Technology Curriculum Map

Vision Statement

The Technology Department is dedicated to creating and delivering a curriculum which develops learning in the acquisition of knowledge and skills whilst developing the Salesian Academy of St John Bosco's core values in our lessons. Using creativity and imagination, students design and make products that solve real and relevant problems within a variety of contexts, considering their own and other's needs, wants and values.

At the heart of the curriculum is the desire to deliver a broad variety of lessons which prepare students to be successful in the subject and their wider lives. Our aim is for pupils to know more, remember more and understand more. Design Technology is a fundamental subject, which educates students in how to analyse and solve problems, produce high quality solutions and learn how to convert their ideas into working products. At the heart of the curriculum is the intention to fill our pupils with appropriate subject knowledge, skills and understanding as set out in the National Curriculum Design Technology Programmes of study. We also intend to fulfil the duties of the NC whereby schools must provide a balanced and broadly-based curriculum which promotes the spiritual, moral, cultural, mental and physical development of pupils and prepares them for the opportunities and responsibilities and experiences for later life.

Our curriculum is designed to maximise students' long-term retention and ability to transfer ideas. This is evident in all the lessons that are planned around designing and developing creative, technical expertise, make high-quality prototypes and products, evaluate and test their ideas and products and the work of others and understand and apply the principles of nutrition and learn how to cook.

Year 7 Curriculum INTENT

Design Technology

Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design technology, they develop a critical understanding of the impact on daily life and the wider world.

Food and Cooking

This scheme of work has been developed to enable pupils to learn where food comes from, how to cook a range of dishes safely and hygienically and to apply their knowledge of healthy eating. Pupils will build on the learning in Key Stage 2 Design and Technology. Knowledge and skills include: use of basic equipment and tools, basic practical skills, origin and simple functions of ingredients, healthy eating and *The Eatwell Guide*, food choice.
Knowledge, understanding and skills needed to engage in an iterative process of designing and making in a range of contexts, such as the home, school and culture

Year 7 Curriculum Map – Design Technology

Topic details	No. of Lessons	Rational/sequencing	N.C. coverage
Roller Ball Game Project & CAD/CAM Key Fob Materials and Processes Woods and Plastics Knowledge: Learners will have knowledge of Materials processes, finishes and equipment categories. Understanding: Learners to understand the selection and use appropriate hand tools and machinery safely. Learners will consider accuracy when Shaping, fabricating and constructing a high- quality prototype. Skills: Commercial processes (use of Sanding Disc and Pillar drill) Use of tools and equipment Tenon saw, file and glass paper to create lap joints Hammer and panel pins Screwdriver and counter sink Tolerance Quality Control (QC) Finishing and adhesive technique	12 Weeks	**Roller Ball Game Project:** Introduction to the Rollerball project. Discussion on what will be achieved during the project. Examples of completed Rollerball game. Discussion on different ways of entertaining teenagers when on a long journey. • Situation and brief clearly analysed and recorded on design sheet. • Looking at sources of inspiration to create two original well drawn out design ideas. Full colour, outlined where necessary positon of barriers and holes clearly marked. • Designs to be reviewed and then improved on. • Marking out the shoulder joint for the rollerball game. • Marking out tools, try square and marking gauge • Cutting tools tenon saw and chisel • Mallet, sawing board • Files in the various shapes and sizes • Pupils to use 2D design to print off an accurately sized image for the base of the rollerball game. • Demonstration of how to position and mark holes for base • Health and safety issues of pillar drill • Pupils to complete design and positioning of barriers and holes. Importance of making the game challenging so that it will be more interesting (designing for a client) • Drilling using a electric drill (discuss benefits and restrictions) • Health and safety issues on hand drill	Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of domestic and local contexts [for example, the home, health, leisure and culture], and industrial contexts [for example, engineering, manufacturing, construction, food, energy, agriculture (including horticulture) and fashion].

		• Demonstration of how to use a screw driver efficiently • Health and safety issues of screw driver • Discuss the finished rollerball games and compare to the requirements of the design brief. • Pupils to write evaluation independently **Key Fob:** Introduction to designing using CAD. Benefits of CAD class discussion. How to use the 2D design package and set up a drawing. Change the grid setting and the thickness of the line. Benefits of using grid lock. How to copy and paste. How to group objects, benefits of grouping objects. • Situation and brief clearly analysed and recorded on design sheet. • Use publisher to produce a design sheet that has three sources of inspiration. • Justify choice of image and link back to design brief or situation. • Identify the material to be used for the key fob and justify why • Pupils to use various drawing tools, circle, path and line to draw outline of designs. • Group components of design and measure accurately • Place hole for key fob measured accurately with circle tool • After completing designs pupils to watch keyfobs cut out. • Pupils will complete an evaluation of their work and specifically identify whether or not they have satisfied the brief. • They should identify the methods of designing and making the key fob and the properties of the materials they have used	When designing and making, pupils should be taught to: Design Make Evaluate Have an understanding of Technical Knowledge.

Year 7 Curriculum Map – Food and Cooking			
Topic details	No. of Lessons	Rational/sequencing	N.C. coverage
Knowledge: Learners will know how to use a range of kitchen equipment and utensils for preparing food safely. Learners will know 2 different cake making methods and the 'roux' method. They will learn how to analyse and evaluate their work. Understanding: understand and apply the principles of nutrition and health Understand a range of cooking techniques and methods.	12 Weeks	Through this scheme of work, pupils will: ▪ Recall and apply the principles of *The* Eatwell *Guide* and the 8 tips for healthy eating, to their own diet; ▪ Demonstrate a range of food preparation and cooking techniques; ▪ Adapt and follow recipes using appropriate ingredients and equipment to prepare and cook a range of dishes; ▪ Recall and apply the principles of food safety and hygiene;	Pupils should be taught to: understand and apply the principles of nutrition and health cook a repertoire of predominantly savoury dishes so that they are able to feed themselves and others a healthy and varied diet

Skills: Cleaning equipment/utensils and maintaining hygiene and safety. Using heat (Oven/cooker) Preparing ingredients Weighing/measuring ingredients/numeracy skills. Cook/bake a repertoire of dishes. Selecting and preparing ingredients; using utensils and electrical equipment.		▪ Identify how and why people make different food and drink choices; ▪ Demonstrate the knowledge, understanding and skills needed to engage in an iterative process of designing and making; ▪ Be given regular opportunities to demonstrate and apply their knowledge and understanding of food science; ▪ Be given regular opportunities to consolidate their literacy and numeracy skills by using them purposefully in order to learn;	become competent in a range of cooking techniques [for example, selecting and preparing ingredients; using utensils and electrical equipment; applying heat in different ways; using awareness of taste, texture and smell to decide how to season dishes and combine ingredients; adapting and using their own recipes] understand the source, seasonality and characteristics of a broad range of ingredients.

Year 8 Curriculum INTENT

Design Technology

Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design technology, they develop a critical understanding of the impact on daily life and the wider world.

Food and Cooking

This scheme of work has been developed to enable pupils to learn how to cook a range of dishes safely and hygienically and to apply their knowledge of nutrition. In addition, they will consider the factors that affect food choice, food availability and food waste.

Pupils will have the opportunity to work through the following contexts:

- Domestic and local (home and health);
- Industrial (food).

Pupils will build on the learning in Year 7 Food and Nutrition. Knowledge and skills include:

- *The Eatwell Guide* and the 8 tips for healthy eating; using and adapting recipes; using appropriate ingredients and equipment to prepare and cook a range of dishes; source, seasonality and characteristics of a range of ingredients.

- Developing the knowledge, understanding and skills needed to engage in an iterative process of designing and making.

Year 8 Curriculum Map – Design Technology			
Topic details	No. of Lessons	Rational/sequencing	N.C. coverage
Invalid Aid Project /Ear Phone Holder/Structures	12 Weeks	**Invalid Aid:** Introduction to design brief and analysis of the problem. Suggestions of the different disabilities that old people and disabled people may have and the existing products that already available to them • Analysis of situation and brief • Suggestions of existing products and the needs they fulfil • Inclusive design • Detailed design sheet • Evaluation of the ideas they have drawn out • Demonstrate marking out. Tools to use reasons for choice • Cut joints • Mark out ergonomic shape for handle. Give choice of tools pupils could use and demonstrate how they can be used safely • Demonstrate how to attach the spacer to the arm. Discussion on function of this item • Pupils to attach spacer • Demonstrate how to attach handle to arm. • Demonstrate how to make a slope using the plane • Demonstrate how to curve the end of the invalid aid using the sander • Demonstrate how to mark out the jaw. • Demonstrate how to use the drill safely. Importance of the order in which they manufacture the jaw. • Demonstrate how to cut out the jaw using the coping saw. • Pupils to mark out and cut jaw • Demonstrate how to achieve a good finish on the jaw. • Demonstrate how to use the disc sander safely • Pupils to make a jaw safely and effectively • Class discuss how to repeat the process for the trigger • Pupils to repeat process to make trigger. • Demonstration on how to mark out the positioning of screws to make the pivots for the jaw and trigger • Demonstrate how to drill holes safely • Pupils drill holes and fix jaw and trigger using pivots • Demonstration how to mark out and fix nail for elastic band • Final assembly of invalid aid demonstration • Pupils to complete grabber • Pupils to test their grabbers against the original design criteria	Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of domestic and local contexts [for example, the home, health, leisure and culture], and industrial contexts [for example, engineering, manufacturing, construction, food, energy, agriculture (including horticulture) and fashion]. When designing and making, pupils should be taught to: Design Make Evaluate Have an understanding of Technical Knowledge.

		• Pupils asked to assess each others grabbers by putting them into three categories for making of top middle and bottom based on agreed criteria that have be created by the class. • Pupils to write up a written evaluation which details what they have learned during the project and showing knowledge and understanding of the tools and equipment they have used **Earphone Holder:** Introduction to design brief and analysis of the problem. Suggestions of the different sources of inspiration that would be suitable for the client they have decided on • Analysis of situation and brief • Researching suitable resources to use for the earphone holder taking into consideration the complexity of the image and the suitability of the shape • Ergonomic considerations of the design • Aesthetics of the chosen sources • Evaluation each of the sources they have chosen linking back to the initial analysis • Demonstrate how to open 2D design and how set up a design sheet to A4 and portrait. Emphasis the necessity to change the layout of the sheet to fit the printer. Demonstrate how to import an image onto a sheet outline the chosen design in red, reason for choosing red • Pupils to complete first part of the task • Demonstrate how to change the colour to black to a cut line and how to mark the outline. Group and resize to a maximum of 70x70 mm • Pupils to save work to import onto shared sheet • Pupils to go in groups to observe laser cutter in use • Write a detailed evaluation of their earphone holder on the design sheet. **Structures:** Introduction to structures (power point) and examples of natural and man-made structures. Demonstration on triangulation and discussion on how this has been used in architecture and structural design. • Identifying natural and man-made structures • Examples where they are used in design (air craft, pylons) • Identify triangulation • Introduction to design brief Tacoma Narrows bridge collapse Drawing up design ideas for bridge. • Pupils to work on building bridges • Mini plenary to identify need to include reinforcement but not to much excess material as strength to weight ratio will be measured • Mini plenary on team work • Mini plenary needs to extend further than the 30cm of the gap	

		• Mini plenary safe use of glue gun • Pupils to complete bridge • Pupils weigh bridge and fill in table • Test bridges by adding weights in increments • Work out strength to weight ratio • Award winners. • Evaluate why the structure was the most successful on sheet..	

Year 8 Curriculum Map – Food and Cooking			
Topic details	No. of Lessons	Rational/sequencing	N.C. coverage
Knowledge: Learners will know how to Cook a repertoire of dishes so that they are able to feed themselves and others a healthy and varied diet. Learners will know how to cost a recipe and how biological raising agents work. Understanding: Understand the source, seasonality and characteristics of a broad range of ingredients. How to apply the principles of nutrition and health. Learners will understand how to develop their own recipes by adapting ingredient content. Skills: Cleaning equipment/utensils and maintaining hygiene and safety. Knife skills, using heat (oven/cooker) Preparing ingredients Weighing/measuring ingredients/numeracy skills.	12 Weeks	▪ Recall and apply the principles of *The Eatwell Guide* and the 8 tips for healthy eating; ▪ Explain energy and how needs change through life; ▪ Name the main nutrients, sources and functions; ▪ Adapt and follow recipes using appropriate ingredients and equipment to prepare and cook a range of more complex dishes; ▪ Demonstrate a wider range of food preparation and cooking techniques; ▪ Apply the principles of food safety and hygiene; ▪ Explain the factors that affect food and drink choice; ▪ Demonstrate the knowledge, understanding and skills needed to engage in an iterative process of designing and making in a range of contexts such as home, health and agriculture; ▪ Be given regular opportunities to demonstrate and apply their knowledge and understanding of food science; ▪ Be given regular opportunities to consolidate their literacy and numeracy skills by using them purposefully in order to learn.	Pupils should be taught to: understand and apply the principles of nutrition and health cook a repertoire of predominantly savoury dishes so that they are able to feed themselves and others a healthy and varied diet become competent in a range of cooking techniques [for example, selecting and preparing ingredients; using utensils and electrical equipment; applying heat in different ways; using awareness of taste, texture and smell to decide how to season dishes and combine ingredients; adapting and using their own recipes] understand the source, seasonality and

			characteristics of a broad range of ingredients.

Year 9 Curriculum INTENT

Design Technology

Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design technology, they develop a critical understanding of the impact on daily life and the wider world.

Food and Cooking

This scheme of work has been developed to enable pupils to learn how to cook a range of dishes safely and hygienically and apply their knowledge of nutrition. In addition, they will consider consumer issues, food and its functions and new technologies/trends in food.

Pupils will have the opportunity to work through the following contexts:

- Domestic and local (home, health and culture);
- Industrial (food and manufacturing).

Pupils will build on the learning in Year 8 Food and Nutrition. Knowledge and skills include:

- *The Eatwell Guide;* energy balance; macro and micronutrients; food choice and menu planning.
- Knowledge, understanding and skills needed to engage in an iterative process of designing and making in a range of contexts including dishes from different cultures.

Year 9 Curriculum Map - Design Technology

Topic details	No. of Lessons	Rational/sequencing	N.C. coverage
Bird Feeder Knowledge: Learners will have knowledge of Materials processes, finishes and equipment categories including CAD/CAM Understanding: Learners to understand the selection and use of appropriate hand tools and machinery safely. Learners will have a developed knowledge of visual branding	12 Weeks	**Bird Feeder** Introduction to design brief and analysis of the problem. Role of the designer to look at existing products before coming up with their own design ideas as well as identifying a target market for their design **Main activity** • Analysis of situation and brief • Suggestions of existing products and the people they are aimed at. • Identify the price and material they are made from. • Review design ideas and improve on designs. • Introduce practical activity demonstrate marking out on joints for base of bird feeder. Tools to use reasons for choice	Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of domestic and local contexts [for

looking at colour style typography, modelling techniques and the use of manufacturing and industry processes. Learners will consider accuracy when Shaping, fabricating and constructing a high- quality prototype. Skills: Using the correct tools and equipment for a range of materials - MDF timber and high impact polystyrene. Selecting and using specialist techniques and processes. Processes: Vacuum former, Sanding Disc and Pillar drill, Laser cutter, filing, use of a range of cutting tools. Using Surface treatments and finishes such as Varnishing and paint.		• Mark out joints • Demonstrate how to cut shoulder joint using tenon saw. • Safe use of chisel and mallet • Pupils to cut joints • Demonstration how to make sure joints are level • Pupils to make sure joints are level • Demonstration how to position nails • Pupils to position nails • Demonstration on how to make frame • Pupils to make frame • Demonstrate how to attach base accurately, properties of PVA glue and the need to use it alongside nails • Attach base • Demonstrate use of nail punch, how to plane base to fit and how to use the sander (health and safety) • Pupils to finish base of birdfeeder • Demonstrate how to use vacuum former and how to trim base to size accurately • Pupils to vacuum form bases and the then trim around to fit base • Demonstrate how to drill holes and then fix base in place • Pupils to screw vacuum formed plastic in place • Demonstration on how to drill pilot holes for the screws, discussion on the difference between a temporary and permanent method of fixing • Demonstrate how to screw a screw in place safely • Pupils to complete task • Demonstrate how to make a template, how to achieve a 45 degree angle. Points of symmetry • Pupils to mark out and cut a template. • Demonstrate how to mark around template and cut out outline using a coping saw • Pupils mark around and cut outline for sides of the birdfeeder Demonstration on how to cut an internal shape using a coping saw. • How to remove and replace the blade • How to use the pillar drill to put holes in key areas to allow intricate shapes to be cut • Demonstration on how to draw out basic shape for bird feeder. Example of how to change the edge to give an original design • Pupils to draw outline to size • Demonstration of how to vectorise an image on 2 D design. How to select a suitable image. • Pupils to select a suitable image from internet and transfer onto roof. Turning an image into a bitmap. • Pupils to add name onto roof. • Demonstration how to group image. • Pupils to copy over design for cutting out on the laser cutter	example, the home, health, leisure and culture], and industrial contexts [for example, engineering, manufacturing, construction, food, energy, agriculture (including horticulture) and fashion]. When designing and making, pupils should be taught to: Design Make Evaluate Have an understanding of Technical Knowledge.

Year 9 Curriculum Map – Food and Cooking			
Topic details	No. of Lessons	Rational/sequencing	N.C. coverage
Knowledge: Learners will recap and build on prior knowledge of kitchen safety and hygiene rules when preparing food. Learners will learn a range of recipes from different countries and cultures. They will understand the maillard reaction and its importance in food preparation. Understanding: Understand and apply the principles of nutrition and health and become competent in a range of cooking techniques. Learners will build an awareness of taste, texture and smell. Learners will analyse and evaluate existing products, recipes and cooking methods. Skills: Cleaning equipment/utensils and maintaining hygiene and safety. Knife skills, using heat (oven/cooker) Preparing ingredients Weighing/measuring ingredients/numeracy skills. Cook a repertoire of dishes.	12 Weeks	Through this Scheme of Work, pupils will: ▪ Apply the principles of *The Eatwell Guide* and relate this to diet through life; ▪ List and explain the dietary needs throughout life stages; ▪ Investigate information and guidance available to the consumer regarding food labelling, availability, traceability, food assurance schemes and animal welfare; ▪ Explain the characteristics of ingredients and how they are used in cooking; ▪ Adapt and follow recipes to prepare and cook a range of predominately savoury dishes; ▪ Demonstrate a range of food preparation and cooking techniques and independently apply the principles of food safety and hygiene; ▪ Investigate and discuss new trends and technologies used in food production, processing and cooking; ▪ Demonstrate the knowledge, understanding and skills needed to engage in an iterative process of designing and making; ▪ Be given regular opportunities to demonstrate and apply their knowledge and understanding of food science; ▪ Be given regular opportunities to consolidate their literacy and numeracy skills by using them purposefully in order to learn.	Pupils should be taught to: **Key stage 3** understand and apply the principles of nutrition and health cook a repertoire of predominantly savoury dishes so that they are able to feed themselves and others a healthy and varied diet become competent in a range of cooking techniques [for example, selecting and preparing ingredients; using utensils and electrical equipment; applying heat in different ways; using awareness of taste, texture and smell to decide how to season dishes and combine ingredients; adapting and using their own recipes] understand the source, seasonality and characteristics of a broad range of ingredients.

Year 10 Curriculum INTENT

Engineering

This qualification has been designed to sit alongside the requirements of core GCSE subjects and is appropriate for learners who are motivated and challenged by learning through hands-on experiences and through content which is concrete and directly related to those experiences. It is distinct from GCSE Engineering, as it encourages the learner to use knowledge and practical tools to focus on developing transferrable skills in practical engineering accompanied by the theoretical knowledge to help with progression into employment and onto further education. The study of engineering is the application of maths and science to solve real world problems. This involves an understanding of the different disciplines of engineering and how they have shaped the products and projects of the modern world. Learners will be able to read technical drawings, select appropriate materials along with tools and machinery, and know how to carry out a practical task, working in a safe manner in line with current health and safety legislation. The qualification focuses on an applied study of the engineering sector and learners will gain a broad understanding and knowledge of working in the sector

Year 10 Curriculum Map – Autumn			
Topic details	No. of Lessons	Rational/sequencing	N.C. coverage
Unit 01: Understanding the Engineering World (H/616/8968) Introduction to Engineering Health and Safety	12 Weeks	1. Engineering disciplines 1.1 Engineering disciplines through projects and products 1.1.1 Engineering discipline skills 1.2 The health and safety legislation governing engineering 1.2.1 Health and safety legislation	LO1 Understand engineering disciplines LO2 Understand how science and mathematics is applied in engineering LO3 Understand how to read engineering drawings LO4 Understand the properties and characteristics of engineering materials and know why specific materials are selected for engineering applications LO5 Understand engineering tools, equipment and machines

Year 10 Curriculum Map – Spring			
Topic details	No. of Lessons	Rational/sequencing	N.C. coverage
Applied Science and Maths in Engineering	12 Weeks	2. Applied science and mathematics in engineering 2.1 Application of SI units of measurement 2.1.1 SI units of measurement	

9. Applied processing skills and techniques

9.1 Skills and techniques

9.1.1 Prepare materials

		2.1.2 Application of base SI units 2.2 Equations used to calculate energy, force, motion, electrical and geometric shapes 2.2.1 Equations for properties 2.2.2 Application of equations **Practical Project** – the Coat Hook	

Year 10 Curriculum Map – Summer			
Topic details	**No. of Lessons**	**Rational/sequencing**	**N.C. coverage**
Reading Engineering Drawings Properties and Characteristics of Engineering Materials	12 Weeks	**3. Reading engineering drawings** 3.1 Reading engineering drawings 3.1.1 Drawing conventions 3.1.2 British Standards **4. Properties, characteristics and selection of engineering materials** 4.1 Properties and characteristics of materials 4.1.1 Properties 4.1.2 Characteristics 4.1.3 Materials **5. Engineering tools, equipment and machines** 5.1 Tools, equipment and machines 5.1.1 Marking out 5.1.2 Modification 5.1.3 Joining	

		5.1.4 Finishing 5.2 Safe and correct use 5.2.1 Control measures Practical Projects – The Screwdriver The phone holder	

8. Production planning techniques

8.1 Production planning

8.1.1 Risk assessment

8.1.2 Production plan

9. Applied processing skills and techniques

9.1 Skills and techniques

9.1.1 Prepare materials

9.1.2 Modify shape and size of materials

9.1.3 Join materials

Year 11 Curriculum INTENT

Engineering

This qualification has been designed to sit alongside the requirements of core GCSE subjects and is appropriate for learners who are motivated and challenged by learning through hands-on experiences and through content which is concrete and directly related to those experiences. It is distinct from GCSE Engineering, as it encourages the learner to use knowledge and practical tools to focus on developing transferrable skills in practical engineering accompanied by the theoretical knowledge to help with progression into employment and onto further education. The study of engineering is the application of maths and science to solve real world problems. This involves an understanding of the different disciplines of engineering and how they have shaped the products and projects of the modern world. Learners will be able to read technical drawings, select appropriate materials along with tools and machinery, and know how to carry out a practical task, working in a safe manner in line with current health and safety legislation. The qualification focuses on an applied study of the engineering sector and learners will gain a broad understanding and knowledge of working in the sector.

Year 11 Curriculum Map – Autumn

Topic details	No. of Lessons	Rational/sequencing	N.C. coverage
Unit 2 Hand-drawn engineering drawings 12 Computer-aided design (CAD) engineering drawings 12 Production planning techniques 10 Applied processing skills and techniques	12 Weeks	6. Hand-drawn engineering drawings 6.1 Hand-drawn engineering drawings 6.1.1 A freehand sketch 6.1.2 A hand-drafted isometric drawing sheet 6.1.3 A hand-drafted orthographic drawing sheet 7. Computer-aided design (CAD) engineering drawings	Hand-drawn engineering drawings Computer-aided design (CAD) engineering drawings

		7.1 CAD engineering drawings 7.1.1 A CAD isometric drawing sheet 7.1.2 A CAD orthographic drawing sheet 7.1.3 The uses of CAD	

Year 11 Curriculum Map – Spring			
Topic details	No. of Lessons	Rational/sequencing	N.C. coverage
Synoptic Brief	12 Weeks	Synoptic brief provided by NCFE to be completed by students under controlled assessment conditions	Synoptic Brief

Year 11 Curriculum Map – Summer			
Topic details	No. of Lessons	Rational/sequencing	N.C. coverage
Revision	12 Weeks		

Year 10 Curriculum INTENT
Hospitality and Catering Unit 1: What types of establishments provide hospitality and catering service? What job opportunities are there in the industry? How do caterers ensure they are working safely? How can food poisoning be prevented? What laws need to be considered when providing hospitality and catering? How do providers meet customers' needs? When opening a new outlet what factors need to be considered? When starting a new hospitality and catering establishment or making

a change to an existing operation, there are many people involved and factors to be considered. Hospitality and catering staff need to be aware of changing customer expectations and how these are met by front of house operations to adapt their menus and kitchen operations accordingly. Offering a new takeaway service affects the service provided and staffing that is needed but it also affects how food is presented to customers. 'Popup' caterers need to be aware of the limitations of the equipment they can use to offer their service. The Management will need to be aware of changing external factors such as the economy or working patterns to reflect the type of service they offer. In this unit, you will learn about the different types of providers within the hospitality and catering industry, the legislation that needs to be adhered to and the personal safety of all of those involved in the business, whether staff or customers. You will learn about the operation of hospitality and catering establishments and the factors affecting their success. The knowledge and understanding you gain will enable you to respond to issues relating to all factors within the hospitality and catering section and provide you with the ability to propose a new provision that could be opened in a given location to benefit the owner and the local community.

Year 10 Curriculum Map – Autumn			
Topic details	No. of Lessons	Rational/sequencing	N.C. coverage
Unit 1 LO4: Know how food can cause ill health. Unit 2 LO3: Be able to cook dishes. Developing and improving skills learnt at KS3	12 Weeks	One of the first things candidates should be aware of prior to cooking is food safety. Candidates should be aware of and be able to analyse, identify explain or describe: • food-related causes of ill health • common types of food poisoning • symptoms of food induced ill health • food safety hazards in different situations • risks to food safety • control measures • food safety regulation Basic skills would be taught this first term: • knife skills e.g. soups, salads, vegetable cuts • methods of cake making • yeast doughs • pastry making • sauces with emphasis on food safety and hygiene. Candidates should prepare and cook a range of high risk dishes and follow the principles they have learnt in the theory lessons. Candidates could develop skills by planning and preparing a range of dishes e.g. a starter one week, then a main course, then a dessert.	AC 4.1 Describe food related causes of ill health AC 4.2 Describe the role of the Environmental Health Officer (EHO) AC 4.3 Describe food safety legislation AC 4.4 Describe common types of food poisoning AC 4.5 Describe the symptoms of food induced ill health Unit 2 LO3: Be able to cook dishes

Year 10- Curriculum Map – Spring

Topic details	No. of Lessons	Rational/sequencing	N.C. coverage
Unit 1 LO1 - Understand the environment in which hospitality and catering providers operate. Unit 2 LO3: Be able to cook dishes. Use of commodities.	12 Weeks	Gain an understanding of the different types of establishments and the types of foods that the produce for customers. • describe the structure of the hospitality and catering industry • be aware of and be able to describe the job roles and working conditions. • explain the factors affecting the success of providers LO5: Be able to propose a hospitality and catering provision to meet specific requirements. Introduce learners to this type of activity. Practical work to be covered (LO3) Producing dishes using a range of commodities: • meat • fish • poultry • eggs • dairy • vegetarian alternatives When working with commodities links could be made to the needs of specific groups, including special dietary needs and allergies. Candidates should continue to use a range of cooking techniques when preparing the dishes.	AC1.1 Describe the structure of the hospitality and catering industry. AC1.2 Analyse job requirements within the hospitality and catering industry. AC 1.3 Describe working conditions of different job roles across the hospitality and catering industry. AC 1.4 Explain factors affecting the success of hospitality and catering providers.

Year 10 Curriculum Map – Summer			
Topic details	No. of Lessons	Rational/sequencing	N.C. coverage
LO2: Understand how Hospitality and catering providers operate. LO3: Understand how Hospitality and catering provision meets health and safety requirements. LO5: Be able to propose a hospitality and catering provision to meet specific requirements. Practical work to be covered (LO3) Produce dishes to be served on a range of different menus.	12 Weeks	For this section arranging a range of speakers or visits to enable the candidates to see firsthand how the industry works is recommended. This could include visits to: • local hotels • restaurants • food suppliers • event services Guest speakers from: • hotel management • event organisers • wedding planners • food suppliers • health and safety executive from local industry In small groups (a groups of six is suggested) candidates plan, trial, prepare, cook and serve a three course meal or range of dishes for a target group, or target catering outlet. Each candidate must produce an individual portfolio but the planning for the meal can be completed as a team. The meal/selection of dishes should	AC 2.1 Describe the operation in the kitchen. 2.2 Describe the operation of front of house AC 2.3 Explain how hospitality and catering provision meet customer requirements.

		include accompaniments and show excellent presentation skills. This should include: • meat/poultry/fish/vegetarian alternatives • eggs and dairy produce • cereals, rice, pasta, or flour • fruit and vegetables Practical work to be covered (LO3) Pupils could also look at presentation techniques and accompaniments for a range of dishes including: o vegetarian, vegan dishes o dairy free o gluten free o low fat diets o healthy school meals	AC3.1 Describe personal safety responsibilities in the workplace. AC 3.2 Identify risks to personal safety in hospitality and catering/ AC 3.3 Recommend personal safety control measures for hospitality and catering provision. AC 5.1 Review options for hospitality and catering provision AC 5.2 Recommend options for hospitality provision.

Year 11 Curriculum INTENT

Hospitality and Catering Unit 2

Why should we follow storage recommendations on food products? Why do chefs need to consider the nutritional needs of their clients? Why should vegetarian dishes be prepared away from those containing meat? Why are temperature probes used in the catering industry? Why does appropriate professional attire need to be worn? Food needs to be stored, handled, prepared and cooked correctly to ensure its consumption does not affect people's health. Everyone who has a role to play within the food industry has a responsibility to minimise the risks of causing food borne illness, regardless of whether they are someone who works in food processing, a food operator in a fast food outlet, an apprentice chef in a small hotel or the head chef in a

Michelin star restaurant. Reviewing the food preparation and presentation process and nutritionists would be involved in preparation of menus or reviewing how preparation and presentation methods affect nutritional values. Food on a menu needs to meet the nutritional needs of the customer and be prepared, cooked and served in a certain way to ensure customer appeal and standards are maintained in any establishment; thus food safety and meeting nutritional needs must be the focus of all planning and activities. In this unit you will gain knowledge of the nutritional needs of a range of client groups in order for you to plan nutritional dishes to go on a menu. You will learn and develop safe and hygienic food preparation, cooking and finishing skills required to produce nutritional dishes

Year 11 Curriculum Map – Autumn			
Topic details	No. of Lessons	Rational/sequencing	N.C. coverage
Unit 2 LO1: Understand the importance of nutrition when planning meals. Unit 2 LO2: Understand menu planning Practical work to be covered (LO3) Unit 2	12 Weeks	Candidates should be able to: • describe the functions of nutrients • compare the nutritional needs of specific groups • explain what happens if you don't have a balanced diet • know how the different cooking methods impact on the nutritional value of foods • know the factors to consider when planning menus • be aware of environmental issues when cooking • explain how the dishes meet the customer needs • produce time plans for practical outcomes • be aware of how to check ingredients are of good quality Practical Work: Each candidate must produce an individual portfolio but the planning for the meal can be completed as a team. The meal/selection of dishes should include accompaniments and show excellent presentation skills. This should include: • meat/poultry/fish/vegetarian alternatives • eggs and dairy produce • cereals, rice, pasta, or flour • fruit and vegetables	AC 1.1 Describe the functions of nutrients in the human body AC 1.2 Compare the nutritional needs of specific groups AC 1.3 Explain the characteristics of unsatisfactory nutritional intake AC 1.4 Explain how cooking methods impact on nutritional value AC 2.1 Explain factors to consider when proposing dishes for menu AC 2.2 Explain how dishes on a menu address environmental issues

			AC 2.3 Explain how menu dishes meet customer needs AC 2.4. Plan production of dishes for menu

Year 11 Curriculum Map – Spring			
Topic details	No. of Lessons	Rational/sequencing	N.C. coverage
Controlled Assessment: Unit 2 LO1: Understand the importance of nutrition when planning meals. Unit 2 LO2: Understand menu planning Controlled assessment of 3.1-3.5 – Practical exam	12 Weeks	This term would be used to further develop practical skills, finish any content not covered and complete the internal assessments for the course. Candidates may be given the task chosen, along with the mark scheme for unit 2 so they are aware of how marks are given. They should be given a breakdown of the time allowed to complete the tasks set. Preparation time should also be allowed along with opportunity for them to study exemplar work so that candidates are fully aware of the requirements of the tasks. Candidates will also need to practice examination papers in preparation for the examination if re-sitting.	AC 1.1 Describe the functions of nutrients in the human body (Merit) AC 1.2 Compare the nutritional needs of specific groups (Distinction) AC 1.3 Explain the characteristics of unsatisfactory nutritional intake (Merit) AC 1.4 Explain how cooking methods impact on nutritional value (Pass) AC 2.1 Explain factors to consider when proposing dishes for menu (Merit) AC 2.2 Explain how dishes on a menu address environmental issues (Pass)

			AC 2.3 Explain how menu dishes meet customer needs (Merit) AC 2.4. Plan production of dishes for menu

Year 11 Curriculum Map – Summer			
Topic details	No. of Lessons	Rational/sequencing	N.C. coverage