

Design and Technology

- Child Care and Development
- Food Technology/Catering
- Product Design
- Resistant Materials
- Textiles

Child Development and Care

Year 10 Course

Course content

This course will give students an opportunity to extend and apply their skills, knowledge and understanding of the development and care of children from conception to the age of five years.

It promotes an understanding of the social, emotional, physical and intellectual development of the child which is inter-linked through the study of the family, community and the responsibilities of parenthood.

Topics covered

- Family and Child
- Food and Health
- Pregnancy
- Physical Development
- Intellectual Development
- Social and Emotional Development

Qualification

The examination board is WJEC and the qualification is a Level 2 Award in Home economics - Child development

Assessment

- Unit 1- Written paper- 40%
- Unit 2- Controlled assessment (Child study)- 30%
- Unit 3- Controlled assessment (Child focused task)- 30%

Questions to ask yourself?

- Do you have a genuine interest in child development and care?
- Do you enjoy science, specifically biology?
- Do you have a good level of literacy?
- Are you prepared to work independently?
- Do you have good time management and personal organization skills?

Careers this can lead to

- Pre-school/ nursery nurse/ childminder
- Education
- Social services
- Community services

Food Technology/Catering

Key Stage 3

Food Technology is taught on the carousel with other Design and Technology elements: Resistant Materials and Design Technology Sustainability Project. Students have approximately twelve weeks of Food Technology with two lessons per week.

Course content

Food Technology covers aspects such as health and safety, design and make, target groups, nutrition and practical skill development.

- Year 7: This year is an introduction to Food Technology. We focus on health and safety and basic skill development (including knife skills, using the cooker and weighing and measuring). We also introduce the concept of nutrition and 'Healthy Eating' including designing 'healthy dishes'.
- Year 8: We build upon and develop students' practical and design skills. We also focus on 'Multicultural foods' including research, exploring sensory qualities, nutrition and design tasks.
- Year 9: As the GCSE option offered is WJEC Catering, in Year 9 students study an 'Introduction to Hospitality and Catering'. Students begin to look at career paths, job roles and different types of businesses in the catering industry. Practical work is more advanced including a focus on pastry and finishing/ garnishing foods.

Practical lessons

Every other lesson will be a 'practical lesson'. Meaning it will involve students cooking. Students are required to pay £1 contribution per practical lesson towards ingredients costs. This can be paid at the beginning of each lesson or £12 paid in full at beginning of course. Students should also bring in a container/ tub to transport food home in.

Homework

Homework is set and marked regularly (one piece per week) and is seen as an essential tool to aid learning in the classroom.

Key Stage 4

This course provides students with a unique opportunity to develop their knowledge and extend their skills within catering in a vocational context. It is a suitable qualification for those who want a broad background in this area and for those who wish to progress to further education. It will offer valuable preparation for those entering the World of work. This course uses a range of assessment techniques including investigative, practical and written examination.

All students must show commitment to the course and must realize that although there is a large proportion of practical activity, there will be a great deal of written work involved. Students will be required to contribute £1 per practical lesson towards ingredients.

Course Content

Units covered:

- The food and drink industry;
- Job roles, employment opportunities and relevant training;
- Health, safety and hygiene;
- Food preparation, cooking and presentation;
- Nutrition and menu planning;
- Costing and portion control;
- Specialist equipment;
- Communication and record keeping; and
- Environmental considerations.

Syllabus Details

The examination board is WJEC and the qualification is a GCSE in Catering.

Assessment

Assessment consists of two controlled assessment tasks (both including practical examination) and a final written examination. Breakdown as below:

- Controlled assessment task 1 - 20%
- Controlled assessment task 2 - 40%
- Written examination 40%

Spiritual, Moral, Social, Cultural Development Statement

The Food Technology curriculum at Key Stage 3 & Key Stage 4 contributes to students' SMSC development by:

Spiritual Development

- Providing students with the opportunity to participate in making and evaluating food from other countries learning about others from the world around them.
- Acknowledging and exploring government guidelines for healthy eating and dietary requirements to make healthy life choices.
- By offering feedback and assessment that values students' effort and achievements.
- Mutual respect is developed through the process of peer evaluation of each other's work which develops student's ability to self-reflect.
- Both classroom and practical based lessons offer students the opportunity to reflect on their experiences, use their imagination and creativity when producing food products.

Moral Development

- By developing individual skills, confidence, independence and creativity through practical cooking lessons. Students learn and make decisions about food safety and hygiene.
- Promoting participation and teamwork in practical cooking lessons – encouraging students to work co-operatively.
- Reflecting on the ethical issues around food such as price, income, fair trade, food miles and sustainability. Opportunities are provided to appreciate the views of others.
- Reflecting on the moral issues concerning food production in other countries of the world.

Social Development

- Students are asked to produce products to meet the needs of others and value their feedback.
- Developing partnerships with outside agencies and individuals to extend pupils' cultural and social awareness i.e. colleges/parents/chefs.
- To show mutual respect when working individually or collaboratively.
- Students learn to articulate their thoughts and feelings about their own and others work.

Cultural Development

- Giving students the opportunity to explore cultural differences in food and diet – to explore their own cultural assumptions and values.
- Students are encouraged to recognise and respect cultural and social differences of other students within food lessons.
- Students learn to cook a variety of recipes including traditional British foods and world foods.
- Students learn about Government guidance given on Healthy Eating and the concern for the health of the British population.

Product Design

Key Stage 4

Course Content

Product Design is about all that surrounds us. It is a subject which encourages you to design and make products with creativity and originality using a range of materials such as paper/card, plastics, textiles, ceramics, food, electronics, timber-based materials and ferrous and non-ferrous metals. Students will develop a variety of techniques for working with these materials.

The course has a practical approach that encourages students to design and make products with creativity and originality in a variety of practical activities.

The study of packaging, branding and marketing tools are included in the course as part of the process of understanding commercially viable products.

There will be a series of mini-projects designed to gradually build up the level of the students' skills to that required for the final examination project. Each mini-project will be assessed to give a

formative grade for that particular skill but will also build up a summative grade for all the work produced up to that date. Parents will be kept informed throughout the course.

Syllabus Details

The examination board is WJEC and the qualification is a GCSE in Product Design.

Assessment

There is a single tier written examination. It is worth 40% of the final grade.

Coursework

The practical assessment is composed of two main elements; design and making tasks and is worth 60% of the final grade.

Spiritual, Moral, Social, Cultural Development Statement

The Design & Technology Faculty contributes to students' SMSC development by:

Spiritual Development

Through the projects we offer and the curriculum we deliver at both key stages, students are taught how to investigate products, appreciate aesthetics and evaluate functionality. Students evaluate products from the past and present and examine how they affect our daily lives. They are encouraged to develop their thinking skills, explore the wider world around them, reflect upon what they see and develop an open mind to use this inspiration for creativity when approaching their design work.

Moral Development

Students are faced with moral decisions through designing, selection of materials, methods of manufacturing, areas of needs for others, sustainability and environmental impact. The 3 R's are routinely discussed throughout the design & make process. Within the classroom and the wider community, students are expected to show respect to others and take responsibility for their own actions and of those around them.

Social Development

Students are often asked to design and make products to meet the needs of other and value the feedback they receive; they must show mutual respect when working individually and collaboratively. Peer evaluation of designed and made items plays a major role within Design & Technology work. Students learn to articulate their thoughts and feelings about their own and others' work; they also give and receive critical feedback without offence.

Cultural Development

Students are taught that all their design work should be sensitive to the needs and beliefs of different cultures, ensuring all imagery, text and products won't cause offence and to think about how their ideas and products can impact on the world around them. Students are encouraged to use the work of artists and designers from a wide range of cultures and historical contexts to

influence and support their work.

Resistant Materials

Year 11

Course Content

In this course, students have the opportunity to develop their design skills. They will be expected to assess the influences of designs of the past and present times on the possible technology of the future, also improve their own skills using a variety of techniques and evaluate processes and products, including examining their effects on Society in general.

They will be able to work with wood, plastic and metal to investigate different joining, shaping and finishing techniques, as well as use both computer aided design software and traditional methods to produce drawings and plans for the production of their coursework product.

There will be a series of mini-projects designed to gradually build up the level of the students' skills to that required for the final examination project. Each mini-project will be assessed to give a formative grade for that particular skill but will also build up a summative grade for all the work produced up to that date. Parents will be kept informed throughout the course.

- Year 7: Students will be completing an urban landscape design project. They will be exploring how land can be cultivated and creating their own urban landscape utilising a range of modelling materials. The project will also cover design drawing and basic design principles.
- Year 8: Will complete a structures plane project, within this students will explore different structures and how they are implemented in design. This will incorporate 2D and 3D design and students will ultimately use knowledge to produce a final plane model.
- Year 9: Students design their own projects using extensive design principles to produce a finalised design unique to them. The projects will also incorporate graphic design principles.
- Year 11: The start of their major design project from inception to completion using all design principles in addition to further study in all resistant materials to prepare them for the final exam at the end of the year.

Syllabus Details

The examination board is EDEXCEL and the qualification is a GCSE in Resistant Materials.

Assessment

There is a single tier written examination. It is worth 40% of the final grade.

Coursework

The practical assessment is composed of two main elements; design and making tasks and is worth 60% of the final grade. It should take up to 40 hours of class and homework time to complete. The project consists of a twenty written page folder showing all of the processes that led up to the finished product as well as the finished product itself.

Spiritual, Moral, Social, Cultural Development Statement

The Design & Technology Faculty contributes to students' SMSC development by:

Spiritual Development

Through the projects we offer and the curriculum we deliver at both key stages, students are taught how to investigate products, appreciate aesthetics and evaluate functionality. Students evaluate products from the past and present and examine how they affect our daily lives. They are encouraged to develop their thinking skills, explore the wider world around them, reflect upon what they see and develop an open mind to use this inspiration for creativity when approaching their design work.

Moral Development

Students are faced with moral decisions through designing, selection of materials, methods of manufacturing, areas of needs for others, sustainability and environmental impact. The 3 R's are routinely discussed throughout the design & make process. Within the classroom and the wider community, students are expected to show respect to others and take responsibility for their own actions and of those around them.

Social Development

Students are often asked to design and make products to meet the needs of other and value the feedback they receive; they must show mutual respect when working individually and collaboratively. Peer evaluation of designed and made items plays a major role within Design & Technology work. Students learn to articulate their thoughts and feelings about their own and others' work; they also give and receive critical feedback without offence.

Cultural Development

Students are taught that all their design work should be sensitive to the needs and beliefs of different cultures, ensuring all imagery, text and products won't cause offence and to think about how their ideas and products can impact on the world around them. Students are encouraged to use the work of artists and designers from a wide range of cultures and historical contexts to influence and support their work.

Textiles

Year 11

Design and Technology Textiles gives students the opportunity to develop knowledge and practical skills. Students will complete a design and make task where they will design and make a textiles product utilising a range of different tools, equipment, materials and techniques. Students will develop their understanding and knowledge of a wide range of textiles materials and processes.

Course Content

Students will develop skills in:

- Researching;
- Design creatively;
- Reviewing;
- Planning;
- Making textile products;
- Testing;
- Evaluating;
- Computer Aided Design (CAD);

Students will learn about:

- Materials and components;
- Industrial and commercial practices;
- Importance of quality checks;
- Health and Safety;
- Analysing products;
- Designing products;
- Technology developments;
- Sustainability;

- Computer Aided Manufacture (CAM).
- Ethical design and manufacture.

Syllabus Details

The examination board is Edexcel and the qualification is a GCSE in Design and Technology Textiles Technology.

Assessment

The course consists of one controlled assessment and a written examination paper. The controlled assessment is classroom based and will be assessed internally, with moderation from Edexcel. The written paper will be taken in Year 11 and is assessed by Edexcel.

Unit 1: Controlled assessment (60%)

Task 1 - 20%

Task 2 - 40%

Unit 2: Written paper 40%

Requirements

It is essential that any student wishing to study GCSE Design and Technology Textiles has a genuine interest in the subject and is prepared to work in their own time. Students must feel confident using the tools and equipment and be prepared for a large amount of designing and written work.

Staff Contact:

Miss D O'Neill

Email: doneill@futures.uk.com

Head of Design and Technology