Technology & Living

1. Introduction

Applied-science based, the Technology and Living curriculum provides students with an opportunity to extend and apply their skills, knowledge and understanding of Food Science within a variety of contexts while maintaining the coherence inherent in this subject area. It will enable students to extend their design and technological capability in order to meet human needs and opportunities which have direct implications on the lifestyle and environment of all people. It will provide opportunities to develop interdisciplinary skills including all nine generic skills and their capability for imaginative, innovative thinking, creativity and independence relating to their personal interests.

1.1 The study of Food Science

The study of Food Science enables students to develop their critical thinking and to manage a range of resources in order to develop food items which are suited to the needs of individuals or families, and to recognise the influence of current trends, the market economy and technological change. It encourages students to become autonomous learners. The course reflects the view that Technology and Living should provide a variety of experiences whilst focusing on concepts, themes and issues relevant to the subject content.

1.2 Teaching methods

The objectives of teaching extend far beyond the subject matter being taught. For Food Science in the Technology and Living discipline for students at secondary level, different teaching methods and techniques will be adopted to help students with different learning styles and diverse needs. The e-learning tools of the school are continuously being updated, which allows teaching through flipped classroom. In this way, learning is not limited to the school classroom but is made possible everywhere.

Through methods such as positive psychology, students are taught to take learning into their own hands, apply their knowledge to solve problems in the real-world, monitor their own progress, and go beyond the material that is presented to them. Teaching methods and techniques such as philosophical inquiry, co-operative learning, cross-subject learning, experimental, concept attainment as well as conceptual formation, independent research and simulated presentation will be employed whenever it is well suited for specific learning and teaching contexts.

1.3   Assessment

When students are at secondary level, it is important to review the assessments to check to what extent, and where, they are meeting the higher order cognitive levels. Different modes of assessment, therefore, are to be employed in our specified learning outcomes.

2. Aims of Technology and Living

Through Technology and Living study, students are expected to :

(i)   increase their knowledge of human body needs, the interdependence of individuals and groups, and the influence of social, cultural and economic factors;

(ii)   increase their awareness of the implications for Food Science and the rapid technological changes in the real-world. The use of information and communication technology (ICT) and the growth of scientific understanding, and develop their ability to respond effectively to such changes;

(iii)   foster in students a critical and analytical approach to problem solving and decision-making in relation to the specified context;

(iv)   develop their knowledge and skills required for effective communication, time management and organization skills

3. Curriculum

3.1 Secondary One

3.1.1   Foods and Nutrition

Importance of balanced diet

Nutritional needs

Nutritive value, types, choice, storage, serving and suitability of carbohydrates, proteins, fats, vitamins and minerals

3.1.2   Practical skills

Basic cooking concept, skills and methods

Safety and hygiene practices of food processing
Vegetable handling methods

Simple dough making methods

Simple meat handling methods

Simple sesame handling skills

3.2 Secondary Two

3.2.1   Foods and Nutrition
Essential Nutrients
Food commodities

Dietary requirements and meal planning

Food trends in society

3.2.2   Food Technology

Introduction of food technology

Food packaging

Convenience food

Food Labelling

Batch production of commercial food products

Resources management
Comparison of traditional and modern food production methods
Comparison of traditional and modern heat treatment methods

3.2.3   Practical skills
Different cookie making skills

Simple chocolate handling skills

Simple curry making skills
Different heat treatment skills
Traditional Chinese dishes handling skills

Delivery schedule
The coursework schedule is delivered to students at the beginning of the course so they can have an overview of what they can expect to learn and prepare for the coming year.

4. Assessing students

4.1   Practical work during school sessions
Students will be assessed in different areas such as group interactions, application of concepts and skills and task organization.

4.2   Coursework
Coursework tasks will be assigned to students, such as oral presentation, group, worksheets and the like.

4.3   Project
Project will be assigned to students in group format.

4.4   Weight of component parts

Continuous Assessment (100%)	
Term 1 (50%)	Term 2 (50%)

Term 1			
Appropriate use of knowledge and technology (25%)			Culinary ability (25%)
Classwork	Lesson Preparation	Post Lesson Feedback	

Term 2 (50%)					
Appropriate use of knowledge and technology (25%)				Practical Work (25%)	
Classwork	Lesson Preparation	Post Lesson Feedback	Self-evaluation / Presentation	Culinary ability (12.5%)	Practical Assessment (12.5%)

4.5   **Assessment Objectives (AO)**

Students are expected to demonstrate their ability to :

(i)   recall and apply knowledge and understanding in Technology and Living

(ii)   plan and carry out investigations and tasks, using ICT skills learned where appropriate, in turn helping them build up the ability to

- identify problems and questions, data collection and selection;

- select and use a range of appropriate Technology and Living skills competently;

- gather, record, collate, analyze viewpoints, interpret and evaluate evidence;

- arrive at a personal viewpoint, make decisions, take action and evaluate final products.