**TEXAS CTE LESSON PLAN**

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| **Lesson Identification and TEKS Addressed** |
| **Cluster**  | Human Services |
| **Course**  | Lifetime Nutrition and Wellness |
| **Lesson/Unit Title** | ChooseMyPlate – Fruits and Water-Soluble Vitamins |
| **TEKS Student Expectations** | **130.274. (C) Knowledge and Skills**(2) The student understands the role of nutrients in the body. (A) The student is expected to classify nutrients, their functions, and food sources and compare the nutritive value of various foods(B) The student is expected to assess the effects of nutritional intake on health, appearance, effective job performance, and personal life(5) The student understands safety and sanitation. (A) The student is expected to demonstrate safe and sanitary practices in the use, care, and storage of food and equipment(C) The student is expected to practice appropriate dress and personal hygiene in food preparation(6) The student demonstrates knowledge of food management principles. (B) The student is expected to correctly use standard measuring techniques and equipment |
| **Basic Direct Teach Lesson** |
| **Instructional Objectives** | **Students will:*** Focus on fruits and their health benefits
* Analyze water-soluble vitamins for their functions and food sources
* Determine the effects of water-soluble vitamins
* Plan and prepare a fruit recipe
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| **Rationale** | Eating fruit provides health benefits— people who eat more fruits and vegetables as part of an overall healthy diet are likely to have a reduced risk of some chronic diseases. Fruits provide nutrients vital for health and maintenance of your body. |
| **Duration of Lesson** | Four 45-minute class periods |
| **Word Wall** | **Energy:** The ability or power to work or try**Fruit:** The part of the plant that holds the seeds**Functions:** To serve a purpose**Nutrients:** A chemical substance, such as protein, carbohydrates, fat, or fiber, that your body needs to function, grow, repair itself, and create energy**Sources:** The place, person, or thing through which something has come into being or from which it has been obtained**Water-Soluble Vitamins:** A vitamin that dissolves in water and passes easily into the bloodstream during digestion |
| **Materials/Specialized Equipment Needed** | **Equipment:*** Computer with Internet access for multimedia presentations
* Computer lab with Internet access (be sure to follow school district guidelines)

**Materials:*** Fruits and vegetables mini poster
* Fruit food replicas (if available)
* Magazine pictures of fruit
* MyPlate Fruits
* Storing fruits and veggies

**Supplies:*** Replica of MyPlate (if available)
* Copies of handouts

**PowerPoint:*** Water-Soluble Vitamins

**Technology:*** Free iPad Apps
	+ Explore Your World: FruitDiscover interesting facts about fruits, including different varieties, their role in healthy eating, and fascinating trivia.<https://itunes.apple.com/us/app/explore-your-world-fruit/id432772638?mt=8>

**Graphic Organizers:*** ChooseMyPlate – Fruits
* ChooseMyPlate – Fruits (Key)
* Water-Soluble Vitamins
* Water-Soluble Vitamins (Key)

**Handouts:*** Focus on Fruits
* Fruits and Veggies Mini Poster
* Liven Up Your Meals
* MyPlate Fruits
* Rubric for Laboratory Experience – Fruits
* Storing Fruits and Veggies
* Substitutions for Healthier Cooking and Baking

**Cookbooks:*** Fast and Easy Recipes
* Fruit and Vegetable Recipes
* Healthy Recipes
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| **Anticipatory Set** | **Note to Teacher:**The introductory lesson to the nutrients, ChooseMyPlate, and SuperTracker is:* Nutrition Principles for a Lifetime of Wellness

This is the first lesson of six that follows the ChooseMyPlate food groups. The others include:* ChooseMyPlate – Vegetables and Fat-Soluble Vitamins
* ChooseMyPlate – Grains and Carbohydrates
* ChooseMyPlate – Protein Foods and Trace Minerals
* ChooseMyPlate – Dairy, Major Minerals, and Electrolytes
* ChooseMyPlate – Oils and Fats

These lessons may be taught individually in any sequence you prefer or may be taught as a whole.The functions, food sources, deficiencies and excesses on the slide presentation were compiled using three different texts. You may use information from your text or a reliable source to complete these sections.**Before class begins:**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.Cookbooks**:*** Fast and Easy Recipes
* Fruit and Vegetable Recipes
* Healthy Recipes

These cookbooks and more are also available in the Resource section of the Lifetime Nutrition and Wellness home page.Display fruit food replicas (if available) or fruit images from magazines at a table in front of the room. Make a few copies of the handouts listed in the Materials or Specialized Equipment Needed tab to display as well. Encourage students to discuss fruits and how they add fruit to their daily diet.Ask students to recall the fruits they have eaten in the past three days. Allow them to add the foods to the Food Tracker section of the SuperTracker. They will be able to view how their daily choices stack up to their food group targets and daily limits. Or, have students list the foods on a sheet of paper if computers are not available. With your computer connected to a multimedia projector, log into the SuperTracker website.[www.supertracker.usda.gov/](http://www.supertracker.usda.gov/)Type in some of their choices to evaluate the amount, daily calorie limit, and daily food group targets. Discuss the results. |
| **Direct Instruction with Special Education Modifications/****Accommodations** | Introduce lesson objectives, terms, and definitions.Distribute handouts Focus on Fruits – 10 Tips to Help You Eat More Fruits and Liven Up Your Meals with Vegetable and Fruits – 10 Tips to Improve Your Meals with Vegetables and Fruits from the 10 Tips Nutrition Education Series. Allow students to review the tips to encourage eating more fruits. These handouts may be included in their personal Lifetime Nutrition and Wellness Cookbook.Connect your computer to a multimedia projector to view each section of the ChooseMyPlate website.ChooseMyPlate – Fruits<http://www.choosemyplate.gov/food-groups/fruits.html>Distribute graphic organizer ChooseMyPlate – Fruits so that students may take notes.Review and discuss each page with your students so they become familiar with the nutrients, health benefits, and needed amounts. Be prepared to do an image search of fruits students are not familiar with.Fruit – Focus on Fruits* What’s in the Fruit Group? (be sure to view food gallery)
* How Much is Needed?
* What Counts as a Cup?
* Health Benefits and Nutrients
* Tips to Help You Eat Fruits

*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
* encourage participation
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| **Guided Practice with Special Education Modifications/****Accommodations** | Introduce PowerPoint Water-Soluble Vitamins. Allow students to take notes on their own paper (typed or handwritten) as you review the functions and sources of the vitamins as well as deficiencies and excesses or distribute the graphic organizer Water-SolubleVitamins. Students may include these notes in their cookbook also.Divide students into lab groups so that they may plan for the fruit lab. They may choose their own recipe or review one provided by you. They will compile a grocery list of needed items.Distribute handout Substitutions and Healthier Cooking and Baking. Students may use this handout to substitute with healthier items for higher calorie ingredients.Divide students into lab groups. Remind students of safety procedures, appropriate dress and personal hygiene in food preparation.Distribute the Rubric for Laboratory Experience – Fruits 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:** peer to take notes
* printed copy of slide presentation
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| **Independent Practice/Laboratory Experience with Special Education Modifications/****Accommodations** | Students will prepare a fruit recipe following all safety guidelines in the allotted amount of time.Groups will set their tables according to the recipe chosen and practice etiquette and table service.*Individualized Education Plan (IEP) for all special education students must be followed. Examples of accommodations may include, but are not limited to*:* extended time for assignments
* check for understanding
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| **Lesson Closure** | Review lesson objectives, terms, and definitions.Question and Answer ReviewAsk the students to recall learned information from the following questions:* Which vitamin helps prevent birth defects in the brain and spinal cord?
* Which vitamin helps stabilize sugar level?
* Which vitamin helps maintain healthy capillaries, bones, skin, and teeth?
* Which vitamin is used in making genetic material?
* What happens if I get too much vitamin C? Vitamin B6?
* What can happen if I don’t get enough Niacin? Thiamin? Vitamin C?

Students may refer to their notes for review. |
| **Summative/End of Lesson Assessment with Special Education Modifications/****Accommodations** | Students will be assessed with an appropriate rubric.Students will also evaluate the fruit lab for flavor, ease of preparation, and presentation.*Individualized Education Plan (IEP) for all special education students must be followed. Examples of accommodations may include, but are not limited to:** encourage participation
* assist in lab procedures
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| **References/****Resources** | **Images:*** Microsoft Office Clip Art: Used with permission from Microsoft.

**Textbooks:*** Duyff, 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.

**Website:*** Fruits and Veggies: More MattersFill half your plate with fruits and veggies<http://www.fruitsandveggiesmorematters.org/>
* U.S. Department of Agriculture. ChooseMyPlate.gov Website. Washington, DC. Fruits.<http://www.choosemyplate.gov/food-groups/fruits.html> Accessed December, 2012.
* U.S. Department of Agriculture. ChooseMyPlate.gov Website. Washington, DC. SuperTracker.<https://www.supertracker.usda.gov/>Accessed December, 2012.
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| **Additional Required Components** |
| **English Language Proficiency Standards (ELPS) Strategies** | * Word wall
* Draw visual representations of terms on word wall
* Add terms and definitions to personal dictionary
* Utilize Four Corners Vocabulary/ Word Wall Activity
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| **College and Career Readiness Connection[[1]](#footnote-1)** |   |
| **Recommended Strategies** |
| **Reading Strategies** | Current Events:Assign students to read more information about the benefits of fruits. Information can be found in newspaper articles, magazines, journals, and online print.Suggestions:* Fruit FactsClick on the images of fruit to find out interesting fruit facts.<http://www.gofor2and5.com.au/FruitVegFacts/FruitFacts/tabid/82/Default.aspx>
* In the News: Fruits & VegetablesRead the latest in fruit & veggie news, everything from headliners and rumors … to research and policies that could affect you and your family. <http://www.fruitsandveggiesmorematters.org/in-the-news-fruits-vegetables>

Encourage students to “visualize” as they read. Many students are visual learners and will benefit from making sketches or diagrams on scrap paper as they read. Providing students with graphic organizers to help them organize their thoughts is also helpful. |
| **Quotes** | The trees that are slow to grow bear the best fruit. **-Moliere**Adopting a new healthier lifestyle can involve changing diet to include more fresh fruit and vegetables as well as increasing levels of exercise. **-Linford Christie**I love fresh citrus and always keep lemons, limes, and oranges on hand; they come in handy for spritzing up quickly grilled meats, seafoods, and vegetables, especially when followed up by a quick drizzle of extra virgin olive oil. **-Emeril Lagasse**I think all kids need snacks. Mine are fruit machines. I give them things like apple slices, berries, and melon. Do I let them eat ice cream? Absolutely. But not every day. **-Emeril Lagasse** |
| **Writing Strategies** | **Journal Entries:**My favorite fruit is \_\_\_\_\_\_\_ because ……….My favorite fruit recipe is \_\_\_\_\_\_\_ because ………The food sources for water soluble vitamins are ……I will try to remember to eat more fruits by ………**Writing Strategies:**RAFT Writing Strategy* + Role – teacher
	+ Audience – apple farmer
	+ Format – letter
	+ Topic – field trip for students to visit the apple orchards
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| **Communication 90 Second Speech Topics** | Three benefits of eating fruits daily are ……. The school cafeteria should offer fresh fruit daily because …… Fruits are important in our diets because …. |
| **Other Essential Lesson Components** |
| **Enrichment activity** | If budget allows:* Students may make fruit kabobs to pass out to students to encourage eating more fruit.
* Practice garnishing techniques using fruit for presentation.

Lifetime Nutrition and Wellness Math Assessment ProblemsQuestion 1. Margaret has been tracking what she eats. She has written down the total caloric intake for the past week. Monday: 2,045, Tuesday: 3,209, Wednesday: 1,098, Thursday: 2,398, Friday: 3,487, Saturday: 2,378, Sunday: 2,938What is Margaret’s approximate mean caloric intake?a. 2,225b. 2,500c. 2,750d. 3,000Answer: bQuestion 4. You are shopping for a meal that calls for 2 pounds of meat at $2.39 per pound, one onion at 77 cents, and one pound of pasta that costs $1.48. Approximately how much would it cost if you needed to triple the amounts of all ingredients?a. $ 4.64b. $ 7.03c. $14.06d. $21.09Answer: dLifetime Nutrition and Wellness Social Studies Assessment QuestionsFood began to be processed and packaged during the:a. Great Depressionb. Roaring Twentiesc. Industrial revolutiond. World War IAnswer: cLifetime Nutrition and Wellness Writing Prompt:Think about safe and sanitary practices in the use, care, and storage of food. Imagine that you have friend who does not follow these practices. Write an essay explaining safe and sanitary practices in the use, care, and storage of food. (9th and 10th grade expository writing) |
| **Family/****Community Connection** | Invite the local produce manager to speak to the class about organic fruit and the difference in price, color, and flavor.If possible, ask the produce manager to bring samples of exotic fruits for students to sample. |
| **CTSO connection** | **Family, Career, and Community Leaders of America**<http://www.texasfccla.org>**STAR Events:*** Sports Nutrition An individual or team event, recognizes participants who use Family and Consumer Sciences skills to plan and develop an individualized nutritional plan to meet the needs of a competitive student athlete in a specific sport.
* Nutrition and WellnessAn 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.

Online **STAR Events:*** No Kid Hungry National Outreach Project A team event, recognizes chapters that participate in the “No Kid Hungry” Share our Strength National Outreach Project. Participants will use Family and Consumer Sciences content and skills to address ending childhood hunger through service learning, education/awareness, and fundraising.
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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. For additional information on service learning see <http://www.servicelearning.org>Example:Students may visit an elementary school to demonstrate healthy fruit recipes and encourage students to fill half their plates with fruit. |

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)