Unit 05: Nutrition for Healthy Weight Management

Content Area: **Family and Consumer Sciences**
Course(s):
Time Period: **Marking Period 1**
Length: **2 Weeks**
Status: **Published**

Brief Summary of Unit

In this unit, students will explore the #1 health issue in the United States: obesity. They will discover the causes of and treatment for obesity and learn facts about obesity prevention. Students will learn that weight management involves both eating and physical activity. They will explore how calories are metabolized by the body, and the relationship between calorie consumption, activity, and healthy weight management. Students will examine health risks associated with body fat; they will identify factors that affect an individual's weight status and learn to follow the guidelines of good nutrition to manage their weight. In this course, students are provided with opportunities to develop skills that pertain to a variety of careers. When completing this course, students can make informed choices and pursue electives in the FCS program that further their study and contribute toward the formation of career interest.

Standards

The identified standards make interdisciplinary connections across content areas including social sciences, technology and career readiness. Within this course, as appropriate, cultural awareness and global citizenship are highlighted as related to culinary content.

National Standards for Family and Consumer Sciences Education

Standard 8.0 Food Production and Services Comprehensive Standard: Integrate knowledge, skills, and practices required for careers in food production and services.

8.3.6 Identify a variety of types of equipment for food processing, cooking, holding, storing, and serving, including hand tools and small ware.

8.5.4 Apply the fundamentals of time, temperature, and cooking methods to cooking, cooling, reheating, and holding of a variety of foods.

Area of Study 14.0 Nutrition and Wellness

14.2.1 Evaluate the effect of nutrition on health, wellness and performance.

14.2.3 Analyze the effects of food and diet fads, food addictions, and eating disorders on wellness.

14.3.1 Apply current dietary guidelines in planning to meet nutrition and wellness needs.

Area of Study 9.0 Food Science, Dietetics, and Nutrition dietary plans.

9.3.1 Analyze nutrient requirements across the life span addressing the diversity of people, culture, and religions.

9.3.2 Analyze nutritional data.

9.3.4 Assess the influence of cultural, socioeconomic and psychological factors on food and nutrition and behavior.

9.3.5 Analyze recipe/formula proportions and modifications for food production.

9.3.6 Critique the selection of foods to promote a healthy lifestyle.

9.3.7 Plan menus, applying the exchange system to meet various nutrient needs.

9.4.4 Construct a modified diet based on nutritional needs and health conditions.

Cross curricular connections:

CS.K-12.2.b Create team norms, expectations, and equitable workloads to increase efficiency and effectiveness.

LA.K-12.NJSLSA.L3 Apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening.

LA.K-12.NJSLSA.W4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

LA.K-12.NJSLSA.W5 Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.

CS.K-12.2.d Evaluate and select technological tools that can be used to collaborate on a project.

HE.K-12.P.3 Communicating clearly and effectively (verbal and nonverbal)

CS.K-12.2.a Cultivate working relationships with individuals possessing diverse perspectives, skills, and personalities.

LA.WHST.6-8.4 Produce clear and coherent writing in which the development, organization, voice, and style are appropriate to task, purpose, and audience.

HE.K-12.P.10 Using technology tools responsibly

CS.K-12.2.c Solicit and incorporate feedback from, and provide constructive feedback to, team members and other stakeholders.

LA.WHST.6-8.6 Use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas clearly and efficiently.

MA.K-12.1 Make sense of problems and persevere in solving them.

TECH.K-12.P.8 [Practice] - Use technology to enhance productivity, increase collaboration and communicate effectively.

PFL.9.1.K12.P.4 [Practice] - Demonstrate creativity and innovation.

WRK.K-12.P.9 [Practice] - Work productively in teams while using cultural/global competence.

ELD standards: https://docs.google.com/document/d/1wdmsiGOdCHlrjU-WPvAtENnEgi0EStZXo0uiFYv1Nu4/edit

Essential Questions

- • What are the health risks associated with body fat?

- What is weight management and how is it related to diet and activity?
- What are the guidelines of good nutrition?

Students will know / Students will be skilled at

Students will be skilled at:

- knowing how to aviod an excess of added sugars and empty calories in their diets.
- creating meal plans to meet one's calorie needs
- eating proper portion sizes
- calculating BMI and BMR
- estimating daily calorie needs
- identifying the causes and reasons for obesity
- making calorically balanced and tasty meals and snacks

Students will know:

- causes and reasons for obesity.
- how to calculate their personal BMI and BMR.
- how to estimate personal daily calorie needs and daily calorie intake by completing a self study.
- how to maintain a healthy weight throughout the life cycle.
- key terms: weight management, diet, obesity, ideal body weight (IBW), energy, calories, BMI, basal metabolic rate (BMR), hunger, appetite.
- the factors that affect energy needs for metabolic and physical activity.
- the three body types.
- the dangers of being overweight or obese
- the effects of the rising childhood and adult obesity rate
- the factors that affect an individual's weight status
- the factors which contribute to both childhood and adult obesity

Evidence/Performance Tasks

FCS courses are designed to promote skill attainment. Student progression and pace through which they proceed through the performance tasks is based on their affinity for and ability to reach skill attainment. The teacher will determine formative and summative skill attainment; alternative assessments will be incorporated for each student based on their strengths and challenges.

Students will

- actively participate in guided question and answer sessions, group and individual discussions,

show an understanding of the purpose of the unit lesson(s), and the key terms and concepts.

- • be evaluated by the teacher through observation of performance.
- • complete a self evaluation rubric of performance and lab critique submissions.
- • complete unit quiz on energy requirements.
- • complete unit test.
- • meaningfully address the essential and guiding questions of this unit of study.
- • participate in performance tasks such as: o calculating BMI, IBW, & BMR o calculating their calorie needs o discussing lab results o self-evaluation: calculation of BMI, calorie needs and caloric intake.
- • reflect on personal caloric needs versus caloric intake
- create a 1 week nutritional plan activity considering their ability to follow their goals. Consider the obstacles they faced in addition to considering how they felt physically
- investigate a specific area of personal interest on this topic and summarize findings

Learning Plan

The teacher will be guided by the following:

- Administer Quiz: Energy requirements.
- Administer Test: nutrition for a healthy weight.
- Begin unit with discussion about the obesity crisis in the United States for children and adults.
- Demonstrate to students how to calculate BMI, BMR, IBW, and TDEE (Total Daily Energy Expenditure).
- Explain “portion distortion” by connecting the food pyramid, food models and the book, "Picture Perfect Diet"
- Facilitate debate: Separate students into two groups for a debate on the story “Fast Food Nation” and “Fighting Fat.” Provide possible discussion prompts such as but not limited to: o Should “characters” be used for advertising when the target audience is often very young? o Is it a school’s responsibility to notify parents and / or students when a student is seriously overweight, considering all of the ill health effects? o Should gym class be made harder? Why or why not? Do you think the students would approve? o Should grocery stores and convenience stores make junk food less visible? And should the price be higher for high fat/ low nutrition foods? o What impact do you think food labels have on the choices Americans make with their foods? Do you think they should have warning labels similar to the surgeon General’s warning on cigarettes?
- Facilitate Lab #1: quick and easy balanced meal. Each group will create a chicken and vegetable stir fry, served over rice and discuss its connection to the dietary portion of weight management.
- Facilitate Lab #2: have groups choose their favorite "treat" food. high fat high calorie food and find ways to make it more nutrient dense
- Facilitate Lab #3: Smart Snack. Have students plan a lab in which they will prepare a smart snack for the preschoolers in the Child Development classroom. The snacks must be healthy, exclude allergens and attractive for the preschoolers. The snacks will be graded based on a rubric and the acceptance by the preschoolers.
- Facilitate Lab #4. Have students evaluate the effect of skipping breakfast on healthy weight, plan and prepare a breakfast for a teen to manage weight.
- Facilitate student involvement in Portion Size Activity as a means to connect perceived portions to those listed on food labels
- Have students engage in a Nutrition Self-Study to calculate their BMI, BMR, IBW, and TDEE. Encourage

students to set four nutritional goals for themselves and track these goals for one week.

- Preview the essential questions and connect to learning throughout the unit.
- Provide students with links to information on food, weight management, dietary supplement, etc and have students react/respond to the article.
- Review and provide “Energy Balancing Act” for students to read and answer comprehension questions as appropriate to discussion and student readiness
- Show map of increasing obesity rates in the different states. Facilitate discussion on its effects on healthcare. Pose discussion questions including but not limited to: Why do the states with the highest obesity rates have the highest rates? States with the lowest rates? What strategies can be done to combat this epidemic?
- Utilize “Weight and See" / "Staying Active and Managing Weight"/ " Facts and Factors" / "Diet Facts and Fantasies" worksheets as appropriate

Materials

The materials used in this course allow for integration of a variety of instructional, supplemental, and intervention materials that support student learners at all levels in the school and home environments. Associated web content and media sources are infused into the unit as applicable and available

In addition to the materials below, the link that connects to district approved textbooks and resources utilized in this course can be found on the Curriculum and Instruction webpage: (https://www.cranfordschools.org/apps/pages/index.jsp?uREC_ID=1774932&type=d&pREC_ID=1953860). Any additional resources, not included in the current Core Book List, must be explicitly presented to and reviewed by the supervisor the week before the resource is included into lesson plans. This ensures resources are reviewed and vetted for relevance and appropriateness prior to implementation.

- topic related DVDs and books
- websites
- interactive use of SmartBoard
- necessary recipes and ingredients
- necessary kitchen equipment
- unit related worksheets

Suggested Strategies for Modifications

This link includes content specific accommodations and modifications for all populations: https://docs.google.com/spreadsheets/d/1ZSDsCUamViCaBpr1lPOB7FJEC-jx4KnDjZzegIUKeMg/edit?usp=sharing