



KING JAMES'S SCHOOL
KNARESBOROUGH

King James's School Design & Technology Learning Journey



- NEA extended project
- Design Brief of your choice
- Work in any material area
- CAD/CAM
- Hand-rendered design work
- Build a working prototype



- Record ideas, observations and insights relevant to intentions as work progresses.
- Make a personal and meaningful outcome that realises intentions and demonstrates understanding of visual language.

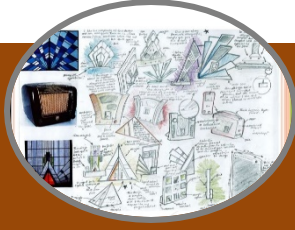
- Unit 2 Exam: Develop ideas through investigations.
- Exploring ideas, selecting and experimenting with appropriate techniques.

SIXTH FORM COLLEGE
APPRENTICESHIP
FURTHER EDUCATION

PRODUCT DESIGN

3D DESIGN

TEXTILES 3D



- Working characteristics, functional and chemical properties of ingredients.
- Practical investigations
- Planning, preparation, cooking and presentation of food.
- Prepare, cook and present a final menu of three dishes
- Written or electronic portfolio

- Plan, prepare, cook and serve a variety of nutritional dishes, in a safe and hygienic manner, that are suitable for different situations and customer needs and requirements.

You will be given a specific brief in which you will need to complete all the assessment criteria. You will also carry out a practical assessment in relation to the brief.

- Unit 1 Sustained project: Develop ideas through investigations.
- Exploring ideas, selecting and experimenting with appropriate techniques.

11

FOOD PREPARATION & NUTRITION

HOSPITALITY & CATERING



3D DESIGN

- Record ideas, observations and insights relevant to intentions as work progresses
- Present a personal and meaningful outcome that realises intentions and demonstrates understanding of visual language.

- Food, nutrition and Food science
- Food safety
- Food choice
- Food provenance

- A range of food preparation skills
- Employment
- Front of house and kitchen operations
- The needs and requirements of customers
- Issues related to nutrition and food safety



- Design & Making Skills
- Product evolution
- Iterative design
- Product analysis and evaluation
- Ergonomics
- Environmental factors
- Materials and processes

- Working with Polymers: Acrylic Pebble Adhesives
- Lamination
- Finishing

TEXTILES 3D

FOOD PREPARATION & NUTRITION

HOSPITALITY & CATERING

PRODUCT DESIGN

- Working with wood: Surfboard
- Lamination
- Working with natural timber
- Adhesives
- Timber conversion
- Finishes
- Sanding

- Working with metal: Bottle-opener
- Health and Safety
- Milling Machine
- Pillar Drill
- Finishing

- CAD/CAM and how it is used in industry
- Solidworks 3D Design
- Rapid prototyping (3D printing)
- Designing multiple parts ready for assembly
- Final render and presentation of finished product

- Using a design style as a starting point
- Wood, Metal Plastics
- Hand skills
- Laminating
- Centre Lathe

10

PRODUCT DESIGN: MINI SKILLS

PRODUCT DESIGN: CAD/CAM SOLIDWORKS

PRODUCT DESIGN: TEA-LIGHT HOLDER

- Making Different types of Pastry
- Cake Decoration
- Batch Production
- Introduction to Food and Nutrition
- Using a nutritional analysis programme
- Researching
- Applique
- Fabric manipulation.
- Use of templates.
- Cutting of materials.
- Correct and safe use of machinery.
- Working to a specification

FOOD TECH: FOOD & NUTRITION

TEXTILES: MAKE-UP BAG TABLET CASE

TEXTILES: DECORATIVE TECHNIQUES

- Preparing and developing healthy main meals
- Vegetable Cuts
- Food Safety, hygiene and Food Poisoning
- Roux Method of sauce making
- Standard Components
- Cooking multicultural meals



- How to use; cutting tools, iron, sewing machine, sublimation printer and heat press equipment.
- Repeat pattern for a fabric design.
- How to produce a complex and feasible sublimation print.
- To learn how to insert a zip.
- To successfully quilt the fabric
- To embellish with beads/sequins

Different types of hand embroidery stitches.. To embellish with beads/sequins. Quality of finish To produce a creative and viable product. To evaluate the final outcome.

per serving (150g cooked)			
Fat	3.0g	Saturates	1.3g
Sugars	34g	Fibre	0g
Calories	LOW	Energy	LOW
Protein	4%	Salt	7%
Carbohydrate	38%		

an adult's reference intake (as sold) per 100g

9

FOOD: FAMILY MEALS



8

TEXTILES: CUSHION

PRODUCT DESIGN: SWEET DISPENSOR

PRODUCT DESIGN: PAPER MECHANISMS

- Use of templates.
- Cutting of materials.
- Health & Safety
- Product analysis
- Working to a specification
- Writing a specification
- Using the work of others as a starting point to creativity.

TEXTILES: PENCIL CASE

PRODUCT DESIGN: NIGHT LIGHT

FOOD: INTRODUCTION TO NUTRITION

PRODUCT DESIGN: ICT PHONE HOLDER

- Working from sources of inspiration.
- Ability to generate design ideas.
- Correct and safe use of machinery.
- Working to a specific
- Evaluation skills.

- Target markets
- Commercial standards
- Understanding the iterative process
- How to produce orthographic drawings
- British standards dimensioning

- Digital file management
- CAD: how to use Illustrator
- Creating a laser pathway
- Knowledge of CNC machining

- Sensory Evaluation
- Product Analysis
- Food Labelling

- Plastic-Forming
- Health & Safety



- Food Safety and hygiene
- Weighing and Measuring
- Kitchen Equipment
- Eating and Drinking
- Practical



- Independent learning
- Selective decision-making
- Sensitivity to a design brief
- Growth mindset; mastery through effort

