

BOE Approved August 2006

INTRODUCTION TO
FOOD SCIENCE AND TECHNOLOGY
GRADE 8

TOWNSHIP OF OCEAN INTERMEDIATE SCHOOL
DEPARTMENT OF FAMILY AND CONSUMER SCIENCE

CURRICULUM PROFICIENCY REQUIREMENTS

Department: Family & Consumer Science

Title: Food Science & Technology

Course Length: 18 weeks Credits: 2.5 Level: Heterogeneous
Grade 8

Prerequisite: None

Absentee Policy: Refer to the present absentee policy found in the student handbook.

Overview of the Course: This course is designed for students who are interested in becoming more experienced and knowledgeable in the area of foods. Course content will include the topics of microwave cooking, consumer skills, nutrition and career education.

Course Requirements:

Students will be required to:

1. Complete reading and written class work assignments.
2. Conduct cooking laboratory work according to specified directions as well as proper safety, sanitation, table setting, and table manners.
3. Maintain their work areas as well as the equipment and materials they use.
4. Participate meaningfully in daily class activities.
5. Take all tests and quizzes as given.

Proficiencies: At the end of the 18 weeks students taking Food Science & Technology will be able to:

1. Demonstrate the ability to use safe practices in the kitchen.
2. Learn and apply specific techniques required for using kitchen equipment and small electrical appliances.
3. Interpret the information given on a food produce label.
4. Explain the role of the food guide in choosing a balanced daily diet.
5. Demonstrate the techniques for making various baked products.
6. Describe the type of food prepared in one region of the United States or by one ethnic group.
7. Identify careers related to foods and nutrition.

Evaluation: The following grading system will be used: For each quarter, students must receive a passing grade for the following: (70% or more)

1. Cooking laboratory work - 33 1/3%
2. Quizzes and tests - 33 1/3%
3. Daily participation - 33 1/3%

2

Special Requirements:

Parents should be aware that students will be working with the following equipment:

1. Electric ranges
2. Microwave ovens
3. Small electric appliances including mixers and food processors
4. Knives
5. Various kitchen utensils

COURSE DESCRIPTION

This course will help eighth grade students to recognize how the advancements of technology have effected food science. They will use appliances that simplify food preparation tasks and save both time and energy. The course also provides students with an understanding of ways in which computers can be utilized in the kitchen.

Throughout the course emphasis will be placed on development of consumer skills. This will provide students with knowledge to make informed decisions related to food selection.

In addition the course provides insight into foods of different cultures. The students will develop an appreciation for foods from various regions and ethnic groups.

Recommended Textbook: Discovering Foods, Third Edition, Glencoe Division of MacMillan/McGraw-Hill Publishing Co.

COURSE GOALS

The goals of this course are to help students to:

1. Describe the role of the Food Guide in choosing a balanced daily diet.
2. Demonstrate the proper use of kitchen equipment and small electrical appliances.
3. Develop skills necessary for being an informed consumer.
4. Utilize principles of food preparation in preparing a recipe.
5. Develop an appreciation for foods from other regions and cultures.
6. Identify careers related to foods and nutrition.

EVALUATION

In order to determine if students have achieved the outcomes identified in this course of study, both formative and summative evaluation techniques are used.

Formative Evaluation

The continuing performance of students is monitored by the following methods:

1. Daily participation and class work assignments
2. Alternate assessment techniques
3. Quizzes and tests
4. Cooking laboratory work

Summative Evaluation

To determine if students have attained the learning outcomes intended by this course, the following methods are used:

1. Post tests

Proficiency Level

Eighty-five percent (85%) of the students enrolled in Food Science and Technology will attain a minimum grade of seventy percent (70%).

FOOD SCIENCE & TECHNOLOGY UNIT**Topic 1: Kitchen Management****Student Outcomes**

After completing this unit of study, students should be able to

1. Explain how to measure dry and liquid ingredients
2. Read and follow a recipe
3. Identify small kitchen equipment
4. Demonstrate the ability to use safe practices in the kitchen
5. Describe how to work as a team member in the school's foods laboratory
6. State the proper procedure for washing dishes
7. List health practices to follow to avoid food contamination
8. Define basic food preparation terms

Concepts

Recipe abbreviations and equivalents, recipes, measuring equipment, small kitchen equipment, kitchen safety, food safety and sanitation, cooking terms

Teaching Strategies

1. Chapters 13, 16, 17, 18 in Discovering Foods
2. Filmstrip, "Kitchen Safety"
3. Video, "Kitchen Safety and Sanitation"
4. Filmstrip, "Basic Kitchen Equipment"
5. Video, "Knife Techniques: The Cutting Edge"

7

FOOD SCIENCE & TECHNOLOGY UNIT

Topic 2: Technology in the Kitchen

Student Outcomes

After completing this unit of study, students should be able to

1. Explain how small appliances save time and energy
2. Identify appliances that simplify food preparation tasks
3. Describe the principles of microwave cooking
4. Compare features of major kitchen appliances
5. Identify safety guidelines for use of appliances
6. Discuss ways in which computers can be used in food science

Concepts

Small kitchen appliances, major appliances, microwave ovens, computers

Teaching Strategies

1. Chapters 9 and 15 in Discovering Foods
2. Video, "Using Basic Kitchen Power Tools: A Current Event"
3. Video, "Start Microwaving Now"

FOOD SCIENCE & TECHNOLOGY UNIT

Topic 3: Consumer Skills

Student Outcomes

After completing this unit of study, students should be able to

1. Explain how government regulations protect the consumer
2. Discuss how advertising and packaging influence the consumer
3. List the information that must be included on a food product label
4. Interpret the meaning of nutrition labels

5. Compare food products for appearance, flavor, nutrient content, convenience and cost
6. Identify smart shopping skills
7. Explain the use of convenience food products to save time and energy in the kitchen

Concepts

Government regulations, food product labels, nutrition labeling, advertising, shopping skills, comparing brands, convenience foods

Teaching Strategies

1. Chapter 8 in Discovering Foods
2. Video, "Convenience Foods"
3. Filmstrip, "What's in A Name"
4. Filmstrip, "Consumer Advertising"
5. Video, "Label Ease"
6. Video, "Smart Snacking with the New Food Labels and Food Guide Pyramid"
7. Video, "Shopping with Susan"

FOOD SCIENCE & TECHNOLOGY UNIT

Topic 4: Making Healthy Food Choices

Student Outcomes

After completing this unit of study, students should be able to

1. Describe how the Dietary Guidelines can be used to promote

- good health
2. Explain the role of the Food Guide in choosing a balanced daily diet
 3. Describe the characteristics of fad diets
 4. Identify factors which lead to eating disorders
 5. Analyze a daily diet

Concepts

Dietary guidelines, food guide, fad diets, eating disorders, diet analysis

Teaching Strategies

1. Chapters 6 and 7 in Discovering Foods
2. Filmstrip Set, "Dangerous Dieting - The Wrong Way to Lose Weight"
3. Video, "90210 - Eating Disorders"

Student Outcomes

After completing this unit of study, students should be able to

1. Explain the purpose of each ingredient in a baked product
2. Describe the difference between yeast breads and quick breads
3. Identify the characteristics of a good baked product
4. Demonstrate the procedure for kneading dough
5. Evaluate the nutritional value of breads
6. Prepare examples of quick breads and yeast breads

Concepts

Quick breads, biscuit method of mixing, muffin method of mixing, chemical reaction, leavening agent, yeast breads, kneading, flour, gluten, carbohydrates

Teaching Strategies

1. Chapters 38 and 39 in Discovering Foods
2. Video, "Baking Basics & Baking Powder Biscuits"
3. Video, "Yeast"
4. Video, "Baking Basics: Yeast breads"
5. Filmstrip, "Bread Baking Basics"

FOOD SCIENCE & TECHNOLOGY UNIT

Topic 6: Sugars and Fats

Student Outcomes

After completing this unit of study, students should be able to

1. Define different forms of sugar
2. Explain the difference between saturated and unsaturated fats
3. Identify how cookies, cakes, and pies fit into a healthful eating plan
4. Compare the differences between shortened and unshortened cakes
5. Prepare examples of cookies, cakes, and pies

Concepts

Types of sugar, saturated fats, unsaturated fats, frying, cookies, cakes, pies, and pastry

Teaching Strategies

1. Chapter 40 in Discovering Foods
2. Video, "Good Food, Bad Food: Three Dietary Culprits"
3. Video, "Creative Cakes for Every Occasion"

FOOD SCIENCE & TECHNOLOGY UNIT**Topic 7: Poultry****Student Outcomes**

After completing this unit of study, students should be able to

1. Explain why poultry is part of a healthful eating plan
2. Describe how to select and store poultry to retain quality
3. Prepare recipes which use poultry

Concepts

Nutritional value of poultry, storage of poultry, preparation methods, salmonella

Teaching Strategies

1. Chapter 29 in Discovering Foods

FOOD SCIENCE & TECHNOLOGY UNIT**Topic 8: Ethnic and Regional Foods****Student Outcomes**

After completing this unit of study, students should be able to

1. Identify the meaning of the term cultural diversity
2. Explain how people of some cultures follow dietary laws
3. List factors that effect the types of foods eaten by different cultural groups
4. Describe how the same food may be prepare in different ways by different cultures
5. Compare mealtime etiquette in various cultures

Concepts

Cultural diversity, dietary laws, kosher, ethnic foods, regional cooking

Teaching Strategies

1. Worksheet, "Foods of Our American Heritage"
2. Video, "Food: A Cross-Cultural Study"

FOOD SCIENCE & TECHNOLOGY UNIT**Topic 9: Food-Related Careers****Student Outcomes**

After completing this unit of study, students should be able to

1. List career areas where most jobs in the food and nutritional industry are found
2. Describe jobs available in food production and marketing, food service, nutrition, and family and consumer science
3. Identify entry-level jobs related to food and nutrition

Concepts

Entry-level, food production careers, food marketing, food service, nutritionist, family and consumer science careers

Teaching Strategies

1. Chapter 3 in Discovering Foods
2. Filmstrips, "Careers in Home Economics Series," "Part I - Careers in Foods and Nutrition, "Part II - Careers in Dietetics and Food Service"

TABLE OF CONTENTS

Curriculum Proficiency Requirements	1
Course Description	3
Course Goals	4
Evaluation	5
Topic 1: Kitchen Management	6
Topic 2: Technology in the Kitchen	7
Topic 3: Consumer Skills	8
Topic 4: Making Healthy Food Choices	9
Topic 5: Principles for Baking Bread	10
Topic 6: Sugars and Fats	11
Topic 7: Poultry	12
Topic 8: Ethnic and Regional Foods	13
Topic 9: Food-Related Careers	14
Instructional Modifications (504)	15