



Technological University of the Philippines – Taguig  
Km. 14 East Service Road, Western Bicutan Taguig City

VISION: The Technological University of the Philippines shall be a premiere state university with recognized excellence in engineering and technology education at par with the leading universities in the ASEAN region.

I. Objectives:

At the end of the period the students should be able to:

- 1. Identify and list down variuos equipment, tools, and untensils used in food processing. (fermentation and pickling).
- 2. Students will design and justify a custom tool kit for a specific fermentation or pickling task by choosing the appropriate tools and explaining their importance
- 3. Appreciate the importance of using appropriate tools and equipment for specific food processing tasks.

II. Subject Matter:

EQUIPMENT, TOOLS AND UTENSILS  
(Fermentation and Pickling)

Reference: Technology and Livelihood Education VII  
DepEd Module – Food Processing Q2 Module 1

III. Materials

- 1. Laptop and Projector
- 2. Visual Aids (pictures of tools and equipment)
- 3. Printed Worksheet or activity handouts
- 4. Whiteboard and markers

IV. Procedure:

TEACHER’S ACTIVITY	STUDENT’S ACTIVITY
<p><b>A. Preparation</b></p> <p>*Good morning/Good afternoon, Class!</p> <p>*Before we proceed let us pray (calls a student to pray)</p> <p>Good morning/Good afternoon, Class! My name is Harold Ace Domondon, or you can call me Sir Ace, and I will be your teacher for today.</p> <p>Let us have our Attendance, please sign on this attendance sheet.</p> <p>There is no absent for today’s class, Good Job!</p> <p>Class, please pick-up all the scattered pieces of paper under your chairs and arrange your chairs also.</p> <p><b>Recall</b> Last topic we talked about Fermenting and Pickling, so can anyone explain what the difference of Fermenting and Pickling is?</p> <p>Correct!</p>	<p>: Good morning/ Good afternoon, Sir!</p> <p>Student: lead the prayer</p> <p>: Good morning/ Good afternoon, Sir Ace!</p> <p>:</p> <p>Sir, Fermenting uses bacteria to convert sugars into acid where Pickling preserves food by soaking it in an acid solution like vinegar.</p>

B. Motivation

- \*Before we proceed to our topic let us have first an icebreaker
- \*Let’s play! The game is called “**Guess the Tool**”

Instruction: Guess the appropriate tool to use in the situation

1. You are about to transfer hot vinegar into a glass jar with a narrow opening to make pickled onions.

**What tool should you use?**

  - A. Wooden spoon
  - B. Funnel
  - C. Tongs

**Answer:** B. Funnel
2. Your group is preparing pickled vegetables. You need to mix salt, vinegar, and sugar in one container.

**What tool is best for mixing these ingredients?**

  - A. Mixing bowl
  - B. Colander
  - C. Peeler

**Answer:** A. Mixing bowl
3. You want to hold down the vegetables in a jar so they stay submerged in the brine.

**What tool can help with that?**

  - A. Lid
  - B. Measuring cup
  - C. Glass weight

**Answer:** C. Glass weight
4. After slicing carrots for pickling, you need to wash them and remove excess water.

**Which tool is most useful?**

  - A. Peeler
  - B. Tongs
  - C. Colander

**Answer:** C. Colander
5. You need to make sure your fermented vegetables are stored at the right cold temperature.

**Which equipment will help you do this?**

  - A. Steamer
  - B. Boiler
  - C. Chiller

**Answer:** C. Chiller

C. Lesson Proper

\*Where do you think the Tools in our icebreaker is usually used?

\*Correct, so those tools are used in the Kitchen. What do you class think is our topic for today?

\*That’s right, to be more exact our topic for today is about the **Equipment, Tools and Utensils for Fermenting and Pickling.**

But first let us watch this video,  
<https://www.youtube.com/shorts/tzQ8ql6avtQ?feature=share>

What are the tools or utensils that you saw in the video?

\*Sir those tools are used in the Kitchen.

\*Sir I think our topic for today is about Kitchen Tools

\*Knife  
Jar  
Food Tray  
Chopping Board

<p>Based on the video how did he use the tools?</p> <p>Correct!</p> <p>That is some of the Equipment, Tools and Utensils for fermenting and pickling.</p> <p>Let us first have the equipment:</p> <p><b>Steamer</b> – Cooks food with steam heat; useful in pickling preparation.</p> <p><b>Boiler</b> – Used for pasteurization and heating brine or vinegar solutions.</p> <p><b>Pressure Cooker</b> – Tenderizes vegetables or fruits faster for pickling.</p> <p><b>Vacuum Packaging Machine</b> – Removes air for better preservation of pickled/fermented items.</p> <p><b>Chiller</b> – Maintains the proper temperature for storage during fermentation.</p> <p>Next one is <b>Utensils and Containers</b></p> <p><b>Mixing Bowl</b> – For combining brine or fermentation mixtures.</p> <p><b>Glass Jars</b> – Primary container for fermentation and pickling.</p> <p><b>Saucepan</b> – Used to boil vinegar, sugar, or brine.</p> <p><b>Soaking Container</b> – Holds large batches of food for curing/brining.</p> <p><b>Funnel</b> – Helps transfer liquids into jars without spilling.</p> <p>Next is The Hand Tools</p> <p><b>Wooden Spoon</b> – Ideal for mixing ingredients; does not react with acidic mixtures.</p> <p><b>Food Tongs</b> – Used to grip or move food safely during processing.</p> <p><b>Colander/Strainer</b> – Used to rinse or drain ingredients before processing.</p> <p><b>Squeezer</b> – For extracting juice, useful in fermentation recipes.</p> <p><b>Knife</b> – used to cut and prepare vegetables for fermenting and pickling.</p> <p>Lastly is the Apparatus / Measuring Tools</p> <p><b>Measuring Cups/Spoons</b> – Essential for accurate recipes in fermentation/pickling.</p> <p><b>Meat or Digital Thermometer</b> – Ensures proper temperature for safety and fermentation.</p> <p><b>pH Meter</b> – Measures acidity level, especially important in safe fermentation.</p> <p><b>Timer</b> – Helps track soaking or fermentation periods precisely.</p>	<p>Whisk</p> <p>Rubber Band</p> <p>*Sir he used the knife to cut the vegetables, and he used the jar to store the vegetables.</p>

<div><div>D. Generalization</div><div>Out of all the equipment, tools and utensils, what are the tools you used in your house? What did you used it for?</div></div>	
<div><div>E. Application</div><div><div>Group Activity</div><div>Tool Kit Challenge: What’s in Your Bucket?</div><div>Instructions:</div><div><div>1. Divide the class into 4 groups.</div><div>Each group will be assigned a different food product to process:</div><div><div>Group 1: Pickled cucumber</div><div>Group 2: Pickled mango</div><div>Group 3: Atchara (pickled papaya)</div><div>Group 4: Fermented radish</div></div></div><div><div>2. Challenge:</div><div>Each group must prepare a "Tool Kit" list containing at least 5 essential tools or equipment they will need to process their assigned product.</div></div><div><div>For each item, they must:</div><div><div>Name the tool</div><div>Describe its function</div><div>Explain why it’s needed for the specific product</div><div>Include 1 cleaning/sanitizing tip for the tool</div></div></div><div><div>3. Presentation:</div><div>Each group presents their tool kit</div></div></div></div>	
<div><div>V. Evaluation</div><div>Instruction: Choose the best answer and write your answer in ¼ piece of paper</div><div><div>1. ____ Which of the following is used to store pickled vegetables safely and tightly?</div><div>A. Chopping board</div><div>B. Glass jar</div><div>C. Steamer</div><div>D. Colander</div></div><div><div>2. ____ What tool is used to guide liquid into small-mouthed jars without spilling?</div><div>A. Squeezer</div><div>B. Funnel</div><div>C. Saucepan</div><div>D. Peeler</div></div><div><div>3. ____ This equipment helps remove air from packaging to keep pickled items fresh longer.</div><div>A. Pressure cooker</div><div>B. Chiller</div><div>C. Vacuum packaging machine</div><div>D. Trolley</div></div><div><div>4. ____ Which of the following is a tool used to mix ingredients during pickling preparation?</div></div></div>	

- A. Measuring spoon

B. Mixing bowl

C. Wire basket

D. Strainer
5. \_\_\_\_ Which tool is specifically designed to measure small quantities of salt or sugar in pickling?
- A. Measuring cup

B. Digital thermometer

C. Measuring spoon

D. Meat thermometer

VI. Assignment / Agreement

- Instructions:

1. Research and list 5 common tools or equipment used in fermenting or pickling.

2. For each item, write:

What it is used for

How it should be cleaned

How it should be sanitized or stored properly

3. (Optional Bonus) Ask someone at home how they clean kitchen tools—and write down **one tip** they shared.
- Output Format:

You may write your answers on bond paper (A4).

Submit on the next meeting.

Submitted to:  
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