 1.4 How food causes ill health</p> <p>Practical: Students complete a 'back to basics' section to include knife skills, cutting and shaping, sauces, and pastry.</p>	<p>We begin with how contaminated food can cause food poisoning and other food related illness as this is core to all practical work that will be carried out over the 2 years. Being aware of how medical conditions can impact on food intake in a commercial environment. Practical work revisits basic skills to build a foundation for the 2 years to ensure accuracy in knife safety, cutting skills, a basic roux sauce, use of pastry and varied cooking methods</p>	<p>Theory: Unit 1: 1.3 Health & Safety at Work</p> <p>Practical: Developing skills in a variety of dishes to increase skills – puff pastry, soups, mousses, and seasonal food. Also, creating methods of production and evaluating dishes made throughout the term</p>	<p>We continue with this unit to link the impact of food induced ill health to other ways of ill health. The focus here is the physical environment and the different laws effecting the Hospitality & Industry such as the Health & Safety at Work Act.</p> <p>Practical work continues to expand the variety of techniques required at this stage to include making homemade puff pastry to create an individual dish, soups to use blenders and food processors, mousses for electric whisks and using high risk foods.</p>
Year 11	<p>Theory: Unit 1: 1.1 Hospitality & Catering Industry, its structure and operations</p> <p>Practical: Cheesecake brownies, risotto, portioning a chicken and its use in other dishes.</p>	<p>This term begins with how the industry is structured, the job roles and responsibilities within it. This links to understanding how a provision is successful and the NEA when students will select dishes that meet the needs of the customers.</p> <p>Practical work continues to be varied so students can take these techniques into their own dishes. Students have homework reviewing and evaluating performance linked to the NEA in Autumn 2 and Spring</p>	<p>Theory: Unit 2: Theory content for NEA Starting NEA November 2023</p> <p>Practical: Pasta, dough, rice, meringue work to increase skills for the practical part of the NEA</p>	<p>We continue with Unit 2 content in readiness for official NEA set by the exam board. Students need to be able to link customer groups and nutritional needs and how to plan, prepare and cook for them.</p> <p>Practical work develops higher skill techniques such as making homemade pasta and dough work. This is to enable students to use the time in the practical exam to demonstrate a wider variety of techniques.</p>



Term 2

	Spring 1	Why this? Why now?	Spring 2	Why this? Why now?
Year 10	<p>Theory: Unit 2: 2.1.1 content for NEA: Nutrition</p> <p>Practical: Rice dishes, baking cookies and choux pastry and dough making</p>	<p>Students now study nutrition to be prepared for the mock in Summer and NEA in Year 11. Students will find out nutritional needs of people at various life stages plus those with specific medical needs to prepare suitable food for them.</p> <p>Practical work develops further techniques such as choux pastry for profiteroles and dough making in a calzone.</p>	<p>Theory: Unit 2: 2.2 Factors affecting menu planning and planning for production</p> <p>Evaluating performance</p> <p>Practical: Portioning a chicken and using it to avoid waste, hot and cold desserts, chicken supreme and sticky chicken</p>	<p>Students now develop an understanding of the need for planning for production ready for NEA, being able to dovetail a production plan and selecting dishes that will enable them to achieve a grade in the higher mark bands.</p> <p>Practical work develops to introduce students to the need to reduce waste for budgets and also environmental awareness by portioning a whole chicken and then using the parts for different dishes.</p>
Year 11	<p>Unit 2: NEA</p> <p>Theory: Students are responding to a brief given by the exam board to research, plan, prepare and cook several dishes. They are looking at individual nutritional needs and planning menus to meet environmental needs</p> <p>Practical: Specific techniques for dishes and then testing ideas for the practical exam</p>	<p>Students begin their research into the nutritional needs of specific customer groups and then how cooking can affect the nutritional value of food to gain an understanding of what types of food to include in dishes and the best methods to retain the nutritional value. Students start to create ideas and test dishes for the practical exam in Spring 2</p>	<p>Unit 2: NEA</p> <p>Theory: NEA work on choice of dishes, creating a time plan that will be followed in the 3 hours practical exam in March plus evaluating their dishes and personal performance</p> <p>Practical work: Testing dishes for the exam, improving skills and techniques</p>	<p>As part of the NEA students need an understanding of how to plan for customer requirements and so dishes must meet this need along with how food production and its impact on the environments. Ideas are now selected and the plan for making is completed ready for the practical exam</p>



Term 3

	Summer 1	Why this? Why now?	Summer 2	Why this? Why now?
Year 10	<p>Theory: Unit 2</p> <p>Practical: Specific dishes and also student choice to meet different situations in order to prepare for the NEA in Year 11</p>	<p>To complete the theory content before the EOY exam this unit will focus on the front of house roles in hospitality such as reception and restaurant service. Then all the work from this unit will combine to answer a long answer question ready for the summer exam.</p>	<p>Unit 2 Content: The theory content on food and nutrition will be covered investigating the role of nutrients in the body and the needs of people throughout their life.</p> <p>Practical: Students will continue to learn and develop techniques in a variety of dishes. They will have a mock practical exam.</p>	<p>Students will sit their EOY written exam successfully attempt the written paper. Unit 2 will begin so students have all the information they require when they complete their NEA under controlled conditions using class notes and homework.</p> <p>Practical work continues to work alongside the need for techniques and dishes to choose from in the NEA.</p>
Year 11	<p>Unit 1: 1.2 The operation of the front and back of House and How the industry meets the needs of customers.</p> <p>Theory: Exam preparation Unit 1 1.1-1.4: this will be revision for the summer exam in June 2024</p>	<p>The focus is on how a provision operates to meet the needs of its customers and their expectations. Practical work is not needed as the NEA is complete. Exam preparation underway.</p>		



Wider reading

Competitions & Associations

Rotary Young Chef Competition
Future chef

Revision Guides

Hospitality & Catering level 1 /2 Study & Revision Guide by Anita Tull (Illuminate Publishing)
My Revision Notes WJEC Level 1 /2 Hospitality & Catering by Bev Saunders (Hodder Education)

Academic Reading

A Taste of My Life by Raymond Blanc
The Science of Cooking by Dr Stuart Farrimond
How Food works DK Books

Curriculum Overview - Key Stages 4 and 5 – Textile Design

Term 1

	Autumn 1	Why this? Why now?	Autumn 2	Why this? Why now?
Year 10	Formal Elements: Texture Unit	The first 3 half terms in year 10 serve as an introduction of how to research, sample, annotate and develop ideas in preparation for a final piece. The focus for Autumn one is texture in Textile Design. Students are introduced to mark-making and learn how this can be translated into stitch using hand embroidery and free machine embroidery.	Formal Elements: Colour Unit	The first 3 half terms in year 10 serve as an introduction of how to research, sample, annotate and develop ideas in preparation for a final piece. The focus for Autumn two is colour, and how it can change the dynamic of a piece. Students look at post-Impressionist art and develop work using transfer paints, appliqué and collage.
Year 11	NEA Personal Investigation: Connections (2022 submission) AO1 & AO2: Research and Developing ideas	At the start of year 11, students will pick up their NEA that they started in Summer 2 of year 10 and continue with their investigation into the given context. This will involve research in the form of photography, artist analysis and developing multiple samples using a wide range of textile skills that can be drawn on as the project progresses.	NEA Personal Investigation: Connections (2022 submission) AO1, AO2, AO3: Sampling, Developing Ideas and Annotation	In Autumn two, sampling of textile techniques draws to a close and students use their skill set to develop their project ideas. Work is annotated and critically analysed to direct the project towards a more streamlined range of ideas.
Year 12	NEA Personal Investigation: Connections (2022 submission) AO1, AO2 & AO3: Research, Development & Recording	The structure of the A level course is very independent. Building on GCSE skills, students will begin their NEA Portfolio and develop their research skills with work that includes exploring the theme through mind mapping, artist studies, photography and drawing from observation. Students will also develop their practical textiles skills using new techniques which include the use of Citra Solv, cyanotype fabric, eco printing and rust dyeing.	NEA Personal Investigation: Connections (2022 submission) AO1, AO2 & AO3: Research, Development & Recording	In this half term students will have the opportunity to develop further high-level textile skills through a variety of print methods including mark making, block printing, stencilling and lino cutting. This will build on the techniques developed in the first half term. The wide range of skills that are being developed will be used as the NEA develops. Students also continue researching the theme of their Personal Investigation through photography, artist studies and drawing.



Year 13	NEA Personal Investigation: Connections (2022 submission)	Students will be working on their NEA project. Skills developed in year 12 will be used to create a portfolio. As the work must be independently developed and decided on, and the investigation personalised, students will write their own plan for their studies with guidance from teaching staff.	NEA Personal Investigation: Connections (2022 submission)	Students will be working on their NEA project. Skills developed in year 12 will be used to create a portfolio. As the work must be independently developed and decided on, and the investigation personalised, students will write their own plan for their studies with guidance from teaching staff.
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Term 2

	Spring 1	Why this? Why now?	Spring 2	Why this? Why now?
Year 10	Formal Elements: Pattern Unit	The first 3 half terms in year 10 serve as an introduction of how to investigate, sample annotate and develop ideas in preparation for a final piece. The focus for Spring one is pattern where students will investigate patterns used in textile design with photography and artist analysis forming an integral part of the research. Students will	Mock NEA: Fossil Coast	By this point students will have had the opportunity to develop a wide range of textile skills through their previous units. The mock NEA allows students to work on a sustained project before taking on their real GCSE NEA. In this half term, students will develop their investigation skills, and produce samples towards their final piece.
Year 11	NEA: Journeys (2022 submission) AO1, AO2, AO3: Developing Ideas, Further Research & Recording	The focus now moves onto more in-depth development of project ideas, giving students ideas on what they need to research further in order to come up with a final idea for their sustained piece.	NEA: Journeys (2022 submission) AO4: Final piece	In the final stage of the NEA project, students design a final piece based on their development work in the context. This piece is then planned and made, then evaluated. This half term gives students the opportunity to showcase the skills they have developed throughout the GCSE course.
Year 12	NEA Personal Investigation: Connections (2022 submission) AO1, AO2 & AO3 Researching, Development & Recording	Development of skills continues in this half term. Students will create samples using methods of resist including shibori, tie dye, batik, silk painting and devoré. Students will also continue researching and developing the theme of their Personal Investigation through photography, artist studies and drawing.	NEA Personal Investigation: Connections (2022 submission) AO1, AO2 & AO3 Research, Development & Recording	Continuing to develop a wide range of textile skills that can be used within their NEA and examination, students will have the opportunity to practise stitch and slash, applique, reverse applique, couching, and other machine based decorative techniques.



Year 13	NEA Personal Investigation: Connections (2022 submission)	Students will be working on their NEA project. Skills developed in year 12 will be used to create the Portfolio work (NEA). As the work must be independently developed and decided on, and the investigation personalised, students will write their own plan for their studies with guidance from teaching staff.	NEA Personal Investigation: Connections (2022 submission)	Students will be working on their NEA project. Skills developed in year 12 will be used to create a portfolio. As the work must be independently developed and decided on, and the investigation personalised, students will write their own plan for write their own plan for their studies with guidance from teaching staff.
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Term 3

	Summer 1	Why this? Why now?	Summer 2	Why this? Why now?
Year 10	Mock NEA: Fossil Coast	As a continuation of the extended mock NEA project, students will take on their sample pieces and develop them into complete design ideas in preparation for making a final piece. This process mirrors that of the GCSE NEA, ensuring that students are fully prepared for their main project.	GCSE NEA: Research & Development of Ideas (samples) Context for submission in 2022: Journeys	AO1 and AO2 (investigating and sampling) are the focus of this half term. Research in the form of mind mapping ideas, photography and artist studies will be the initial starting point, before students draw on their prior knowledge to aid their researching and sampling of their given context.
Year 11	In a "non-covid" year, students would sit their exam shortly after the Easter holidays. Exam preparation would have taken place from January 1 st when the exam board releases the Set Task (exam) contexts for students to begin work on.			
Year 12	NEA Personal Investigation: Connections (2022 submission) AO2, AO3 & AO4: Development of Ideas, Recording & Annotation, Final Pieces.	During this half term ideas and design development will lead to more sustained pieces of work that incorporate some of the skills and techniques covered in Year 12, linking to the research and development of ideas related to the theme.	NEA Personal Investigation: Connections (2022 submission) AO1, AO2, AO3 & AO4: Related Study. Research, Developing Ideas, Recording & Final Pieces	Introduction of the Related Study; an integral part of the NEA work marked alongside of the Portfolio. This is a written piece of work, of at least 3000 words that explores the theme further. Introduced at this stage of the course when the theme has been developed sufficiently to explore in more depth.



				Practical work continues with the completion of more sustained pieces.
Year 13	In a “non-covid” year, students would sit their exam in mid-May. Exam preparation would have taken place from February 1 st when the exam board releases the Set Task (exam) contexts for students to begin work on.			

Wider reading

<p>Competitions & Associations Embroiderers Guild Textileartist.org.uk Textiles Skills Academy The Textile Society Student Textile Artist Competition 2022 – Textiles Skills Academy The Gallery - gallery@dryadeducation.com</p>	<p>Places to Visit <u>Local exhibitions and events such as:</u> 62 Group of Textile Artists Exhibition 15th January to 26th February 2022 - St Barbe Museum, Lymington Brockenhurst Needlecraft Fiesta – 23rd to 24th April 2022 <u>National exhibitions and events such as:</u> The Stitch Festival 3rd to 6th March 2022 The Business Design Centre, London Stitching and Knitting Show 6th to 9th October 2022 Alexandra Palace <u>Museums:</u> V&A Museum, London Fashion & Textile Museum, London Fashion Museum, Bath</p>
<p>Academic Reading</p> <ul style="list-style-type: none"> • Sketchbook Explorations: Mixed media approaches for textile artists by Shelley Rhodes. • Slow Stitch – Mindful and Contemplative Textile Art by Clare Wellesley-Smith • Natural Processes in Textile Art: From Rust Dyeing to Found Objects by Alice Fox • The Found Object in Textile Art: Recycling and repurposing natural, printed and vintage objects by Cas Holmes • Stitch and Pattern: Design and Technique for Pattern Textile Art by Jean Draper 	