



## Technology Department Year 9 GCSE Design Technology RM, long term planning

Week	36	37	38	39	
W/C Date	25-Jun	2-Jul	9-Jul	16-Jul	
Topic	Introduction to sketching		<b>ASSESSMENT AND FEEDBACK WEEK</b>	Introduction to Maths	
Key Objectives	Introduction to the course To develop our knowledge and understanding on three dimensional drawing.	To develop our understanding on vertical lines, diagonal lines and the technique of crating.		Introduction to the mathematically element of the course.	
Assessment	Pupils will be able to draw shapes in two point perspective and be able to draw a two dimensional city.	Pupils will be able to draw a range of complex shapes in isometric and be able to draw various given objects.			
Homework	Homework – Use of booklets / tracking (Light sources)	Homework – Use of booklets / tracking (tumbling Tower)	Homework – Use of booklets / tracking (Health and Safety 1 /2))		

### Department Year 19 grades 3-8 long term plan

	Assessment weeks
	Moderation week
	Data Capture
	STAR marking
	Exit Poll

### Key Skills to be Covered

Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
W/C Date	03-Sep	10-Sep	17-Sep	24-Sep	01-Oct	08-Oct	15-Oct		29-Oct	05-Nov	12-Nov	19-Nov	26-Nov	03-Dec	10-Dec	17-Dec		
Topic	Wooden Car Project (Assessment Focus – Making)			<b>ASSESSMENT AND FEEDBACK WEEK</b>	Company Case Study - Apple Vs Braun (Assessment Focus – Investigating)		<b>ASSESSMENT AND FEEDBACK WEEK</b>	Metal Work Project (Assessment Focus – Making)			<b>ASSESSMENT AND FEEDBACK WEEK</b>	In the Style of (Assessment Focus – Investigating)						
Key Objectives	To further our understanding of manufacturing aids, such as jigs, templates, formers and moulds. To develop our knowledge and understanding of a range of basic tools and machinery used with wooden products.	Plan of Action – Plan of manufacture to demonstrate understanding of workshop / tools / equipment etc  Start manufacturing of product.	Continuation of manufacturing of product To maximise our level within our design and make projects – evaluation completed.  <b>Challenge – Use of CAD /CAM to add decoration</b>		Introduction to the SOW Students should investigate the work of a minimum of two of the following companies: • Alessi • <b>Apple</b> • <b>Braun</b> • Dyson  Theory – Enterprise based on the development of an effective business innovation: Crowd funding / virtual marketing and retail / co-operatives / fair trade. Theory - Developments made through the invention of new or improved processes eg Graphene, Metal foams and Titanium. Theory - Alterations to perform a particular function eg Coated	To create a wide range of ideas that closely meet your Design Criteria. To develop 3D sketching and rendering techniques. To identify the difference between labelling and annotating.		Students to start Focus Practical Task – Metal product to develop their knowledge and understanding of a range of basic tools and machinery used with metal products. Continuation of last week	Introduction to the SOW To develop our understanding of design movements and retro design. To identify different design movements	To develop our understanding of design movements and retro design.  To design a range of products in the style of a given design movement		Continuation of design ideas / modelling / presentation	<b>ASSESSMENT AND FEEDBACK WEEK</b>					



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Assessment	Pupils will be able to make an accurate product <b>without</b> support and cut/shape their car shape using tools/machines with <b>some confidence</b> including CAD/CAM where possible.			metals, Liquid Crystal Displays (LCDs) and Nanomaterials. How products are produced in different volumes. The reasons why different manufacturing methods are used for different production volumes: Prototype / batch / mass / continuous.			Pupils will have drawn and fully rendered a range of different and creative design ideas, have justified the reasons for their design decisions using ACCESS FM.			Pupils will be able to make an accurate template <b>without</b> support and cut/shape their product using tools/machines with <b>some confidence</b> including CAD/CAM where possible			Pupils will be able to link specific products and designers to a range of design movements			Pupils will be able to justify their choices within their design criteria linking back to past designers.			Pupils will pitch your ideas to members of staff in school to see whether they would opt into your idea. Just like Dragons Den.		
Homework	Homework – Use of booklets / tracking (Woods 1)	Homework – Use of booklets / tracking (Woods 2)	Homework – Use of booklets / tracking (Woods 3) <b>Challenge sheet – Woods Overview</b>	Homework – Use of booklets / tracking - (CAD/CAM)	Homework – Use of booklets / tracking - (Production Processes)	Homework – Use of booklets / tracking - (Scales of Production)	Homework – Use of booklets / tracking - Consumer Issues	Homework – Use of booklets / tracking - Metal 1	Homework – Use of booklets / tracking - Metal 2	Homework – Use of booklets / tracking - Metal 3 <b>Challenge sheet – Metal Overview</b>	Homework – Use of booklets / tracking - manufacturing aids	Homework – Team Leaders to set	Homework – Use of booklets / tracking - Design movements 1	Homework – Use of booklets / tracking - Design movements 2	Homework – Use of booklets / tracking (Ergonomics and Anthropometrics)						

Week	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34		
W/C Date	07-Jan	14-Jan	21-Jan	28-Jan	04-Feb	11-Feb		25-Feb	04-Mar	11-Mar	18-Mar	25-Mar	01-Apr	08-Apr				
Topic	Smart / Composite Materials (Assessment Focus – Designing)			ASSESSMENT AND FEEDBACK WEEK	CAD Phone Stand			CAD Phone Stand		ASSESSMENT AND FEEDBACK WEEK	Company Case Study - Alessi (Assessment Focus – designing )							
Key Objectives	Introduction to the course  To develop our understanding of smart / Composite materials are and what they are used for.	Students to start Focus Practical Task by using their knowledge of smart / Composite materials to design products to help a superhero / Villain			To learn about about and to be able to identify the types of Polymers.  To consider what the uses of polymers are	To understand that modelling is a key part of the design process To construct a range of 3D concept models safely		To further our understanding of manufacturing aids, such as jigs, templates, formers and moulds.  To develop our knowledge and understanding of a range of basic tools and machinery used with plastic products.			Introduction to the SOW Theory – - Iconic designs - Market Pull - Technological Push - Alessi Brand To embed our knowledge and understanding of a range sketching and rendering skills by redesigning a product using the Alessi Brand.	Continue to design products - To embed our knowledge and understanding of a range sketching and rendering skills by redesigning a product using the Alessi Brand	To understand that modelling is a key part of the design process To construct a range of 3D concept models safely	Paper and Board To learn the functions of packaging				
Assessment	Pupils will have a creative design idea, drawn and fully rendered. They will have justified the reasons for their design decisions using what they know about smart / composite materials and their properties.					Pupils will be able to justify their choices within their design criteria linking back to their theory of polymers.	Pupils will be able to explain why modelling is a key part of the design process and how modelling can inform and improve their final solution. Produce a range of 3D card models using a variety of		Pupils will be able to make an <b>accurate</b> and <b>quality</b> product without <b>support</b> , using a <b>range</b> of machinery with <b>confidence</b> to cut, drill and shape their phone stand			Pupils will be able to give definitions and examples of how brands use Market Pull and Technological Push within their products.	Pupils will be able to redesign a product relating to Market Pull and Technological Push which is in the style of Alessi.	Pupils will be able to produce a range of 3D foam models of their design concepts.	Pupils will be able to <b>justify</b> why the functions are necessary and <b>apply</b> knowledge to example situations. Select a <b>range of effective images</b> to further communicate			



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						Construction techniques.								their explanation		
Homework	Homework – Superhero / Villain inspiration boards.	Homework – Use of booklets / tracking (Smart Materials)		<b>HOMEWORK GREEN PEN WEEK!</b>	Homework – Use of booklets / tracking (Plastics 1)	Homework – Use of booklets / tracking (Plastics 2)		Homework – Use of booklets / tracking (Plastics 3)  <b>Challenge sheet – plastics Overview</b>	Homework – Use of booklets / tracking (Modelling)	Homework – Use of booklets / tracking - (QA)	Homework – Use of booklets / tracking - (Packaging 1)	Homework – Use of booklets / tracking - (Packaging 2)	Homework – Use of booklets / tracking - (Packaging and symbols)	Homework – Use of booklets / tracking - (Paper Production)		

	35	36	37	38	39	40	41	42	43	44	45	46	46
Week	29-Apr	06 - May	13-May	20-May		03-Jun	10-June	17-June	24-June	01-July	08-July	15-July	22-July
W/C Date	Environmental Impact (Assessment Focus – Investigating)					Maths		<b>Start of Y10</b>					
Topic	Introduction to the SOW Theory - The impact of resource consumption on the planet: finite / non-finite / disposal of waste That it is important to consider scenarios from different perspectives and considering: Planned obsolescence / design for maintenance / ethics / the environment. Theory – How power is generated from: Coal / Gas / Oil Arguments for and against the selection of fossil fuels.  Theory – How nuclear power is generated. Arguments for and against the selection of nuclear power. Theory - Kinetic pumped storage systems. Alkaline and re-chargeable batteries			Environmental impact exam		Continue with mathematically element of the course.							
Key Objectives	Pupils will be able to outline different energy sources and their impact on the environment.												
Assessment	Homework – Use of booklets / tracking - (Printing Processes)	Homework – Use of booklets / tracking - (Sustainability)	Homework – Revision		<b>HOMEWORK GREEN PEN WEEK!</b>								