



CULINARY ARTS

PATHWAY: Culinary Arts

COURSE: Introduction to Culinary Arts (ICA)

UNIT: 4.2 Commercial Kitchen Equipment – Fixed Equipment



INTRODUCTION

Annotation: Briefly describe the unit topics, tasks, methods, etc.

Identify and distinguish between standard and convection ovens, ranges, steamers, freezers, tilt and steam jacket kettles, refrigerators, fryers, dish machine, coffee and tea brewing equipment.

Grade(s):

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

Time: 4 hours

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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: Please list the standard and elements covered.

CA-ICA-3. Students will name and describe various fixed equipment and small wares associated with the commercial kitchen.

b. Identify and distinguish between a standard and convection oven, stoves, ranges, steamers, fryers, refrigerators, freezers, slicers, food processors, coffee and tea brewing equipment, and food storage equipment. Demonstrate proper use and cleaning of each.

GPS Academic Standards:

ELAALRL5. The student understands and acquires new vocabulary and uses it correctly in reading and writing.

National / Local Standards / Industry / ISTE:

NFCS-8.3. Demonstrate selecting, using, and maintaining food production equipment.



UNDERSTANDINGS & GOALS

Enduring Understandings: Enduring understandings are statements summarizing important ideas and have lasting value beyond the classroom. They synthesize what students should understand – not just know.

Students should have an understanding of how to operate and also determine what equipment is needed when based on menu, size of kitchen and how much production is needed.

Essential Questions: Essential questions probe for deeper meaning and understanding while fostering the development of critical thinking and problem-solving skills. Example: Why is life-long learning important in the modern workplace?

- What are the main uses and functions of large fixed equipment in a commercial kitchen setting?
- How does each contribute to kitchen production and what is the process to determine what equipment is needed?

Knowledge from this Unit: Factual information.

Skills from this Unit: Performance.



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:

Assessment(s) Description/Directions:

Attachments for Assessment(s): Please list.



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.

Sequence of Instruction

1. Identify the Standards. Standards should be posted in the classroom for each lesson.

CA-ICA-3. Students will name and describe various fixed equipment and small wares associated with the commercial kitchen.

ELAALRL5. The student understands and acquires new vocabulary and uses it correctly in reading and writing.

NFCS-8.3. Demonstrate selecting, using, and maintaining food production equipment.

2. Review Essential Questions.

- What are the main uses and functions of large fixed equipment in a commercial kitchen setting?
- How does each contribute to kitchen production and what is the process to determine what equipment is needed?

3. Identify and review the unit vocabulary.

4. Assessment Activity.

Set Induction: Instructor will hand out detailed list of fixed kitchen equipment, proper setup, what cooking techniques they are used for, cleaning and correct terminology. Students should be familiar with on/off operations of each.

Learning Activities:

1. The instructor will go over each item described in handout and give a brief description in use. Handout should include the following large equipment list.

Note: Use of PowerPoint presentation on equipment could be used.

- **Ovens**-The main difference is convection has a fan to circulate air which will in turn cook product more quickly. There is a difference of 25 to 50 degrees in temperature between the two.
- **Ranges (stovetop)** are an everyday use in a commercial kitchen; they come in various sizes depending on the number of burners and can differ in BTU's.

- **Steamers** are a moist heat method used for large volume production
- **Refrigerators and Freezers**-sizes can range from reach-ins to walk-ins. They are an essential part of overall storage and production. Temps should be checked daily.
- **VCM**- Vertical chopping machine, used to grind, blend and emulsify large quantities of product.
- **Food chopper**- Buffalo chopper, table top with fixed blade and rotating bowl.
- **Food Slicers**-Slicing machine used for slicing food to a particular thickness with a rotating blade.
- **Tilting Kettle**- used for various cooking methods
- **Steam Jacket kettle**- comes in various sizes, used for soups, stocks and sauces.

- **Deep Fat fryer**-Countertop and floor models are available, oil heat controlled by thermostat.
- Standing Mixers-sizes range from 7, 10, 20qts and up. With paddle dough hook and wire whip attachments
- **Char broiler/Grill**
- **Broiler/salamander**-used to gratinee or brown product on top
- **Ice machine**
- **Dish machine**

2) Instructor to give class tour of kitchen and identify each piece of equipment. Instructor should point out:

- Proper name of equipment
- What it is used for(Foods, Cooking techniques)
- How to operate, functions of equipment
- Proper safety
- How to turn on/off
- How to light pilot lights if needed
- Type of heat being applied (Conduction, Radiant etc.)
- How to properly clean equipment
- Describe what additional pieces are used to operate, show mixing bowls and attachments for stand mixer

Identify temperatures on all refrigeration and freezers

Student/teacher activity

Demo equipment:

Teacher will do a group demo .One or more could be used depending on time:

- Using the stand mixer make a batch of sweetened whipped cream using whisk, go over safety issues and show how to clean after use.
- Mix chocolate cookie dough in stand mixer, portion, and bake half in conventional oven and half in convection oven. Make notes on cooking time, temperature and browning of cookies.
- Make basic biscuit dough, portion and divide in separate ovens as with cookies. Note cooking times and shape of product.
- Take prepared French onion soup; make crouton and top soup, top with Swiss or provolone cheese and brown under salamander.
- Various vegetables could be steamed showing cook times and color.
- Fry french fries, prepared egg rolls or cheese sticks in deep fat fryer.

Note: Baked items could be scaled in class to introduce scales and small wares.

Note: Have students set up dish machine to wash any small wares, dishes after use.

Students should then breakdown machine properly

Transfer Out: Review the importance of having the proper equipment in relations to menu items and kitchen production. Students should know correct terminology and safety for each.

Attachments for Learning Experiences: Please list.

Notes & Reflections: May include notes to the teacher, pre-requisite knowledge & skills, suggestions, etc.



CULMINATING PERFORMANCE TASK

Culminating Unit Performance Task Title:

Culminating Unit Performance Task Description/Directions/Differentiated Instruction:

Attachments for Culminating Performance Task: Please list.



UNIT RESOURCES

Web Resources:

Attachment(s): Supplemental files not listed in assessment, learning experiences, and performance task.

Materials & Equipment:

What 21st Century Technology was used in this unit:

☐	Slide Show Software	☐	Graphing Software	☐	Audio File(s)
☐	Interactive Whiteboard	☐	Calculator	☐	Graphic Organizer
☐	Student Response System	☐	Desktop Publishing	☐	Image File(s)
☐	Web Design Software	☐	Blog	☐	Video
☐	Animation Software	☐	Wiki	☐	Electronic Game or Puzzle Maker
☐	Email	☐	Website		