FOOD PREPARATION & NUTRITION CURRICULUM MAP

Aspiration	In Food Preparation and Nutrition (Food) pupils will be taught how to cook; applying the principles of nutrition, healthy eating, hygiene and food security. **At KS3 food is taught as a distinct subject in our wider Design and Technology carousel**. **Student study one term of DT – materials (wood, electronics and plastics) and one term of Textiles. The remaining term is taught as Cooking and Nutrition.** Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably, healthily, now and in later life. **Knowledge:** Students will learn what foods are healthy and which foods are not and how a balanced healthy diet links to wellbeing. We will consider where food comes from, how it is farmed and how to be more sustainable cooks for the future. Students will gain knowledge of how nutrients work in the body enabling them to plan meals for different dietary requirements. **Skills:** Students will explore a range of cooking techniques such as 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. They will cook a repertoire of predominantly savoury dishes so that they are able to feed themselves and others a healthy, varied diet. **Understanding:** Through their time in Food Technology students will gain an understanding of the principles of nutrition and health; fostering life long healthy eating habits coupled with practical skills and knowledge of health and hygiene principals. Students will gain the confidence to work with a broad range of ingredients and techniques to create a range of healthy dishes; recognising the impact of food on the environment and the future of food security.
Opportunity	**Within the classroom:** **Skills – Working progressively from KS 3 –KS 4 -** hygiene and safety, cake making methods, knife skills, multicultural dishes, doughs, cooking methods, adapting recipes, use of equipment, hygiene level 2 certificate, pastries, sauces, desserts, fresh pasta, jointing and filleting, shaping and decorating. **Guest speakers –** food and farming, cake decorating, themed events. Food Preparation – Open evening, school shows, Fitzactive, carol service. **Beyond the classroom:** Abingdon Food Festival, visits to restaurants, cooking competitions.
Integrity	**Knowledge:** Students will learn to conduct themselves safely and professionally in an environment where they must share equipment and follow safety protocols. They will learn to balance self-expression with teamwork, and practise meeting deadlines, following briefs and adding their own stamp. Students will be equipped with the knowledge required to cook and apply the principles of food science, nutrition and healthy eating. Pupils will be encouraged to cook and make informed decisions about ingredients and techniques. They will be introduced to a wide range of further learning opportunities and career pathways. **Skills:** Students will explore and demonstrate effective and safe cooking skills by planning, preparing and cooking using a variety of food commodities, cooking techniques and equipment. Students will explore a range of ingredients and processes from different culinary traditions (traditional British and international), to inspire new ideas or modify existing recipes. Above all they will develop vital life skills that enable them to feed themselves and others affordably and nutritiously, now and later in life. **Understanding:** Students will develop an understanding of the relationship between diet, nutrition and health, including the physiological and psychological effects of poor diet and health. The will explore the economic, environmental, ethical, and socio-cultural influences on food security, production processes, and diet and health choices.

DESIGN & TECHNOLOGY
CURRICULUM MAP

Aspiration	Design and Technology for us is about providing opportunities for students to develop their capability, combining their designing and making skills with knowledge and understanding in order to create quality products. **At KS3 Design and Technology is taught as a distinct subject in our wider Design and Technology carousel. Student study one term of DT – materials (wood, electronics and plastics) and one term of Textiles. The remaining term is taught as Cooking and Nutrition.** **Knowledge:** Design and Technology will prepare students to participate confidently and successfully in an increasingly technological world. Students will gain awareness and learn from wider influences on Design and Technology including historical, social, cultural, environmental and economic factors. Students will get the opportunity to work creatively when designing and making, and apply technical and practical expertise. **Skills:** We pride ourselves on the belief that Design and Technology is about designing and making functional and decorative products in using a range of materials including papers and boards, timber, metal-based materials, polymers, textile-based materials and electronic and mechanical systems. Students will learn a range of new skills and techniques to successfully work with these materials, to produce quality products and prototypes. **Understanding:** Students will be able to gain understanding and application of materials, tools, CAD software and machines that are specifically designed for this subject. However, at its core is creativity and imagination. Students learn to design and make products that solve genuine, relevant problems within different contexts whilst considering their own and others' needs, wants and values. To do this effectively, they will acquire a broad range of subject knowledge and draw on additional disciplines such as mathematics, science, engineering, computing and art.
Opportunity	**Within the classroom:** At Fitzharrys, Design and Technology builds on the skills and knowledge pupils have already learnt at primary school. We have sophisticated resources, including dedicated teaching environments, manufacturing equipment and specialist teaching. As students progress through this phase, they may be given the opportunity to focus on specific aspects of the subject such as product design. **Beyond the classroom:** Students may wish to participate in: • STEM club activities such as the Go Kart project • Trip to the Design Museum • Trip to Mini plant Oxford
Integrity	**Knowledge:** Students will learn to conduct themselves safely and professionally in an environment where they must share equipment and follow safety protocols. They will learn to balance self-expression with teamwork, and practise meeting deadlines, following briefs and adding their own stamp. The Design and Technology curriculum operates as a spiral: students will return to the core knowledge throughout KS3 and KS4 giving the opportunity to develop, refine, and reflect upon their progress through the years. **Skills:** Design and Technology is built on the foundation of genuine problem solving, therefore, the cyclical structure of: brief, research, specification, ideas, modelling, testing and evaluation must be taught and embedded in the curriculum across the key stages. **Understanding:** It teaches how to take risks and so become more resourceful, innovative, enterprising and capable. Students develop a critical understanding of the impact of design and technology on daily life and the wider world. Additionally, it provides excellent opportunities for students to develop and apply value judgements of an aesthetic, economic, moral, social, and technical nature both in their own designing and when evaluating the work of others.

SUBJECT CURRICULUM MAP: KS3 Design Technology

Year 7

Healthy Eating

Students are taught the basics of what contributes to a healthy diet. Students understand the importance of a balance of macro and micro nutrients. Skills during practical demonstrate a technical understanding of use of knives, oven and hob.

Assessment 1: design ideas for a healthy pizza containing at least 3 portions of fruits and vegetables.
Assessment : pizza practical exam. A one hour practical exam done without support.

Crackers and graphical drawing skills.

Designing and making a set of four crackers along with the supporting packaging. Focus on high level graphical skills including use of CAD (2D design) and CAM (laser cutting). Drawing elements include: isometric drawing and perspective drawing.

Assessment 1: designing of cracker ideas
Assessment 2: written test on paper, cards and lamination.

Year 8

Drawstring bag

Students work on learning the basic skills of preparing materials for using the sewing machine. Students use applique and other embellishment techniques to create a design for their bag.

Assessment 1: bag design ideas.
Assessment 2: written test on theory knowledge including stages of manufacture.

Cushion cover

Students make a cushion cover inspired by multi –cultural and contemporary ideas. Students use a range of techniques including: tie-dye, wax and embroidery. Students theory focus is on fabric construction from fibres to fabrics.

Assessment 1: cushion design ideas.
Assessment 2: written test on theory knowledge including stages of manufacture.

Mechanical Toy

Across this module students will work to design and make a mechanical toy, exploring key mechanisms and prototype modelling. Before working to realise their final design using a range of resistant materials in the workshop.

Assessment 1: generation of ideas and the use of models and prototypes will be assessed.

Assessment 2: written test on linkages and mechanisms. mechanisms test.

All students complete each material area on a rotation basis. Meaning all students study each area but in a different order.

Assessment takes place throughout each project and term. Each project will focus on different aspects of the Design and Technology 'framed tasks'. This enables students to build their knowledge and understanding of the design process as they progress through KS3 and onto KS4.

Year 9

Funky music box

Students will work to design and make a funky music box. The project has an electronics focus and will focus on designing and making an electronic circuit. Skills include: soldering, PIC programming, control flowcharts and product marketing.

Assessment 1: a design based task based on ideas around their student music box
Assessment 2: written test on electronic components and practical outcome.

Mid–day snacks and light meals

Students focus on food and environmental factors. Lessons include: cereals, wheat grains, gluten and an introduction to food science experiments. Practical's are mainly based around the use of flour as a commodity.

Assessment 1: written evaluation of a practical made this school year. Focus is on literacy and extended writing.
Assessment 2 is a one hour cooking exam, preparation will be completed in class. Student adapt one of the skill recipes cooked this academic year under exam conditions.

KS4

Upcycled toy

Students use their technical knowledge from the previous years to create a working prototype of a toy they are designing. Students then use upcycled materials and components to create their unique toy.

Assessment 1: toy design ideas.
Assessment 2: written test on theory knowledge including stages of manufacture.

Café culture

Students continue to develop a range of skills aimed at pushing their technical knowledge higher. Skills include: choux pastry, complex meat dishes, roux sauces and many others. Theory included: food hygiene, food 'in the news' and adapting recipes.

Assessment 1: newspaper written article on food hygiene.
Assessment 2: a one hour cooking exam, preparation will be completed in class. Student adapt one of the skill recipes cooked this academic year under exam conditions.

SUBJECT CURRICULUM MAP: KS4
GCSE Design Technology AQA

Further study

Oxford City College – Culinary and Hospitality, Sports Coach, Personal Trainer, Nutrition and Health, Health Professions.
Abingdon and Witney College – Fitness and Personal Trainers, Health professions,
JMS 6 – A levels.
Local degree courses –Reading University - Several Food Science and Nutrition courses. Oxford Brookes University- International Hospitality and Tourism.

Career pathways

Nutritionist, Health Coach, Farming, Catering, Chef, Baker, Hospitality, Food Science, Product Development, Food Inspector, Food Stylist, Butcher, Restaurant Manager, Dietician, and more…….

Year 11

Summer exams

Exams

Pupils complete their final exams.

Revision

Focus on the written paper worth 50% of the total GCSE.
Paper 1 hr 45mins.
AO1 – 20%
AO2 – 20%
AO4 -10%

Coursework NEA 2

Coursework worth 35% of the total GCSE. Three dishes with accompaniments in three hours, showcasing technical skills. Pupils cook and evaluate their final dishes.
Hand in for moderation.
AO3-30%
AO4-5%

Assessment objectives and weightings
AO1 Demonstrate knowledge and understanding of nutrition, food, cooking and preparation
AO2 Apply knowledge and understanding of nutrition, food, cooking and preparation
AO3 Plan, prepare, cook and present dishes, combining appropriate techniques
AO4 Analyse and evaluate different aspects of nutrition, food, cooking and preparation, including food made by themselves and

Term 6

Theory – Food Spoilage Commodities –Sugars and Syrups.
Practical and Science– Technical skills and function of ingredients in cooking.

Coursework NEA 1

Coursework worth 15% of the total GCSE.
Food science experiment.
Research, Experiment, Evaluate.
AO2-10%
AO4 – 5%

Coursework NEA 2

Coursework worth 35% of the total GCSE. Three dishes with accompaniments in three hours, showcasing technical skills. Pupils research and trial suitable dishes.

Coursework NEA 2

Coursework worth 35% of the total GCSE. Three dishes with accompaniments in three hours, showcasing technical skills. Pupils research and trial suitable dishes.

Mock exams

Experience – Cook at home as often as possible to boost your skills and confidence.
Trips and visits – Visits from outside speakers to support NEA 1 and NEA 2.Trip to catering business that inspires pupils and supports the NEA 2 task.
Good watching – Food unwrapped Channel 4, Dr Chris van Tulleken – Food and health programmes BBC, Thrifty Cooking in the doctors kitchen BBC.
Good listening – Radio 4 – Farming Today, The Food Programme

Term 5

Theory – Food Manufacture and Revision.
Practical and Science– Technical skills and function of ingredients in cooking.

Mock exams

Written Paper 1 ½ hr, and practical assessment.
- How to revise
- Revision Techniques

Term 4

Theory – Food provenance, and the food industries impact on the environment.
Commodities – Dairy & Fats and Oils.
Practical and Science– Technical skills and function of ingredients in cooking.

Term 3

Theory – Factors effecting food choice.
Commodities – Alternative Proteins & Cereals
Practical and Science– Technical skills and function of ingredients in cooking.

Term 2

Theory – Energy requirements and menu planning for different individual needs.
Commodities – Meat, Fish, Poultry.
Practical and Science– Technical skills and function of ingredients in cooking.

Term 1

Theory - Nutrition – Macro and Micro nutrients.
Commodities – fruit, vegetables and eggs.
Practical and Science– Technical skills and function of ingredients in cooking.

Year 10

SUBJECT CURRICULUM MAP: KS3

Year 9

Design Technology – materials

Why this?	We aim to offer students a wide array of specific subject knowledge that covers electronic components, soldering, working with CAD/CAM, making of wood joints and working with woodworking machines and hand tools.
Why now?	At this stage, students are being prepared for their GCSE options and so having a wide knowledge of the different elements of the Design and Technology curriculum will enable them to choose the options that best fit their future careers.

Design Technology – textiles

Why this?	We aim for students to be fully independent in making skills in this material area for GCSE. Students complete the full design cycle, toile / prototype making, fabric choice, techniques for their toy. Sustainability is also key for design.
Why now?	At this stage, students are being prepared for their GCSE options and so having a wide knowledge of the different elements of the Design and Technology curriculum will enable them to choose the options that best fit their future careers.

Design Technology – Cooking and nutrition

Why this?	We aim to push students' knowledge further in their technical understanding of food science and practical work. We introduce complex learning skills, such as multiple element dishes and doughs. Students partake in a in school qualification of Food Hygiene to take to work experience.
Why now?	This may be the last time students cook and study nutrition unless taking part at GCSE. We want students to ensure they leave with a range of skills adaptable to make complex recipes independently outside the classroom.

Year 8

Design Technology – materials

Why this?	Students should be familiar with mechanisms and their application in industry. They will be taught the theory and practice of levers, cams, and gears. This will enable them to identify and explain the types of levers and the principles on which they operate. They will also be able to have a working knowledge of cams.
Why now?	At this stage, students can use the fret saw, hand drill and belt sander safely. They can produce cardboard models and making plans that can be used for making the final item using wood/plastic. This also gives them the opportunity to explore types of motions.

Design Technology – textiles

Why this?	Students will be familiar with fabric choices and materials from year 7. In year 8 students develop their knowledge further in looking at how fabrics are made and the ethical choices of materials.
Why now?	Learning from their knowledge in year 7 students extend their knowledge in a more challenging design and make project. This includes, more complex use of the machines, hand embroidery and decorative finishes.

Design Technology – Cooking and nutrition

Why this?	Wheat is a staple crop grown in the UK. It forms the basis of many products across Europe that we eat. Students are introduced to food science to build the basis of subject knowledge into year 9. We continued to develop savoury skills looking at a 'café culture'.
Why now?	Students have learnt the building blocks in year 7. They have mastered all the stages of the cooker and safe use of the workshop. We continue to challenge students knowledge by applying this into a more theoretical situation of the global food trends.

Year 7

Design Technology – materials

Why this?	Students will be introduced to the iterative design process. Primary and secondary research, famous designers and seasonal graphics products. Modelling and development of packaging/nets. Lamination and types and sizes of paper and card. Use 2D Design and laser cutter.
Why now?	Students will arrive at Fitzharrys with a range of different ideas and subject knowledge. We look at checking all key skills such as measurements, safety in a workshop, tool use and the design cycle.

Design Technology – textiles

Why this?	Students are exploring a range of design concepts through analysing a brief to making the product. Students are introduces to a range of basic textile equipment to aid their design processing. Use of hand and machine sewing.
Why now?	Students will arrive at Fitzharrys with a range of different ideas and subject knowledge. We look at checking all key skills such as measurements, safety in a workshop, tool use and the design cycle.

Design Technology – Cooking and nutrition

Why this?	Nutrition is an important building block for later life and development. The younger students develop this knowledge the more likely they are to take healthy habits into adulthood.
Why now?	Students will arrive at Fitzharrys with a range of different ideas and subject knowledge. We look at checking all key skills such as hob, oven, knife skills to ensure they have a technical understanding.

SUBJECT CURRICULUM MAP: KS4
Food Preparation and Nutrition AQA

Year 11

1 — NEA 1

Why this?	• NEA 1 task -food science experiment. • Pupils complete the research, experiment and evaluation for the task. Maximum 1,500 - 200 words worth 15% of the total GCSE. • Responses to individual and class needs.
Why now ?	• September release of NEA 1 task. • Ideal time to get this completed before mock exams

2 — NEA 2

Why this?	• NEA 2 task -3 dishes with appropriate accompaniments in 3 hours worth 35% of the GCSE. • Pupils complete the research and trials section of the coursework. • Responses to individual and class needs.
Why now?	• November release of the NEA 2 task.

3 — NEA 2

Why this?	• Pupils complete trials and the research section of coursework including guest speakers and trips to inspire. • Pupils complete the final practical examinations. • Responses to individual and class needs.
Why now?	• Continued from term 3 .

4 — NEA 2

Why this?	• Pupils complete evaluation of the final practical examinations. • Responses to individual and class needs.
Why now ?	• Continued from term 4. • Hand in NEA for moderating.

5 — Revision

Why this?	• Revision and final preparation for summer examination • Responses to individual and class needs.
Why now?	• All units are revisited and revised.

Year 10

1/2 — Terms 1 and 2: Macro and micro nutrients

Why this?	Unit 3 from the specification. 3.2.1 Students have a basic understanding based on their subject knowledge from KS3 Food and Science. Students look at this in more depth to allow them to become fully confident in this core understanding. Exam preparation starts at the start of the course looking at exam techniques. Practical continue to develop based on the topics being taught.
Why now?	1/3 of the written exam in year 11 will be on nutrition or applied nutrition. It is vital students have a thorough understanding of this to do well. Not only for the exam but for later life.

3/4 — Terms 3 and 4: Food science and food safety

Why this?	Unit 3 and unit 4 from the specification. 3.2.2 and 3.2.5 These two units are designed to build upon the students understanding of food science and safety. Students have a technical understanding of nutrients, but we now focus on the application of the science behind it. Exam preparation continues. Practical continue to develop based on the topics being taught.
Why now?	Students have developed a strong understanding of the science of food to allow them to understand how to complete NEA 1 in the summer of year 11.

5 — Terms 5: Food choice

Why this?	Units 5 from the specification focuses on food choice unsustainability. This unit helps them prepare for every search skills required in their mock NEA term 6.
Why now?	This is a small unit that fits easily in a busy term, with students preparing for term 6 assessment.

6 — Term 6: mock NEA

Why this?	Students will not have the opportunity to do this with feedback before doing the real activity in year 11. We give students the opportunity to practise some of the key skills to help improve their independence going into year 11 NEA.
Why now?	The briefs are released in year 11 once we have finished content in year 10 that time is used to practise skills such as; two hour cooking exam, time plans, research skills and evaluations.

SUBJECT CURRICULUM MAP: KS4

Design Technology AQA (focus woods, plastics and electronics)

Year 11

1 — Coursework - research and specification

Why this?	To identify features or aspects of existing products that could be improved, e.g. reducing the cost, adding extra features, making it easier or more comfortable to use, or making it look more attractive to certain groups. Work with target market.
Why now?	Students are now navigating their way around items that could be made to reflect the context that they are given.

2 — Coursework - modelling and feedback

Why this?	To express ideas of design proposals and make models to ensure the accuracy and purpose of the item to be made. To solicit feedback and continue the iterative process.
Why now?	Students now need to showcase their design ideas and use the feedback to make necessary improvement before moving on to the next phase of the designing process.

3 — Coursework – modelling and making

Why this?	To exercise judgement and use good practice of materials management in order to reduce waste and to work in a cost efficient manner.
Why now?	Students are now making their items and need to practice lean manufacturing techniques. Here they will also focus on the 6 R's.

4 — Coursework - Tools, equipment and evaluation

Why this?	To be proficient in the use of tools and equipment in the making of the final outcome. Independent, safe and accurate use of tools must be employed in order to achieve upper level marks. On going testing and evaluation with necessary modifications.
Why now?	Students are now in the final stage of the coursework and need to produce a model of high standard. This can also be achieved through the use of CAD/CAM. Items will be tested against the specification and modified where necessary.

5 — Revision

Why this?	To review the theory taught in years 10 and 11. **New and Emerging Technologies Energy, Materials, Systems and Devices**
Why now?	In preparation for summer exam. To refresh and consolidate the materials covered earlier in the course during year 10 terms 1 - 5

6 — Summer Exam

Why this?	To review the theory taught in years 10 and 11.
Why now?	In preparation for summer exam.

Year 10

1/2 — Terms 1 and 2: Practical focus – woods, plastics and electronics.

Why this?	Students need to have an understanding of the key concepts of material properties. Theory covered: plastics, electronic and CAD/CAM. Projects of making include note holder (use of metals and plastics), and a steady hand game (electronics and plastics). Students continue to develop their technical understanding of working properties of materials.
Why now?	A holistic approach has been used to teach students the skills through small design and make projects. This gives students an opportunity to recap skills some of which will be covered in KS3 DT. Tasks are designed to increase in challenge as the year progresses.

3/4 — Terms 3 and 4: Practical focus CAD/CAM and wood.

Why this?	Students develop their theory knowledge further linking their design processes to mathematical problems and real life scenarios. Students learn how to complete their design and make projects to a high level of skill and accuracy. Making better quality products.
Why now?	Students produce two complex projects that focus on skills assessments needed for NEA in year 11 making.

5 — Terms 5 Preparation for NEA

Why this?	Students recap during a prototype project focusing on how to model ready for this section of their NEA. Students recap the skills of the research section of this. Including questionnaires, analysis of brief and how to present work in a portfolio.
Why now?	In the build up to the NEA brief being released in June of year 10. Students are prepared for this assessment which will count towards 50% of their GCSE grade.

6 — Term 6: NEA context (realised June of year 10)

Why this?	To select the context to be developed into a portfolio of evidence for the coursework component. To conduct research, create a specification and generate design ideas for the item to be made.
Why now?	This is an exam board requirement that we start the NEA in term 6 of year 10.