Design and Technology Year 7

Resistant Materials	Electronics	Food
Project – Key to The Workshop Gain the Knowledge, skills and understanding about tools and materials Understand all H&S principles Understand material science	**Project – Maze Game** Pupils will design and make an electronic maze game incorporating 4 main strands – Case manufacture, CAD/CAM, electronic theory and soldering, and modelling. This half term will focus on the manufacture of the MDF game tray and production of the maze artwork/plan.	**Project - Dishes** Coleslaw Couscous salad Pasta salad Fruit crumble Soda bread Sausage rolls Savoury rice Quick pizza Sponge and seasonal cookery Safety practices – use of the cooker, washing up and the 4C's. Use of knives – safe handling Accurate measuring of dry goods and liquids. An awareness of foods origins, seasonality and provenance. They will cook a range of predominately savoury dishes which can become part of a healthy and varied diet.
Pupils will design and make a night light incorporating 4 main strands – material selection, CAD/CAM, electronic theory and soldering, and modelling.	Pupils will design and make an electronic maze game. 4 main strands – material selection, CAD/CAM, electronic theory and soldering, and modelling. This half term will focus on the electronic element and adding the transparent cover.	Safety practices – use of the cooker, washing up and the 4C's. Use of knives – safe handling Accurate measuring of dry goods and liquids. An awareness of foods origins, seasonality and provenance. They will cook a range of predominately savoury dishes which can become part of a healthy and varied diet.

Assessment		
SUMMATIVE ASSESSMENT: Practical and written	SUMMATIVE ASSESSMENT: Practical and written	SUMMATIVE ASSESSMENT: Practical and written

Design and Technology Year 8

Engineering	Graphic Communication	Food
Project – Pewter Casting Gain the Knowledge, skills and understanding about different casting process and use of correct terminology Understand all key H&S principles	Skills based – drawing in 3D, rendering, digital drawing (Illustrator 2D Design and Sketchup) To gain a clear understanding of all elements of graphic communication. To give students a clear understanding of colour in design, logos and digital graphics.	**Project-Dishes:** Chicken dippers Cheese & potato bake Ragu sauce Pasta bake Sweet & sour sauce Pastry triangles Vegetable parcels Bread based pizza Fruit muffins Scones Sponge and seasonal cookery Dangers of poor food hygiene practices. Are all bacteria bad? Preparation of vegetables Use of the hob and oven. Sauces making – blended, roux. How sauces thicken- gelatinisation. Purchasing food – understanding labels.
Gain the Knowledge, skills and understanding about different casting process and use of correct terminology Understand all key H&S principles	Pupils will develop skills to draw in 3D, using colour in design, rendering and logo design. Also develop digital skills using Adobe Illustrator, 2D Design and Sketch up.	Dangers of poor food hygiene practices. Are all bacteria bad? Preparation of vegetables Use of the hob and oven. Sauces making – blended, roux. How sauces thicken- gelatinisation. Purchasing food – understanding labels.

Assessment		
SUMMATIVE ASSESSMENT: Practical and written	SUMMATIVE ASSESSMENT: a) Range of drawing/graphic skills through practical tasks b) Homework – linked to practical work/unit c) Student booklet d) Written examination	SUMMATIVE ASSESSMENT: a) Range of practical dishes produced b) Homework – linked to practical work c) Student booklet d) Written examination

Design and Technology Year 9

Electronics	Resistant Materials	Food
Project – LED upcycled light Gain the knowledge, skills and understanding of an advanced interactive electronic circuit including etching a PCB, and time delay incorporation. Use of CAD/CAM. This half term is focussed on producing the artwork and the lamp housing.	**Automaton** Gain the knowledge, skills and understanding about motion and mechanisms and use of correct terminology. Gain the knowledge, skills and understanding about tools and materials.	**Project Dishes:** Chilli Curry Savoury flan Fishcakes Flapjacks Jam sponge Cheesecake Reviewing & updating knowledge of food safety – key temperatures, 4C's & Healthy eating guidelines. Practical skills will be linked to the dietary guidelines and suitability to the Bistro brief.
Understand the process of designing and manufacturing a PCB, assembling a circuit and understanding the use of polarised components and how to calibrate based on lighting conditions. This half term will focus on the monostable circuit and integration into the housing.	Understand the process of designing and manufacturing an automaton that includes one or more moving part.	Building on nutritional knowledge and special diets which can affect food choices. Food choices & the impact on the environment. Practical skills will be linked to the dietary guidelines and suitability to the Bistro brief.

Assessment		
SUMMATIVE ASSESSMENT: Practical and written	SUMMATIVE ASSESSMENT: a) Practical work (project outcome) b) Homework – linked to practical work/unit c) Student booklet d) Realisation of intentions for the personal response	SUMMATIVE ASSESSMENT: a) Range of practical dishes produced b) Homework – linked to practical work c) Student booklet d) Written examination