Family and Consumer Sciences Assesments (FCSA)

Food Science Study Guide

- **Role of Nutrients in the Body**
  - Classify nutrients and their functions and food sources and compare the nutritive value of various foods
  - Assess the effects of nutritional intake on health, appearance, effective job performance, and personal life • Analyze and apply various dietary guidelines throughout the life cycle, including pregnancy, infancy, childhood, and late adulthood
  - Compare personal food intake to recommended dietary guidelines
- **Principles of Digestion and Metabolism**
  - Describe the processes of digestion and metabolism
  - Calculate and explain basal and activity metabolisms and factors that affect each
  - Apply knowledge of digestion and metabolism when making decisions related to food intake and physical fitness
  - Explain relationship of activity levels and caloric intake to health and wellness, including weight management
- **Knowledge of Nutritionally Balanced Diets**
  - Research the long-term effects of food choices
  - Outline strategies for prevention, treatment, and management of diet-related diseases such as diabetes, hypertension, childhood obesity, anorexia, and bulimia
  - Determine the effects of food allergies and intolerances on individual and family health
  - Plan diets based on life cycle, activity level, nutritional needs, portion control, and food budget
  - Develop examples of therapeutic diets
  - Analyze advertising claims and fad diets with the recommendations of the Recommended Dietary Allowances
  - Analyze current lifestyle habits that may increase health risks
  - Identify community programs that provide nutrition and wellness services
  - Examine the nutritional value of fast foods and convenience foods
  - Read and interpret food labels
  - Examine and explain nutritional serving sizes
  - Compare organic and green food choices
  - Determine sustainable food choices and their impact on society
- **Safety and Sanitation**
  - Demonstrate safe and sanitary practices in the use, care, and storage of food and equipment
  - Explain types and prevention of food-borne illnesses

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    - Practice appropriate dress and personal hygiene in food preparation
- **Knowledge of Food-Management Principles**
    - Able to read and comprehend standard recipes
    - Correctly use standard measuring techniques and equipment
    - demonstrate correct food-preparation techniques, including nutrient retention
    - Use Food-buying strategies such as calculating food costs, planning food budgets, and creating grocery lists • Demonstrate food-preparation techniques to reduce overall fat and calories
    - Practice etiquette, food presentation, and table service appropriate for specific situations
    - Apply food-storage principles

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FOOD SCIENCE WORD BANK GUIDE

Calorie
Condensation
Conduction
Crystallization
Gas phase
Liquid phase
Fusion
Heat capacity
Latent heat
Microwave
Nuclear Energy
Magnetron
Kinetic energy
Acid
Base
Foodborne illness
Leaving agents
Indicator
Ionization
Neutralization
Ribonucleic acid
Lactose
Carbohyadrate
gum
Gelatinization
point
Starches
Viscosity
Stability
Amino acids
Hydrophobic
Complete protein
Maillard reaction
Indispensable
amino
acid
Myoglobin
Hemoglobin
Food vehicle
Vitamin D
Cholecalciferol
Bioavailability
Fat-soluble
vitamins
Organic
compounds
Semipermeable
membrane
Osmosis
Nanofiltration
Metabolism
Tyndall effect
Vapor pressure
Immiscible liquids
Continuous phase
Saturation point
Thermal
conductivity
Rehydrated food
Concentrate
Case hardening
Concentration
Shelf life
Headspace
Humidity
Aseptic
Blast freezer
Sharp freezing
Brine
Curd
Malted
Pasteurization
Yeast
Anticaking agents
Delaney Claus
Ingredient
Food additive
Margin of safety
Maturing
Bulking agent
Olestra
Toxic
Food spoilage
Pathogens
Toxins
Foodborne Illness
Cross-
contamination
Chemical Energy
Electrical Energy
External Energy
Internal Energy
Convection
Physical Energy
Endothermic
Reaction
Exothermic
Reaction
Potential Energy
Radiant Energy
Kilocalorie
Joule
Latent heat of
vaporization
Latent heat of
fusion
Sublimation
Thermodynamics
Salt
Proton acceptor
Proton donor
Endpoint
Equivalence Point
Avogadro's range
pH scale
Disaccharide
Insulin
Sucrose
Molasses
Invert sugar
Granulated sugar
Confectioner's
sugar
Retrogradation
Junction
Slurry
Cellulose
Sol
Curdling
Denaturation
Caseins
Coagulation
Polypeptide
Dipeptide
Proline
Fortificant
Elastin
Hemoglobin
Cholecalciferol

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Ergocalciferol
Enrichment
Bioavailability
Fortification
Retinol
Beta-carotene
Grading
Milling
Rendering
Creaming
Centrifuging
Distillation
Sorting
Emulsion
Suspension
Colloidal dispersion
Sulfuring
Dehydrofreezing
Cold-pack method
Hot-pack method
Pressure processing
Water-bath processing
Rehydration
Fermentation
Preservative
Polyols
Saccharin
Aspartame
Hydrogenated starch hydrolysates
Simplesse
Stevioside
Monosaccharide
Multisaccharide