Y8	Big Question/Theme	Small Questions	Assessment Opportunities and Criteria. Teacher Feedback point (TFP)	Homework
Product Design	1. How can CAD be used to enhance the commercial viability of products? 2. How is CAM used to manufacture high quality products? 3. What is the process of casting? 4. How can manufacturing processes be communicated to a third party?	1. How do you vectorise a bitmap? 1. How do you contour a vector? 2. How do you export a DXF file from Techsoft 2d design and then import it into Lasercut 5.3? 3. How do you set up the laser cutter? 4. What is a MOULD? 5. How do you safely and correctly cast with pewter? 6. How are abrasive papers and polishing compounds used to achieve a high quality finish on pewter? 7. How do you complete a making plan and flowchart? 8. How do you use the polishing machine safely and correctly? 9. How do you ensure quality control for every process? 10. What are the advantages and disadvantages of renewable and non-renewable sources of energy.	Verbal feedback throughout the project to support students when working practically. This could be technical support on how to correctly use tools and machines as well as offering help when students lack confidence. **TFP :** Project Booklet to be reviewed every two weeks. **Formative Assessment :** Mid term test - technologystudent.com **Summative Assessment** : Final practical outcome and completion of project booklet. Students will be assessed on the accuracy of the final outcome, creativity and attention to detail in their supporting written work.	Maths type question. Environmental logo task Sources of Energy investigation.

Y8	Big Question/Theme	Small Questions	Assessment Opportunities and Criteria. Teacher Feedback point (TFP)	Homework
Graphic Products	• Can you use a range of Computer Aided Design (CAD) skills to design the exterior of an architectural model? • Can you produce a 3D rendered virtual architectural model? • Can you select and use the appropriate graphics tools to construct an architectural model?	• Can you add textures and appropriately scale in 2D Design? • Can you design graphics with cut lines compatible for the laser cutter? • Do you understand why a print must bleed past the cut line? • Can you incorporate typography rules to create a legible and engaging brand identity for your shopfront? • Can you use 3D Computer Aided Design software to produce a to-scale virtual architectural model? • Can you render a virtual model with scaled textures? • Can you follow the health and safety rules when using a scalpel? • Can you follow a demonstration full of techniques and advice to accurately cut out foamboard with a scalpel, safely rule and cutting mat? • Can you independently and accurately enhance your architectural model with appropriate accessories and features? • Can you critically evaluate your own design and practical work against the specification criteria you have previously outlined?		

Y8	Big Question/Theme	Small Questions	Assessment Opportunities and Criteria. Teacher Feedback point (TFP)	Homework
Design Engineering	1. How do we introduce controlled movement into systems? 2. What gives a product structural integrity? 3. How do we identify an appropriate mechanical system and implement it effectively?	1. What are the four types of motion? 2. How do forces effect the ease of movement within a product or system? 3. What is mechanical advantage? 4. What is a cam and what components are required for a cam system to be effective? 5. What is the anatomy of a gear and why is it like this? 6. How do we use gears to provide mechanical advantage? 7. What is a pulley and belt drive and where would it be used? 8. How are levers and linkages used to transfer movement? 9. What is meant by the term triangulation? 10. How can we use triangulation to improve structural integrity? 11. How do we reinforce materials and structures in order to improve structural integrity?		

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Fashion & Textiles	• How can products be used to protect and contain other products? • What effects do the raw material and construction of woven fabrics have on the properties and sustainability of the fabric? • What is a surface decorative technique? • How do you use a sewing machine safely?	• What information is given on Textile Labels? • What is a property of a material? • What is a raw material? • What are the properties of cotton? • What are the properties of polyester? • What does organic mean? • What is a product life cycle and how do products have an impact on the world around us? • What is a woven fabric and what properties does this have? • What is Tie Dye, its different forms, and Applique? • What is interfacing and how does it help in the construction of textile products? • How and why are the edges not usually seen on textile products? • How can fastenings be used to ensure a product is contained? • How do you use a sewing machine? What can you do to ensure you are safe? • How do you thread up a sewing machine?		

Y8	Big Question/Theme	Small Questions	Assessment Opportunities and Criteria. Teacher Feedback point (TFP)	Homework
Food Technology	1. How can meat, fish and alternatives be prepared safely and hygienically? 2. What are the differences in the sensory properties of meat, fish and alternatives. 3. How would you conduct a food investigation? 4. Why do some individuals choose a meat free diet and lifestyle? 5. How do you know whether meat and poultry products have met welfare standards? 6. How can you communicate a recipe effectively?	1. What are the main hygiene and safety rules that should be adhered to when storing, preparing and cooking ingredients? 2. What is binary fission? 3. How can binary fission be prevented? 4. How can burgers be prepared and cooked safely and hygienically? 5. What range of protein sources can you use to make a goujon? 6. What are the differences between the taste, texture and appearance of fish, poultry and a meat alternative? 7. What impact does baking, shallow frying and deep frying have on the sensory properties of meat, fish and alternatives? 8. How can you assess the sensory properties of three food products? 9. What is conduction, convection and radiation? 10. What is a hypothesis? 11. How would you conduct a fair test? 12. What are the different types of vegetarian? 13. How could you adapt a curry to make it vegetarian? 14. Define the terms **RSPCA Assured; Red Tractor** and **Organic.** 15. What are the functions of ingredients in a pizza? 16. Justify your reasons for choice when selecting ingredients, using the knowledge gained throughout this project.		