Curriculum and Progression Overview

Design and Technology

Plymouth High School for Girls

CONTENTS

Curriculum

Plymouth High School for Girls aims to be an outstanding Grammar School for the 21st century remaining true to the philosophy of the school's motto 'For Life Not School We Learn'.

A school which:

- Promotes a culture of high **aspiration** enabling personal and academic success
- Prepares students to **think confidently and independently**
- Provides an **outstanding education** for all, the key to this being high quality teaching
- Provides **enjoyment, excitement and challenge** for all, stimulating an enthusiasm for lifelong learning
- Prepares students to become **active citizens**, equipped to succeed in a world of rapid change

Intent

Our Vision

Our department vision is to answer these three questions:

- **What is my problem?**
- **What is my solution?**
- **How will it impact the wider world?**

Our vision is about designing with a purpose. Products should be designed and made for use in the real world. Students should have the chance to think critically and develop solutions to real life problems. An iterative design process is embedded throughout so students are constantly designing, making, evaluating and realising there is never a true end to their development process.

At KS3 a carousel approach to the D&T curriculum is used to build confidence across different material areas. They are taught by specialist staff, who have good subject knowledge, to stretch and challenge the students accordingly. There is consistency in the format of the projects in that all will have a problem to solve with standardised assessment materials used.

Ambition

From KS3 onwards, we want our students to experience success that is not just measured by their examination grades. We strive to support them in developing the confidence to take risks, ask questions and explore alternative solutions without fear of being wrong.

Pupils' work is marked in line with the marking criteria around specific skills:

- research and design
- manufacture
- evaluation
- knowledge and theory

However, the Design and Technology Department also measure students' success by referencing a much wider range of criteria.
These include the following:

- Enthusiasm for the subject
- Aptitude for the subject
- Compulsion to experiment
- Resilience to overcome problems independently but recognising how to work well within a team
- Ability to work under pressure
- Ability to continuously evaluate own performance and be analytical of their work
- Ability to manage their own time
- Ability to communicate their ideas to others
- Fulfilling their potential.

As a team we feel these skills support student success across the programme of study and are achieved by a carefully planned curriculum. With curriculum students can be enthusiastic about they are able to build their confidence and be ambitious with their outcomes.

Implementation

The Design and Technology department aims to give students the opportunity to develop skills, knowledge and understanding of designing and making functional products. We feel it is vital to nurture creativity and innovation through design, and by exploring the designed and made world in which we all live and work. We aim to produce learners who are critical, independent thinking young adults.

Project skills have been mapped to ensure that by the end of their time in KS3 they have developed all necessary expertise to embark on their further studies no matter what their choice of subject and solve problems in the real world.

Using a range of teaching strategies and resources, students will increase their confidence in communicating their ideas, articulating through written and drawn forms and developing skills in 3D modelling. The new GCSE format requires specialist teachers with specialist skills and knowledge to enable students to follow their interests. For this reason, the individual is key. Retrieval is completed at the start of each lesson to enable students to build upon their knowledge of key areas in the subject specialism, followed by the opportunity for group and independent tasks. Thinking maps have been embedded into this to support students in the exploration of their ideas and thinking hats are used to support the analysis of student project work at key stages of the design and make process. Shared planning and resources as well as formal and informal moderation of GCSE controlled assessments will ensure there is consistency across the department and students are able to fulfil their full potential in Design and Technology.

In Years 7,8 and 9 we have used the design and technology associations guidelines to support content taught however if there are overlaps or opportunities to stretch and challenge students by introducing elements from the GCSE specifications, these may be taken. GCSE Option subjects are chosen during Year 9.

The KS3 schemes of work are continuously developed and reviewed on a yearly basis to ensure relevance and promote enthusiasm and engagement in its content. Student voice plays a key part in this by gathering feedback using Microsoft forms surveys at the end of each rotation. Questions are posed to students to consider lesson delivery and feedback. After careful reflection and analysis of this, teachers within the department may replan or reform work to improve. Projects are based and planned to build the knowledge and skills required for all to move onto a KS4 programme successfully as well as building cross curricular links and developing transferable skills. Topics taught in year 7 may be consciously touched upon again in later years, increasing with challenge whilst ensuring that the foundation knowledge for each topic is secure, allowing for students to grow in independence.

Discussion, particularly when it comes to environmental, social and moral considerations, is encouraged to broaden their views and develop independent values. Citizenship plays a key role in Design and Technology due to our consideration of global impact. At each stage students are made to consider the impact of their designs on the planet to ensure they are acting as a good citizen. A focus on the client or consumer is always detrimental to ensure there is accessibility for all and an underlying understanding of people supports this.

All members of the Design and Technology department strive to support all our students in success, whatever their circumstances. Where students have IEPs the class teacher ensures that the curriculum is tailored effectively to their needs. The department works closely together to support these students, enabling them to access the curriculum at all stages. Class lists are written in detail and shared with all members of the Design and Technology department to ensure these methods are maintained throughout, despite rotation. In the

past we have worked to accommodate disabilities such as visual impairments and manual dexterity by sourcing extra equipment and reworking resources. We have recognised students who may be experiencing processing disabilities and ensured the next stage of a project is sent before the lesson to allow the individual time to understand what they must do. It is important to remember that there is never one way of doing something so alternative techniques may be considered so that all pupils still end up with a finished piece they can be proud of.

At KS3 most materials are always provided by the department for projects that are in place. The payment contribution asked of students is not mandatory so low-income families do not have to pay. When beginning their coursework in KS4 we ensure there is always material left over from other projects that can be supplied if students are unable to afford to buy their own. As a school it is important that the curriculum is open and allows access for all pupils. In Design and Technology, we adopt a supportive approach throughout as we understand being creative can reduce anxiety, depression, and stress and this can be important in the lead up to exams. The wellbeing of our students is incredibly important to us.

The Design Technology Department tries to mirror the standards expected in a commercial environment. As such we feel deadlines are a particularly crucial factor for students, particularly when progressing to GCSE and A level. They support a pupil's development into the real world as well as striving to plan their time and organise work. The Design and Technology department work as a cohesive team, sticking to the same deadlines with the same consequences and strategies of intervention.

Deadlines are in place at the start of all projects and mini deadlines are set per lesson or week by each teacher to ensure the larger deadlines are met. The nature of smaller deadlines and a timed approach encourages student's growth mind set. Growth mind set approaches and strategies for developing resilience in the face of challenge, are consistently used by all members of the department and strongly support the whole school initiative to develop students' ability to take risks and challenge themselves. We promote self-evaluation throughout work so students can consider progression as well as evaluating their effort and ability to overcome problems. We feel that by doing these, students understand that there is never a perfect finish to a project and you should always place value on the effort taken throughout the process. Each lesson in Design and Technology will outline visual objectives and outcomes to ensure students' success.

As a department it is important that we lay out strategies to intervene when a student may be struggling or going off course. Interventions are in place for students and work is checked regularly to ensure all are on the correct paths. Records of these interventions are kept along with personalised check lists, providing those students who may need it, some additional help. Parents will always be kept informed of any issues relating to their students in the subject.

Similarly, we endeavour to always reward students who have shown exceptional effort, persevered and overcome problems, worked brilliantly within a team, worked independently and those who show to produce a high standard of work. We work with the school's policy at issuing commendations and achievement points in recognition of this. Each room within the department features a display for work of the week for each year group. The department has their own Instagram page where this exceptional work is often highlighted as well as presenting events and competitions taking place to show achievements students have in the subject.

Impact

Enrichment of the curriculum is planned for and our students eagerly take up these opportunities. Close links established over many years with Plymouth College of Art allow us to provide further expertise and opportunities for our students. Girls at KS4 and 5 can use facilities at the college to support the development of GCSE projects; attending additional workshops to build skills in their interests and working off live brief's set by course leaders. We provide visits to college graduation shows which inspire and excite students and get them thinking about the impact they can make in their own work and the wider world. Links with industry allow us to set further briefs for students in all subject areas to extend and develop projects for students in year 10. Year 9 students often take part in STEM competitions across the country of which many are often remarkably successful.

Activities within school also support the curriculum as well as stretch and challenge it. Both Resistant Materials and Textiles offer a weekly club which all students can join and participate in. As a department, we conform to the school policy on Gifted and Talented in recognising that students may have ability in the subject. We encourage students to challenge themselves in lessons by choosing to opt for adaptions to material or recipe choices. A lot of our students are encouraged to use these subjects as skills for DofE as well as partaking in national competitions.

To evaluate the impact and ensure the successful implementation of the curriculum across the department, the Head of Design and Technology monitors the teaching and learning through a variety of methods. Moderation of work throughout all years is frequent, as well as planned lesson observations and occasional drop ins. Surveys are conducted and sent to both staff and students to ensure the vision is being voiced consistently and accurately. To guarantee the engagement of students in all year groups we encourage constructive feedback on projects. This is important in developing and monitoring its impact on student's engagement.
Quality assurance documents are written and formulated yearly to inform staff of planned drop ins, moderations and whole school events to ensure an organised and smooth running of the department where all members are correctly informed.

To develop the skills of our teachers in supporting the curriculum content we are active in staying connected with heads of Design and Technology in our surrounding area, Technology lecturers in the universities as well as other schools within the trust. These networks allow us to meet other teachers and share resources and teaching ideas whilst being kept abreast of the most recent updates from the exam boards. They also allow for the opportunity to moderate across schools and attend workshops by leading Design and Technology professionals that inspire and consolidate knowledge and understanding of the DT curriculum and effective ways of its delivery. As all members of the department have a real interest in their subject, they are continuously seeking their own methods of developing their subject knowledge outside of the school complex.

Over the last few years, the impact of the provision that we provide has resulted in a growing P8 score and a growing number of students choosing to opt for the subject at GCSE. This has meant that we are able to maintain a broad choice of subject specialisms, despite many schools no longer having this on offer. Our A level course supports this and continues to attract students from surrounding schools. Our extra- curricular activities in place are well attended at all year group levels.

The uptake of STEM and Creative degree courses of those students who have studied GCSE and A level has increased, a further sign that we are supporting, engaging and enthusing students in Design and Technology. Success in local and national competitions continues to raise the profile of the subject both within the school and for girls in STEM subjects as does the fact that our girls regularly win Arkwright or small piece Engineering Awards.

CURRICULUM & ASSESSMENT OVERVIEW: KS3 DESIGN AND TECHNOLOGY

	Autumn Term	Spring Term	Summer Term
KEY STAGE 3			
Year 7	*Topic(s):* ***Textiles*** *Raising Money* Work to include; research on the topic and relevant consumer, an introduction to fabric categorisation and fabric and fibre construction, introduction to fibres (natural and synthetic), writing a simple plan of manufacture and working drawing, basic machine and hand sewing skills, applique and how to evaluate their product to include peer assessment and testing against a design specification. *Assessment:* Assessments take place at the end of the rotation – this is three times a year. It changes for each group but would most likely be towards the end of terms 2, 4 and 6. *Research methods and client questionnaire,* *Fabrics and Fibres theory,* *Use of the sewing machine,* *Final Product and applique application,* *Evaluating against a design specification*	*Topic(s):* ***Resistant Materials*** *Raising Money* Work to include; design ideas that are hand drawn, CAD files based on their designs, introduction to woods, manufactured boards and its properties, use gluing adhesives, final outcome evaluated against their specification. *Ball Hurler (Trebuchet)* *Work to include, use of hand tools, equipment, formation of wood joints to make the trebuchet, the study of forces and levers are also covered as part of their theory lessons.* *Assessment:* Assessments take place at the end of the rotation – this is three times a year. It changes for each group but would most likely be towards the end of terms 2, 4 and 6. Design ideas 3D Isometric Drawing CAD designs Practical skills in the workshop Final Product and laser cut candle holder design Evaluating to suggest improvement.	*Topic(s):* ***Food (see separate sheet)*** *Assessment:*
Year 8	*Topic(s):* ***Textiles*** *Climate Emergency*	*Topic(s):* ***Resistant Materials*** *Supporting businesses*	*Topic(s):* *Assessment:*

	Work to include; research on climate emergencies, an introduction to cotton; its construction and manufacture, an investigation on the environmental impact and sustainability of products, initial design ideas for a print design, introduction to photoshop, decorative textiles application to include sublimation print, introduction to pattern symbols, further machine and hand sewing skills to include the introduction of a zip. Evaluating with peer assessment and customer use. *Assessment:* Assessments take place at the end of the rotation – this is three times a year. It changes for each group but would most likely be towards the end of terms 2, 4 and 6. Research methods, Life Cycle analysis, Mark making skills, Photoshop, Block printing, Final Product with zip fastening Evaluating with customer feedback	Work to include; research on existing product, initial design ideas, iterative design process to include modelling and redesign, application of CAD in a more independent manner, built on that of year 7, an introduction to Electronic circuits in DT as well, soldering a circuit board, polymer properties plus an introduction to injection moulding in the industry, use of acrylic cement, use of the strip heater and writing an evaluation that tests against an existing product researched. *Assessment:* Assessments take place at the end of the rotation – this is three times a year. It changes for each group but would most likely be towards the end of terms 2, 4 and 6. Analysis of an existing product Design ideas and modelling Use of Coral Draw and Final CAD design Electronic circuit Final product complexity and quality of finish Evaluating against an existing product	*Topic(s):* *Assessment:*
Year 9	*Topic(s):* ***Textiles*** *Wearable Art* Work to include; A thorough look at designing for a purpose and specific consumer, iterative design processes to include modelling, peer feedback for improvement, introduction to creation of own patterns for construction whilst developing layplans to calculate material consumption and cost, evaluation to include testing of final product.	*Topic(s):* ***Resistant Materials and Graphics*** *Famous Designers* Work to include; An introduction to Solid works and 3D CAD, the use of 3D printing technology in the industry, initial design ideas and model making Learning, final product to be 3D printed. Additional 3D CAD to design a lego man character. Lego mindstorms: programming through use of Lego mind storms, students learn how to use	*Topic(s):* *Assessment:*

	Assessment: Assessments take place at the end of the rotation – this is three times a year. It changes for each group but would most likely be towards the end of terms 2, 4 and 6. Research methods Design ideas and modelling, Pattern construction, Layplan Diary of Make Final evaluative report	various sensors and commands developing the necessary software. Jewellery Pendant project: An introduction to jewellery making, the design and make of a small jewellery pendant, depending on the individual design some pendants to be cast using pewter meta, students design and develop their own casting mould, some students will work with mainly copper and brass, developing key hand skills, marking out, cutting, shaping, heat treatment joining two metals together, eg (soft soldering). *Assessment:* Assessments take place at the end of the rotation – this is three times a year. It changes for each group but would most likely be towards the end of terms 2, 4 and 6. Success in programming for final product Design ideas and modelling Final design in solid works and production of final 3D printed product Practical metalwork skills, including heat treatment, soft soldering. Mould CAD design and casting of pewter metal Design ideas related to the jewellery pendant project. Final evaluative report	

CURRICULUM & ASSESSMENT OVERVIEW: KS 4 DESIGN AND TECHNOLOGY

	Autumn Term		Spring Term		Summer Term	
Year 10	Topic(s): Design and Technology Working to Contexts; Industry project 1 Students work towards solving a problem set by a company and complete the research and initial design section. Students learn to work from a context and identify a problem through guided practice. Theory content taught: Smart and Modern Materials in specialist area New and Emerging Technologies	Topic(s): Design and Technology Iterative design process Students to complete a series of mini projects alongside industry links that allow them to identify investigating problems in design. Skills building Theory content taught: Sustainability and the industry Some core design areas Some core material properties and build of materials folder. Assessment(s): Formative feedback	*Topic(s):* ***Design and Technology*** *Company Context;* Students will receive a brief from a company. They should independently consider work taught to effectively develop a project to meet the needs of the brief provided. Design and Make project to consolidate core technical skills and build in areas required. **Theory Content taught:** Design Principles Specialist Material Area continued	*Topic(s):* ***Design and Technology*** Making Principles; Students to produce a skills folder to contribute to key manufacture skills in their given area. **Theory content taught:** Making Principles Gears/ Levers Mathematical content *Assessment(s):* *Formative* *Practice exam questions*	*Topic(s):* ***Design and Technology*** *Revision for mock exam* *Assessment(s):* *Practice exam questions*	*Topic(s):* ***Design and Technology*** *NEA Contextual Challenge* *Assessment:* *Research* *Design Brief and Specification* *MOCK EXAM (OR Exemplar Assessments)*

	Assessment(s): Practice coursework based. Practice exam questions. End of Unit assessments are given as homework tasks	Practice exam questions. End of Unit assessments are given as homework tasks	Making principles-industry related processes. ***Choose From:*** Paper and Boards Textiles based products Timber based products Metal Based products Polymers Electronics and mechanical systems Continuation of materials folder. *Assessment(s):* Final Project coursework. Overall company winner Practice exam questions End of Unit assessments are given as homework tasks			
Year 11	*Topic(s):* ***Design and Technology***	*Topic(s):* ***Design and Technology***	*Topic(s):* ***Design and Technology***	*Topic(s):* ***Design and Technology***	*Topic(s):* ***Design and Technology***	**GCSE EXAMS**

	NEA Contextual Challenge *Assessment(s)::* Design ideas Review of initial ideas. End of Unit assessments are given as homework tasks	*NEA Contextual Challenge* *Assessment(s):* Development of design ideas into a chosen design Review of chosen design. End of Unit assessments are given as homework tasks	*NEA Contextual Challenge* *Assessment(s):* Final Product Evaluation	*Revision* *Assessment(s):* Practice exam questions	*Revision* *Assessment(s):* Practice exam questions	[redacted]

CURRICULUM & ASSESSMENT OVERVIEW: KS 5 DESIGN AND TECHNOLOGY

	Autumn Term		Spring Term		Summer Term	
KEY STAGE 5 – Exam Board WJEC						
Year 12	*Topic(s):* ***Product Design*** *Working from contexts: BLOCK DESIGN BRIEF* Students to work alongside company 'Block design' Students learn to work from a context and identify a problem through guided practice. Write a specification for their work and pitch idea to company professionals. **Theory content taught:** Design and Innovation Principles of designing Research techniques	*Topic(s):* ***Product Design*** Starpack competition brief. Focus on learning CAD design and make skills ***Theory content taught:*** Generate and develop ideas Communicate ideas & information Detail design Innovation Consider issues when designing Ergonomics and anthropometrics Systems design techniques Computer systems for designing	*Topic(s):* ***Product Design*** *Identity Fashion* *Focus on product design and make. Students to learn core making skills.* ***Theory content taught:*** Materials and their application Systems components Components in control systems Electronic components Microprocessor control Mechanical control	*Topic(s):* ***Product Design*** ***Identity Fashion:*** ***Look book*** *Focus on students learning core Graphic based skills to market products in which they design.* ***Theory content taught:*** **Processes** Hand methods Machine methods Combining/forming materials Computer-aided manufacture Structural systems Switching, monitoring and interfacing Design of products and systems	*Topic(s):* ***Product Design*** *Revision* *Assessment(s):* Practice Exam questions	*Topic(s):* ***Product Design*** *Contextual Challenge* *MOCK EXAM (OR Exemplar Assessments)*

	Analysis of the problem Problem solving strategies Quantitative and qualitative testing Develop proposals *Assessment(s):* Practice coursework content marked Practice exam questions. End of Unit assessments are given as homework tasks	Materials and their application *Assessment(s):* Practice coursework content marked Practice exam questions. End of Unit assessments are given as homework tasks	Static and dynamic forces Forms of energy Pneumatic control Materials with specific properties Modern material technology Components and their application Work with materials & components *Assessment(s):* Practice coursework content marked Practice exam questions. End of Unit assessments are given as homework tasks	Work with tools and equipment *Assessment(s):* Formative Practice exam questions. End of Unit assessments are given as homework tasks		

Year 13	*Topic(s):* ***Product Design*** *Contextual Challenge* *Assessment(s):* Formative	*Topic(s):* ***Product Design*** *Contextual Challenge* *Assessment(s):* Formative	*Topic(s):* ***Product Design*** *Contextual Challenge* *Assessment(s):* Formative	*Topic(s):* ***Product Design*** *Contextual Challenge* *Assessment(s):* Final coursework assessment.	*Topic(s):* ***Product Design Revision*** *Assessment(s):* Practice Exam questions	**AL EXAMS**

CURRICULUM & ASSESSMENT OVERVIEW: KS 3 Food Preparation and Nutrition

	Autumn	Spring	Summer
KEY STAGE 3			
Year 7	*Work to include:* *Learning different basic cookery skills including rubbing in; the whisking method of cake making; boiling and simmering; and vegetable preparation skills such as chopping and grating.* *Learning about the nutritional benefits of fruit and vegetables; the importance of balanced diets; and how to form healthy eating habits.* *Students will plan, make and evaluate their own choice of fruit or vegetable dish that is suitable to be served in a National Trust Café.* ***Assessment**:* Assessments take place at the end of the rotation – this is three times a year. It changes for each group but would most likely be towards the end of terms 2, 4 and 6. *5-a-day poster task* *Practical skills assessment* *End of unit evaluation* *End of unit test*	***ROTATION OF CLASSES*** *See Design and Technology sheet*	***ROTATION OF CLASSES*** *See Design and Technology shee*
Year 8	*Topic(s):* *Building on the skills of year 7, students move onto more challenging recipes using skills of chopping, whisking, layering, seasoning and caramel making. By the end of this unit of work, students will plan, make and evaluate a main course dish that meets healthy*	***ROTATION OF CLASSES*** *See Design and Technology sheet*	***ROTATION OF CLASSES*** *See Design and Technology sheet*

Commented [WG1]: @Brown, Penny Do we have a context heading for this? I remember mentioning that we were all going to have the theme of 'rasising money'

	eating guidelines and that is based on the cuisine of a country of your choice. Recipes are focused on International cuisine and special diets. The theory element includes coverage of religious diets, advertising and marketing and needs wants and values around food. ***Assessment**:* Assessments take place at the end of the rotation – this is three times a year. It changes for each group but would most likely be towards the end of terms 2, 4 and 6. *Developing a menu for special diets task* *Practical skills assessment* *End of unit evaluation* *End of unit test*		
Year 9	*Work to include:* *Learning about the different types of pastry and how they are made; understanding how to make successful bread dough including the role of yeast and gluten; and understanding the food science behind bread and pastry making (gelatinization, dextrinisation, denaturation, coagulation, gluten formation, shortening and glazing).* *Students will practice pastry and bread making skills through making shortcrust pastry (pasties); rough puff pastry (cheese straws); choux pastry (profiteroles); bread dough (bread rolls); and enriched bread dough (Chelsea buns).* *Students will plan, make and evaluate their own choice of bread or pastry product that could be served at a coffee shop.*	***ROTATION OF CLASSES*** *See Design and Technology sheet*	***ROTATION OF CLASSES*** *See Design and Technology sheet*

	***Assessment**:* Assessments take place at the end of the rotation – this is three times a year. It changes for each group but would most likely be towards the end of terms 2, 4 and 6. Pastry fact file *Practical skills assessment* *End of unit evaluation* *End of unit test*		

CURRICULUM & ASSESSMENT OVERVIEW: KS 4 Food Preparation and Nutrition

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
KEY STAGE 4 – Exam Board Eduqas GCSE Food Preparation and Nutrition						
Year 10	***Topic:*** *Fruit and vegetables* ***Theory content taught:*** *-provenance* *How and where fruit and vegetables are grown. Primary and secondary processing of two fruits/vegetables,* *-food safety* *-practical skills* *roux sauce, revision of cake*	***Topic:*** *Dairy* ***Theory content taught:*** *-provenance* *How animals are reared, fed and milked.* *-processing* *Different methods of milk preservation (UHT, drying, pasteurisation)* *-food safety*	***Topic:*** *Cereals* ***Theory content taught:*** *-provenance* *How and where cereal grains are grown and processed.* *-food safety* *Safe storage of cereals. Moulds and fungus.* *-practical skills* *Making pasta, revision of bread*	***Topic:*** *Meat, fish and eggs* ***Theory content taught:*** *-provenance* *Geographical areas different animals are reared. Farmed fish vs caught fish. Egg production.* *-food safety* *High risk foods* *Egg markings* *How to tell if meat is fresh*	***Topic:*** *Fats and sugars* ***Theory content taught:*** *-provenance* *How butter and margarine are made* *Sugar beet and sugar cane, how the sugar is extracted.* *-food safety* *Storage relating to rancidity* *Pests attracted to sugar*	***Topic:*** *Alternative proteins* ***Theory content taught:*** *-provenance* *Cultivation and processing of soya and mycoprotein.* *-food safety* *Keep nuts away from other food sources – risk of allergen contamination* *Discuss nut storage relating to rancidity* *-practical skills* *Shaping bean burgers*

	making, knife skills (fruit salad with stock syrup), piping (duchesse potatoes) *-food science* *Enzymatic browning experiment.* *-nutrition* *5-a-day, fibre, vitamins* ***Assessment(s):*** End of unit assessed practical End of topic test	*High risk foods and how bacteria multiply* *-practical skills* *Use of the grill (halloumi kebabs), setting agents (panna cotta and cheesecake)* *-food science* *Chemical and physical structure of dairy based products* *-nutrition* *Calcium and protein* ***Assessment(s):*** End of unit assessed practical End of topic test	*and pastry products.* *-food science* *Gelatinisation of starch* *Gluten formation* *-nutrition* *Carbohydrate and fibre.* ***Assessment(s):*** End of unit assessed practical End of topic test	*Preservation* *-practical skills* *Jointing a chicken and filleting/skinning fish. Making meringues* *Emulsion (mayonnaise)* *-food science* *Chemical and physical structure of meat and fish* *Denaturation* *Coagulation* *Aeration/foam* *-nutrition* *Protein* *Fat* ***Assessment(s):*** End of unit assessed practical End of topic test	*-practical skills* *Revision of cake making methods* *Decorated cakes and gateaux* *Revision of pastry* *-food science* *Plasticity* *Shortening* *Caramelisation* *-nutrition* *Nutrient requirements (linked to different life stages)* *Saturated and unsaturated fats* *Calcium and vitamin content* *Fortification* *Empty calories, link to weight gain, obesity, dental caries, type 2 diabetes,* *Free sugars* ***Assessment(s):*** End of unit assessed practical End of topic test	*Cooking with Quorn and tofu* *-food science* *Soya products and Quorn TM* *Beans (legumes), nuts and seeds* *Nuts as a thickener* *-nutrition* *Soya products and Quorn* *Protein, amino acids, HBV source* *Beans (legumes), nuts and seeds* *Protein, amino acids, LBV source* *Complementing proteins* *High in fibre and other nutrient sources* ***Assessment(s):*** *MOCK EXAM* End of unit assessed practical End of topic test

Year 11	*Topic(s):* *NEA 1 (food science investigation)* *Assessment(s):* NEA 1 Investigation Practical experiment	*Topic(s):* *Finish NEA 1* *Start NEA 2 (produce a menu in response to a brief)* *Assessment(s):* NEA 1 Conclusion Evaluation Mock Exam	*Topic(s):* *NEA 2* *Assessment(s):* *NEA 2* *Research* *Planning* *Practical assessment*	*Topic(s):* *Finish NEA 2* *Exam preparation and revision* *Assessment(s):* NEA 2 Evaluation	*Topic(s):* *Exam preparation and revision* *Assessment(s):*	**GCSE EXAMS**

PROGRESSION IN KS3: Design and Technology

	Research and Design	Manufacture	Evaluation	Theory knowledge
8/9	a) You have gathered a ***great*** range of ***high quality*** images/facts/ideas in response to your title - the development of your idea is ***exciting*** and ***thoughtful***. b) You have produced a specification that covers a ***wide range*** of points and includes justification**.** This ***effectively*** links directly to the designs produced and they have been ***evaluated*** against these. c) You have used 2D and ***3D*** packages ***successfully*** to model, develop and present your ideas. d) You have been able to use CAD to produce a plan of manufacture that includes ***all*** aspects.	a) You have used a gant chart to plan out your time that ***clearly*** shows to be followed, as well as flow charts to ***effectively*** communicate the plans for manufacture that include ***important*** quality control points. b) You are able to ***independently*** investigate and develop skills in decoration to modify the appearance of materials outside of those taught and use these in the products you produce. c) You are able to ***independently*** match and select ***suitable*** materials for your design that consider that fitness of purpose.	a) You are able to ***independently*** select appropriate methods to evaluate your product in use throughout the making process to ***skilfully*** modify and improve performance. b) You are able to analyse existing products to inform your own through disassembly to determine how they are constructed. You will use this to inform your own plans. c) You are able to evaluate products to consider their life cycle.	a) You are able to apply a ***strong*** selection of knowledge to products you design and manufacture yourself, ***effectively*** making use of microcontrollers and simple and compound gear trains. b) You are able to make use of sensors and add these to your systems to detect heat, light and movement.
7/8	a) You have gathered a ***good*** range of images/facts/ideas in response to your title. - the development of your idea is ***diverse*** and ***valuable.*** b) You have ***clearly*** identified possible paths that you could take in your project and are able to develop this into a ***diverse*** list of requirements in your specification. c) You have used 2D and ***3D*** packages ***adequately*** to model, develop and present your ideas. d) You have been able to use CAD to produce a plan of manufacture that includes ***most*** aspects.	a) You are able to make use of planning tools such as gant charts and flow charts to ***effectively*** communicate the plans for manufacture so that others are able to follow and implement them. b) You are able to investigate and develop skills in decoration to modify the appearance of materials outside of those taught. c) You are able to ***independently*** match and select ***suitable*** materials for your design that consider that fitness of purpose.	a) You are able to ***independently*** select appropriate methods to evaluate your product in use throughout the making process to ***skilfully*** modify and improve performance. b) You are able to analyse existing products to inform your own through disassembly to determine how they are constructed. You will use this to inform your own plans. c) You are able to evaluate products to consider their life cycle.	a) You are able to apply computing and the use of electronics learnt to ***embed intelligence*** in products that respond to outputs whilst ***controlling*** outputs, applying the concepts of feedbacks in systems. b) You are able to use software and hardware ***effectively*** to programme programmable components.
6/7	a) You have gathered ***some*** images/facts/ideas in response to your title that include an awareness of different cultures, the environment and an understanding of user need - the development of your idea is ***not s***ufficiently ***in-depth*** or ***diverse.*** b) You have developed a specification that includes a ***wider range*** of requirements. This has been used to help you design. c) You have used 2D packages to ***produce models*** through ***CAM*** to test these ideas.	a) You produce ***ordered*** sequences, schedules and costings for the manufacture of products you have designed. This will outline ***most*** recourse's required in the manufacture, including ***specialist equipment***. b) You are able to adapt these methods of manufacture to changing circumstances during the production, ***recognising*** when it is necessary to develop a new skill. c) You have used ***CAD/CAM*** to produce some parts of your work effectively.	a) You are able to produce ***short*** reports that test, evaluate and refine ideas surrounding your final product against your specification, making ***some*** suggestions for improvement. b) You are able to take into account the views of intended users as well as the positive and negative impact that your product may have in the wider world.	a) You are able to use ***simple*** electronic circuits that incorporate inputs and outputs. b) You are able to ***start*** to understand the ***construction*** of ***some*** core materials. c) You are able to select and ***start*** to make ***simple*** modifications to patterns used to manufacture products. d) You are able to make adjustments to the settings of equipment and machinery more ***independently.***

5/6	a) You have gathered a ***basic*** selection of images/facts/ideas in response to your title - - the development of your idea is ***straight-forward*** and ***limited***. b) You have been able to develop some ***broad*** points for a design specification and have ***partially*** used this to help identify any design problems which may need to be solved. c) You have used 2D packages to show a ***basic*** model of your design.	a) You ***begin*** to produce a ***basic*** sequence and schedule for the manufacture of products you have designed. This will outline some ***key*** recourse's required in the manufacture but some knowledge of ***specialist equipment*** may be missing. b) You demonstrate the use of some ***basic*** joining techniques in the production of your work. c) You have used ***CAD/CAM*** to produce some parts of your work and this may include some ***simple*** surface finishing techniques.	a) You ***begin*** to consider the success of your product by comparing this to your specification. This will outline some ***simple*** ways of improving. b) You are able to use the opinions of others to help you test the success of your product.	a) You are able to ***start*** to classify ***some*** materials by their structure eg hard woods, soft woods, ferrous and non- ferrous, thermoplastic and thermosetting plastics, natural and synthetic fibres. b) You are able to ***start*** to understand the properties of ***some*** of the working properties of these materials.

PROGRESSION IN KS3: FOOD AND NUTRITION

	Research and Planning	Practical Skills	Evaluation	Theory knowledge
8/9	a) You have gathered a ***wide range*** of research from your own choice of sources, and ***analysed*** your research to draw ***conclusions*** about the needs and wants of your target market. b) You have made a ***thoughtful*** choice of dish that is clearly linked to your research and ***fully*** meets the design brief. c) Your method and shopping list are ***clear*** and ***dovetailed*** to fit into the time allowed.	a) You can complete ***all*** the cooking skills needed successfully and may ***challenge yourself*** to use complex skills that haven't been demonstrated by your teacher. b) You ***consistently*** work in a safe and hygienic manner, and keep ***all*** aspects of your work area clean. c) You are able to ***independently*** use the cooking equipment provided and manipulate it with a ***high*** level of skill to produce ***high*** quality dishes.	a) You are able to ***independently*** evaluate and adapt your dish when making; and once completed. You can ***clearly*** explain how it meets the requirements of your target audience. b) You ask for detailed feedback from your target audience. You are able to ***compare*** your work to the work of professionals and/or peers and ***use*** this information to suggest improvements. c) You are able to use ***appropriate*** sensory descriptors to describe all aspects of your finished dish.	a) You are able to describe in ***detail*** a wide range of food science principles and how they affect the properties of a range of dishes. b) You have a ***strong*** knowledge of nutrition and can explain the sources and functions of a wide range of nutrients. c) You are able to describe in ***detail*** the concept of a balanced diet.
7/8	a) You have gathered a ***good*** range of recipes/facts/ideas when researching your brief. b) You have ***clearly*** linked your research to your choice of dish, and have considered the needs and opinions of other people. c) Your method and shopping list are ***clear*** and ***detailed***.	a) You are able to complete **most** cooking skills successfully, but may still struggle with very complex skills. b) Your safety and hygiene for both yourself and your work area is ***always*** very good. c) You can use **all** the basic cooking equipment **skilfully**, and show a **good** level of dexterity when manipulating equipment. E.g. even vegetable cuts	a) You are able to ***evaluate*** the success of your finished dish and can explain in ***detail*** how it meets your brief. b) You take into account the views of the intended user, and can assess the success of your work in ***comparison*** to others. c) You are ***secure*** in your ability to use ***appropriate*** sensory descriptors to describe your finished dish.	a) You are able to use technical terminology to describe ***most*** of the principles of food science, and can explain the process behind them. b) You can explain the functions and sources of ***most*** common nutrients. c) You can explain energy balance. d) You know the government recommendations for a healthy diet and ***use*** this to inform your choice of dish.
6/7	a) You have gathered ***some*** useful information from more than once source, and have completed a ***simple*** analysis of the information you have gathered. b) You have shown ***clear*** links between your research and your choice of dish. c) You have written a ***correct*** method and shopping list, but it may lack detail.	a) You are able to complete ***basic*** cooking skills independently and can ***attempt*** more complex skills with help. b) You have a ***good*** level of safety and hygiene in the kitchen. c) You can use ***most*** basic cooking equipment independently and your finished dishes show a ***good*** level of skill.	a) You are able to evaluate the success of your dish and can ***explain*** how well it meets your brief. b) You are able to take into account the views of intended users and can ***compare*** this to your market research when evaluating your finished dish c) You can use ***sensory descriptors*** when describing your finished dish.	a) You understand the ***basics*** of food science and can name some of the processes that occur during cooking. b) You understand the importance of nutrients and can explain some of the ***consequences*** of poor nutrition. c) You can explain the eatwell guide and the underlying concept of a balanced diet.
5/6	a) You have gathered a ***basic*** selection of fact and ideas when researching your brief. b) You have shown a ***limited*** use of research when choosing a dish to make. c) You have written a ***simple*** method to follow, but there may be some errors or omissions.	a) You are able to complete ***basic*** cooking skills with minimal help. b) You ***usually*** work safely and hygienically, but may sometimes forget some key principles. c) You can use ***some*** cooking equipment independently and are ***beginning*** to develop your skill and dexterity.	a) You ***begin*** to consider the success of your dish by comparing this to your brief. You can outline some ***simple*** ways of improving. b) You are able to use the opinions of others to help you test the success of your dish. c) You can write a ***simple*** description of your dish.	a) You are able to ***start*** to understand food science principles and how these affect choices of ingredients and techniques. b) You have ***begun*** to understand the functions of vitamins and minerals in a healthy diet. c) You can identify the eatwell guide and have some understanding of what it means.

KS3 D&T @ PHSG

Where are you aiming?

Level 8/9

- Your final product shows an **exceptional level of making** and you have **continuously made quality checks** for accuracy.
- You have applied your **strong knowledge** to select the **most appropriate tools and materials** and complete the task **independently.**
- You know how to **independently** select appropriate methods to evaluate your product in use **throughout the making process** to **skilfully** modify and improve performance.

Level 7/8

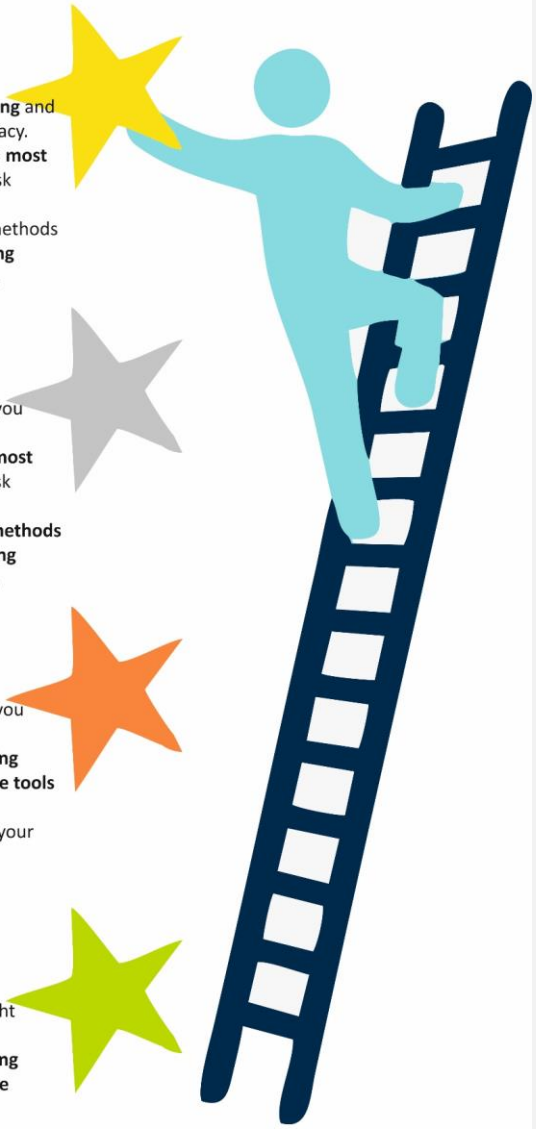
- Your final product shows a **high level of making** and you have made **quality checks for accuracy**.
- You have applied your good knowledge to select t**he most appropriate tools and materials** and complete the task **independently.**
- You know how to **independently** select **appropriate methods to evaluate** your product in use **throughout the making process** to **skilfully** modify and improve performance.

Level 6/7

- Your final product shows a **good level of making** and you have made **quality checks**.
- You have started to use your **knowledge of the differing structure of some materials** to help select **appropriate tools and materials**.
- You produce short reports to **evaluate the success** of your product by comparing this to your specification with **suggestions for improving.**

Level 5/6

- Your final product is finished showing **basic skills** taught with some evidence of **quality checks**
- You have started to use your **knowledge of the differing structure of some materials** to help select **appropriate tools and materials**.
- You begin to consider the success of your product by comparing this to your specification with **simple ways of improving**.



They will be able to work hygienically and safely.

- They will know and understand what a design brief is and how to use it.
- They will know how to write a design specification.
- They will know how to analyse existing products.
- They will know how to use 2D software to produce CAD/CAM files to support the manufacture of your design.
- They will know how to produce a plan of manufacture and working drawings.
- They will be able to identify basic tools and equipment used in DT
- They will know how to set up machines used in DT independently.
- They will know how to use basic techniques to join materials
- They will know how to use the rubbing-in, creaming and whisking methods
- They will know how to manage time with some degree of accuracy
- They will know how to evaluate products against a design specification.
- They will know how to use the opinions of others to test the success of their products.

By the end of year 8:

- They will know and understand some of the working properties of the materials used in their own products.
- They will know about the implications of design and manufacture in the wider world.
- They will be able to consider how social and economic concerns impact design and manufacture, including the requirements of religions.
- They will know how lay plans are used for product production.
- They will be able to use basic patterns in the manufacture of products.
- They will know and understand basic pattern symbols.
- They will know how to use simple electronic circuits incorporating inputs and outputs.
- They will know how to use sensors to detect light and light dependant resistors
- They will know the main causes of food waste.
- They will know the main food packaging symbols.
- They will be able to use Microsoft Teams and PowerPoint as a tool to effectively communicate design ideas.
- They will be able to use the skills taught in year 7 and apply these to new projects independently.

By the end of year 9:

- They will be able to generate detailed orthographic working drawings, including dimensions.
- They will know the three families of metals, ferrous, non ferrous and alloys.
- They will know the working properties of polymers used in products and rapid prototyping.
- They will know how to match and select materials to use in products they produce.
- They will know how to use modelling techniques to develop their own paper patterns for products they design.
- They will be able to identify ‘breaches’ of hygiene and safety and take remedial action

- They will know how the ratio of fat to flour affects the qualities of pastry
- They will be able to laminate a dough
- They will know how to use feedback gained to inform future practice
- They will be able to use the skills taught in year 7 and 8 and apply these to new projects independently.

KS4

Design and Technology
By the end of year 10:

- They will know the skills required to successfully research contexts.
- They will be able to develop realistic design proposals as a result of the exploration of design opportunities and users' needs, wants and values
- They will know how to refine decision making skills to form an appropriate project brief.
- They will be able to use imagination and experimentation when designing.
- They will know how to critique and refine their own ideas while designing and making.
- They will be able to communicate their design ideas and decisions using different media and techniques as appropriate for different audiences.
- They will be able to apply decision-making skills, including the planning and organisation of time and resources when managing their own project work
- They will know a broad knowledge of materials, components and technologies and practical skills to develop high-quality, imaginative and functional prototypes
- They will be able to be ambitious and open to explore and take design risks in order to stretch the development of design proposals, avoiding clichéd or stereotypical responses
- They will know how to consider the costs, commercial viability and marketing of products
- They will be able to demonstrate their understanding that all design and technological activity takes place in contexts that influence the outcomes of design practice

Year 11:

By the end of year 11 students will be able to utilise the skills above to build both confidence and independence.

Food and Nutrition

By the end of year 10:

- They will know the provenance and processing techniques of a broad range of ingredients.
- They will know the scientific principles used in a variety of cookery techniques.
- They will be able to investigate the functional properties of food and analyse their findings.
- They will be able to manipulate appropriate equipment skilfully and carefully to master a range of cookery techniques.

- They will know the key rules of food hygiene and how to apply these to work in a safe environment.
- They will know the nutritional values of a broad range of commodities and use this information to meet healthy eating guidelines.
- They will be able to read and understand a recipe in order to produce dishes methodically and in an organised manner.
- They will be able to plan their time to produce a range of dishes, in a dovetailed manner, within a given timeframe.

Year 11 :

By the end of year 11 students will be able to utilise the skills above to build both confidence and independence.

KS5:

Product Design

By the end of year 12:

- They will be open to taking design risks, showing innovation and enterprise.
- They will be able to consider their role as responsible designers and citizens through an understanding of the wider influences on design and technology, including cultural, economic, environmental, historical and social factors
- They will have developed an intellectual curiosity about the design and manufacture of products and systems, and their impact on daily life and the wider world
- They will know how to work collaboratively to develop and refine their ideas, responding to feedback from users, peers and expert practitioners
- They will have gained an insight into the creative, engineering and/or manufacturing industries
- They will have developed knowledge and experience of real world contexts for design and technological activity
- They will know and understand materials, components and processes associated with the creation of products that can be tested and evaluated in use, building on that learnt at GCSE.
- They will know how to make informed design decisions through an in-depth understanding of the management and development of taking a design through to a prototype/product
- They will know hot to work safely and skillfully to produce high-quality prototypes/products
- They will know when to draw on and apply a range of skills and knowledge from other subject areas, including the use of mathematics and science for analysis and informing decisions in design

By the end of year 13 students will be able to utilise the skills above to build both confidence and independence, preparing them for their onward studies.

4. FEEDBACK AND ASSESSMENT

In Design and Technology, as in other curricular areas, assessment forms an integral and on-going part of teaching and learning. It is the gathering of evidence of both attainment and progression for the purpose of informing future planning, teaching and reporting. In working with students, our teachers continuously evaluate and make use of this assessment in planning future activities and tasks to ensure improvement. It is the individual's resilience and ability to experiment and work hard that safeguards pupil's success. There is a greater emphasis on the behaviour and attitude of our pupils throughout projects that allows for progression in the subject as well as their enjoyment in experiencing it. We want students to develop personal attributes to overcome problems in the modern world, equipped with the knowledge that there is no perfect end solution but instead an on-going effort to refine and improve.

Assessments are based on common assessment objectives, and clear marking criteria.
The main assessment objectives for which there are marking criteria, from exam boards are:

- research and design
- manufacture
- evaluation
- knowledge and theory

The Departmental objectives in addition to the assessment objectives include a wider set of attributes:

- Enthusiasm for the subject
- Aptitude for the subject
- Compulsion to experiment
- Resilience to overcome problems independently but recognising how to work well within a team
- Ability to work under pressure
- Ability to continuously evaluate own performance and be analytical of their work
- Ability to manage their own time
- Ability to communicate their ideas to others
- Fulfilling their potential.

Students will be provided with three summative assessments at the end of each term and each project as outlined in the curriculum and assessment overview. The Design and Technology department feel strongly about supporting the individual and makes time for individual feedback throughout the design and make process. Continuous monitoring of students through dialogue- both written and verbal, formal and informal are key to developing students as a whole. At KS4 in particular, frequent discussions with students on a one to one basis provides imperative monitoring to plan individualised target setting so that student's progress in the non-examined coursework assessment. We encourage peer and self-assessment throughout this process to support the development of student's ability to self-reflect and become analytical of their work.

To record work, methods may vary per specialism due to the nature of the equipment available to staff in those areas. Despite this, there is a consistent nature where a booklet is pre-populated to support students in all years. All marked work will be recorded within the book (whether online or in paper form) using assessment comment banks and levels summarised on the printed success criteria on the back page. These are retained by students throughout key stage three. Students are also supplied with a purple folder to keep all of their work safe, providing a base for both pupils and teachers to evidence progress across the subject specialisms as well as forming a revision resource.

In year 9, KS4 and KS5 all marking will be done online using Microsoft Teams where possible. As we move towards the introduction of 1:1 device this will be a goal for all staff to maintain in order to support our students onto next levels of study.

The Design and Technology department believes in continuous monitoring of students through dialogue- both written and verbal, formal and informal. At KS4, frequent discussions with students on a one to one basis provides imperative monitoring to plan individualised target setting so that students' progress in the non-examined coursework assessment. Students are checked upon each lesson to ensure targets are met. Across the years, students are encouraged to peer and self- assess.

Homework will be set at KS3, on a fortnightly basis and will generally cover the theoretical aspects of Design and Technology that support sessions undertaken in lessons. All work is expected to be fully thought through and well presented.

At KS4 and 5 homework is set weekly and this may include a mixture of coursework tasks and theory. A revision notes programme has been written to support this and prepare students for the final exams.

On the next pages are examples of marking sheets & success criteria which provide next steps information for students

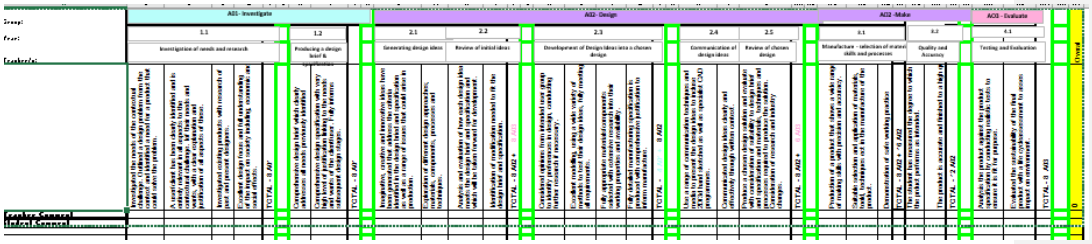
KS3 Assessment sheet

Name of Student:	
Name of Project:	

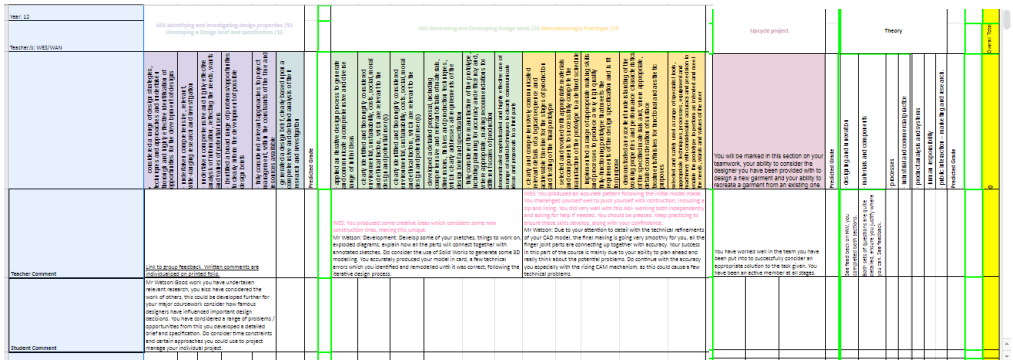
	Research and Design	**Manufacture**	**Evaluation**	**Theory knowledge**
8/9	a) You have gathered a great range of high quality images/facts/ideas in response to your title - the development of your idea is exciting and thoughtful. b) You have produced a specification that covers a wide range of points and includes justification. This effectively links directly to the designs produced and they have been evaluated against these. c) You have used 2D and 3D packages successfully to model, develop and present your ideas. d) You have been able to use CAD to produce a plan of manufacture that includes all aspects.	a) You have used a gant chart to plan out your time that clearly shows to be followed, as well as flow charts to effectively communicate the plans for manufacture that include important quality control points. b) You are able to independently investigate and develop skills in decoration to modify the appearance of materials outside of those taught and use these in the products you produce. c) You are able to independently match and select suitable materials for your design that consider that fitness of purpose.	a) You are able to independently select appropriate methods to evaluate your product in use throughout the making process to skilfully modify and improve performance. b) You are able to analyse existing products to inform your own through disassembly to determine how they are constructed. You will use this to inform your own plans. c) You are able to evaluate products to consider their life cycle.	a) You are able to apply a strong selection of knowledge to products you design and manufacture yourself, effectively making use of microcontrollers and simple and compound gear trains. b) You are able to make use of sensors and add these to your systems to detect heat, light and movement.
7/8	a) You have gathered a good range of images/facts/ideas in response to your title. - the development of your idea is diverse and valuable. b) You have clearly identified possible paths that you could take in your project and are able to develop this into a diverse list of requirements in your specification. c) You have used 2D and 3D packages adequately to model, develop and present your ideas. d) You have been able to use CAD to produce a plan of manufacture that includes most aspects.	a) You are able to make use of planning tools such as gant charts and flow charts to effectively communicate the plans for manufacture so that others are able to follow and implement them. b) You are able to investigate and develop skills in decoration to modify the appearance of materials outside of those taught. c) You are able to independently match and select suitable materials for your design that consider that fitness of purpose.	a) You are able to independently select appropriate methods to evaluate your product in use throughout the making process to skilfully modify and improve performance. b) You are able to analyse existing products to inform your own through disassembly to determine how they are constructed. You will use this to inform your own plans. c) You are able to evaluate products to consider their life cycle.	a) You are able to apply computing and the use of electronics learnt to embed intelligence in products that respond to outputs whilst controlling outputs, applying the concepts of feedbacks in systems. b) You are able to use software and hardware effectively to programme programmable components.
6/7	a) You have gathered some images/facts/ideas in response to your title that include an awareness of different cultures, the environment and an understanding of user need - the development of your idea is not sufficiently in-depth or diverse. b) You have developed a specification that includes a wider range of requirements. This has been used to help you design. c) You have used 2D packages to produce models through CAM to test these ideas.	a) You produce ordered sequences, schedules and costings for the manufacture of products you have designed. This will outline most recourse's required in the manufacture, including specialist equipment. b) You are able to adapt these methods of manufacture to changing circumstances during the production, recognising when it is necessary to develop a new skill. c) You have used CAD/CAM to produce some parts of your work effectively.	a) You are able to produce short reports that test, evaluate and refine ideas surrounding your final product against your specification, making some suggestions for improvement. b) You are able to take into account the views of intended users as well as the positive and negative impact that your product may have in the wider world.	a) You are able to use simple electronic circuits that incorporate inputs and outputs. b) You are able to start to understand the construction of some core materials. c) You are able to select and start to make simple modifications to patterns used to manufacture products. d) You are able to make adjustments to the settings of equipment and machinery more independently.
5/6	a) You have gathered a basic selection of images/facts/ideas in response to your title - - the development of your idea is straight-forward and limited. b) You have been able to develop some broad points for a design specification and have partially used this to help identify any design problems which may need to be solved. c) You have used 2D packages to show a basic model of your design.	a) You begin to produce a basic sequence and schedule for the manufacture of products you have designed. This will outline some key recourse's required in the manufacture but some knowledge of specialist equipment may be missing. b) You demonstrate the use of some basic joining techniques in the production of your work. c) You have used CAD/CAM to produce some parts of your work and this may include some simple surface finishing techniques.	a) You begin to consider the success of your product by comparing this to your specification. This will outline some simple ways of improving. b) You are able to use the opinions of others to help you test the success of your product.	a) You are able to start to classify some materials by their structure eg hard woods, soft woods, ferrous and non- ferrous, thermoplastic and thermosetting plastics, natural and synthetic fibres. b) You are able to start to understand the properties of some of the working properties of these materials.

Teacher Comment				
Student Comment				
Overall Level				

KS4 Online Google Assessment Sheet



KS5 Online Google Assessment Sheet



Edexcel GCSE Assessment

Link to specification:

https://qualifications.pearson.com/content/dam/pdf/GCSE/design-and-technology/2017/specification-and-sample-assessments/Specification-GCSE-L1-L2-in-Design-and-Technology.pdf

Eduquas A Level Product Design

Link to specification:

https://www.eduqas.co.uk/qualifications/design-and-technology/as-a-level/A-LEVEL-Design-and-Technology-Specification.pdf