Design & Technology - Curriculum Overview 2023-2024

	Autumn 1	Autumn 2	Spring to February	Spring 2	Summer 1	Summer 2
Year 7 (3 hours per fortnight). **PLEASE NOTE NOT ALL DT STAFF WILL TEACH THE CONTENT IN THIS PARTICULAR ORDER DUE TO RESOURCING AND ROOMINGS	**Cooking and Nutrition** To learn Health & Safety and Food hygiene practices. -Kitchen hygiene -Personal hygiene -Kitchen safety -Storing and cooking for safety. To learn different cooking methods through the experience of making a variety of savoury and sweet dishes. Basic Knife skills Use of the cooker Food preparation skills- weighing and measuring. Healthy Eating Guidelines. Eat Well Guide- link to nutrients. Be able know what they are and name the key nutrients.	**Cooking and Nutrition** Know how the Eat well guide can be used to guide individuals in selecting foods that make up a healthy and balanced diet. Fruit and vegetable benefits. Healthy Eating Guidelines. Eat Well Guide- link to nutrients. Be able know what they are and name the key nutrients. Understand where food commodities. fruit/vegetables/cereals come from? How commodities can be processed and some of their nutritional properties. Students will develop their subject vocabulary and evaluation skills throughout the year.	**Cooking and Nutrition** Principles of planning and preparing a range of healthy meals. Seasonality/ food miles Sensory characteristics Food choice- personal Y7 Designing/adapting a scone-based pizza recipe to healthy eating guidelines. Be able to create a nutritional product and plan for the making of the finished product. Be able to cook independently selecting the correct kitchen equipment and select ingredients based on their functional, sensory, and nutritional properties.	**DT Materials** Students will begin to gain knowledge of the design process. Students will begin to gain knowledge of the design movements, through research. Students will research designers of Pop Art and explore materials and their properties. They will also carry out a product analysis. Students will be able to express their individuality through designing a ball bearing game. Students will learn how to design, render and annotate. They will explore these topics through the topic of 'ball bearing games.	**DT Materials** Students will have knowledge of how to work safely in DT. Students will learn how to measure, mark out and shape materials. Students will understand different joints used within timber. Students will learn how to use a disc sander, Pillar drill and a range of hand tools. Student will apply this knowledge through the making of the ball bearing game. Students will have knowledge of good quality outcomes. Students will develop their planning and evaluation skills.	**DT Textiles** Health and safety procedures Identify modern materials – Basic hand stitching, operating a sewing machine. Researching a design brief to generate ideas, materials research and product analysis. Know how fabrics are constructed together to make a product- hand and machine stitching. Generate and Model design idea. Decorative techniques Use of ICT Make a functional product by adding shape/structure to a fabric to realise their own design ideas. To evaluate the product based on customer needs.

Year 8 (3 hours per fortnight). **PLEASE NOTE NOT ALL DT STAFF WILL TEACH THE CONTENT IN THIS PARTICULAR ORDER DUE TO RESOURCING AND ROOMINGS	**Cooking and Nutrition** Health & Safety and Food hygiene practices. -Food safety when buying and storing foods. -Labelling, date marks -Cooking food safety -High risk foods- cross contamination. To learn different cooking methods through the experience of making a variety of savoury and sweet dishes. Reinforce and develop basic Knife skills. Use of the cooker Food preparation skills- weighing and measuring. Healthy eating guidelines.	**Cooking and Nutrition** What constitutes a healthy diet? Applying Eat Well Guide principles. Calories (fats & oils) Labelling- Traffic lights. Y8 will develop a deeper understanding of the five main nutrients and their function in the body & sources. Macro/micronutrient A, B, C, D, E. Minerals- Iron, Calcium, Sodium. Understand and use the following functions when preparing dishes. Coagulation, Raising agents- chemical, mechanical, biological. Fats and oils, sugar -caramelization, dextrinization, denaturation Enzymic browning. Glazing. Students will develop their subject vocabulary and evaluation skills throughout the year.	**Cooking and Nutrition** Understand where food commodities come from. How the commodity can be processed and their nutritional properties Fruit/vegetables/cereals meats, dairy. Seasonality/food miles Adapting recipes- tooth decay, diabetes, increase fibre. Sensory characteristics Food choice- **Y8** –Design/adapt a savoury dish and a sweet dish to ensure it is nutritionally balanced. Development of food product. Setting chilled-cheesecake. Students will develop their planning and evaluation skills.	**DT Materials** Students will learn how to apply designing and making skills, to produce an Angle Poise Light Students will also explore working in the style of designers. Through research students will begin to apply knowledge of materials and electronics to build a working circuit for the USB light. They will also explore Graphic Design skills to produce a quality outcome and final product. Students will then use CAD to produce a design for the top of the lamp.	**DT Materials** Students will be able to carry out a risk assessment and understand the importance of working safely in the workshop. Students will be able to construct a working circuit. Students will be able to use tools and equipment independently.	**DT Materials** Student will learn how use a variety of temporary fixings such as screws, nuts bolts to the construct the Angle poised light. Students will develop their planning and evaluation skills.

Year 9 (3 hours per fortnight). *DT projects may not be delivered in this particular order due to rotation purposes*	**Cooking and Nutrition** Health & Safety and Food hygiene practices. Food safety procedure -Home and industry. -Key legislation - danger zone 5-63 -Cooking temp – 75c -Refrigeration 0-5 4C's – preventing food poisoning. Advanced Knife skills Work with a range of high-risk protein ingredients. Nutritional and working properties of a range of foods. Planning and presentation skills.	**Cooking and Nutrition** Understand where food commodities come from and how the commodity can be processed. Nutrition- Impact on health Over/under eating Digestion How to maintain healthy eating. Identify the links between poor diet and health risks including tooth decay, obesity, and cancer. Produce a range of dishes/ingredients representative of different cultures. Nutritional needs of different groups of people. Students will develop their technical knowledge, subject vocabulary, and evaluation skills throughout the year.	**Cooking and Nutrition** Understand where food commodities come from and how the commodity can be processed. Functions of ingredients: Coagulation Raising agents- chemical, mechanical, biological use of yeast. Fats and oils, sugar -caramelization, dextrinization, denaturation Enzymic browning, glazing. **Y9** Design/plan and adapt a dish based on a special diet- cultural, allergies, nutritional needs. Menu planning – Development of food product- own choice. Sensory analysis Practical assessment Be able to present food in an acceptable way. Students will develop their planning and evaluation skills.	**DT Materials** Students are going to learn about the environment and the impact that this has on nature. Students are going to design and make their own creature habitat. Students will understand the importance of designing to meet the needs of a client through a variety of research. They will also understand the product life cycle. They will use CAD/CAM and understand the impact of design technology on the environment through sustainability. Students will use knowledge of designing rendering and annotation to communicate their idea. Students will use knowledge of different	**DT Materials** Students will use knowledge of marking out and planning. Students will build their wildlife house using a variety of tools and processes. Students will be able to apply a range of finishing techniques to their wildlife house. Students will be able to carry out a risk assessment and understand the importance of working safely in the workshop. They will understand the importance of health and safety legislation in the UK and the role of the HSE. They will also be able to recognise a range of health and safety signs used in industry.	**DT Materials** Students will be able to carry out a risk assessment and understand the importance of working safely in the workshop. They will understand the importance of health and safety legislation in the UK and the role of the HSE. They will also be able to recognise a range of health and safety signs used in industry.

				production methods used in industry.		
KS3 Assessment **Assessments of projects may take place at different points in the year*	**Assessment of Research & Design**	**Assessment of Making**	**Retrieval Test** **Summative Assessment of final product and evaluation.**	**Assessment of Research & Design**	**Assessment of making**	**Retrieval Test** **Summative Assessment of final product and evaluation.**
	Homework Quiz Research the brief (FA)	Homework Quiz Key terminology quiz (FA)	Homework Quiz Material functions (FA)	Homework Quiz Research the brief (FA)	Homework Quiz Key terminology quiz (FA)	Homework Quiz Material functions (FA)

Year 10 5 hours per fortnight.	**WJEC Hospitality and Catering** **Knowledge:** Foods that cause ill health- Food safety legislation/EHO Unit 2.2.1 Factors affecting menu planning. Unit 2 2.1.1 Understanding the importance of nutrition. Life stages Comparison of nutritional needs. Unit 2:2.3.1 Practical skills planning preparing and safely using a variety of food commodities, cooking techniques and equipment. Filleting fish. Deboning chicken, high risk dishes. **Homework – Retrieval quizzes Research for controlled assessment - nutrition**	**WJEC Hospitality and Catering** **Knowledge:** 2.1.2 How cooking methods can impact nutritional value. College Visit or – catering kitchens. Practical skills planning preparing and safely using a variety of food commodities, cooking techniques and equipment. Food safety practices in preparation, cooking, storage and serving food. Reviewing dishes and own performance. **Homework – Research for controlled assessment-cooking methods**	**WJEC Hospitality and Catering** **Knowledge:** Unit 2.2.1 Factors affecting menu planning. 2.2.2 How to plan production of dishes. Unit 1 :1.3.1 health and safety in hospitality and catering provision. Practical skills planning preparing and safely using a variety of food commodities, cooking techniques and equipment. Reviewing dishes and own performance. **Homework – Research for controlled assessment** Unit 2.2.1 Factors affecting menu planning.	**WJEC Hospitality and Catering** **Knowledge:** Controlled Assessment Unit 2. 2.2.2 How to plan production of dishes. Trial exam dishes. Reviewing dishes and own performance. **Homework – Plan and trial dishes** Reviewing dishes and own performance	**WJEC Hospitality and Catering** **Knowledge:** Controlled Assessment Unit 2. Food presentation techniques. **<u>Controlled Assessment (CA). Unit 2</u>** **<u>4-hour practical exam</u>** **Homework – Reviewing dishes**	**WJEC Hospitality and Catering** **Knowledge:** Unit 1 :1.3.1 health and safety in hospitality and catering provision. Food safety practices in preparation, cooking, storage and serving food. Reviewing dishes and own performance. **Homework – Retrieval quizzes- health and safety and recap hygiene.**

	GCSE Design Technology **<u>Wind chime Project:</u>** Students will begin the year exploring a range of materials, covering metals, plastics, woods and manufactured boards. They will design and make a Wind Chime based on a theme of their choice but for a specific client and target market. They will understand how to use jigs and templates and gain understanding of the production methods in place. Students will also explore CAD/CAM and using the laser cutter. **This project will run alongside 3 lessons of theory content.** Theory topic is emerging technologies **Homework** Knowledge organisers and	**GCSE Design Technology** **<u>Wind chime Project:</u>** Students will begin the year exploring a range of materials, covering metals, plastics, woods and manufactured boards. They will design and make a Wind Chime based on a theme of their choice but for a specific client and target market. They will understand how to use jigs and templates and gain understanding of the production methods in place. Students will also explore CAD/CAM and using the laser cutter. **This project will run alongside 3 lessons of theory content.** Theory topic is energy sources **Homework** Knowledge organisers and retrieval quizzes – Ferrous/non ferrous metals- client profile	**GCSE Design Technology** **<u>Storage Solution:</u>** Students will learn how to solve the problem of storage through this project, by designing and making a storage solution that requires the skills of using joints and knowledge of materials and fastenings. They will use CAD/CAM and understand the impact of design technology on the environment through sustainability. This project is set up as a controlled assessment practice. **This project will run alongside 3 lessons of theory content.** Theory topic is materials and working properties part 1 Homework Knowledge organisers and retrieval quizzes – CAD CAM, fair trade, sustainability 6 R's.	**GCSE Design Technology** **<u>Storage Solution:</u>** Students will learn how to solve the problem of storage through this project, by designing and making a storage solution that requires the skills of using joints and knowledge of materials and fastenings. They will use CAD/CAM and understand the impact of design technology on the environment through sustainability. This project is set up as a controlled assessment practice. **This project will run alongside 3 lessons of theory content.** Theory topic is materials and working properties part 2 Homework Knowledge organisers and retrieval quizzes – CAD CAM, fair trade, sustainability 6 R's.	**GCSE Design Technology** **<u>Mock NEA:</u>** Students will have access to the official NEA, they will begin by researching the three topics and begin producing, task analysis, product analysis, client profile, and questionnaires to their target market. Students will also explore mood boards, whilst demonstrating prior knowledge of presentation and skills. Homework Research ACCESSFM , Mood boards and layouts	**GCSE Design Technology** **<u>NEA Controlled Assessment (CA):</u>** Students will have access to the official NEA, they will begin by researching the three topics and begin producing, task analysis, product analysis, client profile, and questionnaires to their target market. Students will also explore mood boards, whilst demonstrating prior knowledge of presentation and skills. Homework Presentation of design ideas, isometric drawing and rendering skills.

	retrieval quizzes – Ferrous/non ferrous metals- client profile					
Y10 Assessments	Mid-point unit/technical knowledge assessment Practical outcomes and evaluation assessment	Mid-point unit/technical knowledge assessment Controlled assessment mock task summative assessment	Mid-point unit/technical knowledge assessment Practical outcomes and evaluation assessment	Assessment of Research, and Developing design ideas using official AQA criteria Unit 2 Catering controlled Live task final assessment submitted to exam board.	Assessment of Research, and Developing design ideas using official AQA criteria Mid-point technical knowledge DT	External examination Catering Unit 1 mock exam 90 mins DT Mock Exam 2Hour *No internal feedback permitted to individual pupils for NEA.*
Year 11 5 hours per fortnight.	**WJEC Hospitality & Catering** Unit 1 1.1.1 Hospitality and catering providers – commercial and non-commercial residential, Types of food services, standards, and ratings. 1.2.3 Hospitality and catering provision to meet specific	**WJEC Hospitality & Catering** Unit 1 Recap Standards and ratings 1.2.1 operation of the front and back of house- work flow, industrial equipment, documentation dress code 1.1.2 Working in hospitality and catering- employment	**WJEC Hospitality & Catering** Unit 1 1.1.2 Working in hospitality and catering- employment roles and responsibilities within industry front of house and back of house. Personal attributes, qualifications, and experiences. 1.1.3 Working conditions in the hospitality and catering industry – Types	**WJEC Hospitality & Catering** Unit 1 1.1.4 Contributing factors to the success of hospitality and catering provision Costs incurred within hospitality and catering- labour, material, and overheads- Calculation of gross profit and net profit. Strength of economy, VAT, value of	**WJEC Hospitality & Catering** Unit 1 1.2.2 Customer requirements in hospitality and catering- customer needs, rights, inclusion, and equality. 1.2.3 Hospitality and catering provision to meet specific requirements –	

	requirements – lifestyle, nutritional, dietary, time available. Expectations service, value for money etc. customer demographics Unit 2 2.1.1 Understanding the importance of nutrition. Life stages Comparison of nutritional needs. Unit 2:2.3.1 Practical skills planning preparing and safely using a variety of food commodities- Trial possible exam dishes. Recap hygiene, health, and safety- Reviewing dishes and own performance. 2.1.2 How cooking methods can impact nutritional value. **Controlled** assessment CA Unit 2. (Live assessment)	roles and responsibilities within industry front of house and back of house. Personal attributes, qualifications, and experiences. Assessment period **Controlled assessment CA Unit 2. (Live assessment)** Unit 2.2.1 Factors affecting menu planning. 2.2.2 How to plan production of dishes. 2.3.2 presentation techniques Trial exam dishes Mock practical dish Mock exam paper.	of contracts and working hours, renumeration, supply and demand of employment. Assessment period Controlled assessment CA Unit 2. (Live assessment) **2.3.1 Controlled assessment. Unit 2 4-hour practical exam.**	pound and exchange rates. Environmental impact within the industry. - seasonality, sustainability: reduce reuse recycle. New Technology – cashless systems, digital technology, software. Impact of printed, broadcast, internet, and competitive media on the industry. **Controlled assessment CA Unit 2. (Live assessment)** **2.4.1 Reviewing of dishes.** **2.4.2 Reviewing own performance.** Revise- exam preparation and retrieval practice.	lifestyle, nutritional, dietary, time available. Expectations service, value for money etc. customer demographics Revise- exam preparation and retrieval practice. All unit 1 Written mock exam and final exam June 2024	

	Homework – Research for controlled assessment – preparation of notes for new brief	**Homework –** Research for controlled assessment and trial a range of dishes.	**Homework –** Research for controlled assessment and trial a range of dishes	**Homework –** Research for controlled assessment and trial a range of dishes	**Homework –** Retrieval quizzes/ exam question practice**.**	
	WJEC Construction Unit 1 - Introduction to the built environment 1.1 The Sector- buildings and structures, infrastructures and civil engineering products, raw material extraction, building services engineering, professional and managerial roles. 1.2 Built environment life cycle – raw material structures, manufacturing, and construction. Operation and maintenance, demolition, disposal, reuse, recycling. **<u>Unit 3 Constructing the built</u>**	**WJEC Construction Unit 1 - Introduction to the built environment** 1.1 The Sector- buildings and structures, infrastructures and civil engineering products, raw material extraction, building services engineering, professional and managerial roles. 1.2 Built environment life cycle – raw material structures, manufacturing, and construction. Operation and maintenance, demolition, disposal, reuse, recycling. **<u>Unit 3 Constructing the built environment. - Joinery</u>** Cont.….	**WJEC Construction Unit 1 -Introduction to the built environment** 1.1 The Sector- buildings and structures, infrastructures and civil engineering products, raw material extraction, building services engineering, professional and managerial roles. 1.2 Built environment life cycle – raw material structures, manufacturing, and construction. Operation and maintenance, demolition, disposal, reuse, recycling. **<u>Unit 3 Constructing the built environment. - Painting & Decorating</u>** Cont.…. 3.8 -removal & disposal of materials. (0.5hrs)	**WJEC Construction Unit 1 -Introduction to the built environment** 1.7 Trades and Employment- Bricklaying, stonemasonry, plastering, carpentry, joinery, electrician, plumbing, pointing, decorating, flooring, and tiling. **<u>Unit 3 Constructing the built environment.</u>** 3.10 - Evaluate the construction tasks. (1.5hrs)	**WJEC Construction Unit 1 -Introduction to the built environment** 1.8 Health and safety- Risks/hazards- risk assessments, legislation, PPE. Working safely with gas, water, and electricity. Working at height and in enclosed spaces. Revision- walk talk mock.	

	<u>environment. - Joinery</u> 3.1- Interpret sources of information & 3.4 Calculation and specification of materials needed. 3.5 Set success criteria for the brief (1.5hrs) 3.2,3.3,3.6, -Planning and organising work, identify PPE, tools, and equipment to carry out construction tasks. (1.5hrs) 3.7 -3.9 -Carry Out construction task safely. (5 hours) 3.8 -removal & disposal of materials. (0.5hrs) 3.10 - Evaluate the construction tasks. (1.5hrs)	3.7 -3.9 -Carry Out construction task safely. (5 hours) 3.8 -removal & disposal of materials. (0.5hrs) 3.10 - Evaluate the construction tasks. (1.5hrs) **<u>Unit 3 Constructing the built environment - Painting and decorating.</u>** 3.1- Interpret sources of information & 3.4 Calculation and specification of materials needed. 3.5 Set success criteria for the brief (1.5hrs) 3.2,3.3,3.6, -Planning and organising work, identify PPE, tools, and equipment to carry out construction tasks. (1.5hrs) 3.7 -3.9 -Carry Out construction task safely. (5 hours) 3.8 -removal & disposal of materials. (0.5hrs)	3.10 - Evaluate the construction tasks. (1.5hrs) **<u>Unit 3 Constructing the built environment -Tiling.</u>** 3.1- Interpret sources of information & 3.4 Calculation and specification of materials needed. 3.5 Set success criteria for the brief (1.5hrs) 3.2,3.3,3.6, -Planning and organising work, identify PPE, tools, and equipment to carry out construction tasks. (1.5hrs) 3.7 -3.9 -Carry Out construction task safely. (5 hours) 3.8 -removal & disposal of materials. (0.5hrs) 3.10 - Evaluate the construction tasks. (1.5hrs)			

		3.10 - Evaluate the construction tasks. (1.5hrs)				
	GCSE Design Technology <u>NEA Controlled Assessment (CA):</u> Students will explore designing, focusing on the NEA topic they have chosen. They will explore how to design in both 2D and 3D and using CAD to support these design ideas. The students will also explore engineering drawings and produce these as part of working drawings required before making. The students will also plan and use GANTT charts form the basis of these ideas. **Homework –** NEA- Controlled assessment research	**GCSE Design Technology <u>NEA Controlled Assessment:</u>** Students will independently make their product focusing on the materials properties and knowledge of processes. The students will also explore a range of finishing techniques whilst considering the work of others. **Homework –** NEA- Controlled assessment research	**GCSE Design Technology** Students will produce a written evaluation of the project, compare their product against a specification and produce a redesign. Students will be able to recall the knowledge to complete these tasks from taught projects through the DT curriculum. **Homework –** Exam questions/retrieval quiz New technologies, fossil fuels, renewable energy, modern and smart materials	**GCSE Design Technology** Students will focus on the exam content and get prepared for the external assessment. The students will focus on knowledge required for the exam and focus in on one technical area for section 2. Students will be shown how to answer questions and discuss what will be expected to be on the paper. **Homework – Maths & DT** **Exam questions/retrieval quiz** Scales of production Forces and stress Stock forms, surface finishes	**GCSE Design Technology** The ongoing focus on the exam content and getting prepared for the external assessment. The students will focus on knowledge required for the exam and focus in on one technical area for section 2. Students will be shown how to answer questions and discuss what will be expected to be on the paper. **Homework – Exam questions/retrieval quiz** Timbers, metals, polymers, CAD CAM, crowd funding, fair trade	

Assessment *No internal feedback permitted to individual pupils for CA.*	Mid-point technical knowledge assessments NEA ongoing.	Mock Exam Design Technology NEA ongoing. Mock Catering practical examinations x 2 Mini-Mock Exam Unit 1 Construction Unit 1 Hospitality and catering.	Formal Assessment for Constructing task – paint, joinery, tiling. Mock Exam Design Technology NEA ongoing. Final Catering Practical examination catering Unit 2 (4 hours)	**CA Deadline: May 5th /15th** Mini-Mock Exam Unit 1 Construction Mock Exam Design Technology NEA Final completion Catering Controlled assessment final completion.	Mock exams Final Summer External Examinations all subjects.	