KS	3	D&T Your path	YEAR 7 TO GCSE through D&T		
Yea	r 7	Timbers and Polymers	Levilles		
Yea	r 8	Food	Electronics and Polymers	Polymers	
Yea	ear? CAD/CAM		Food	Textiles	

			Year 7 Overview 2024-	25 – D&T
Date	Wk	Week	Units Studied (12 weeks - 6 double lessons) & Learning Outcomes	Key Concepts & Assessment
			taught in a rotation 3 units contained in 6 double	
Each	unit cont	ains a SoL	to accompany the lesson by lesson Powerpoint w	vith teachers notes and resources that will be required.
Tues 2-Sep	А	1	Timbers and Polymers	Parent and Carers month/Black History month
9-Sep	В	2		3/9 World afro day 23/9 International day of sign languages
16-Sep*	А	3		10/10 world mental health day
23-Sep	В	4		5/10 world teachers day 6/10 World cerebal palsy day
30-Sep	А	5		
7-Oct	В	6		
14-Oct	A	7		
21-Oct	В	8		
Half-Term				
4-Nov	А	9		Men's health awareness month/disability confident month 1/11 Diwali
11-Nov	В	10		12/11 Diwali 12/11 Remembrance Sunday
18-Nov	А	11		13/11-19/11 Transgender awareness week
25-Nov	В	ST1		14/11 World Diabetes Day 1/12 World AIDS day
2-Dec	А	ST1		25/12 Christmas Day
9-Dec	В	14	Textiles	
16-Dec	А	15		
			Christmas Holiday	
6-Jan	В	16		LGBT+ History month
13-Jan	А	17		27/1 Holocaust memorial day
20-Jan	В	18		1/2 World Hijab Day
27-Jan	А	19		6/2-12/2 Children's mental health week. 7/2 Safer internet day
3-Feb	В	20		10/2 Chinese New Year
10-Feb	А	21		
	1	1	Half-Term	
25-Feb	В	22		Women's history month Ramadhan begins 1/3
3-Mar	А	23		21/3 World Down Syndrome day
10-Mar	В	24		31/3 Transgender day of visibility
17-Mar	А	25		
24-Mar	В	26	Food Preparation and Nutrition	
31-Mar	А	27		
	1		Easter Holiday	
22-Apr	В	28		Good Friday 18/4 Easter Sunday 20/4 Autism and stress awareness month.
28-Apr	А	29		25/4 World Malaria Day
5-May	В	30		26/4 Lesbian visibility day
12-May	А	ST2		UK national walking month. 1/5-7/5 Deaf awareness week
19-May	В	ST2		23/05 Vesak
Half-Term	1			
2-Jun	А	33		LGBTQ+ pride month. Gypsy, Roma and Traveller history month.
9-Jun	В	34		12/6 world day against child labour
16-Jun	А	35		18/6 autistic pride day
23-Jun	В	36		20/6 World refugee day
30-Jun	А	37		
7-Jul	В	38		
14-Jul	А	39		

Project1 Timbers and F		ers and Polymers		Key learning outcomes
r Timk	Timbers and Polymers - Animal pencil holder			Workshop safety
ns Prior				Materials knowledge, properties, grouping, forms of supply, tools and equipment.
-	on 1 - Introduction to wor	rkshop, Materials, H&S and tools ar	ad aquipmont	The design process Ability to draw in oblique to build simple 3D drawings
	xperiences of materials	An introduction to using	An understanding of how	Use their imagination
Some	recall from MC.	the workshops, hand	to follow the design	Ability to produce a range of workable ideas
Life ex	xperiences of tools	and power tools.	process	To render drawings to look like the materials (communication skills)
	with the family. esign process if this is	Introduce polymer and Timber sources and	Yr10/11 Understanding of how to	Producing templates
not th	ne first unit.	material groupings	design. knowledge of how	Have used a range of tools and two materials including marking out, cutting with
	H&S knowledge if this the first unit.	Properties of Pine and	materials can be used, cut,	different methods, shaping using 3 different power sanders, rasps, files, acrylic ed
15 1100		Acrylic and reasons for choice.	formed etc and their limitations.	finishing, mechanical polishing
		Material origins and	Their ability to creatively	Be able to name all basic workshop equipment Know what a standard component is
		uses finite resources.	use the materials with a	Quality control and assurance.
		Learning the names of	continually developing	Construction
		tools and equipment. The Design process	competence.	Reflection on learning.
		(introduction or recap)		Understand the properties of the materials and the ways it can be utilised.
Lesso	on 2 - Introduction to o	oblique drawing and Renderi	ng.	Be able to understand how they could improve and develop their skills.
	drawing skills,	Key aspects of for filling	Continued understanding	
contr colou	rol of pencils and	a brief Gathering useful	of the design process in next units and through	Links to history and culture:
COIDU	u	research.	school.	Early man using timber
		Oblique drawing	Oblique drawing methods,	Tool names and their origin/ history
		methods, rendering,	rendering, annotation in all	Development of polymers in 50's local history of ICI
		annotation.	years	Sustainability/recycling
Lesso	on 3 - Introduction to	nanufacturing aids and work	ing with Pine.	Subject links:
	of scissors,	Accurate working on	Yr 8 Clocks developing 3D	Maths measurement
	surement,	manufacturing aids.	material usage.	History development of materials
estim	nation	Production methods using a range of tools	Yr 9 independent use of the workshop.	
		and two materials	Their personal skill level	
			and ability to work the	
		den and a sea a definition of a second table	material	Careers that can be discussed:
	on 4 – Developing proc erstanding for	duction skills and quality. Finishing skills, quality	Quality control each	Designer- how they work for commissions.
	lity' pride in their	checks and	prototype, as a consumer.	Tradesmen's use of materials
work		standards/quality	Meeting wants and needs	Product designer (everything is designed by somebody)
		control.	of clients.	Engineer Toymaker
Lesso	on 5 – Working with a	crylic and assembly methods.		Toynaker
	ing parts together,	Assembly of the	Use of standard	
	esses, lego, models	product.	components, yr 7 pencil	Key words for their learning (Apart from equipment names):
etc.		Using standard	case yr 8 clocks, and	
	e have experienced temp glue guns.	components Use of hot glue gun and	electronics Standard joins yr 9. GCSE NEA and exam.	Commission
	8	finishing skills.	Life skills, repair, recycle.	Prototype
				Evaluation
		luation and reflection on skill Evaluation of own	development. Within each project and	Component Quality control
	e awareness of the I in wider context	learning and further skill	enable to give it on work of	Skill acquisition.
		development.	others both peers and	
			work of professionals.	
Good				
		ugh the process, produce	d a prototype and can ues they have learnt about.	How will we know they have learnt it?
name	the majority of the		les they have learne about.	
Better	r			Practical evidence. (recorded through photographs in their book)
	They understand the process they have been through to help them produce			Questioning throughout lessons
a prototype of their best idea; it is well make showing a good degree of quality control. They can name the tools and equipment that they have used				End of year exam Understanding/familiarisation at the start of the next unit.
			pment that they have used	Evaluation process.
and ex	and explain what it does. They show confidence in using the equipment.			
Excelle				
	Materials understanding and knowledge is very good they understand where materials come from and our need to choose and select material for certain functions. They understand the process they have been through to help them produce a prototype of their best idea; it is very well made and often complex. Quality control has been applied. They can name the tools and equipment that they have used and explain what it does. They have the confidence to use the equipment by themselves.			

oject	Textiles			Key learning outcomes
۲2hr	Textiles – Culture influenced pencil case Workspace health and safet	Workspace health and safety Naming of tolls and equipment and describing their functions		
essons	Prior	Current	Next lesson	How to initially set up a sewing machine correctly and safely.
	Lesson 1 - Introduction to workspace, H&S and tools and equipment.			Naming parts and functions of the sewing machine.
	Possibly some basic understanding of textile equipment from KS2 i.e. needle and thread.	H&S safety in a textiles room and working safely. Tools and equipment How to set up a sewing machine correctly and safely	Year 9 - recall knowledge of working in a Textiles room including tools and equipment, setting up of a sewing machine	Practice use of sewing machine (without thread) to develop accuracy and control. Threading up a sewing machine correctly and how to use with thread. The design process – what is a design brief and how to write own specification. ICT skills used to gather symmetrical imagery to produce a repeat pattern. Students i use mirroring and rotating techniques to make the design more complex. Use of their imagination and creativity.
	Setting up a sewing machine. Recall tools and equipment. H&S	12 - Introduction to using the sewing machine, threading up. Understand volumes of production (one off, batch & mass) give comparing to level of production for pencil cases. 12 - Introduction to using the sewing machine, up a sewing machine. Year 9 - Threading up a sewing machine. Accuracy and control when creating samples. Independent use of tools and equipment. Understand volumes of production for pencil cases. Use of manufacturing aids for accurately measure and cut fabre manufacturing aids is sed in textile production. How to set up and use a sewing machine. and control when creating samples. Independent use of tools and equipment. Interdependent use of tools and equipment including marking cut the sewing machine (top and bobbin). Sew with thread in a straight line. Sew with thread in a straight line.	Use of manufacturing aids for accurately measure and cut fabric and give examples o manufacturing aids used in textile production. Have used a range of tools and equipment including marking out using a template, cutting with fabric scissors, using a heat press to transfer repeat pattern design, using an overlocker, using pins to secure zip, using a sewing machine to produce basic	
Possible some ba understanding o	Lesson 3 - Introduce design Possible some basic understanding of a design criteria from KS2	n brief and specification. Crea Introduce what is a design brief and specification to create a repeat pattern design	te a design idea. Year 9 – More emphasis on design process – create own design brief and iterative design.	Reflection on learning through diary of making. Be able to understand how they could improve and develop their skills.
		idea using ICT skills (publisher). Look at how designers have produced repeats patterns. Look at repeat pattern designs in different cultures. Use of a heat press to transfer to fabric. Understanding different types of production and what we are using for prototype.	Encourage independent use of tools and equipment.	 Links to GCSE D&T Specification 3.2.8 Specialist techniques and processes – tools, equipment and processes. An introduction to a range of tools and equipment used in the textile area. Set up and u of sewing machine. 3.3 Designing and making principles Health and safety within a workshop. 3.3.3 The work of others How designers have used repeat patterns. 3.2.6 Stock forms, types and sizes Efficient material use, pattern spacing and minimising waste when using templates. Understanding different types of standard components in textiles (zip, buttons etc.) 3.2.7 Scales of production students to understand they are manufacturing a prototype. 4.4.4.2 Section B: Producing a design brief & specification students given design brief
	Lesson 4 – Creating basic c	construction and decorative t		construct specification from brief.
	Possible use of pattern pieces at KS2 Setting up a sewing machine and threading up. Functions of a sewing machine. Use of tools and equipment. H&S.	Use manufacturing aids and using fabric scissors for the first time. Choosing a variety of decorative stitches on prototype to enhance design further. Understanding the function of an overlocker to create sample and overlock pencil case. Reflection on learning through diary of making.	Progress towards a more complex prototype - develop more complex construction and decorative techniques, encourage independent use of tools and equipment.	 4.4.3 Section C: Generating design ideas Students create a design idea for prototy using publisher. 4.4.4.5 Section E: Realising design ideas Manufacture of pencil case. 4.4.6 Section F: Analysing & evaluating Green sheet assessment, evaluation of pencil case, good points and improvements. Links to history and culture: Manufacturing industry. Textile products they own. Designers that have created repeat patterns. Repeat patterns in different cultures. Subject links:
	Lesson 5 – Developing construction techniques - insert fastening.			ICT – Publisher
	Setting up a sewing machine and threading up. Functions of a sewing machine. Use of tools and equipment. H&S. Use of an overlocker.	Continue using the overlocker. Inserting a fastening (zip). New skill of how to pin zip to fabric. Understanding what is a standard component. Reflection on learning through diary of making.	Year 9 – independent use of the overlocker. Use of sewing machine to produce new type of fastening, better understanding of standard components.	Art – Repeat patterns Maths – Measurements, lines of symmetry Careers that can be discussed: Dressmaker/Tailor Textile Designer Fashion designer Sewing Machinist
	Lesson 6 – Continual development of construction techniques – plain seam.		niques – plain seam.	Pattern Cutter
	Evaluation. Use of pins for construction technique. Setting up a sewing machine and threading up. Functions of a sewing machine. Use of tools and equipment. H&S.	Use basic construction technique plain seam, to complete assembly of final prototype. Reflection on learning through diary of making. Evaluation of final prototype.	Year 9 – More detailed and developed evaluation and analysis of final prototype. Follow GCSE specification to develop design process, construction and decorative techniques ready for GCSE.	Textile Technician Interior Designer Teacher Key words for their learning (Apart from equipment names): Design brief Specification Repeat pattern Volumes of production Manufacturing aids
	majority of tools and equipm	ent. Basic ICT skills to produc	om a design brief and can name e a simple repeat pattern for quality control is applied when	Construction Decorative Standard component Prototype Quality control
	Better Deeper understanding of design process, why we need to use a brief and specification. Understand functions of parts on a sewing machine and thread up with some assistance. Use ICT skills to create a more complex repeat pattern for design idea. Largely be able to use tools and equipment independently with some confidence and name them all. Understand different volumes of production and manufacturing aids. Quality control is applied to the manufacture of the prototype. Excellent Confident in naming all tools and equipment including the naming of parts and functions		nread up with some assistance. design idea. Largely be able to ence and name them all. turing aids. Quality control is	Evaluation How will we know they have learnt it? Diary of making – reflection on learning Homework – H&S symbol, fabric products found around the home. Practical evidence (recorded through photographs in their book) Questioning throughout lessons End of four evenue
	on the sewing machine. Be al complex design idea is made throughout the manufacturin	using a wider range of ICT sk		End of year exam Understanding/familiarisation at the start of the next unit. Evaluation process.

	understanding volumes of pr manufacture pencil cases.	oduction, able to give examp	les and explain the level used to		
Project	Food Preparat	ion and Nutrit	ion – Year 7	Key learning outcomes	
6 x 2hr lessons	Food Preparation and Nutrition - Hygiene and Safety, Equipment and Basic Skills Unit.			Be able to work safely and hygienically in a Food room. Identify small pieces of equipment and know their uses. Know how to use sharp equipment safely and chop into uniform pieces.	
	Prior	Current	Links to future tasks	Work in a team to weigh, measure and record findings. Peel accurately and use a corer.	
	Lesson 1 - Introduction to Possible small amount of baking at KS2 (domestic based kitchen if any) Life experiences – dependant on home circumstances and knowledge – usually baking if any.	safe working practices in the Correct terminology of equipment and processes. Introduction to basic skills – peeling, use of digital scales. Complete potato peeling investigation - first investigation task (GCSE link).	Food room. Recall of equipment and its uses, weighing and measuring in year 8-11. Investigation Tasks for GCSE.	Know what the claw grip and bridge hold are and how to use them. Control enzymic browning. How to organise the practical workspace correctly and safely. Working with a partner during practical sessions. Use the rubbing in method. Mix dry and wet ingredients together to form a dough. Shape uniformly. Use the oven safely and independently. Judge if the product is cooked correctly.	
	Lesson 2 - Fruit Salad Prac Peeling. Basic use of the room.	tical Use of room for first time, chopping using bridge hold and claw grip, slicing and dicing, washing fruit, enzymic browning.	Five a day and the Eatwell guide – GCSE and life knowledge. Preparation skills used throughout year 7-11. Enzymic browning (GCSE).	Be able to understand how they could improve and develop their skills. Know what the Eatwell guide is and who it is for. Reflection on learning through assessment of each practical. Links to GCSE Specification 3.1 Food Preparation skills Skill 1: General practical skills - Weigh and measure - Accurate measurement of liquids	
	Lesson 3 - Introduction to Possible small amount discussed at KS2 – can be outdated using the "Food pyramid" or "Eatwell plate". Often conflicting view with what is eaten at home.	Introduce the Eatwell guide – health experts and the government recommendations for eating a balanced diet. Emphasis on not good and bad foods but foods we should be eating more of than others.	GCSE and life knowledge. Governments "Balance of Good Health" regulations.	and solids. Select and adjust cooking times - Select and adjust the cooking process a length of time to suit the ingredient. Test for readiness Use a visual colour check to establish whether an ingredient or recipe is ready. Skill 2: General knife skills - Fruit and Vegetables - Bridge hold, claw grip, peel, slice, dice and cut into even size pieces. Skill 3: Preparing fruit and vegetables - peel, segment, de-skin, de-seed and blend whilst demonstrating the technical skills of controlling enzymic browning. Skill 4: Use of the cooker - Using the oven – baking. Skill 10: Dough - Making a dough (bread). Shaping and finishing, such as bread rolls. Skill 11: Raising agents - Biological raising agent - Use of yeast in breadmaking. 3.2.3 Nutritional needs and health 3.2.3.1 Making informed choices for a varied and balanced diet - the current guidelines for a healthy diet eg the eatwell guide, how to maintain a healthy body weight throughout life.	
	Lesson 4 - Oat Crunchies P Healthy eating guidelines. Health and safety in the practical room. How to work with a partner during practical. Use of digital scales.	ractical Accurate measuring. Rubbing in method. Adding liquids to form a dough. Use of oven.	Use of rubbing in method for different doughs in year 8-11 including pastry and scones. Building on types of equipment used.		
	Lesson 5 - Apple crumble f Peeling. Chopping. Rubbing in method. Use of oven. Enzymic browning. Bridge and claw grip.	Practical Recall: Use a corer and peeler safely, use the bridge and claw grip to cut uniform pieces. Use the rubbing in method to make the topping correctly and judge if the crumble is cooked correctly.	Use of the practical room. Use of oven. Use of rubbing in method for different doughs in year 8-11 including pastry, bread and scones. Building on types of equipment used.	Development of manufacturing/retailing of food. Favourite family foods. Development of domestic kitchen equipment (potato peeling investigation). Use of food/recipes from other countries and cultures. TV chefs and personalities/ TV shows. Subject links: Maths – Measurement, fraction, division, ratios. Science – Healthy eating, digestion (also linked to gluten not just healthy eating),	
	Lesson 6 – Naan bread pra	octical		enzymes, function/reactions of ingredients together, use of gas and electricity. EFL – Healthy eating guidelines. PE - Healthy eating guidelines. Geography – sourcing of foods, countries of origin. Careers that can be discussed: Chef/Baker/Confectioner etc Dietician/Nutritionist Farming/Food manufacturing Hospitality and catering	
	Peeling. Chopping. Bridge and claw grip. Adding liquid to make a dough. Use of the oven.	Emphasis on kneading to give gluten stretch and a smooth dough. Forming, kneading and shaping a dough.	Yr 8 recall use of equipment and room with a promotion of independence. Progress to working with high risk foods. Continue to develop GCSE preparation skills linked with the GCSE curriculum.		
	Good Be able to identify small equipment and know how to use sharp equipment safely. Use a peeler, a corer and a sharp knife safely using the claw and bridge grip. Make finished products in the time set. Know large pieces of equipment and how to use them safely, use the oven. Use the rubbing in method and mix ingredients together to make a dough. Shape a dough to make a finished product. Know what the Eatwell guide is and who it is for. Better Be able to identify small equipment and to suggest uses. Know how to use sharp equipment safely and work in a team to peel and use scales. Cut into uniform pieces, know how to prevent browning. Good quality products, made without much assistance from the teacher in the time allowed. Cut and shape a dough uniformly. Judge if the products are cooked properly. Excellent Be able to identify small equipment and be able to easily suggest uses. Know how to use sharp equipment safely and work in a team to peel and use scales. Cut fruit into uniform pieces accurately. A high quality product suitable for sale is produced and work independently in the set time.			Food technologist Food journalist Nurse/Nursey nurse Key words for their learning (Apart from equipment names): Emymzic browning Bridge hold Claw grip Carbohydrate Protein Gluten How will we know they have learnt it? Q&A on safety and equipment sort. Assessment on completion. Constant verbal feedback and EBI's given whilst doing practical activities, record these on their blue sheet. Homework – Five a day poster, Healthy eating questions. Practical evidence (recorded through photographs in their book of each practical). Questioning throughout lessons. End of year exam. Understanding/familiarisation at the start of the next unit.	