

KS3 Technology

Students rotate around projects in Technology, Textiles and Food both in year 7 and year 8. Each project lasts for half of a school year (around 10 cycles). Each of these projects follows the design process and is assessed on 4 main areas:

Investigate

Design

Manufacture

Evaluate

Pages of the projects are formatively marked as they are completed and then once an assessment area is complete students are given a summative grade for it, which is written onto the front of their booklets along with written feedback

An example of a year 7 rotation

	SUBJECT 1		SUBJECT 2	
	1 st rotation	2 nd rotation	1 st rotation	2 nd rotation
	Last lesson	First lesson	Last lesson	First lesson
NO. OF LESSONS				
7AX1	Tf	Tx	T2	T1
7AX2	T1	Tx	Tf	T2
7AX3	Tx	T1	T2	Tf

Sweet Dispenser project

Cycle 1		
Class Work	Task analysis	
Home Work	Moodboard	
Assessment	Formative - staff give written comments and check SPAG	

Cycle 2	
Brief and specification	
Formative - staff give written comments and check SPAG	

Cycle 3	
Technical drawing & advanced mechanical systems	
Understanding gears and ratio systems	
Formative - staff give written comments and check SPAG.	
Peer - Students mark each other's HW	

Cycle 4		
Class Work	Application of drawing skills - design ideas and evaluation	LIT
Home Work	Understanding Linkage systems	
Assessment	Formative - staff give written comments and check SPAG. Peer - Students mark each other's HW	

Summative assessment of Investigation

Cycle 5	
Plan of manufacture	
Formative - staff give written comments and check SPAG	

Cycle 6	
Understanding Timber properties	
Timber properties	
Formative - staff give written comments and check SPAG	

Summative assessment of Design development

Cycle 7	
Class Work	Marking out skills and equipment
Home Work	
Assessment	Verbal feedback given throughout process

Cycle 8	
Cutting and Shaping	
Verbal feedback given throughout process	

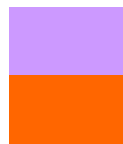
Cycle 9	
Finishing skills	
Verbal feedback given throughout process	

Summative assessment of manufacture

Cycle 10		
Class Work	Evaluation and Testing	LIT
Home Work		
Assessment	Formative - staff give written comments and check SPAG	

Summative assessment of Evaluation

Interleaving



Covered in all projects
Repeated skill in current project

Homework

Students are given of 4 homework tasks to help extend their knowledge and build on research, in addition to this they may be asked to finish off pieces of classwork for homework if not finished in class time

LIT:

In KS3 the need for extended writing is minimal, however there are parts of the project work where literacy skills are a focus and these are highlighted with LIT on the plan

Headphone wrap project

Cycle 1		
Class Work	Task analysis and specification	
Home Work	Moodboard	
Assessment	Formative - staff give written comments and check SPAG	

Cycle 2		
	User profile, brief & packaging research	LIT
	Formative - staff give written comments and check SPAG	

Cycle 3		
	Application of drawing skills - design ideas	LIT
	Product analysis –Logo	
	Formative - staff give written comments and check SPAG. Peer - Students mark each other's HW	

Cycle 4			Summative assessment of Investigation
Class Work	Application of drawing skills - design ideas		
Home Work	Complete design ideas		
Assessment	Formative - staff give written comments and check SPAG.		

Cycle 5		
	Understanding CAD/CAM -2D design/laser cutter	
	Formative - staff give written comments and check SPAG	

Cycle 6			Summative assessment of Design development
	Application of CAD skills		
	Formative - staff give written comments and check SPAG		

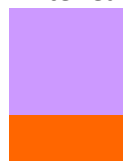
Cycle 7		
Class Work	Drawing skills & Construction	
Home Work		
Assessment	Verbal feedback given throughout process	

Cycle 8		
	Construction	
	Verbal feedback given throughout process	

Cycle 9			Summative assessment of manufacture
	Vacuum forming & construction		
	Verbal feedback given throughout process		

Cycle 10			Summative assessment of Evaluation
Class Work	Evaluation and Testing	LIT	
Home Work			
Assessment	Formative - staff give written comments and check SPAG		

Interleaving



Covered in all projects

Repeated skill in current project

Homework

Students are given of 3 homework tasks to help extend their knowledge and build on research, in addition to this they may be asked to finish off pieces of classwork for homework if not finished in class time

LIT:

In KS3 the need for extended writing is minimal, however there are parts of the project work where literacy skills are a focus and these are highlighted with LIT on the plan

Moodlight project

Cycle 1		
Class Work	Task analysis	
Home Work	Moodboard	
Assessment	Formative - staff give written comments and check SPAG	

Cycle 2	
Design Movements + advanced electronic systems	
Product Analysis	
Formative - staff give written comments and check SPAG	

Cycle 3		
Application of Research - Designing	LIT	
Formative - staff give written comments and check SPAG. Peer - Students mark each other's HW		

Cycle 4		
Class Work	Developing designs, understanding inputs & outputs	
Home Work		
Assessment	Formative - staff give written comments and check SPAG. Peer - Students mark each other's HW	

Summative assessment of investigation

Cycle 5	
Modelling Analysis	
Electronic Components	
Formative - staff give written comments and check SPAG	

Cycle 6	
Soldering + Woodwork	
Verbal feedback given throughout process	

Summative assessment of Design development

Cycle 7		
Class Work	Soldering + Woodwork	
Home Work		
Assessment	Verbal feedback given throughout process	

Cycle 8	
Finishing Skills	
Verbal feedback given throughout process	

Cycle 9	
Construction	
Verbal feedback given throughout process	

Summative assessment of

Cycle 10		
Class Work	Evaluation and Testing	LIT
Home Work		
Assessment	Formative - staff give written comments and check SPAG	

Summative assessment of

Interleaving	
	Covered in all projects
	Covered in another project
	Repeated skill in current project

LIT:

In KS3 the need for extended writing is minimal, however there are parts of the project work where literacy skills are a focus and these are highlighted with LIT on the plan

Homework:
Students are given of 3 homework tasks to help extend their knowledge and build on research, in addition to this they may be asked to finish off pieces of classwork for homework if not finished in lesson time.

Jewellery project

Cycle 1		
Class Work	Brief and Specification	
Home Work	Culture and Design analysis	LIT
Assessment	Formative - staff give written comments and check SPAG	

Cycle 2	
H&S, casting process knowledge & Technical drawing	
Manufacture Processes - casting	
Formative - staff give written comments and check SPAG	

Cycle 3		
Application of drawing skills- design ideas	LIT	
Formative - staff give written comments and check SPAG		

Cycle 4		Summative assessment of Investigation
Class Work	Advanced Technical Drawing	
Assessment	Formative - staff give written comments and check SPAG	

Cycle 5	
Modelling Development	
Understanding metals and Properties	
Formative - staff give written comments and check SPAG	

Cycle 6		Summative assessment of Design development
Wood working skills		
Formative - staff give written comments and check SPAG		

Cycle 7	
Class Work	Metal casting
Home Work	
Assessment	Verbal feedback given throughout process

Cycle 8	
Shaping skills	
Verbal feedback given throughout process	

Cycle 9		Summative assessment of manufacture
Finishing and polishing skills		
Verbal feedback given throughout process		

Cycle 10			Summative assessment of Evaluation
Class Work	Evaluation and Testing	LIT	
Assessment	Formative - staff give written comments and check SPAG		

Homework:
Students are given of 3 homework tasks to help extend their knowledge and build on research, in addition to this they may be asked to finish off pieces of classwork for homework if not finished in lesson time.

Interleaving	
	Covered in all projects
	Covered in another project
	Repeated skill in current project

LIT:
In KS3 the need for extended writing is minimal, however there are parts of the project work where literacy skills are a focus and these are highlighted with LIT on the plan.

Year group	Year 9										
Time of year covered	September - January					February – July Timber skills					
Project	Clock project			Sharpener Project			Storage Project			Assessment 2 – End of year summary test (unit 1&2)	
Skills/knowledge focused on	Design process			Timber research HW on this topic	F	Sustainability HW on this topic	F				
	Art movements HW on this topic			Advanced Technical drawing	F	Design ideas					
	Product analysis HW on this topic	F		Mathematic skills- planning and marking out		Joints research HW on this topic	F				
	Plastic properties HW on this topic	F		Intricate practical skills		Mathematic skills- planning and marking out					
	Plastic Processes			Understanding finishes HW on this topic	F	Understanding Jigs/formers					
	Generating design Ideas	F		Evaluation	F	Intricate practical skills	F				
	Introduction to scale models					CAD/CAM HW on this topic	F				
	Technical drawing – isometric	F				Scales of production					
	Evaluation					Evaluation					
Theory Unit	1: New and emerging technologies					2: Energy materials, systems and devices					
Theory content covered once a cycle in the unit order	Industry and enterprise People, culture and society production techniques and systems Informing design decisions					Energy generation Energy storage Modern materials Smart materials Composite materials & technical textiles					
Homework	Students are set a 3 investigation homework's as well as independent targets to complete during the course of the project.					Students are set a 3 investigation homework's as well as independent targets to complete during the course of the project.					
Literacy & Extended writing	During this year the curriculum does not require extended writing from students however within the project students will be guided on using a structure to formulate their analysis of products, ideas and evaluation to improve the level of detail and quality of language in their work										
ASSESSMENT: (F)	Pupils will receive a minimum of 4 pieces of written feedback across the projects. This will be within the students' folder of work. In addition to this students will complete two assessments over the year based on the theory content										

Year group	Year 10						
Time of year covered	September - January			February - June			
Project	Trophy project			Practice NEA – focused tasks			
Skills/knowledge focused on	Design process			Assessment 1 - unit 3	Analysing tasks	I	Assessment 2 - end of year exam
	Higher level product analysis HW on this topic	I			User needs and wants - HW on this topic	I	
	Computer aided design & CAM HW on this topic	D			Independent research HW on this topic	I	
	Metals and Alloys properties HW on this topic	I			Higher level product analysis HW on this topic	I	
	Advanced manufacturing processes	M			In depth brief and spec	I	
	Health and safety regulations	M			Design generation	D	
	Applying mathematic skills	M			Modelling and testing	D	
	Time management	E			Materials and their working properties	I	
Theory Unit	3: Materials and their working properties			Common specialist technical principles			
Theory content covered once a cycle in unit order	Papers and boards Natural manufactured timbers Metals and Alloys Polymers Textiles			Forces and stresses on materials improving functionality Ecological and social footprint The 6 R's Scales of production			
Homework	Students are set 3 investigation homework's as well as independent targets to complete during the project			As the projects are independent, students are set independent targets to complete during the project			
Assessment/feedback	Project work is marked under 4 different areas: I = Investigation D = Design development M = Manufacture E = Evaluation These are marked as each area is completed and pupils are given a score as well as written feedback. In addition to this students are assessed two times over the year on their theory knowledge						
Literacy & Extended writing	During this year the curriculum does not require extended writing from students however within the project students will be guided on using a structure to formulate their analysis of products, ideas and evaluation to improve the level of detail and quality of language in their work.						

Year group	Year 11		
Time of year covered	June -March		March-May
Skills/knowledge focused on	Students complete their independent NEA.	Mock Exam - Assessment 1	<p>Every lesson is dedicated to theory revision until study leave.</p> <p>Theory will be focused on how to answer exam questions to gain most marks as well as covering section C of the exam paper</p> <p>As all theory content has been covered once already, teachers will tailor the theory revision content based on analysis of class data and their needs</p>
Theory	One lesson a cycle is committed to theory revision based on teacher analysis of assessment data.		Students are expected to spend a minimum of 1 hour a week revising theory and completing practise questions
Homework	Students are expected to spend a minimum of 1 hour a week working independently on their NEA projects.		
Assessment	<p>NEA is marked under 5 areas. Students are not allowed to receive personalised written feedback but generic comments can be made. Pupils will have 1 to 1 discussions about their work with their teacher and peer assessment is also used. Preliminary marks for each section are given to students as they complete each area, so that they can improve before final submission.</p> <p>In addition students are assessed on their theory knowledge formally at the end of the autumn term.</p>		
Literacy and extended writing	<p>The coursework portfolio does contain a lot of written content which is broken down into small chunks. Students are supported in their literacy and language by using structures and key words.</p> <p>Within the exam students are expected to answer a small number of longer answer questions. Teachers will spend time in the March-May section of the year to teach students how to structure these answers correctly.</p>		