

## Product design/Food technology Year 8 Long Term Plan

- Key:
- Recap/Retrieval
  - Rigour (Vocabulary/Disciplinary knowledge/Reading)
  - Gatsby Benchmarks
  - Cultural Capital/SMSC
  - Numeracy
  - Cross Curricular

Week/ Lesson	Term	Topic	Knowledge	Skills  Complex activity: Writing genre:
1	<b>Autumn T1 Project 1</b> *SUMMATIVE ASSESSMENT <i>dates TBC</i>	Recap health and safety	<ul style="list-style-type: none"> <li>• Understand and be able to explain why health and safety is important in the kitchen.</li> <li>• Identify hazards and risks in a kitchen environment.</li> <li>• Evaluate the consequences of poor health and safety and suggest ways to prevent accidents.</li> </ul>	
2		Sugar	<ul style="list-style-type: none"> <li>• Identify the Reference Intake (RI) of sugar per day and sources of it.</li> <li>• Be able to define 'added sugars' and evaluate the negative health implications of eating too much sugar.</li> </ul>	Recall sugar information from year seven

			<ul style="list-style-type: none"> <li>• Be able to suggest ways to lower added sugars in the diet through food swaps.</li> </ul>	
3		Brownie Practical	<ul style="list-style-type: none"> <li>• Follow health and safety procedures at all times, demonstrating respect for self and others.</li> <li>• Measuring and weighing ingredients accurately.</li> <li>• Using skills and techniques effectively to produce a high quality outcome.</li> </ul>	<p><b>(Literacy focus)</b></p> <p>weighing /measuring /food hygiene/ health and safety /knife skills /grating /kneading/ using the hob / using the oven/ using stick blender /using electric whisk/ using food processor/ whisking/ beating /combining / melting method /rubbing in method/ frying / baking / grilling /boiling/ steaming /following procedures / following recipes /team work / independent work</p>
4		Gluten	<ul style="list-style-type: none"> <li>• Determine the relative differences in gluten content between different types of flour.</li> <li>• Establish the impact this has on the structure of baked products.</li> <li>• Use scientific experimentation to support conclusions</li> </ul>	
5		Garlic bread practical	<ul style="list-style-type: none"> <li>• Follow health and safety procedures at all times, demonstrating respect for self and others.</li> <li>• Measuring and weighing ingredients accurately.</li> <li>• Using skills and techniques effectively to produce a high quality outcome.</li> </ul>	

6		Worlds food	<ul style="list-style-type: none"> <li>• Explain the factors that affect cuisine linked to land, economy, lifestyle, religion and culture.</li> <li>• Identify staple foods from around the world accurately.</li> <li>• Suggest possible dishes that could be made from these ingredients/commodities.</li> </ul>	<p><b>Literacy</b></p> <ul style="list-style-type: none"> <li>-Learners read and scribe</li> <li>-Verbal communication to make educated points and form opinions</li> <li>-Use of key terms to create accurate sentences summarising the topic</li> </ul> <p><b>Mathematics</b></p> <ul style="list-style-type: none"> <li>-Time Management</li> </ul>
7		Quorn	<ul style="list-style-type: none"> <li>• Explain the nutritive value of eating Quorn. Students can explain the advantages and disadvantages.</li> <li>• Identify quality check points and describe how to store and prepare Quorn to prevent food illness.</li> </ul>	<p>Cultural impact of being a vegetarian and the impact this could have on the globe.</p>
8	Autumn T2	Veggie burgers	<ul style="list-style-type: none"> <li>• Follow health and safety procedures at all times, demonstrating respect for self and others.</li> <li>• Measuring and weighing ingredients accurately.</li> <li>• Using skills and techniques effectively to produce a high quality outcome.</li> </ul>	<p><b>Literacy</b></p> <p>Reading and following methods</p> <ul style="list-style-type: none"> <li>-Learners will use verbal communication to make educated points and form opinions</li> <li>-Use of key words and technical vocabulary</li> <li>-Sensory analysis using adjectives.</li> </ul> <p><b>Mathematics</b></p> <p>Time management, using the clock</p> <ul style="list-style-type: none"> <li>-Working in grams, ml, kg (conversion to oz. more able)</li> <li>-Weighing and measuring</li> <li>-Working with temperature</li> </ul>

				<ul style="list-style-type: none"> <li>-Proportion of ingredients in recipes</li> <li>-Portioning dishes</li> <li>-Calculating dish cost and profit (extension)</li> </ul> Practical Making - (Disciplinary Knowledge)
9		Food Safety	<ul style="list-style-type: none"> <li>● To explain the importance of good food safety practices when getting ready to store, prepare and cook food.</li> <li>● To modify recipes and cook dishes that promote current healthy eating messages</li> </ul>	
10		Food Safety	<ul style="list-style-type: none"> <li>● To prepare, cook and serve a spaghetti Bolognese or chilli. Contains protein, carbohydrate and at least 2 portions of your 5 a day.</li> <li>● To use a broader range of preparation techniques and methods when cooking.</li> <li>● To evaluate spaghetti or chilli use different sensory testing techniques.</li> </ul>	Reading and following methods <ul style="list-style-type: none"> <li>-Learners will use verbal communication to make educated points and form opinions</li> <li>-Use of key words and technical vocabulary</li> <li>-Sensory analysis using adjectives.</li> </ul> <b>Mathematics</b> <ul style="list-style-type: none"> <li>Time management, using the clock</li> <li>-Working in grams, ml, kg (conversion to oz. more able)</li> <li>-Weighing and measuring</li> <li>-Working with temperature</li> <li>-Proportion of ingredients in recipes</li> <li>-Portioning dishes</li> <li>-Calculating dish cost and profit (extension)</li> </ul>

11		Food choice	<ul style="list-style-type: none"> <li>● To identify the different groups of the population who have special dietary requirements (including food allergies, food intolerance, and religious cultural needs).</li> <li>● To identify vegetarian alternatives to the meat and fish using vegetable sources, Quorn, soya or tofu as a meat substitute</li> </ul>	<p>To prepare and cook a risotto which contains vegetables or uses a meat substitute and will appeal to lacto vegetarians.</p> <p>To demonstrate the skills of preparing a range of vegetables, using the hob, controlling temperature, cooking with rice</p>
12		Food Provenance	<ul style="list-style-type: none"> <li>● To know and understand where key ingredients come from and how they are grown, reared or caught.</li> <li>● To identify and explain some of the environmental issues associated with foods.</li> </ul>	<p>To prepare and cook a recipe such as cottage pie, Cumberland pie or vegetarian pie.</p> <p>To demonstrate the skills of vegetable preparation and cooking, making a meat/ alternative base, combining, layering and finishing of ingredients using the oven.</p>
13		Food Science	<ul style="list-style-type: none"> <li>● To identify the functions and uses of the main ingredients used in cake making</li> <li>● To explain the science of aeration and what makes cakes rise</li> <li>● To identify ways of adapting cake recipes to reduce the fat and sugar</li> </ul>	<p>To plan and prepare a fruit based tray bake that demonstrates aeration and the science of how cakes rise.</p> <p>To demonstrate accuracy and precision when weighing out ingredients to ensure a high quality outcome</p>

			and increase their fibre content.	
14		Presentation Skills	<ul style="list-style-type: none"> <li>• Understand how to style a plate to mirror industry standards.</li> <li>• Explain the importance of using sensory effects to style food.</li> <li>• Create a range of plate designs using industry techniques that are innovative and creative.</li> </ul>	-Learners read and scribe -Verbal communication to make educated points and form opinions. <b>Mathematics</b> -time management.
15		ASSESSMENT Lesson		
16	Spring T1 Project 2	Research and Product Analysis Product that include Mechanisms.	<ul style="list-style-type: none"> <li>• Methods of research to identify a clients' needs and wants.</li> <li>• Understand Form, Fit and Function</li> </ul>	Be able to record and show understanding of a client's demands.
17		Movement and Motion	<ul style="list-style-type: none"> <li>• Understand the 4 types of motion</li> <li>• Understand the 3 types of levers</li> <li>• Equilibrium/Lever Calculations</li> </ul>	Be able to re-create these types of motions using modelling materials Accurately and safely with a degree of independence.  <b>Complex activity: Bending moments (Mathematics/Science Cross-curricular)</b>
18		Rotary Systems and CAMS	<ul style="list-style-type: none"> <li>• Understanding how a rotary system works</li> </ul>	

			<ul style="list-style-type: none"> <li>Identifying different types of CAM and their applications</li> <li>Recap Movement and motion( Formative Test)</li> </ul>	<p><b>Complex activity: Bending moments ( Mathematics/Science Cross-curricular)</b></p>
19		Systems and Control	<ul style="list-style-type: none"> <li>Understand about different types of systems (open loop. Closed loop and feedback/decisions)</li> <li>Understand simple circuits design.</li> </ul>	<ul style="list-style-type: none"> <li>Describe inputs and output devices and their applications</li> </ul>
20		Electronic Devices	<ul style="list-style-type: none"> <li>Describe the difference between analogue and digital signals</li> <li>Understanding the applications of microchips and integrated circuits</li> <li>Recap rotary systems and Cams</li> </ul>	<p><b>Complex activity: Circuit Design (Switching) (Science Cross-curricular)</b></p>
21	Spring T2	Writing a Specification Design Ideas 1	<ul style="list-style-type: none"> <li>Produce a client focussed specification.</li> <li>Apply research and specification to produce a range of creative design ideas</li> </ul>	
22		SUMMATIVE ASSESSMENT		

23		Design Ideas 2	<ul style="list-style-type: none"> <li>Develop design ideas with annotation and discussion.</li> </ul>	<b>Complex activity: Presentation of Design Ideas (Literacy/Oracy Focus)</b>
24		Computer Aided Design	<ul style="list-style-type: none"> <li>Development of CAD skills</li> <li>Recap and Reteach CAD</li> </ul>	Be able to use google sketch up to model an idea. recall google sketch up skills.
25		Model making	<ul style="list-style-type: none"> <li>Which materials are appropriate for modelling the idea selected.</li> </ul>	<b>Complex activity: Soldering Technique (Disciplinary knowledge)</b> recall model making principles.
26		Re Design from initial model	<ul style="list-style-type: none"> <li>Develop a range of methods to show understanding of quality control when modelling.</li> </ul>	Be able to sketch appropriately to show the development of an idea. recall perspective drawings.
27	<b>Summer T1</b>	Model making	<ul style="list-style-type: none"> <li>How to develop a model that satisfies the brief and is a fully working idea.</li> </ul>	Be able to use appropriate skills, materials and techniques to produce a final working model. Career links to model making (car and set design)
28		Final working model	<ul style="list-style-type: none"> <li>Quality assurance</li> </ul>	Identify the methods used to quality assure a project.
29		Manufacturing specification	<ul style="list-style-type: none"> <li>The importance of a detailed manufacturing specification and what it is used for.</li> </ul>	<b>Writing genre: 'manufacturing specification.'</b> <b>(Literacy)</b> Manufacturing links
30		Practical Making	<ul style="list-style-type: none"> <li>Use of tools safely</li> </ul>	
31		Practical Making	<ul style="list-style-type: none"> <li>Use of tools safely and accurately</li> </ul>	Be able to explain how to use the selected tools safely and accurately
32		Practical Making	<ul style="list-style-type: none"> <li>The importance of using the correct tool for the correct job.</li> </ul>	Be able to select the appropriate tools and use them with a degree of independence.
33		<b>Summer T2</b>	Practical Making	<ul style="list-style-type: none"> <li>The importance of accuracy and which tools</li> </ul>



			to use to check for quality control.	
34		Practical Making	<ul style="list-style-type: none"> <li>How to develop an idea using research and the client's needs.</li> </ul>	Develop a quality product using on-going evaluation
35		Practical Making	<ul style="list-style-type: none"> <li>How to record progress in a methodical way to support the practical piece.</li> </ul>	Produce well-ordered evidence of making through a diary or photos.
36		Practical Making	<ul style="list-style-type: none"> <li>How to ensure practical work is of the highest possible standard.</li> </ul>	Be able to use a variety of quality assurance methods to indicate a high quality outcome.
37		Evaluation	<ul style="list-style-type: none"> <li>Evaluate the outcome against the design specification showing clear strengths and areas to develop.</li> </ul>	
38		SUMMATIVE ASSESSMENT		
39		Technical Skills Development	<ul style="list-style-type: none"> <li>Preparation for Year 9</li> </ul>	
40		Technical Skills Development	<ul style="list-style-type: none"> <li>Preparation for year 9</li> </ul>	