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| **TEXAS CTE LESSON PLAN**[www.txcte.org](http://www.txcte.org) |
| **Lesson Identification and TEKS Addressed** |
| **Career Cluster** | Human Services |
| **Course Name** | Principles of Human Services |
| **Lesson/Unit Title** | Nutrition Over the Life Span |
| **TEKS Student Expectations** | **130.272. (c) Knowledge and Skills**(6) The student demonstrates the skills necessary to enhance personal and career effectiveness in family and community services. The student is expected to:(F) explain the impact of nutrition on development, wellness, and productivity over the life span(G) prepare nutritious snacks or meals that contribute to wellness and productivity through the life span |
| **Basic Direct Teach Lesson**(Includes Special Education Modifications/Accommodations and one English Language Proficiency Standards (ELPS) Strategy) |
| **Instructional Objectives** | **Students will:*** Recognize the nutritional guidelines for individuals over the life span
* Create nutritious snacks or meals appropriate for individuals at various stages of the life span
* Analyze the correlation between proper nutrition and the growth and development of individuals
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| **Rationale** | Nutritional needs change throughout the life cycle. Each life stage brings its own growth and nutritional needs and challenges. Meeting these demands promotes good health at each stage of the life cycle and builds a solid foundation for the future. For a career in family and community services, it is important to understand how healthy food choices promote wellness in individuals over the life span. |
| **Duration of Lesson** | Five 45-minute class periods |
| **Word Wall/Key Vocabulary***(ELPS c1a, c, f; c2b; c3a, b, d; c4c; c5b) PDAS II (5)* | **Carbohydrates:** Any one of various substances found in certain foods (such as bread, rice, and potatoes) that provide your body with heat and energy and are made of carbon, hydrogen, and oxygen**Elderly Nutrition Program:** Provides grant money and commodities for meals served to aging citizens**High cholesterol:** A lipid disorder. Such a disorder occurs when you have too many fatty substances in your blood**Hypertension:** Abnormally high blood pressure; an excess force on the walls of the arteries as blood is pumped from the heart**Lipids:** One of the three large classes of substances in foods and living cells, lipids contain more than twice as much energy (calories) per unit of weight as the other two (proteins and carbohydrates). They include the fats and edible oils (such as butter, olive oil, corn oil), which are primarily triglycerides; phospholipids (such as lecithin), which are important in cell structure and metabolism**Nutrient Density:** The level of nutrients in a food in relation to the level of calories in the food**Nutrients:** The substances in food that give infants and toddlers energy and help them grow.**Nutrition:** Processes of taking in and utilizing food substances. Food generates energy and supplies materials used in body tissues and processes**Osteoporosis:** A condition in which bones lose their minerals and become porous, making them weak and fragile**Life span:** All the stages of growth and development throughout life, from before birth to old age**Wellness:** A philosophy that encourages people to take responsibility for their own physical, emotional, and mental health |
| **Materials/Specialized Equipment Needed** | **Equipment:*** Computer with projector for PowerPoint presentation
* Computers with Internet access (be sure to follow district guidelines for Internet access)
* Presenter remote

**Materials:*** Dietary Guidelines (one copy)
* MyPlate Mini Poster English
* Pictures of:
	+ Adolescents
	+ Adults
	+ Babies
	+ Children
	+ Pregnant mothers
	+ Teenagers

**Supplies:*** 6 sheets of cardstock paper
* Empty containers of nutritious children’s food and snacks
	+ Bottled water
	+ Box of macaroni and cheese
	+ Cheese sticks
	+ Healthy dry cereal boxes
	+ Juice boxes
	+ Small carton of milk
	+ Toddler crackers
* Six envelopes
* Index cards
* Kitchen equipment (to be determined by the students - selection of various recipes)
* Paper plates
* Play food (may be purchased for a minimal cost)
* Purchased food for foods lab (actual food to be determined by the students - selection of various recipes)
* Replica of MyPlate (if available)
* Copies of handouts

**PowerPoint:*** Nutrition Over the Life Span

**Technology:*** Free iPad App:
	+ Nutrition TipsUseful nutrition tips, diet and weight loss tips, and nutritional health facts referenced from USDA and Nutrition.gov.<https://itunes.apple.com/us/app/nutrition-tips/id325760608?mt=8>

**YouTube:*** Importance of Nutrition for TeensSusan Adams, Registered Dietitian discusses why healthy eating habits and nutrition are important for teens to learn about and adapt into their daily routines.<http://youtu.be/zJNmu0tpdZU>
* Introducing the New Food Icon: MyPlateThe Department of Agriculture introduces the new food icon, MyPlate, to replace the MyPyramid image as the government’s primary food group symbol. An easy-to-understand visual cue to help consumers adopt healthy eating habits, MyPlate is consistent with the 2010 Dietary Guidelines for Americans.<http://youtu.be/SEFmSk08LIE>

**Graphic Organizers:*** Note Taking Template

**Handouts:*** Dietary Guidelines
* Diet Plans
* Fast and Easy Recipes
* Fruit and Vegetable Recipes
* Getting Started with MyPlate
* Healthy Recipes
* Jigsaw Nutrition Puzzle
* MyPlate Mini Poster English
* Rubric for Laboratory Experience – Nutrition Over the Life Span
* Sample Menus 2000 Calories
* Sanitation and Food Safety Rules
* Teacher Instructions for Inside/Outside Circle Activity
* Tips for Pregnant Moms
* Young at Heart Tips for Older Adults
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| **Anticipatory Set**(May include pre-assessment for prior knowledge) | **Prior to lesson:**Note to Teacher: More information on Nutrition for the Life Cycle can be found in these courses/lessons:**Lifetime Nutrition and Wellness**To introduce the ChooseMyPlate Food Groups, the Dietary Guidelines for Americans, and the nutrients, refer to lesson Nutrition Principles for a Lifetime of Wellness. Nutrition for the Life Cycle: Pregnancy to Adulthood**Child Development**Nutritional Needs: Infancy to ToddlerNutritional Needs: Preschool to School Age**Child Guidance**Eat Right, Exercise, and Stay HealthyRead handout Getting Started with MyPlate to become familiar with USDA’s ChooseMyPlate website.Review recipes from the cookbooks provided by the SNAP-Ed Connection Recipe Finder Database. Recipes included in the database have been reviewed by nutrition professionals at the SNAP-Ed Connection using specific cost and nutrition criteria. Recipes are consistent with the current Dietary Guidelines for Americans and MyPlate. All recipes include the nutritional and cost analysis.<http://www.fns.usda.gov/fncs-recipe-box>Cookbooks:* Fast and Easy Recipes
* Fruit and Vegetable Recipes
* Healthy RecipesThese cookbooks and more are also available in the Resource section of the Lifetime Nutrition and Wellness home page

**Before class begins:**Print six Jigsaw Nutrition Puzzle handouts on cardstock. Cut the six puzzles apart and place one puzzle in each of the envelopes. This activity will be used during Anticipatory Set.Print copies of Note Taking Template handouts to be used during Direct Instruction. Best when printed in front and back format.Display as many of the lesson-related supplies that you have available on a table in front of the room. Display copies of the Dietary Guidelines and MyPlate poster and the replica or poster of MyPlate on a table in front of the classroom.Divide students into six groups. Give each group one envelope which contains the cut apart Jigsaw Nutrition Puzzle. Instruct the students to assemble the puzzle pieces. After they have assembled the puzzle, have each group take turns reading one nutrition statement from the puzzle.Allow for questions and discussion. |
| **Direct Instruction \*** | Introduce lesson objectives, terms, and definitions.Distribute handout Note Taking Template. Students will be expected to take notes while viewing the slide presentation. Teacher to determine the notes which will be recorded by students.Introduce PowerPoint Nutrition Over the Life Span and begin the discussion with students. Discuss the nutritional needs for each of the stages in the life cycle. Allow for questions and answers to check for understanding.After viewing the slide presentation, the students will work together with a partner to complete page four of the Note Taking Template handout. They will have an opportunity to reflect, review, and respond to the information pertaining to the PowerPoint. They will write a summary of questions, topics or statements which reflect the information from the lesson:* Discuss the topic
* Write down your thoughts
* Make a real-world connection to the lesson
* How is this going to help you in the future?

Allow for questions and answers to check for understandingYouTube videos included in the PowerPoint:* Importance of Nutrition for TeensSusan Adams, Registered Dietitian discusses why healthy eating habits and nutrition are important for teens to learn about and adapt into their daily routines.<http://youtu.be/zJNmu0tpdZU>
* Introducing the New Food Icon: MyPlateThe Department of Agriculture introduces the new food icon, MyPlate, to replace the MyPyramid image as the government’s primary food group symbol. An easy-to-understand visual cue to help consumers adopt healthy eating habits, MyPlate is consistent with the 2010 Dietary Guidelines for Americans.<http://youtu.be/SEFmSk08LIE>

*Individualized Education Plan (IEP) for all special education students must be followed. Examples of accommodations may include, but are not limited to:** checking for understanding
* providing a copy of slide presentation
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| **Guided Practice \*** | Scenario: You are a hospital dietitian and must advise your patients on what to eat in order to lead a healthy lifestyle or achieve a specific health-related goal. You must plan a one-day menu using the ChooseMyPlate related information. Your patients include:* 28-year-old woman who is five months pregnant
* Five-month-old infant with bronchitis
* Four-year-old girl recovering from a car accident
* Teenage boy with a concussion due to a football injury
* 35-year-old man recovering from an emergency appendicitis surgery
* 70-year-old woman with a broken hip

Distribute Diet Plans handout. Divide students into groups and assign each group one patient from the list above to research an adequate diet for their road to recovery.Display a sample menu from the ChooseMyPlate website Sample Menus 2000 Calories.Attach your computer to a multimedia projector and view the ChooseMyPlate.gov website together so your students can become familiar with the plate and learn more about nutrition and all the nutrients food has to offer. Be sure to visit the food gallery for each of the food groups.Allow for questions and discussion. Check for understanding.Distribute Sanitation and Food Safety Rules handout. Review sanitation and food safety rules with the students.Divide students into lab groups so that they may plan for the lab. Assign each group one category of the life span from the list below to research an adequate recipe. They may choose their own recipe or review one provided by you. They will compile a grocery list of needed items. They will present their prepared recipe during Summative/End of Lesson Assessment and will include the nutritional value of the food item, food source, caloric value, portion size, and provide four tips for healthy snacks or foods for the selected category. The categories are:* Pregnancy
* Infants
* Children
* Teenagers
* Adults
* Seniors and older adults

Remind students of safety procedures, appropriate dress and personal hygiene in food preparation.Distribute the Rubric for Laboratory Experience – Nutrition Over the Life Span so students will understand what is expected.*Individualized Education Plan (IEP) for all special education students must be followed. Examples of accommodations may include, but are not limited to:** allowing extra time for assignments
* continuously checking for understanding
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| **Independent Practice/Laboratory Experience/Differentiated Activities \*** | Students will prepare selected recipes following all safety guidelines in the allotted amount of time.*Individualized Education Plan (IEP) for all special education students must be followed. Examples of accommodations may include, but are not limited to:** shortened instructions
* providing extra time for assignments
 |
| **Lesson Closure** | Review lesson objectives, terms, and definitions.As a review activity, the students will share information about nutrition over the life span. Distribute one index card per student. Students are to write one fact about nutrition over the life span. Refer to Teacher Instructions for Inside/Outside Circle Activity handout. Students will be placed in concentric circles and will have 1-2 minutes to discuss and present their information on the index card. The students seated in the inside circle will rotate one person to the right. Students share their information with each other.You may utilize the Stopwatch tool to assist the students in keeping track of the time at <http://www.online-stopwatch.com/> |
| **Summative/End of Lesson Assessment \***  | Each group will present their snack or meal. They will discuss the nutritional value of the food item, food source, caloric value, portion size, and provide four tips for healthy snacks or foods for an individual throughout their life span.All food items will be set up on a table and everyone will have an opportunity to sample each other’s food creations.Students will be assessed by Rubric for Laboratory Experience – Nutrition Over the Life Span.*Individualized Education Plan (IEP) for all special education students must be followed. Examples of accommodations may include, but are not limited to:** providing extra time for assignment
* working with peer tutor
 |
| **References/Resources/****Teacher Preparation** | **Technology:*** Microsoft Clip Art: Used with permission from Microsoft.

**Textbook:*** Brisbane, H. (2010). *The developing child*. Columbus, OH: Glencoe/McGraw-Hill.
* Duffy, R. L. (2010). Food, nutrition & wellness. Columbus, OH: Glencoe/McGraw-Hill.
* Kowtaluk, H. (2010) Food for today. Columbus, OH: Glencoe/McGraw-Hill.
* Weixel, S., & Wempen, F. (2010). Food & nutrition and you. Upper Saddle River, NJ: Pearson/Prentice Hall.

**Websites:*** Academy of Nutrition and DieteticsThe world’s largest organization of food and nutrition professionals <http://eatright.org>
* Nutrition Education of TexasTeaching Nutrition: Background information about nutrition, nutrients, and healthy eating habits. Topics include nutrients, food safety, selecting a balanced diet, nutritional needs during the lifecycle, nutrition, and health. For additional information, visit:<http://netx.squaremeals.org/teaching_nutrition.html>
* Tips for a Safe and Healthy LifeU.S. Department of Health and Human ServicesCenters for Disease Control and Prevention<http://www.cdc.gov/family/tips>
* U.S. Department of Agriculture. ChooseMyPlate.gov Website. Washington, DC.<http://www.choosemyplate.gov/>Accessed February 2013.

**YouTube:*** Importance of Nutrition for TeensSusan Adams, Registered Dietitian discusses why healthy eating habits and nutrition are important for teens to learn about and adapt into their daily routines.<http://youtu.be/zJNmu0tpdZU>
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| **Additional Required Components** |
| **English Language Proficiency Standards (ELPS) Strategies** | * Ask students to repeat your instructions back to you to be sure they know what is expected of them before each phase of the lesson.
* Discuss vocabulary in detail and make sure everyone has a firm grasp on it before moving forward with the lesson.
* Use graphic organizers and visuals to explain the lesson in detail.
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| **College and Career Readiness Connection[[1]](#footnote-1)** |  |
| **Recommended Strategies** |
| **Reading Strategies** | Current Events:Assign students to read about nutrition over the life span. Information can be found in newspaper articles, magazines, journals, and online print.Suggestions:* Tips for Pregnant Moms
* Young at Heart Tips for Older Adults
* Dietary Guidelines
* Ten Tips Nutrition Education SeriesThe Ten Tips Nutrition Education Series provides consumers and professionals with high quality, easy-to-follow tips in a convenient, printable format. These tips are also available in Spanish.<http://www.choosemyplate.gov/healthy-eating-tips/ten-tips.html>
* Encourage students to connect reading to their life experiences or prior knowledge.
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| **Quotes** | The food you eat can be either the safest and most powerful form of medicine or the slowest form of poison.**-Ann Wigmore**Any food that requires enhancing by the use of chemical substances should in no way be considered a food.**-John H. Tobe**You are what you eat. What would YOU like to be?**-Julie Murphy**, *Nutrition Across a Lifetime*If you keep on eating unhealthy food then, no matter how many weight loss tips you follow, you are likely to retain weight and become obese. If only you start eating healthy food, you will be pleasantly surprised how easy it is to lose weight.**-Subodh Gupta**, *7 habits of skinny woman*If you don’t take care of your body, where are you going to live?**-Unknown** |
| **Writing Strategies****Journal Entries + 1 Additional Writing Strategy** | **Journal Entries:*** Good nutrition is\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* Some health benefits of eating well are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* Tips I would give older adults on nutrition would be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* Pregnant women need to eat well because \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* Infants need adequate nutrients for their first year of life because \_\_\_\_\_\_\_\_\_\_\_\_\_.

**Writing Strategies:*** RAFT Writing Strategy
	+ Role – Nurse
	+ Audience – Teenager
	+ Format – Newsletter
	+ Topic – The Importance of Good Nutrition
 |
| **Communication****90 Second Speech Topics** | * ChooseMyPlate is a program for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* I plan to eat better because \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* Exercise, eating well, and maintaining your weight are important because \_\_\_\_\_\_\_\_\_\_\_\_\_.
* I plan to share this information with my family because \_\_\_\_\_\_\_\_\_\_\_.
* Some nutrition tips, diet and weight loss tips and nutritional health facts for teenagers are \_\_\_\_\_\_\_\_\_\_\_\_.
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| **Other Essential Lesson Components** |
| **Enrichment Activity**(e.g., homework assignment) | Allow students to assess their knowledge of nutrition and eating healthy foods by playing the following games from the Academy of Nutrition and Dietetics.* Fact or Fiction<http://www.eatright.org/nnm/games/MythOrFact/index.html>

Principles of Human Services Writing Prompt:Think about the impact of nutrition on development, wellness, and productivity over the life span. Write an essay stating your position on the impact of nutrition on development, wellness, and productivity over the life span. (10th and 11th grade persuasive writing) |
| **Family/Community Connection** | Allow students to play ChooseMyPlate’s interactive Blast Off Game. This game is for children ages 6 to 11 but it is a fun way to fuel their rocket with food and physical activity. They can then go home and introduce the game to their younger brothers and sisters or children they may babysit. If students successfully make it to Planet Power, they will receive a certificate that they can include in their cookbook.<http://www.choosemyplate.gov/children-over-five.html> |
| **CTSO connection(s)** | **Family, Career, and Community Leaders of America (FCCLA)**<http://www.fcclainc.org>* Nutrition and Wellness An individual event, recognizes participants who track food intake and physical activity for themselves, their family, or a community group and determine goals and strategies for improving their overall health.
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| **Service Learning Projects** | Successful service learning project ideas originate from student concerns and needs. Allow students to brainstorm about service projects pertaining to lesson.<http://www.nylc.org/>Possible idea:Organize a local health and wellness clinic by contacting medical professionals to oversee needed screenings, providing information brochures, and distributing flyers. |

1. Visit the Texas College and Career Readiness Standards at <http://www.thecb.state.tx.us/collegereadiness/CRS.pdf>, Texas Higher Education Coordinating Board (THECB), 2009. [↑](#footnote-ref-1)