KS3 D&T Progression Grid Year 9

Y9	Working Towards	Expected Standard	Greater Depth
	By the end of the year 9 students should be able to:	By the end of the year 9 students should be able to:	By the end of the year 9 students should be able to:
DESIGN	**Textiles. Fast fashion design challenge. Making a cushion from unwanted clothing**		
	Apply knowledge from year 7 & 8 to gather research in order to understand 'fast fashion' impacts on the environment. Know what the 6 Rs of sustainability are. Applying knowledge from year 7 engineering to Identify and understand users' needs by using prompt questions. Applying CAD skills learnt in year 7 to make simple designs using a computer drawing software package. Write a simple specification.	Identify the impact of 'fast fashion' on the environment. Understand what the 6 R's of sustainability are and how they can modify their life to become more environmentally friendly. Understand user centred design and how designers use this to develop products that will sell. Generate creative ideas using a computer drawing software package. Develop a specification to inform the design of an innovative, functional product that responds to the environmental challenge.	Identify the impact of 'fast fashion' on the environment and discuss it confidently with their peers. Understand and apply 6 R's of sustainability and give examples of how this can be included in their life. Understand and apply user centred design and how designers use this to develop products that will sell. Generate creative and detailed ideas using a computer drawing software package. Develop a specification to inform the design of an innovative, functional and appealing product that responds to the environmental challenge.

MAKE	Applying skills learnt in year 8 to use paper templates to cut fabric accurately. To use a sewing machine safely and accurately. To make a product that is suitable for a target consumer by reusing items of unwanted/ discarded clothing.	To use paper templates to cut fabric accurately, with precision and confidence. Thread up and use a sewing machine safely and accurately. To make an accurate product that is suitable for a target consumer by reusing items of unwanted/ discarded clothing.	To use paper templates to cut fabric accurately, with precision, confidence and the ability to adjust the pattern to improve the quality of the product. . Thread up and use a sewing machine safely, accurately and with confidence. To make an accurate and quality product that is suitable for a target consumer by reusing items of unwanted/ discarded clothing.
EVALUATE	Apply analytical skills from year 8 to select successful aspects of a product and use them to develop creative ideas of their own. Test, evaluate their own ideas against a specification and confidently discuss with their peers. Confidently critique the work of their peers and suggest modifications, knowledge from year 8 engineering.	Select successful aspects of a product and confidently use them to develop creative ideas of their own. Critically test, evaluate and refine their own ideas against a specification and confidently discuss with their peers. Confidently critique the work of their peers and verbalise modifications.	Analyse a product in depth and confidently understand why some aspects are successful and how these can be used to create a new product. Critically test, evaluate and refine their own ideas against a specification and suggest how quality of the product could be maintained. Confidently critique their own work that of their peers and verbalise modification that would increase appeal.
TECHNICAL KNOWLEDGE	Select fabrics, components from discarded clothes based on their suitability to the chosen design: considering colour.	Independently select fabrics from discarded clothes based on their suitability to the chosen design: considering pattern, colour and texture.	Independently select fabrics from discarded clothes based on their suitability to the chosen design: considering pattern, colour and texture and fabric properties.

Y9	Working Towards	Expected Standard	Greater Depth
	By the end of the year 9 students should be able to:	By the end of the year 9 students should be able to:	By the end of the year 9 students should be able to:
DESIGN	**Engineering Design and make a sweet dispenser**		
	Apply research knowledge from year 7 and 8 to investigate simple gear systems. Create simple, labelled sketches that meet the design criteria. With help use CAD to translate their sketches into orthographic drawings.	Confidently investigate more advanced gear systems. Confidently create annotated hand drawn sketches. Independently translate their hand drawn sketch into an orthographic drawing using CAD.	Investigate and understand gear systems that are suitable for the needs of the user. Create detailed annotated hand drawn sketches. Independently and accurately produce orthographic drawings showing technical details.
MAKE	Select, with guidance, the correct specialist tools and equipment. With help create a simple wood joint using tools and equipment safely and accurately. Independently select and use materials and processes to create a product meeting the needs of the user.	Independently and accurately select and use the workshop hand tools safely, to create a simple wood joint. Independently select and use materials and processes to create a well finished product that meets all aspects of the design criteria.	Independently and with confidence select and use the correct workshop tools to accurately and safely create a range of wood joints. Independently and with confidence select and use materials and processes to create a well finished product that meets all aspects of the design criteria.

EVALUATE	Test which gears are suitable for their clients needs, using prompt questions. Apply their analytical skill to evaluate their product against the specification and suggest modifications.	Independently test which gears are suitable for their clients needs. Apply their analytical skill to evaluate the materials, process and quality of their product and suggest modifications.	Confidently articulate how the gears can be modified to make the product better/ more exciting. Critically test, evaluate and refine their own and others ideas against a specification and confidently discuss with their peers.
TECHNICAL KNOWLEDGE	Know and understand simple mechanisms and gear systems. Understand the source and properties of Acrylic . Build on their knowledge, from year 7 and 8, about the source and properties of timber.	Know and understand how mechanisms and gear systems work. Understand the source and properties of Acrylic and apply that knowledge to design a product. Confidently apply their knowledge of different timbers and their properties to explain how they can be used.	Apply their knowledge of gears and mechanisms to design products. Understand the source and properties of Acrylic and confidently articulate the positives and negatives of the material. Confidently apply their knowledge of how the properties of different timbers can be enhanced by using different finishes.