Design & Technology Five Year Learning Journey

It is our belief that creativity is an essential part of education, and everyone has the ability to find their own creative niche. When you provide a learning environment in which students have the confidence to trust their instincts; innovation can flourish.

Ecclesfield SCHOOL

Numeracy Opportunities
Literacy Opportunities
SMSC Opportunities

Post 16

Careers & Education in Hospitality & Catering

A Level, Level 3, T Level, Degree, Btec Nationals, Apprenticeships

Butcher, Caterer, Chef/Cook, Confectioner, Consumer Advisor, Contract Catering, Dietician, EHO, Food & Beverages Restaurant Manager, Manufacturer, Retailer, Food Scientist, Food Writer, Food Photographer, Home Economist, Hotel Management, Microbiologist, Menu Development, Ministry of Agriculture Nutritionist, Product Developer, Teacher, Trading Standards

Careers & Education in Engineering

Aerospace, Architecture, Automotive, Building Services, Chemical, Civil, Computing & IT, Construction, Design, Electronics, Health & Safety, Infrastructure, Manufacture, Mechanical, Petroleum, Plant, Project Management, Rail, Software, Systems, Telecommunications, Transport

Apprenticeships, A Level, Level 3 OCR Cambridge Technicals in Engineering, Engineering and Manufacturing T Level, Construction T Level, Btec Nationals in Engineering, Level 3 Design & Technology, Product Design

HAPELTOWN ACADEMY — INSPIRING EXCELLENCE AND SUCCESS

Btec Level 3 Engineering Course Link

At KS4 students will get to experience visits to industry, in additional to work experience. There are links to local industries and there will be opportunities for role model speakers and professionals to visit the students and provide exemplar products/skills.

Y11

RO14 Exam Unit 40% — **Engineering Manufacture**

Topic Area 1: Manufacturing processes
Topic Area 2: Engineering materials
Topic Area 3: Engineering requirements
Topic Area 4: Developments in engineering manufacture
Exam (40%)

Principles of engineering manufacture — Unit RO14

Topic Area 3: Safely use processes and equipment to make products in quantity — Unit RO16

Controlled Assessment 60% — Techniques, Knife Techniques, Cooking Techniques, Presentation Techniques

Preparation — Unit 1 — Nutrition

AO2.3 Hospitality and catering provision to meet specific requirements
AO2.2 Customer requirements in hospitality and catering
AO2.1 The operation of the front and back of house

AO3.1 Health and safety in hospitality and catering provision
AO3.2 Food Safety
AO4.1 Food related causes of ill health
AO4.2 Symptoms & signs of food-induced ill health
AO4.3 Preventative control measures of food-induced ill health
AO4.4 Environmental Health Officer (EHO)
Exam (40%) 80 marks

AO1.4 Contributing factors to the success of hospitality & catering provision
AO1.3 Working conditions
AO1.2 Working in the industry
AO1.1 Hospitality & catering providers
Introduction to UNIT 1
AO2.4.2 Reviewing ones own performance
AO2.4.1 Reviewing of dishes
AO2.3.3 Food safety practices
AO2.3.2 Presentation techniques
AO2.3.1 How to prepare and make dishes
AO2.2.2 How to plan production
AO2.2.1 Factors affecting menu planning
AO2.1.2 How cooking methods can impact on nutritional value
AO2.1.1 The importance of nutrition

Menu Planning, Customer Needs, **Hospitality & Catering Unit 2**, Balanced Meals

Culinary Skills, Sauces, Pastry, Batters

Y10

Unit RO16 — **Engineering Manufacture**

Topic Area 2: Develop programmes to operate CNC equipment
Topic Area 1: Preparing for manufacture
Manufacturing in quantity
Topic Area 3: Safely use processes, tools and equipment
Topic Area 2: Measuring and marking out
Topic Area 1: Planning the production of a one-off product
Manufacturing a one off Product — Unit RO15

Health & Safety Training Record, Workshop Health & Safety, Writing Specifications, CAD Drawings, Design & Development skills, Machining & Hand Skills, Following Technical Drawings, Marking Out, Tools & Equipment, Keeping a Skill Diary, Testing & Evaluating, Assessment & Feedback

Bird Box, Recall & Scaffold, Creativity, Numeracy, Practical Skills, Literacy, DART

OCR Level 1/2 Cambridge National in Engineering Manufacture

WJEC Level 1/2 Hospitality & Catering

The Bridge

Brick Laying: Brick and block laying basics, prepping the footings for appropriate use, creating a triangle of bricks, setting out corners, using a spirit level correctly. Practical; Using a level correctly, setting out mortar beds to correct size,

Brick Laying continued: Using tools to create accurate outcomes, mixing mortar and different types available/application. Tools/Knowledge.

Joinery: Marking out skills, accuracy, resulting technical drawings. Practical; Basic joining techniques, gluing, mechanical fixings, wooden dowels, cutting joints are used in general. Tools/Knowledge

Painting & Decorating Surface preparation and application, including stages. Selecting appropriate finishes. Repairing. Practical; applying finishes, repairing surfaces, selecting and using the correct equipment. Tools/Knowledge.

Electrical Basics: Basic electrical circuits, common circuits found in the home, electric source, how wires are run, connections in lighting and sockets, correct wire & effective processing of wires. Tools/Knowledge.

Plastering: Techniques, types and application, appropriate finishes. Practical; preparation & application, appropriate fixings, tools and technique, cutting out & finishing, tidying up. Tools/Knowledge

Alternative Provision Skill based to provide learners with a valuable insight into trades.

Y9

Skills — Laser Cutting, 3D Printing, Victoria Sponge Cake, DART

Centre Lathe, Technical Drawing, Laser Cutting, CAD Drawings, Manufacturing Processes, Risk Assessment

Knife Skills, safety, types and uses; Keywords & Definitions; The 4 C's; Bacteria; Professional kitchen practices; Planning & Evaluating; Vegan; Vegetarian; Culture & Religion; Weighing & Measuring; Menu's & Chef's; Nutrition; Assessment & Feedback

Assessment & Feedback; Evaluations; Adaptations & Alternatives; Dish Development; Food Sources; Weighing & Measuring; Knife Skills; Deciphering labels and packaging; The 4 C's; Healthy diet; Professional kitchen practices; Food Safety & Hygiene; Health & Safety

Bolognese, Pasta, Pastry, Bread, Sausage Rolls, DART, Pizza, Cookies, Chicken Nuggets, Vanilla Cupcakes, Chilli, Carrot Cake, Health & Safety

In Year 9... Learners will start to develop skills in preparation for progression onto the Hospitality and Catering KS4 course.

In Year 9... Learners start to develop skills in preparation for progression onto the Engineering KS4 course.

DART, Practical Skills, Numeracy, **Phone Dock**, Recall & Scaffold

Assessment & Feedback; Testing & Evaluating; Machining & Hand Skills; CAD Drawings; Design & Development skills; Marking Out; Writing Specifications; Writing a Design Brief; Health & Safety Training Record; Workshop Health & Safety

Workshop Health & Safety; H&S Training Record; Motion & Levers; Timbers Hard & Soft; Design Criteria

Recall, **Anglepoise Lamp**, Numeracy, Theory, Planning, Designing, Numeracy, Tools

DART & Feedback, Practical Skills, Recall

Assessment; Testing & Evaluating; Production Planning; Soldering; Electronics Skills; Removing Material Techniques; Practical Skills; Quality Assurance; Marking Out; Measuring & Quantity; Use PEEAD; Drawing & Presentation Skills; Use PEEAD

Equipment, Health & Safety

In Year 8... Learners will develop better understanding of small & large equipment, learning how to use it safely and effectively. They build on their knowledge from Y7 and are introduced to the iterative design process.

Y8

Practical Skills — Vac Formed Car, DART

Mechanisms, Vac Forming, Orthographic, Design Criteria, Drawing & Presentation Skills, Product Analysis, Task Analysis, Health & Safety Training Record

Testing & Evaluating; Assessment

Cheesy Pasta Bake, DART Feedback, Assessment

Flapjack, Stir Fry, Scones, French Bread Pizza, Fruit Crumble, Nutrition, Health & Safety, **Hospitality & Catering**

Roux; Keywords; Food Tolerances; Knife Skills Rubbing in; Weighing & Measuring; Knife Skills Rubbing in; Eat-well Guide; Equipment; Cross Contamination; Health & Safety; Introduction Expectations

In Year 8... Learners will develop confidence and learn to cook a range of dishes, making informed decisions about healthy choices. Health and safety will be re-visited & learners understand where our food comes from.

In Year 7... Learners will develop basic understanding of safety, nutrition and culinary skills by producing healthy meals in a kitchen.

Y7

Literacy, Recall — DART & Feedback, **Key Fob Project**, Equipment, Numeracy, Designing, Health & Safety, **Manufacturing**

Workshop Health & Safety; Testing & Evaluating; Finishing Techniques; Removing Material Techniques; Practical Hand Skills; Quality Assurance; Marking Out; Measuring & Quantity; Writing Specifications; Design & Development skills; Making Diary; Materials Knowledge; CAD Drawings; Following Specifications; Drawing & Presentation Skills; Following Design Briefs; Health & Safety Training Record; Workshop Health & Safety; Introduction Expectations

Welcome

In Year 7... Learners will experience independence & creativity, produce simple products using a range of skills safely.

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