



GEORGIA

PEACH STATE PATHWAYS

Career, Technical, & Agricultural Education

EDUCATION

PATHWAY: Early Childhood Education

COURSE: Health, Safety & Nutrition

UNIT 10: Nutrition for the Young Child



INTRODUCTION

Annotation:

Unit 10 covers the nutritional needs of young children, as well as, childhood obesity, under-nutrition, and malnutrition. The importance of parental involvement and early good nutrition is stressed. Nutritional assessments are discussed. Menu and lesson plans will be developed by the students using proper nutritional guidelines.

Grade(s):

X	9 th
X	10 th
X	11 th
X	12 th

Time: 10 hours

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Reviewer: Amy Bergman

Students with Disabilities:

For students with disabilities, the instructor should refer to the student's IEP to be sure that the accommodations specified are being provided. Instructors should also familiarize themselves with the provisions of Behavior Intervention Plans that may be part of a student's IEP. Frequent consultation with a student's special education instructor will be beneficial in providing appropriate differentiation.



FOCUS STANDARDS

GPS Focus Standards:

EDU- HSN 5 – Students will apply nutrition principles in promoting children's growth and development.

- a. Determine the role of following food guidelines in promoting children's health.
- b. Plan and serve attractive nutritious snacks and meals for children.
- c. Demonstrate nutrition education practices to use with children.
- d. Identify nutritional needs of children.
- e. Describe how vitamins and minerals affect children's nutrition.
- f. Describe how nutrition affects children's development.
- g. Apply age appropriate dietary guidelines for snack and meal preparations.
- h. Describe the difference between malnourished and undernourished.

EDU- HSN 9 – Students will identify components of a quality environment.

- b. Provide information to parents for health and nutrition services.

GPS Academic Standards:

- *ELA11LSV2* The student formulates reasoned judgments about written and oral communication in various media genres. The student delivers focused, coherent, and polished presentations that convey a clear and distinct perspective, demonstrate solid reasoning, and combine traditional rhetorical strategies of narration, exposition, persuasion, and description.
- *SAP4* Students will analyze the physical, chemical and biological properties of process systems as these relate to transportation, absorption and excretion, including cardiovascular, respiratory, digestive, excretory and immune systems.
- *MM1G2* Students will understand and use the language of mathematical argument and justification.
- *MM1P1* Students will solve problems (using appropriate technology)



UNDERSTANDINGS & GOALS

Enduring Understandings:

- Good nutrition is extremely important for good growth and development. In many growth stages, lack of nutrients cause permanent developmental deficits. In some stages, these deficits can be repaired later.
- The USDA compiles and releases updated nutritional guidelines every five years. These guidelines are in the form of the Food Pyramid but also have other reports released as well.
- For young children, good nutrition is the responsibility of caregivers. It is important to include parents in nutrition education.

Essential Questions:

- How might an individual use the Dietary Guidelines for Americans to improve their personal well being?
- What are dietary reference intakes?
- How might an individual use the dietary reference intakes?
- What is the food guide pyramid?
- How is the food guide pyramid used?
- What three nutrients provide energy?
- What guidelines/criteria should you follow when deciding what to eat?
- Why are vitamins and minerals important?

- What are the differences between dietary requirements of children vs. adults?
- What information is included on food labels?
- Why is it important to look at food labels when deciding purchases?
- What is the difference between malnutrition and under nutrition?
- What is the difference between overweight and obesity?
- What are the signs that a child may be malnourished?
- What are some ways children's health can be improved?
- What criteria should you consider when planning a menu for children? For yourself?
- What criteria should cafeterias consider when planning their menus?
- What are some ways to make food interesting to children?
- What are some signs of malnourished vs. healthy children?
- What should you consider when deciding on which nutritional assessment to use?
- Why should nutritional assessments be used?
- What are some ways educators can improve children's health?
- Who has the most impact on the health of a child?
- Why is it important to provide information to parents about good nutritional practices?
- What are some ways to inform parents of good nutritional practices?

Knowledge from this Unit:

- Students will understand there are nutritional guidelines released by the government every five years.
- Nutritional needs of people vary depending on age and stage of development.
- Students will research essential nutrients needed for proper health.
- Students will discuss differences between malnutrition, under nutrition, and obesity, as well as, signs and solutions for better nutrition.
- Students will plan menus using appropriate nutritional guidelines.
- Students will discuss variations of nutritional assessments and why they vary.
- Students will develop nutritional lessons for young children, parents of young children, and/or classmates.

Skills from this Unit:

- Students will use nutritional guidelines to plan menus for young children.
- Students will use knowledge to develop lesson plans for young children and/or parents on proper nutrition and its importance.



ASSESSMENT(S)

Assessment Method Type: Select one or more of the following. Please consider the type(s) of differentiated instruction you will be using in the classroom.

- ☐ Pre-test
- ☐ Objective assessment - multiple-choice, true- false, etc.
 - ☐ Quizzes/Tests
 - ☐ Unit test
- ☒ Group project
- ☒ Individual project
- ☒ Self-assessment - May include practice quizzes, games, simulations, checklists, etc.
 - ☐ Self-check rubrics
 - ☐ Self-check during writing/planning process
 - ☐ Journal reflections on concepts, personal experiences and impact on one's life
 - ☐ Reflect on evaluations of work from teachers, business partners, and competition judges
 - ☐ Academic prompts
 - ☐ Practice quizzes/tests
- ☒ Subjective assessment/Informal observations
 - ☐ Essay tests
 - ☒ Observe students working with partners
 - ☐ Observe students role playing
- ☐ Peer-assessment
 - ☐ Peer editing & commentary of products/projects/presentations using rubrics
 - ☐ Peer editing and/or critiquing
- ☒ Dialogue and Discussion
 - ☐ Student/teacher conferences
 - ☒ Partner and small group discussions
 - ☒ Whole group discussions
 - ☐ Interaction with/feedback from community members/speakers and business partners
- ☐ Constructed Responses
 - ☐ Chart good reading/writing/listening/speaking habits
 - ☐ Application of skills to real-life situations/scenarios
- ☐ Post-test

Assessment(s) Title:

Culminating activity

Nutrition Magazine

Assessment(s) Description/Directions:

Culminating activity - Create a nutritional magazine. Each student's magazine should include an article about the importance of parents' role in nutrition, three recipes for healthy snacks, sample of a full days menu that covers the dietary requirements for either a child or a teenager (they must indicate which), an article of the importance of one or two essential nutrients and where the body obtains them, an article about one essential nutrient (fat, water, protein, vitamins, minerals & carbohydrates) and from what food sources they may be obtained, an article about one of the nutritional problems (obesity, under nutrition, malnutrition, dehydration, etc) and a 6 frame comic strip. Complete requirements and rubric are attached.

Attachments for Assessment(s):

Rubric and requirements for Magazine project



LEARNING EXPERIENCES

Instructional planning: Include lessons, activities and other learning experiences in this section with a brief description of the activities to ensure student acquisition of the knowledge and skills addressed in the standards. Complete the sequence of instruction for each lesson/task in the unit.

1. Identify the Standards. Standards should be posted in the classroom for each lesson.
2. Review Essential Questions.
3. Identify and review the unit vocabulary.

Lesson 1 Food Guide Pyramid

Standard:

EDU- HSN 5 - Students will apply nutrition principles in promoting children's growth and development.

- a. Determine the role of following food guidelines in promoting children's health.
- d. Identify nutritional needs of children.
- e. Describe how vitamins and minerals affect children's nutrition.
- f. Describe how nutrition affects children's development.

Essential Questions

1. How might an individual use the Dietary Guidelines for Americans to improve their personal well being?
2. What are dietary reference intakes?
3. How might an individual use the dietary reference intakes?
4. What is the food guide pyramid?
5. How is the food guide pyramid used?

Vocabulary

- Nutrition
 - Malnutrition
 - Undernutrition
 - Dietary Reference Intake
 - Dietary Guidelines for Americans
 - Essential nutrient
 - Food Guide Pyramid
- 1) With resources available to you, read and review book information covering Nutritional Guidelines. If you have Health, Safety, and Nutrition for the Young Child (7th edition) it will be chapter 13. Notes are attached for class lecture and discussion.
 - 2) View Food Guide pyramid and discuss. There are large amounts of print material you can find at www.mypyramid.gov
 - 3) Food Category Race

- Before class, label boxes or buckets with each of the six sections of the food pyramid. Try to have the box or label reflect the color of its section on the Food Guide Pyramid.
 - Group students in even teams of 5-6.
 - Give each team plastic foods to separate into the correct box/bucket. You can either get enough plastic foods and boxes for each team to run simultaneous or have each team run separately and time them.
 - Teams will need to run one food item down to the boxes (20-30 feet away) and place them in the correct box at a time.
 - Team members must take turns.
 - Post the times on a board so that each team knows what they need to beat.
 - Time (5 or 10 seconds) should be added to the total time for each wrong categorization.
 - When the game is over, discuss some of the common mistakes made by students.
 - Make sure students realize what type of foods are in each of the Food Guide sections. [If you are unable to obtain plastic food, make note cards with food names and pictures.]
- 4) Food Guide Pyramid Collage - Have students make a collage of the Food Guide Pyramid (blank copy of pyramid is attached). You may require drawn items, words, or magazine or picture cutouts. This can be an in class or homework activity.
- 5) Review essential questions to ensure students' understanding.

Lesson 2 Energy

Standards

EDU- HSN 5 - Students will apply nutrition principles in promoting children's growth and development.

- d. Identify nutritional needs of children.
- e. Describe how vitamins and minerals affect children's development.
- f. Describe how nutrition affects children's development.

Essential questions

1. What three nutrients provide energy?
2. What guidelines/criteria should you follow when deciding what to eat?

Vocabulary

- Energy
- calories
- enzymes
- coenzymes
- basal metabolic rate (BMR)
- thermic energy of food
- digestion
- absorption

- metabolism
- Carbohydrates
- Cellulose
- Fats
- Proteins

- 1) Discuss nutrients that provide energy – carbohydrates, fats, and proteins. If literature is available, read the appropriate sections and discuss. If you have Health, Safety, and Nutrition for the Young Child (7th ed.) by Lynn R. Marotz, information is in Chapter 14. HSN Unit 10 Lesson 2 notes are attached.
- 2) Watch HSN Unit 10 Dr. Dad video (attached from United Streaming <http://streaming.discoveryeducation.com/>) It is corny, but explains calories, energy, etc.
- 3) Review essential questions to ensure students' understanding.

Lesson 3 Vitamins and Minerals

Standards

EDU- HSN 5 - Students will apply nutrition principles in promoting children's growth and development.

- d. Identify nutritional needs of children.
- e. Describe how vitamins and minerals affect children's development.
- f. Describe how nutrition affects children's development.

Essential Questions

1. Why are vitamins and minerals important?
2. What are the differences between dietary requirements of children vs. adults?
3. What information is included on food labels?
4. Why is it important to look at food labels when deciding purchases?

Vocabulary

- Enzymes
- Vitamins
- Water
- Iron
- Iron-deficiency anemia
- Hemoglobin
- Fluoride
- Calcium
- Phosphorus
- Minerals
- Growth

- Supplementary proteins
- Incomplete protein
- Complete protein
- amino acids

- 1) Discuss nutrients that promote growth and regulate body functions. If literature is available, read the appropriate sections and discuss. If you have Health, Safety, and Nutrition for the Young Child (7th ed.) by Lynn R. Marotz, information is in Chapters 15 and 16. Lesson 3 notes are attached.
- 2) Assign students an essential nutrient (fat, water, protein, vitamins, minerals & carbohydrates)
- 3) Have students research their topic and create an 8 ½ x 11 size poster/flyer. Their information should include the importance of their topic to proper nutrition, daily recommended amounts, and how to get it. Also include any interesting facts.
- 4) Once each one is turned in, copies can be made so that each student has a notebook of information. (great to use this information on the magazine project)
- 5) Have enough food labels for each student to have at least one. You may want to assign students homework to bring in food labels.
- 6) As a group, look at the food labels. Discuss the importance of knowing what you eat.
- 7) Compare several labels from same foods (different soup labels, or different breads) and decide which would be best nutritionally.
- 8) Make sure students are aware that cost sometimes plays a role in food selections. This exercise only addresses nutrition.
- 9) Review essential questions to ensure students' understanding.

Lesson 4 Malnutrition

EDU- HSN 5 - Students will apply nutrition principles in promoting children's growth and development.

- a. Determine the role of following food guidelines in promoting children's health.
- d. Identify nutritional needs of children.
- e. Describe how vitamins and minerals affect children's nutrition.
- f. Describe how nutrition affects children's development.
- h. Describe the difference between malnourished and undernourished.

Essential Questions

1. What is the difference between malnutrition and under nutrition?

2. What is the difference between over weight and obesity?
3. What are the signs that a child may be malnourished?
4. What are some ways children's health can be improved?

- 1) Read and review book information covering malnutrition, under nutrition and obesity in resources that are available to you. Lesson 4 notes are attached.
- 2) View HSN Unit 10 Childhood Obesity Power point presentation. Use attached HSN Unit 10 - Childhood Obesity PPT notes and questions for discussion. You may want to have students individually answer questions to ensure their attention.
- 3) View HSN Unit 10 Reality Matters video (<http://streaming.discoveryeducation.com/>) concerning obesity in teens (attached).
- 4) After video, pair students to discuss whether they agree with the presentations that indicate childhood obesity is on the rise and the reasons for it.
- 5) You may also want to have them make a personal goal to improve their own health...exercise once a week, cut down on fast food, etc.
- 6) Review essential questions to ensure students' understanding.

Lesson 5 Menu planning

Standard

EDU- HSN 5 - Students will apply nutrition principles in promoting children's growth and development.

- b. Plan and serve attractive nutritious snacks and meals for children.
- c. Demonstrate nutrition education practices to use with children.
- d. Identify nutritional needs of children.
- f. Describe how nutrition affects children's development.
- g. Apply age appropriate dietary guidelines for snack and meal preparations.

Essential Questions

1. What criteria should you consider when planning a menu for children? For yourself?
2. What criteria should cafeterias consider when planning their menus?
3. What are some ways to make food interesting to children?

- 1) Using resources available, read and review book information covering nutritional needs of children and it's affects on children's development.
- 2) Discuss.

- 3) In the last lesson, you discussed ways to improve children's health. Why is it important for educators to do all they can to effect young children's health? (Because the effects of poor nutrition during the period children are developing new cells cannot later be restored)
- 4) What are some snacks that can be served in school that would help improve some children's nutrition?
- 5) Go to your school system's website and see what nutritional information is available.
- 6) Discuss with students the importance of cafeteria's offering nutritious meals, especially for students that may not eat otherwise. If there is not much information available to discuss, have students write their own guidelines for serving food in school.
- 7) If possible, have the nutritionist from your school system speak to the class about what guidelines they follow and how they go about planning meals for children.
- 8) Have students find and write complete plans for five possible snacks to serve young children. Students should keep in mind the food pyramid, nutritional needs of four and five year olds, possible allergies, cost, and availability. (may be used in magazine project)
- 9) Students should decide (with teacher's assistance if needed) the most appropriate snack choice.
- 10) Students can make and bring in their one snack to share with their high school class, and if possible the pre-k/lab children.
- 11) Remind students that it is often difficult to get children to make healthy choices in their food. This is where it is important as an adult to be familiar with the body's nutritional needs. You are the advocate for the child.
- 12) A variety of colors, textures, and shapes can add interest and help entice children to make healthy choices.
- 13) * **Possible community activity*** Have students plan a food drive for your community food bank. Students should list desired foods to be donated based on good health and nutrition criteria.
- 14) Review essential questions to ensure students' understanding.

Lesson 6 nutritional assessments

Standards

EDU-HSN 5 Students will apply nutrition principles in promoting children's growth and development.

- c. Demonstrate nutrition education practices to use with children.

- d. Identify nutritional needs of children.

EDU-HSN 9 Students will identify components of a quality environment.

- b. Provide information to parents for health and nutrition services.

Essential questions:

1. What are some signs of malnourished vs. healthy children?
2. What should you consider when deciding on which nutritional assessment to use?
3. Why should nutritional assessments be used?

Vocabulary

- Dietary assessment
- Anthropometric assessment
- Clinical assessment
- Biochemical assessment
- Hemoglobin
- Urinalysis

- 1) Read and review available literature on nutritional assessments.
- 2) Discuss. (Lesson 6 notes are attached. Also attached is Chapter 12 on children nutrition from <http://www.health.gov>)
- 3) With class, discuss sample assessment (attached).
- 4) In small groups of 3 or 4, have students develop their own nutritional assessments for preschool children.
- 5) If feasible, have students complete their assessments with preschool class.
- 6) Once completed, discuss results in class. Did the assessments measure what they wanted? Did the assessments measure useful data or obtain useful information?
- 7) Review essential questions to ensure students' understanding.

Lesson 7 Nutritional Education

Standards

EDU HSN 5 Students will apply nutrition principles in promoting children's growth and development.

- c. Demonstrate nutrition education practices to use with children.

EDU HSN 9 Students will identify components of a quality environment.

- b. Provide information to parents for health and nutrition services.

Essential questions:

1. What are some ways educators can improve children's health?
2. Who has the most impact on the health of a child?
3. Why is it important to provide information to parents about good nutritional practices?
4. What are some ways to inform parents of good nutritional practices?

- 1) As a group, discuss the importance of family to a child's nutrition.

Who is the most important person concerning a child's health and nutrition? (parents, family)

Where do children get their eating habits? (home)

Why is it difficult to teach children good nutritional habits? (family feeds them)

What are some ways educators can improve student's health?

Etc.

- 2) Assign or ask students to get into small groups (4-5).
- 3) Students will brainstorm ways to inform parents about nutritional guide lines for preschool children and nutritional/health services available. Students should also brainstorm ways to teach or show preschool children healthy habits about nutrition.
- 4) After groups brainstorm for a while, assign each group an audience (parents or children).
- 5) Each group will produce a paper product, either a lesson plan or a parent flyer.
- 6) Groups can then present their lesson to the high school class and their target audience if possible. (You may have each group create lessons for preschool and also for parents.)
- 7) Review essential questions to ensure students' understanding.

Attachments for Learning Experiences:

- Ch 12 Healthier Children
- Childhood Obesity PowerPoint
- Blank Pyramid
- Childhood Obesity PPT Notes for teacher
- Childhood Obesity PPT Questions for student
- Dr. Dad Video
- Lesson 1 notes
- Lesson 2 notes
- Lesson 3 notes
- Lesson 4 notes
- Lesson 6 notes
- Magazine Rubric and Requirements
- Reality Matters – Teen Nutrition Video
- Sample Nutritional Assessment

Notes & Reflections:

Using www.unitedstreaming.com you may download videos related to this unit. A first time user will have to enter a user name and password from the school. Most school systems should have one, check in the media center. Enter "Childhood obesity", or another topic, into the search bar and it will bring up many to choose from. You download it either into a video in whole or a video by segments onto your hard drive then can add them into PowerPoint or whatever as needed.



CULMINATING PERFORMANCE TASK

Culminating Unit Performance Task Title:

Nutritional Magazine

Culminating Unit Performance Task Description/Directions/Differentiated Instruction:

Create a nutritional magazine. Each student's magazine should include an article about the importance of parents role in nutrition, three recipes for healthy snacks, sample of a full days menu that covers the dietary requirements for either a child or a teenager (they must indicate which), an article of the importance of one or two vitamins/minerals and where the body obtains them, an article about one of the nutritional problems (obesity, under nutrition, malnutrition, dehydration, etc). Other sections that could be required may be a humor section, advice column, physical activity for children, or exercises for teens. This activity can also be completed as a webpage, or PowerPoint.

Attachments for Culminating Performance Task:

Rubric and requirements



UNIT RESOURCES

Resources:

- Marotz, L. (2009) *Health, Safety, and Nutrition for the Young Child*. (7th ed.). Clifton Park, NY: Thomson Delmar Learning.
- <http://www.health.gov/dietaryguidelines>
- <http://medical-dictionary.thefreedictionary.com/malnutrition>
- <http://www.nlm.nih.gov/medlineplus/obesity.html>
- <http://usda.gov>
- <http://mypyramid.gov>
- Videos from United Streaming – <http://streaming.discoveryeducation.com/>

Web Resources:

- www.mypyramid.gov

- www.dietaryguidelines.gov
- www.mypyramid.gov/preschoolers/index.html
- www.adcouncil.org/files/ad_c_usda_broccoli.728X90jpg
- <http://foodsafety.ucdavis.edu/html/audio/veggiebeliever>
- www.kidshealth.org
 - The food pyramid tailored for kids
- www.5aday.gov/color/index
- www.cnpp.usda.gov/pendituresonchildrenbyfamilies.html
- www.everydayhealth.com
 - videos --free
- www.fns.usda.gov/fsp to get info on nutrition education through the food stamp program

Food Safety websites

- www.eatmedaily.com/2008/12/mind-blowing-food-safety-music-parodies
 - food safety songs
- www.mypyramid.gov
 - food safety advice for everyone
- www.fightbac.org
 - info on food safety education tools & programs, curriculum for all ages-
 - video library
- www.fsis.usda.gov/Food_Safety_Education/index.asp
 - fact sheets, magazines, programs
- www.handwashingforlife.com/
 - videos \$ varied prices
- <http://foodsafety.ucdavis.edu/#>
- <http://foodsafety.ucdavis.edu/html/video.html>
- <http://foodsafety.ucdavis.edu/html/audio>
- www.foodsafety.gov/~fsg/vlibrary.html
 - video library

Attachment(s):

Materials & Equipment:

- Plastic fruit,
- 6 boxes/buckets
- attachments

What 21st Century Technology was used in this unit?:

x	Slide Show Software
	Interactive Whiteboard
	Student Response System
	Web Design Software
	Animation Software
	Email

	Graphing Software
	Calculator
	Desktop Publishing
	Blog
	Wiki
x	Website

	Audio File(s)
	Graphic Organizer
	Image File(s)
x	Video
	Electronic Game or Puzzle Maker