DARWEN VALE
An Aldridge Community Academy

**Departmental Curriculum Map**

**INTENT STATEMENTS**

**Key stage 3**

Across KS3 pupils will gain knowledge understanding and practical skills across a range of subjects including product and graphic design, computer aided design and manufacture, programming, textiles, timbers, polymers and food and nutrition. The aim is to inspire future designers and engineers by introducing pupils to new and emerging technologies and sustainability. Pupils are encouraged to problem solve and demonstrate resilience across all disciplines. Within Food and Nutrition pupils are taught to make informed decisions in relation to their own health and food choice. Pupils will develop their understanding of nutrition and dietary needs and apply these in dishes as they become confident in executing a range of predominantly savoury dishes.

**Key stage 4**

Level 1/2 Vocational Award in Hospitality & Catering provides a practical, real-world approach and develops the specific knowledge and skills students need to work successfully in the hospitality and catering industry. This includes food safety, nutritional needs, health and safety and informed menu planning.

This course aims to give students a broader understanding and knowledge of Hospitality and Catering careers, developing the skills and qualities valued by employers and further education colleges.

| Year 7 Term 1 (September to December) | |
|---|---|
| **Sequence of Learning** | **Rationale** |
| **Timbers – Motion & Mechanism**<br>This learning programme focuses on theoretical knowledge associated with motion and mechanisms and the application of these in the manufacture of a simple mechanical toy made from timber.<br>***Practical skills:***<br>• Ability to mark and measure a piece of timber<br>• Ability to use workshop tools to create a automata frame<br>  ○ tri-square<br>  ○ steel rule<br>  ○ tenon saw<br>  ○ pillar drill<br>  ○ belt sander<br>• Ability to put together a fully working motion/linkages using CAMs<br><br>***Theoretical knowledge:***<br>• Origins and properties timbers<br>• Mechanical systems, cams and levers<br>• Types of movement | Some pupils arrive with basic knowledge of different materials and motions and mechanisms as it is part of the KS2 Design & Technology national curriculum. This unit of work is designed to close any gaps in knowledge and explore material areas in more depth. Students will also be introduced to the workshop allowing them to develop their skills. |

| Year 7 Term 2 (January to April) | |
|---|---|
| **Sequence of Learning** | **Rationale** |
| **Textiles: Mini Monster:**<br>This learning programme focuses on the design, development and creation of a unique plush toy monster which will incorporate upcycled & sustainable elements.<br>Inspired by initial research into existing products, pupils will generate ideas in respect of a given brief and specification, developing ideas and textile skills to produce an appropriate product outcome. Theoretical learning focuses on embedding knowledge of sustainability within the textile industry, types of fibres, product lifecycle and the purpose of templates and pattern cutting within commercial textiles. | Some pupils arrive with basic knowledge of different material areas as it is part of the KS2 Design & Technology national curriculum. This unit of work is designed to close any gaps in knowledge and explore material areas in more depth. It also introduces pupils to hand sewing, including different stitches pupils are unlikely to have attempted in KS2. |

| | |
|---|---|
| As part of this learning programme pupils are expected to demonstrate their understanding of key vocabulary, themes and processes, demonstrating increasing competency within an individual design portfolio.<br><br>**Key concepts/skills:**<br><br>• Ability to investigate/ research a theme<br>• Generation of a variety of relevant design ideas<br>• Design development (based on informed choices)<br>• Use of explanatory, analytical and evaluative annotation<br><br>***Practical skills:***<br>• Hand embroidery<br>• Template production and use<br>• Applique<br>• Component attachment<br>• Product assembly (lining up, pinning etc)<br><br>***Theoretical knowledge:***<br>• Natural and synthetic (man-made) fibres and fabrics<br>• Sustainability<br>• Product lifecycle analysis<br>• The importance of pattern cutting and template use in industry | |

| **Year 7 Term 3 (May to July)** | |
|---|---|
| **Sequence of Learning** | **Rationale** |
| **Food & Nutrition: Healthy Lifestyle**<br>In this learning programme, pupils will learn the fundamental principles of nutrition essential to understanding what a healthy diet is. They will learn about the recommendations of the Eatwell Guide and the origin and roles of the key macronutrients in our bodies.<br><br>Pupils will learn how to work safely within the kitchen, applying principles of cleanliness and hygiene to avoid the growth and spread of bacteria.<br><br>They will cook a range of predominantly savoury dishes, learning how to use kitchen equipment safely and competently.<br>***Theoretical knowledge***<br>• Health and safety principles: The 4 C's | Some pupils will have knowledge of the Eatwell Guide and what nutrients different food groups provide as this is part of the KS2 national curriculum. This unit of work is designed to fill in gaps and build on nutrient knowledge looking at macronutrients in more depth and why they are needed. |

| | |
|---|---|
| • The Eatwell Guide; it's recommendations<br>• What is a balanced diet based on the Eatwell Guide<br>• Carbohydrates: simple and complex<br>• Role of carbohydrates in the body<br>• Proteins: LBV and HBV<br>• Role of protein in the body<br>• Fats and oils : saturated and unsaturated<br>• Role of fat in the body<br>***Practical skills***<br>• Slicing<br>• Bridge/claw<br>• Organoleptic testing<br>• Boiling – using the hob<br>• Dicing<br>• Shaping meat product<br>• Glazing<br>• Portioning<br>• Kneading<br>• Binding<br>• Performing temperature checks<br>• Creaming method<br>• Accurate weighing and measuring<br>• Baking – oven<br>• Simmering<br>• Seasoning<br>• Reducing<br>• Frying | |

| **Year 8 Term 1 (September to December)** | |
|---|---|
| **Sequence of Learning** | **Rationale** |
| **CAD/CAM – Polymers & Programming**<br>This learning programme focuses on the development of theoretical knowledge associated with polymers, electronics and programming. It will cover skills associated with computer aided design and manufacture, using Serif Draw Plus and the laser cutter.<br><br>In this unit of work, students will design and create a laser ply nightlight that incorporates acrylic inserts. This will be inspired by the work of Morag Myerscough and Tilde Gryneerup. | Some pupils arrive with basic knowledge of different material areas and basic programming as it is part of the KS2 Design & Technology national curriculum. This unit of work is designed to close any gaps in knowledge and explore material areas in more depth. It also introduces them to more advanced CAD/CAM processes to allow them to create a product. |

Theoretical learning focuses on categories of polymers, their working properties and impact on the environment, the programming of a crumble kit (knowledge of input, process, output) and how to recognise and correctly draw circuitry symbols. Students will also incorporate their own programmable circuit that will result in different outputs.

As part of this learning programme pupils are expected to demonstrate their understanding of key vocabulary, themes and processes, demonstrating increasing competency within an individual design portfolio.

***Practical skills:***

- *Developing competency in the use of Serif Draw (CAD software)*
  *(creating finger joints, rotating, adding and subtracting to create new shapes, align and arrange tools, cut, etch and inserts)*
- *Drawing inspiration from the work of others*
- *Assembling a working circuit using a crumble kit using an input and output device*
- *Drawing a circuit*
- *Programming a crumble kit to carry out different functions*
- *Evaluating an outcome*
- *One and two point perspective drawing*

***Theoretical knowledge:***

- *Health and safety in the workshop*
- *CAD/CAM examples, applications, advantages and disadvantages*
- *Tolerances: uses in manufacturing*
- *Material working properties – hardness, toughness*
- *Material physical properties – weight, conductivity, transparency*
- *Material characteristic properties - durability, stability, resistance*
- *Polymers: origins, standard forms, types, properties and uses thermoforming and thermosetting*
- *Impact polymers have on the environment*
- *Circuit theory – inputs, outputs, processes*

DARWEN VALE
An Aldridge Community Academy

| Year 8 Term 2 (January to April) | |
|---|---|
| **Sequence of Learning** | **Rationale** |
| **Textiles – Sensory Cushion**<br>This learning programme focuses on the design, development and creation of a unique sensory cushion inspired by the theme of 'Under the Sea'.<br><br>Pupils will explore existing examples allowing them to compose an informed design specification for their own product design. They will explore a range of textural & decorative textile techniques and control of the sewing machine. Pupils will draw from their learning to design and make an appropriate product outcome.<br><br>***Practical skills:***<br>• Designing to a brief<br>• Annotation<br>• Safe use of the sewing machine<br>• Applique techniques<br>• Couching<br>• Ruffling<br>• Addition of components as applicable<br><br>***Theoretical knowledge:***<br>• Analysing existing products<br>• Writing a design specification<br>• Evaluation | Pupils in year 8 have explored hand sewing skills and materials in year 8 as part of the 'Create' curriculum prior through a keyring project. Therefore, this unit of work is designed to build upon that and extend the skills of the pupils. Pupils will be recapping hand sewing when applying decorative elements to their cushion. |

| Year 8 Term 3 (May to July) | |
|---|---|
| **Sequence of Learning** | **Rationale** |
| **Food and Nutrition – Food Provenance**<br>This learning programme focuses on food choices and food production. Pupils will look at what food options and choices are available to them and learn how to make informative choices based on their own beliefs.<br><br>Pupils will learn about the environmental impact of food taking into consideration food miles and how we can reduce our food miles<br><br>Pupils will learn about allergies and intolerances; which foods fall under these categories and the symptoms associated with each. Pupils will also learn about anaphylactic shock and how to treat it.<br><br>Pupils will develop the awareness of and ability to safely use a range of preparation techniques and cooking methods. | In year 7 pupils learnt about the Eatwell Guide and nutrients in the previous curriculum 'Create'. This unit of work is designed to focus more on the choices and production of food allowing pupils to make conscious decisions when it comes to food based on nutrition from their prior learning and food choices available to them. |

| | |
|---|---|
| **Knowledge:**<br>• Animal Rearing: How chicken and pork is reared, what the different farming methods are and how people make decisions based on how the meat is reared<br>• Food choices: fair trade, organic, halal and other religious requirements and British assured foods<br>• Food miles: how they affect the environment, eating seasonal produce that is grown or reared in the UK to reduce food miles etc.<br>• Food allergies and intolerances: most common allergies and intolerances, what the symptoms are and how to recognise anaphylactic shock and how to deal with such an event<br>**Practical Skills:**<br>• Weighing and measuring<br>• Using hand held electrical equipment, e.g. whisk, food processor and hand blender<br>• Slicing and dicing: brunoise, macedoine, small/medium/large dice, julienne<br>• Selecting ingredients<br>• Shaping meat product<br>• Dough making (kneading, shaping)<br>• Portioning a product<br>• Seasoning<br>• Creaming<br>• Rolling<br>• Shaping<br>• Rubbing in method | |

| **Year 9 Term 1 (September to December)** | |
|---|---|
| **Sequence of Learning** | **Rationale** |
| **Timbers – Memory Box**<br>This learning programme focuses on the design and manufacture of a decorative box using both CAD/CAM and hand making tools.<br>Inspired by the work of a chosen designer, pupils will develop skills associated with the control of Serif Draw to produce a lid and handle.<br>Within the workshop, they will develop skills associated with timber construction to make the body of the box according to given dimensions. | Pupils in year 9 have not had experience in the workshop, therefore this unit of work is designed to introduce them to the workshop, timbers as a material area and CAD/CAM. This unit of work is designed to close any gaps in timbers and the workshop and introduce or recap CAD/CAM. |

| | |
|---|---|
| Theoretical learning focuses on material properties and categories of timbers.<br><br>As part of this learning programme pupils are expected to demonstrate their understanding of key vocabulary, themes and processes, demonstrating increasing competency of the processes to which they are introduced.<br><br>***Practical skills:***<br>• *creating a third angle orthographic drawing*<br>• *working from a third angle orthographic drawing*<br>• *use of CAD/CAM to design and manufacture products to a professional standard*<br>• *measuring, marking and cutting timber and dovetail joints*<br>• *joining and finishing timber*<br><br>***Theoretical knowledge:***<br>• *health and safety in the workshop*<br>• *material working properties – hardness, toughness*<br>• *material physical properties - density, absorbency*<br>• *material characteristic properties - durability, flexibility, resistance*<br>• *quality assurance and control*<br>• *timbers: origins, standard forms, types, properties and uses*<br>• *surface finishes: different options and the benefits associated* | |

| **Year 9 Term 2 (January to April)** | |
|---|---|
| **Sequence of Learning** | **Rationale** |
| **Modelling– Sustainable Architecture**<br>This learning programme focuses on the design and modelling of a sustainable building. Pupils will learn about how architecture can be sustainable and have minimal impact on the environment through the study of examples across the world, renewable and non-renewable energy sources and water harvesting methods. They will understand how advances in technology are generating new materials that allow buildings to reduce energy consumption and carbon footprints by exploiting natural resources in effective ways. Pupils will explore modelling materials and methods, learn how biomimicry and bio-morphism influence design | This unit of work is designed to introduce pupils to new and emerging technology and sustainability in the world of Design and Technology. Pupils will have no prior learning of new and emerging technologies or biomimicry and bio morphism unless it was covered in KS2.<br><br>This unit of work is designed to cover gaps, introduce pupils to careers within Design & Technology and show pupils the importance of team work and modelling which are fundamental in the subject. |

| | |
|---|---|
| and engineering and draw from their learning to design and model a sustainable building.<br><br>**Practical skills:**<br><br>• Using the work of others and imagery to generate ideas<br>• Card construction techniques<br>• Designing for a purpose and annotation<br>• Selecting and manipulating appropriate materials in the construction of a model<br><br>**Theoretical learning:**<br><br>• Renewable and non-renewable energy sources<br>• Water harvesting, storage and use<br>• The work of others: sustainable architecture<br>• Biomimicry and bio-morphism: meaning and examples<br>• Models versus prototypes | |

| **Year 9 Term 3 (May to July)** | |
|---|---|
| **Sequence of Learning** | **Rationale** |
| This learning programme focuses on food hygiene and food safety. Pupils will look at what food Bourne illnesses and how food illness occurs. Pupils will also look at reducing these risks through correct storage principles.<br><br>Pupils will recap macronutrients that were covered in year 7 and begin exploring different micronutrients, their functions and sources.<br><br>Pupils will also explore a variety of different job roles and responsibilities within the Hospitality & Catering industry.<br><br>Pupils will learn how to create food production plans in order to be able to successfully create a dish with more than one component within the allocated time period.<br><br>**Knowledge:**<br>• Food Bourne Illness: What bacteria, moulds and poisonous plants make you ill and what the symptoms associated with each are.<br>• Types of food poisoning: Different types of food poisoning bacteria, sources and symptoms<br>• Macro and Micronutrients: The different between macro and micronutrients. The function and source of macronutrients (carbohydrates, fat and protein). | This unit of work is designed to close any knowledge gaps in nutrition and develop understanding of micronutrients. Pupils will also be introduced to food production plans and developing their knowledge of food safety and food bourne illness. Pupils will also be made aware of different job roles within Hospitality and Catering so that students can make informed decisions about opting for the subject at GCSE. |

| | |
|---|---|
| • The function and source of micronutrients (vitamins: a, d & c) (minerals; iron, calcium & potassium)<br>• Different types of job roles back of house in the catering industry: the kitchen brigade<br>• Environmental health officers job roles and responsibilities<br>• Writing a food production plan: mis-en place & contingencies<br>**Practical Skills:**<br>• Weighing and measuring<br>• Using hand held electrical equipment, e.g. whisk, food processor and hand blender<br>• Slicing and dicing: brunoises macedoine, small/medium/large dice, julienne<br>• Gelatinisation<br>• Baking<br>• Reducing<br>• Simmering<br>• Seasoning<br>• Rubbing in method<br>• Gelation<br>• Rolling<br>• Shaping<br>• Butchery of chicken | |

| **Year 10 Term (September to December)** | |
|---|---|
| **Sequence of Learning** | **Rationale** |
| **Unit 1: LO1**<br>During this unit of work pupils will be introduced to the commercial and non-commercial sectors within Hospitality and Catering. Pupils will also learn about different types of food service that is available in these establishments.<br>In addition to this, pupils will start to look at job roles within the sector in more detail for both front and back of house including qualifications and personal attributes each job is required. Pupils will then delve deeper into this looking at working conditions including types of contracts and remuneration that is required by law.<br><br>Finally, in this unit of work pupils will look at how the environment, media, economy and technology can affect the success of a hospitality and catering business.<br><br>**Unit 1: LO2**<br>Once students have a sound understanding of the sector, pupils will start to look at how these establishments operate. They will learn the workflow and operational activities of both front and back of house and what equipment is required. | Pupils begin learning content for external examination (Unit 1) – 40% of overall grade. Learning objectives are taught holistically and recapped through do now activities and assessments.<br><br>Once a week pupils will practice practical skills through practical's, this covers LO3 of Unit 2 (worth 60% of grade overall). Dishes and skills will be reflected upon and evaluated through home learning and during lessons covering LO4 of Unit 2. |

| | |
|---|---|
| Pupils will then recap on the job roles available, this time focussing on dress code that is required and why. Pupils will then explore the types of documentation that are required by law to be kept and create examples of these.<br><br>Finally, pupils will explore customer needs and expectations when it comes to the hospitality and catering industry and be able to make conscious and thought-out solutions and suggest appropriate provision for different customers.<br><br>**Unit 2: LO3 & LO4**<br>This unit of work is on-going throughout year 10 and part way through Y11. It is designed to develop pupils' practical skills and introduce them to high skill cooking techniques, methods and preparation methods.<br>• | |

| **Year 10 Term 2 (January to April)** | |
|---|---|
| **Sequence of Learning** | **Rationale** |
| **Unit 1: LO3**<br>This unit of work explores laws within the Hospitality and Catering sector. Pupils will develop an understanding of personal safety laws, HACCP, HASAWA, RIDDOR, COSHH, MHOR and PPER.<br><br>**Unit 1: LO4**<br>This unit of work will focus on food safety laws and practices. Pupils will develop understanding of types of food borne illness with symptoms and signs and preventative control measures. Pupils will also develop an understanding of allergies and intolerances including the signs, symptoms and treatments.<br><br>In addition to this, pupils will develop a further understanding of the Environmental Health Officer including their role and responsibilities.<br><br>**Unit 2: LO3 & LO4**<br>This unit of work is on-going throughout year 10 and part way through Y11. It is designed to develop pupils' practical skills and introduce them to high skill cooking techniques, methods and preparation methods. | Pupils continue learning content for external examination (Unit 1) – 40% of overall grade. Learning objectives are taught holistically and recapped through do now activities and assessments.<br><br>Once a week pupils will practice practical skills through practical's, this covers LO3 of Unit 2 (worth 60% of grade overall). Dishes and skills will be reflected upon and evaluated through home learning and during lessons covering LO4 of Unit 2. |

| **Year 10 Term 3 (May to July)** |
|---|

| Sequence of Learning | Rationale |
|---|---|
| **Unit 2: LO1**<br>Students will now have moved on to gaining the required knowledge and class notes for their internal assessment. Pupils will start gaining a detailed understanding of macro and micronutrients. Pupils will also explore different age groups and what their nutritional needs are. Pupils will also learn about how cooking methods affect the nutritional content of food and what can be done to retain nutrients.<br><br>**Unit 2: LO2**<br>Students will develop understanding of what is needed when creating a menu for chosen customers. Pupils will explore what factors affect menu choices such as costing, menu type, portion control, balanced diets, equipment and skills available. Pupils will then look at how they can develop a menu that is environmentally conscious and takes into consideration environmental impact.<br><br>Finally pupils will develop a secure understanding of how to plan a food production.<br><br>**Unit 2: LO3 & LO4**<br>This unit of work is on-going throughout year 10 and part way through Y11. It is designed to develop pupils' practical skills and introduce them to high skill cooking techniques, methods and preparation methods.<br><br>This term there will be an emphasis on reviewing their own performance. | Pupils begin learning content for internal examination (Unit 2) – 60% of overall grade. Learning objectives are taught holistically and recapped through do now activities.<br><br>Once a week pupils will practice practical skills through practical's, this covers LO3 of Unit 2 (worth 60% of grade overall). Dishes and skills will be reflected upon and evaluated through home learning and during lessons covering LO4 of Unit 2. |

| Year 11 Term 1 (September to December) | |
|---|---|
| **Sequence of Learning** | **Rationale** |
| **Unit 2: LO2**<br>Students will develop understanding of what is needed when creating a menu for chosen customers. Pupils will explore what factors affect menu choices such as costing, menu type, portion control, balanced diets, equipment and skills available. Pupils will then look at how they can develop a menu that is environmentally | Pupils begin learning content for internal examination (Unit 2) – 60% of overall grade. Learning objectives are taught holistically and recapped through do now activities. Students will have a mock for this examination during this term.<br><br>Once a week pupils will practice practical skills through practical's, this covers LO3 of Unit 2 (worth 60% of |

| | |
|---|---|
| conscious and takes into consideration environmental impact.<br><br>Finally pupils will develop a secure understanding of how to plan a food production.<br><br>**MOCK INTERNAL ASSESSMENT**<br><br>Pupils will complete a mock NEA using a given brief. Pupils will consolidate their learning of age groups, nutrients, cooking methods, factors that affect food choice and food production plans<br><br>**Unit 2: LO3 & LO4**<br>This unit of work is on-going throughout year 10 and part way through Y11. It is designed to develop pupils' practical skills and introduce them to high skill cooking techniques, methods and preparation methods.<br><br>This term there will be an emphasis on reviewing their own performance. | grade overall). Dishes and skills will be reflected upon and evaluated through home learning and during lessons covering LO4 of Unit 2. |

| **Year 11 Term 2 (January to April)** | |
|---|---|
| **Sequence of Learning** | **Rationale** |
| **EXTERNAL ASSESSMENT**<br>Completion of Unit 2: LO1, LO2, LO3 & LO4 | External assessment (60% of grade) is taken during this term for the duration of 12 hours. |
| **Revision for Unit 1 (external examination):**<br>LO1: Hospitality & Catering Providers:<br>Walking talking mocks plus revision including hospitality and catering providers, working in the hospitality and catering industry, working conditions in the hospitality and catering industry and contributing factors to the success of hospitality and catering provision<br><br>LO2: How Hospitality & Catering Provisions Operate:<br>Walking talking mocks plus revision including the operation of front and back of house, customer requirements in hospitality and catering and how provisions can meet specific requirements | Revision will take place ready for the June 2024 external examination. This will recap and build on knowledge gained in year 10. |

| | |
|---|---|
| <u>LO3: Health & Safety in Hospitality & Catering:</u><br>Walking talking mocks plus revision including health and safety in hospitality and catering and food safety laws.<br><br><u>LO4: Food Safety in Hospitality & Catering</u><br>Walking talking mocks plus revision including food related causes of ill health, symptoms and signs of food related ill-health, preventative conrtrol measures of food-induced ill health and EHO's | |