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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** | Lifetime Nutrition and Wellness |
| **Lesson/Unit Title** | Successful Lab Management Guidelines |
| **TEKS Student Expectations** | **130.274. (c) Knowledge and Skills**  (6) The student demonstrates knowledge of food-management principles. The student is expected to:  (A) read and comprehend standard recipes  (B) correctly use standard measuring techniques and equipment  (C) demonstrate correct food-preparation techniques, including nutrient retention |
| **Basic Direct Teach Lesson**  (Includes Special Education Modifications/Accommodations and  one English Language Proficiency Standards (ELPS) Strategy) | |
| **Instructional Objectives** | **Students will:**   * Comprehend the components of a recipe * Practice measuring techniques * Plan a laboratory experience preparing nutritious foods * Prepare a grocery list for lab * Work together as a team to produce a flavorful product |
| **Rationale** | Lifetime Nutrition and Wellness is a laboratory course that allows students to make informed choices that promote wellness.   Have you ever had a cooking or baking disaster in the kitchen? Being able to read a recipe and measure accurately can make the difference between a successful food item and a disaster. This lesson will guide your students to prepare a delicious nutritious product. |
| **Duration of Lesson** | Two 45-minute class periods |
| **Word Wall/Key Vocabulary**  *(ELPS c1a, c, f; c2b; c3a, b, d; c4c; c5b) PDAS II (5)* | **Abbreviation:** A shortened form of a word or a phrase  **Measure:** Ascertain the size, amount, or degree of (something) by using an instrument or device marked in standard units or by comparing it with an object of known size  **Nutrition:** The processes by which the body uses nutrients in food for growth, energy, repair, and maintenance  **Recipe:** A set of directions for making a food or beverage  **Teamwork:** Combining individual efforts to reach a shared goal |
| **Materials/Specialized Equipment Needed** | **Equipment:**   * Computer with Internet access for multimedia presentation * Computer lab with Internet access (be sure to follow school district guidelines) * Light projector (Elmo)   **Materials:**   * Cardstock * Computer paper * Magazines (cooking) * Scissors   **Supplies:**   * Cookbooks (various) * Measuring utensils   + - Dry measuring cups     - Liquid measuring cups     - Measuring spoons   **Groceries:**   * Brown sugar * Butter * Flour * Food coloring * Salt * Sugar * Water (tap) * Copies of handouts   **PowerPoint:**   * Successful Lab Management Guidelines   **Technology:**   * Free iPad App:   + Epicurious Recipes & Shopping List  Recipes from the award-winning food site Epicurious.com [https://itunes.apple.com/us/app/epicurious-recipes-shopping/id312101965?mt=8](http://cte.sfasu.edu/wp-content/uploads/2013/10/Successful-Lab-Management-Guidelines-Notes.pdf?mt=8)   **Graphic Organizers:**   * Bingo Templates * Lab Duty Assignments 4 blank * Lab Duty Assignments 5 blank * Lab Duty Assignments * Recipe Breakdown   **Handouts:**   * Baking and Cooking Skills Checklist * Baking and Cooking Terms * Baking and Cooking Terms (Key) * Baking and Cooking Terms Flashcards * Following Directions * Measurement Standards * Measurement Standards (Key) * Rubric for Laboratory Experience * Sample Lab Plan (blank) * Sample Lab Plan * Sample Lab Prep Sheet * Standards of Measurement * Substitutions for Healthier Baking and Cooking * Successful Lab Management Guidelines Notes * Suggested Guidelines for Lifetime Nutrition and Wellness Lab |
| **Anticipatory Set**  (May include pre-assessment for prior knowledge) | **Before class begins:**  Teacher note: Read the handout Suggested Guidelines for Lifetime Nutrition and Wellness Labs before you begin the laboratory experience with your students.  Display as many of the items as you have available from the Materials or Specialized Equipment Needed tab on a table in front of the classroom.  Distribute handout Baking and Cooking Skills Check List to find out what your students already know about baking and cooking. This will give you an idea of the skills your students may have.  The following questions may be asked:   * Why is it important to use standard measuring equipment in preparing a recipe? * Why is it important to be knowledgeable of the skills and procedures for food preparation? * Why is it important to read a recipe thoroughly?   Discuss the answers with your students. |
| **Direct Instruction \*** | Introduce lesson objectives, terms and definitions.  Distribute graphic organizer Successful Lab Management Guidelines Notes so that students may take notes during the slide presentation. Students may use this graphic organizer or may use the handouts in the Guided Practice section if you are teaching each section at a time.  Introduce slide presentation Successful Lab Management Guidelines. These guidelines are recommendations. Be sure to ask your school district for guidance.  The PowerPoint is divided in four sections:   * Recipes * Measuring Standards * Cooking Terms * Lab Guidelines   The sections may be taught all at one time or may be divided depending on class time available.  *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 |
| **Guided Practice \*** | Distribute graphic organizer Recipe Breakdown. Students may use cookbooks, magazines, or print a recipe from the Internet to fill in the handout.  Well-written recipes should have:   * Recipe name * List of ingredients * Yield * Cooking method, temperature, and time * Equipment needed * Step-by-step directions * Nutritional analysis   An important skill needed for successful food preparation is knowledge of measurements, measuring equipment, and equivalents. Have students examine dry and liquid measuring cups and measuring spoons. Show the various sizes and types of measuring equipment and ask students to identify each by name and size.  Demonstrate appropriate techniques for measuring dry ingredients, such as flour, and liquid ingredients, such as water (add food coloring drops for a visual effect).  Distribute handout Standards of Measurement and review the abbreviations. Explain that abbreviations are sometimes used in recipes to save space on a page. This handout may be kept in their personal cookbook.  Distribute handout Measurement Standards and allow students to complete the worksheet using the Standards of Measurement chart. The Measurement Standards may be used as a homework assignment or worked together as a class for a lesson closure.  Distribute handout Baking and Cooking Terms and allow students to use a textbook or the Internet to locate the definition of each term. These are basic terms that will be needed in the lab experiences for the students. Other terms may be added.  A light projector may also be used to display the Baking and Cooking Terms (Key) and allow students to take notes.  Notice that the term *Fry* is not included as it is not a nutritious cooking technique.  *Individualized Education Plan (IEP) for all special education students must be followed. Examples of accommodations may include, but are not limited to:*   * note-taking assistance * provide a copy of the key |
| **Independent Practice/Laboratory Experience/Differentiated Activities \*** | Note: Prior to class, decide how you will divide the class into lab groups and the duties for each student. Students may be placed in groups randomly by drawing numbers or selected by ability. Remind students that when we are employed, we do not get to choose who we work with so we should get along with our lab group to produce a flavorful product.   Distribute the graphic organizer Lab Duty Assignments to each group. Lab Duty Assignments 4 blank and Lab Duty Assignments 5 blank are also available depending on your lab groups.  Students should write in the duties for each person in the group.   Note to Teacher: Decide before the first lab which lab plan sheet you plan to use.  Divide the class into lab groups and distribute handout Sample Lab Plan, Sample Lab Plan (blank) or Sample Lab Prep Sheet so that students may plan for the lab experience. A designated student from each lab group should prepare a grocery list and any other items needed for a successful lab.   Distribute handout Substitutions for Healthier Cooking and Baking so that students may substitute healthier versions of ingredients in their recipes. This handout may be kept in their personal cookbook.  Distribute Rubric for Laboratory Experience so that 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:*   * checking for understanding * encourage participation |
| **Lesson Closure** | Distribute handout Following Directions and remind students how important it is to follow directions carefully.  If students are successful in following directions, they should have a paper cup. If possible, provide an incentive or reward for accomplishing the task.  Possible examples:   * Coupons for homework assignments * Fat free animal crackers * Hot air popcorn * Whole grain cereal |
| **Summative/End of Lesson Assessment \*** | Review lesson objectives, terms and definitions.  *Cooking Terms Review*  Teacher note:  Print Cooking Flashcards on cardstock and cut them apart.  Print Bingo Templates on computer paper. Distribute the Bingo cards and allow students to fill in the squares with various cooking terms. Set the rules for the game before you begin.    Students will be assessed with appropriate rubric during lab.  *Individualized Education Plan (IEP) for all special education students must be followed. Examples of accommodations may include, but are not limited to:*   * allow visual of flashcards * praise participation |
| **References/Resources/**  **Teacher Preparation** | **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. |
| **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 |
| **College and Career Readiness Connection[[1]](#footnote-1)** |  |
| **Recommended Strategies** | |
| **Reading Strategies** | Read the following article on how to lighten up some favorite meals.   * Southern Food  It’s Not All Fried and Greasy  Reviewed by Eleese Cunningham, RDN <http://www.eatright.org/Public>   Reading Strategy: 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** | I liked the energy of cooking, the action, the camaraderie. I often compare the kitchen to sports and compare the chef to a coach. There are a lot of similarities to it. **-Todd English**  I measure in my palm and use my eyes to estimate amounts; a tablespoon is a full palm of dried spices. **-Rachael Ray** |
| **Writing Strategies**  **Journal Entries + 1 Additional Writing Strategy** | **Journal Entries:**   * I enjoy cooking/baking because …. * My favorite holiday to bake for is …….   **Writing Strategy:**   * RAFT Writing Strategy   + Role – Granddaughter/Grandson   + Audience – Grandmother   + Format – Recipe   + Topic – Please write down your favorite recipes so that I may keep them |
| **Communication**  **90 Second Speech Topics** | * Demonstration: How to measure shortening correctly. * Demonstration: How to substitute a healthy ingredient for an unhealthy ingredient. |
| **Other Essential Lesson Components** | |
| **Enrichment Activity**  (e.g., homework assignment) | Students may use the handout Substitutions for Healthier Baking and Cooking and produce a recipe using the substitutions. Allow other students to sample the product for flavor, texture, and visual appeal. |
| **Family/Community Connection** | Encourage students to practice at home the cooking techniques they have learned.   — Have students ask their parents, grandparents, and family members for their family recipes. Recipes passed down from generation to generation are usually favorites at family gatherings. Students should compile the recipes in a notebook for safekeeping. |
| **CTSO connection(s)** | **Family, Career, and Community Leaders of America**  <http://www.texasfccla.org>   * Food Innovations – An individual or team event – recognizes participants who demonstrate knowledge of the basic concepts of food product development by creating an original prototype formula, testing the product through focus groups, and developing a marketing strategy. |
| **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 brainstorm ideas on how to build teamwork skills in their school so that all students learn to work together. |

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)