**Fermentation Week!!!** 

Day 1 – What is fermentation? PPT and go over the cookbook assignment. They will use any extra time working on the cookbook assignment. They can use any of the recipes to include in their book but will need to take pictures of each step. Demo [biscuit making](https://docs.google.com/document/u/0/d/1-qjQH8b_2wTDQLTTRr9Pdd6olYl7NQyxPL3N83m9PdM/edit) and taste test apple butter from the food preservation unit.

Day 2 -

Demo tepache (cut up remaining pineapple for Friday and discuss cost savings by buying whole fruit.)

**Tepache** (2-3 days plus bottling if you want it fizzier.)

You can do many things with fruit peelings, including making vinegar. So it should come as no surprise that in parts of Mexico and South America, this fermented pineapple drink is made from the peels of the pineapple. Pineapple is a sweet fruit when fully ripe, so it lends itself well to a lightly carbonated, refreshing drink such as tepache. Many variations are made throughout Central and South America. Some recipes call for spices such as cinnamon and cloves, some call for a large quantity of added sweetener, and others call for no sweetener at all for a drier-tasting recipe. This is a very basic recipe, calling for 1 to 2 cups of sweetener, the latter of which will have a sweeter taste once fermented. As with most fermentations, this does contain a very small amount of alcohol, especially when made with extra sugar. Also, do be careful to not let it ferment too long or you will end up with vinegar.

INGREDIENTS:

2 pineapples

1 cup sugar or sweetener of choice, depending on taste

1 cinnamon stick

Water to cover

INSTRUCTIONS:

Remove tops and peels of pineapple, leaving 1/4 to 1/2 inch of fruit on each peel. Set fruit aside to eat fresh.

If using a granulated sweetener, dissolve in hot water. In a half-gallon, non-reactive vessel, combine pineapple, sugar water, cinnamon stick, and additional water to cover. Weight down the pineapple peelings to keep them below the level of the water. Cover vessel.

Place in a warm spot and allow to ferment for 1 to 5 days, checking the flavor daily to achieve desired taste. The longer it ferments, the more fizzy and sour it will become.

Strain off and serve over ice as is, or to produce a more carbonated beverage, place in airtight bottles 3 days into fermentation (before it becomes too fizzy), cap, and refrigerate immediately.

<https://nourishedkitchen.com/tepache/>

<https://www.culturesforhealth.com/learn/recipe/lacto-fermentation-recipes/tepache/>

Verbally go over the process of making Kraut or Curtido. Students will break into lab groups and make one batch each of Curtido. (You will need the fermentation lids or to burp the jars daily.)

**Curtido or spicy purple sauerkraut** (3-5 days)

<https://www.fermentationrecipes.com/shredded-purple-curtido/1271>

Sauerkraut is another option but takes more than a week.

Day 3 - Dairy Day!!! You will start by making yogurt in the Foodi. It will be easy to start and you will explain about pasterurization when it cools, the yogurt will be added to make the culture and it will then take 8-24 hours to ferment. (Sometimes I leave this one out.)

**Yogurt in the Foodi**  (1 day to make.)

<https://thesaltedpepper.com/homemade-yogurt-in-the-ninja-foodi/>

You will use the following recipe to make a quick ricotta or farmers cheese. It’s super easy and I used raw goat milk to demonstrate pasteurization.

**Quick Ricotta Cheese** (Done during class period)

<https://www.shelovesbiscotti.com/creamy-homemade-fresh-ricotta-cheese/>

They will break into groups to complete making either sour cream or buttermilk. (We will use this on Friday to make homemade ranch dressing.)

**Buttermilk** - <https://www.foodiewithfamily.com/homemade-cultured-buttermilk/>

**Cultured Sour Cream** - <https://ohlardy.com/cultured-sour-cream/>

I’ve also taught a workshop on cultured dairy. Here’s a link to that.<https://docs.google.com/document/d/16lXyWw-ZR_LSr2kvfdJfaZzQxMq8X2xISx2VtRsd4Y0/edit?usp=sharing>

Day 4 - Chocolate Day!

Have them watch the videos in the PPT on how chocolate is fermented. Then watch the [how to temper chocolate video](https://youtu.be/z1dHYZgko_k).

Students will be divided into groups and have to temper chocolate for one of the recipes below.

**Chocolate Recipes:**

**Festive Chocolate Bark**

8 ounces semi sweet chocolate or dark chocolate

3 T. dried cherry/berry mix

1 T. dried cranberries

1 T. freeze dried strawberries

1 T. freeze dried raspberries

1. Measure all the ingredients- keep separate and set aside.

2. Temper the ORIADO 60% DARK CHOCOLATE.

3. Once the dark chocolate is in temper, spread evenly on a parchment lined half tray.

4. Immediately sprinkle each of the toppings on the bark, evenly distributing the items across the bark.

5. Leave to set in a cool place (60-65°F) for at least 4 hours.

6. Break into pieces and serve.

**Chocolate Fruit Mendiants**

8 ounces Dark Chocolate

1/4 cup nuts (assortment of toasted whole cashews & toasted pistachios)

1/8 cup freeze dried (or dried) passion fruit pieces (or mango)

zest of one lime

1. Temper the Dark Chocolate by either the tabbling or seeding method.

2. Using a paper coronet or plastic piping bag, take a portion of tempered chocolate and pipe coin sized rounds on a parchment paper lined tray.

3. Pipe one row of rounds in a line, and place your desired combination of fruit and nuts on the chocolate before it begins to set.

4. Repeat this process, warming the chocolate as needed to keep it in temper but allow for easy piping.

5. Once all the mendiants are done, set aside in a cool area (do not refrigerate) until fully crystallized (about 1-2 hours depending on room temp). Store in an airtight container.

**Day 5 - Charcuterie Board Challenge**

Demo the ranch dressing:

Ingredients

1/2 cup mayo (or equal parts)

1/2 cup sour cream

1/2 cup buttermilk or regular milk

3/4 - 1 teaspoon dried dill weed

1/2 teaspoon dried parsley

1/2 teaspoon dried chives

1/4 teaspoon onion powder

1/2 teaspoon garlic powder

1/4 teaspoon fine sea salt

1/8 teaspoon finely cracked pepper

freshly squeezed lemon juice to taste approximately 1-3 teaspoons, adjust to taste

Instructions:Whisk together the mayo, sour cream and milk until smooth. Add the spices and whisk until combined. Add the lemon and whisk again. Pour into a jar and chill in the refrigerator until ready to serve. This dressing will keep nicely in the refrigerator for up to a week. Enjoy!

Students will then get all ferments made this week and create their own charcuterie boards on cutting boards.

Using a cutting board, students will design a visually appealing tray of fermented items to taste during class. Boards will be judged by outside members of our faculty and staff.

**Other items that I supply:**

Pepperoni

Salami

Block cheese

Apple butter from previous lab

Crackers

Apples

**Fermentation toolkit supplies:**

Easy Fermenter Starter kits on Amazon

Pickle Pipes

Pickle Pebbles

Airlock

Half Gallon Mason Jars

Quart Mason Jars

Pint Mason Jars

Tepache Tasting Permission Slip

Hello Parents,

As an extension to our discussions in class we will be creating tepache during a lab set to take place both this week and next. The tepache and the process are safe. However, a very small amount of residual alcohol is produced during the lab and will be present within the tepache. This amount would be between .35-.5% alcohol. By comparison, the average beer is between 4-6%. I personally anticipate no issues and students will not be doing more than sampling tepeche. However, I need this slip signed and dated by Friday, April 22. in order to allow your son/daughter to taste the tepache. Just to be clear, tasting the tepache is not part of the graded portion of the lab. However, it can be quite a bit of fun!

I certify that by signing below I allow (Student Name) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to sample a 3oz. serving of tepache during the tepache tasting during the week of April 22.

Parent Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Thank you,

Nutrition and Food Science Teacher

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Thank you,

Nutrition and Food Science Teacher