

Lamiaceae Play Dough!

One fun, tactile way for kids to explore the scents from the mint family is to create their own Lamiaceae-themed PlayDough! Have everyone go through the mint garden you created, or through the plants at your grocery or plant store to pick one or some of their favorite smells! Good candidates include Peppermint, Sage, Rosemary, Lemon Balm, Basil, Lavender, and Thyme!

Ingredients:

1 cup Flour

1/2 cup Salt

1 cup Water

2 Tbsp Oil

2 tsp Cream of Tartar (or a few drops of fresh Lemon Juice)

Food Coloring (Optional)

1/2 cup Leaves of your Favorite Mint (Ground or cut up into small pieces)



Directions

Mix water, oil, salt, cream of tartar (or lemon juice), and food coloring in a large saucepan until they are warm. Remove from heat, add the flour, and stir and knead until ingredients are mixed. Add the leaves from the mint of your choosing. When you're done playing, keep the PlayDough in an air-tight container, such as a Ziplock bag, repurposed jar, or old PlayDough canister for several months of good-smelling fun!

What's Happening?

When you cut, rub, and knead the plant material into the PlayDough mixture, you are releasing different chemical compounds that are meant to deter herbivores from further damage. Humans, on the other hand, have evolved and learned to tolerate the chemicals produced by these plants, which has allowed us to enjoy the smell and taste of many members of the mint family! The plant you choose will have different chemical compounds released when playing with the leaf material. See our "Meet the Mints" page to find out what these compounds are!

Vegan Avocado Pesto

Basil (*Ocimum basilicum*) is native to Southeast Asia and is used in many Thai and Vietnamese dishes. However, this savory herb has also been used heavily in many Italian dishes. Pesto is typically made with basil, parmesan, olive oil, and pine nuts, however this vegan pesto recipe (modified from OhSheGlows.com) uses avocado (Family: Lauraceae) instead of parmesan, creating a creamy, rich pesto with extra protein and healthy fats.

Ingredients:

1 clove garlic
1/2 cup fresh basil leaves
1 to 2 tablespoons lemon juice, to taste
1 tablespoon extra-virgin olive oil
1 ripe avocado, pitted
1 tablespoon water
Salt and pepper to taste



Directions

Pulse the garlic and basil in a food processor or blender, add the avocado, lemon juice, olive oil, and water, and process until well mixed. Add more water to your mixture until you have the consistency desired and add salt and pepper to taste. Add this pesto to any pasta, salad, or as its own dip.

What's Happening?

The most prominent secondary metabolite, Linalool, is responsible for the floral, slightly spiced aroma of basil. This scent is usually used to attract pollinators, so the production of linalool actually decreases once your basil plant flowers. Estragole gives basil a piney, anise smell. Camphor will give a slightly sweet smell, and a-pinene will give a pine aroma, but both are key to deterring insects from feeding on *Ocimum basilicum*. When the food processor crushes up the basil leaves, these compounds are released from the plant, giving off the typical basil smell we all know and love.

Honey Lavender Ice Cream

There's nothing more refreshing than ice cream on a warm day, and our friends from the mint family can make it even more cool!

Ingredients

- 2 1/2 cups milk
- 2 1/2 cups heavy cream
- 2 eggs, whisked
- 2 Tbsp dried lavender flowers
- 2/3 cup Honey (local preferred)

Directions

Heat and stir all ingredients on medium-high heat in a saucepan until honey is dissolved and mixture begins to simmer. Remove from heat and cover, allowing the lavender flowers to steep for at least 30 minutes (longer steep gives a stronger flavor). Strain out the flowers and any larger chunks of milk fat. Chill the mixture until completely cold (4-8 hours). Pour mixture into an ice cream maker and follow the instructions.



If you don't have an ice cream maker, churn your ice cream in a homemade ice bath. Take the bowl with your ice cream mixture, and place it directly in a larger bowl surrounded by ice. Cover the ice in salt to lower the freezing point, allowing the ice to get extremely cold. Make sure ice is touching all sides of your ice cream bowl. Use a hand mixer for 10 minutes or a hand whisk for 15 minutes. This can be messy, so you may want to use a towel to prevent splattering. Put the entire ice bath chamber in the freezer for 45 minutes. Remove the whole system, and whisk again for another 10-15 minutes. Ice cream will resemble soft serve when finished. Return it to the freezer for a harder ice cream.

What's Happening?

Lavender (*Lavandula angustifolia*) gets its floral, sweet scent from linalool and linalyl acetate that reside in both the flowers and the leaves. These compounds attract pollinators to the flower head and discourage herbivores from feeding on the leaves. The heating process allows glandular trichomes to release the essential oils to seep out into the cream mixture.

Garlic-Lemon Balm Salad Dressing

Lemon Balm (*Melissa officinalis*) is a great addition to any garden. It smells great, attracts friendly pollinators, and repels mosquitos from your yard. The smell is a mix of mint and lemon, and nothing could be more refreshing! Because it is so refreshing, lemon balm is a great addition to salads. You can sprinkle a few leaves within your greens, but you can also make a delicious salad dressing!

Ingredients:

1/4 cup Olive Oil
1-3 Cloves Garlic, crushed
1 Tbsp White Wine Vinegar
3 Tbsp Fresh Lemon Balm Leaves

Directions:

Add all ingredients to a food processor or blender until liquified. Feel free to alter amounts of all ingredients based on your flavor and consistency preferences. Allow the liquified mixture to sit for about an hour to allow the flavors from the garlic and lemon balm to mix well with the oil and vinegar.



What's Happening?

Citronellal is the most abundant metabolite within the lemon balm plant. This compound, along with citral and linalyl acetate help the dressing achieve a lemon flavor without the use of lemon juice. Though not in the mint family, garlic (Family: Amaryllidaceae) converts a compound called alliin into allyl methyl sulfide when damaged, giving off the garlic scent and flavor.

Ratatouille

Ratatouille is a hearty stew originating from Southern France in the late 1800s with a variety of delicious vegetables and savory herbs from the mint family! Not only is this stew a great end to a chilly day, but it's also very healthy, too! Enjoy on its own, or as a side dish to a delectable grilled sandwich.

Ingredients:

- Extra-Virgin Olive Oil
- 4 Cloves Garlic, minced
- 1 Onion, diced small
- 1 Medium Eggplant, diced in 1/2-inch pieces
- 1 Red Pepper, diced
- 2 Zucchini, diced
- 4 Medium Tomatoes, chopped
- 1 Tbsp Fresh Basil, chopped
- 2 tsp Fresh Thyme, chopped
- 2 tsp Fresh Marjoram, chopped
- Salt and Pepper To Taste
- Red Wine

Directions:

In a large saucepan, heat 3 tablespoons of olive oil, cooking each vegetable one at a time until softened (about 5-8 minutes each). Begin with the onion and garlic, then the eggplant, zucchini, red pepper, and tomatoes. Experts cook each vegetable individually so they retain their unique flavor, even when in a stew. Add a splash of red wine and a tablespoon of olive oil, and the basil, thyme, and marjoram and let simmer for 20-30 minutes. Add salt and pepper to taste.



What's Happening?

Adding the basil, thyme, and marjoram at the end helps retain the flavor produced by the compounds, while still allowing the heat of the stew to expel those compounds. The linalool and eucalyptol from the basil and the thymol and carvacrol from the thyme and marjoram will give your stew a warm aroma and flavor, and will make you feel cozy from the inside.

Cuban Black Beans

Black beans are a delicious staple in many Latin American countries, and Cuba puts a delicious spin on it with the help of oregano (*Origanum vulgare*). High in protein, these black beans are a great addition to a full Cuban meal, complete with delicious bread or rice and plantains! This recipe is a modified version of one from epicurious.com.

Ingredients:

3 cups dried Black Beans (or 3 15-ounce cans, rinsed and drained)
1/4 cup olive oil
1 Large Onion, chopped
1 Large Green Bell Pepper, chopped
6 Cloves Garlic, chopped
3 Tbsp Fresh Oregano (or 1 Tbsp Dried)
3/4 cup Vegetable Broth

Directions:

If you're using dried black beans, prepare them before cooking by soaking the beans overnight in fresh water and cooking them on the stove until they are soft. If you need to save time, feel free to use canned black beans.

Heat oil in a large saucepan and sauté your onion, bell pepper, garlic, and oregano until vegetables are softened.

Add 1 cup of the cooked black

beans to your vegetable mixture and begin mashing the beans with a fork. Add the rest of your beans and your broth and simmer about 15 minutes, stirring occasionally. Season your Cuban Black Beans with salt and pepper to taste.



What's Happening?

When heating with the vegetables, the carvacrol and thymol from the oregano are expressed and interact with the vegetables in the pan. This oregano is what sets the black beans apart from plain black beans, as it adds a warm, yet bitter taste to your beans and gives your dish an extra kick without adding any spice!

Refreshing Peppermint Iced Tea

Cool off on a hot day with a glass of iced peppermint tea. The recipe is simple, just leaves from your peppermint plant (*Mentha piperita*), water, and time. You don't need any special equipment, and the final product is extremely refreshing!

Ingredients

1 cup Fresh Peppermint Leaves (or 1/2 cup dried peppermint leaves)
1/2 gallon of water

Directions

Place your peppermint leaves in a 1/2 gallon glass or plastic jar and fill with water. Set your container in a sunny spot for 2-8 hours. The longer you leave your tea sitting in the sun, the stronger the flavor will be. Refrigerate your sun tea, and enjoy cool throughout the week. Alternatively, you can brew your tea in the refrigerator. It may take longer to achieve the same flavor, but will taste just as delicious. Add any honey or sugar after brewing, if desired.



What's Happening?

Menthol and menthone are two compounds that are prevalent within *Mentha piperita*, and are responsible for the cool, minty flavors you may taste when enjoying your tea. They interact with the TRPM8 receptors in your mouth to create a chilling sensation without actually changing the temperature in your mouth. These compounds, along with Pulegone, usually are a form of anti-herbivory. The minty smell of Pulegone and the flavors of the menthol and menthone deter herbivores and microbes from continuing to feed on the peppermint plant, but they taste so refreshing and delicious to us!

Pumpkin Sage Pasta Sauce

A very popular herb in Italian and French dishes, sage (*Salvia officinalis*) offers a savory, warm flavor to any meal, and is often used in many pasta dishes. Sage is often associated with the fall season, and here we combine sage with pumpkin for the ultimate fall pasta sauce that is delicious on any pasta, from ravioli and gnocchi to fettuccine and penne.

Ingredients

16 ounces Pasta
1 cup Fresh Sage Leaves
3/4 cup Pumpkin Puree
1/2 cup Walnut Pieces
1/4 cup Grated Romano or Parmesan Cheese
3 Tbsp Olive Oil
3 Tbsp Water
Juice from 1 Lemon (about 2 Tbsp)
2 Cloves Garlic
Salt and Pepper, to taste
1/4 cup Roasted Pepitas (optional)

Directions

Cook your pasta as directed. While the pasta cooks, combine all other ingredients together in a food processor and blend until smooth. Add more water or oil for a thinner sauce. Add salt and pepper to your liking, and coat the pasta in your savory, fall pasta sauce. Sprinkle pepitas on top, and serve on its own or with a delicious side salad or main meat course.

What's Happening?

The strong, peppery flavors of the sage come from manool and eucalyptol. Though sage can be harvested throughout the year, it is often associated with many fall recipes because of the warm feeling from these compounds. Camphor and thujone are also responsible for a bit of the spice we experience.



Rosemary Roasted Potatoes

A simple, savory favorite, rosemary roasted potatoes use the warm, piney taste of rosemary (*Rosmarinus officinalis*) to enhance the delicious, starchy potatoes we crave in our favorite comfort meals. In fact, the rosemary makes these potatoes taste even more delicious! This dish is vegan, and makes a great side dish for many American, Italian, or French meals.

Ingredients

1 1/2 pounds Russet Potatoes
1/8 cup Extra Virgin Olive Oil
3/4 tsp Salt
1/2 tsp Ground Pepper
3 Cloves Garlic
2 Tbsp Fresh Rosemary, minced

Directions

Preheat your oven to 400 degrees F (about 200 degrees C). Cut your potatoes in quarters and toss in a medium bowl with the olive oil, salt, pepper, garlic, and rosemary until they are mixed well. Dump your potatoes on a baking sheet and spread the wedges out. Roast for about an hour in the oven, until they are crisp, flipping potatoes occasionally during cooking. Serve as a side to any dish, especially roasted meats or a hearty salad.



What's Happening?

While many herbivores are deterred by them, we tend to enjoy the α -Pinene, eucalyptol, and camphor expelled from the rosemary during the mincing process. These compounds give the initial piney, rosemary smell. Cooking allows the flavors and scents to enhance the starchy potatoes, so that all parts of this dish have the delicious, warm flavor we enjoy.

Note: You can also substitute or add minced sage (*Salvia officinalis*) for a bit more peppery spice flavor from the manool. Sage can be used because it also contains camphor, and eucalyptol like rosemary, but that peppery flavor could add a delicious alternative for some people.

Mint Tea

Simple and calming, a cup of mint tea is the great way to wind down after a long day. Using fresh spearmint (*Mentha spicata*) from your garden helps you save the amount of waste we produce- no more pesky bags or containers! Spearmint sometimes grows pretty heavily, so a large plant should provide you with plenty of leaves for multiple cups of tea.

Ingredients

A handful of mint leaves

2 cups water, boiling (use more water for weaker tea)

Sweeteners, such as honey, sugar, or stevia (optional)



Directions

Tear the mint leaves apart, and place in a strainer over a teapot, bowl, or cup. Pour the boiling water over your leaves and strainer, and cover for 5-10 minutes. Using a wooden muddler or spoon, bruise and crush your mint leaves to extract more oil. Pour your tea into cups, add sweetener (if desired), and enjoy!

What's Happening?

At all parts of the process, from tearing to boiling to muddling, you are extracting many different compounds through the essential oils of the plants. Though these oils are usually great at deterring pests and herbivores, we have come to really enjoy the cool, citrus, and minty flavors from the R-(-)-carvone, menthol, menthone, eucalyptol, and limonene.

While that limonene may add a slight citrus flavor, you can get an even more lemon flavor, if you so desire, by adding a few leaves of lemon balm (*Melissa officinalis*) throughout the process.

Cheddar and Thyme Cornbread

A Southern staple on the side of any meat, chili, or soup is the ever-delicious corn bread. Already slightly sweet from the cornmeal, cornbread can be even more delicious with some sharp cheddar and a little savory flavoring of fresh thyme from your garden. This recipe has been modified from OnceUponAChef.com.

Ingredients

1 1/2 cup Flour
1 cup Yellow Cornmeal
2 Tbsp Sugar
1 Tbsp Baking Soda
1 tsp Salt
1 cup Buttermilk
2 Tbsp Olive Oil
2 Eggs
1/2 cup Unsalted Butter,
melted but cooled
1/2 - 3/4 cup Corn Kernels
1 1/2 Tbsp Fresh Thyme
Leaves
1 cup Grated Sharp Cheddar
Cheese



Directions

Preheat your oven to 400 degrees F (200 degrees C) and use cooking spray or butter to grease a square pan. Whisk the dry ingredients together (flour, cornmeal, baking soda, salt, sugar, thyme), then stir in the corn and cheese. In a smaller bowl, whisk the eggs, milk, and melted butter, then pour the mixture into the bowl of dry ingredients. Combine everything and pour into the greased pan. Bake for 30 minutes until lightly golden and puffed. Enjoy your savory, hearty cornbread in your next Southern Meal!

What's Happening?

The main compound associated with flavor, Thymol, will give the dry, slightly minty flavor. Its isomer, carvacrol, gives the warm smell of thyme! Cooking at high temperatures will help disrupt the plant to release these compounds that would otherwise deter herbivores.

Savory Herb Bundle!

Whether it's Thanksgiving and you need some savory herbs to flavor your turkey, or you just want to enhance the flavor of your poultry or fish during the week, you can make a simple sprig of herbs from your garden!

Ingredients:

- 1+ stalk of Oregano (*Origanum vulgare*)
- 1 stalk of Sage (*Salvia officinalis*; can be overpowering, limit to one stalk)
- 1+ stalk of Rosemary (*Salvia rosmarinus*)
- 1+ stalk of Thyme (*Thymus vulgaris*)
- 1+ stalk of Lavender (*Lavandula angustifolia*, optional)

Directions:

Bunch your selected herb stalks together (tie with twine, if desired). You are free to use any combination of herbs based on your preference, and you can vary the number of stalks to increase the flavor desired. Place the herbs on top of your bird or fish dinner and cook as directed.

What's Happening?

As the temperature in your oven rises and disrupts the plants in the bundle, different oils and compounds are expelled from the glandular trichomes on the leaves. The compounds and their corresponding flavors differ based on the plant that you choose to include in the bundle:

Oregano- Carvacrol interacts with receptors on the human tongue to create a warm, slightly bitter taste, while limonene gives a piney, citrus flavor.

Sage- Manool gives a savory, peppery flavor. Eucalyptol gives a bit of spice.

Rosemary- α -Pinene gives rosemary its characteristic pine smell and rosemary flavor. This compound is also found in some coniferous pine trees! Eucalyptol gives rosemary a spicy, cool flavor.

Thyme-Thymol gives a dry, slightly fresh flavor.

Lavender- Linalool and linalyl acetate give lavender its characteristic floral, slightly citrus, flavor.



Lavender Mojito

When the weather gets toasty, it's time to kick back and drink a cool beverage. Why not choose a beverage that uses TWO members of the mint family? Get your perfectly delicious, sweet and minty cool drink for the summer in this Lavender Mojito!

Ingredients:

8-10 Spearmint Leaves
1 oz. Lavender Simple Syrup
1 oz. White Rum
1/2 of a Lime's Juice
Club Soda
Ice

Directions:

Prepare your Lavender Simple Syrup by boiling 1 cup sugar, 2 cups water, and 4 Tbsp dried lavender. Let it simmer for 15-20 minutes (or longer for a stronger lavender flavor) and filter out the lavender before storing in your refrigerator.

Muddle the mint leaves and simple syrup together. Add the rum, lime, and lots of ice to a shaker. Pour everything into a glass and top with club soda. Stir to mix everything together. Garnish with mint leaves or a lavender flower stalk.

What's Happening?

The boiling water used for the simple syrup will help infuse the linalyl acetate and linalool for the floral flavor characteristic of lavender! Muddling the mint releases the cool menthol and menthone for that icy fresh taste when interacting with proteins in our mouths!



Watermelon-Basil Margarita

Nothing is more refreshing on a hot day than watermelon and a margarita. Here, we have both of these refreshing items with one of our favorite mints- BASIL! This recipe, complete with watermelon ice cubes, is from MarthaStewart.Com.

Ingredients:

An 8lb Watermelon cut into 1 in cubes
6 oz. Silver Tequila
3 oz. Triple Sec
4 tsp Superfine Sugar
24 Basil Leaves, plus sprigs for garnish
6 cups small ice cubes

Directions:

Place 24 watermelon cubes on baking sheet, cover, and freeze at least 1 hour. Puree remaining watermelon and sugar in a blender until smooth and pass contents through a cheesecloth into a bowl.



Place tequila and basil in a glass pitcher and muddle. Stir in watermelon juice and triple sec. Place watermelon cubes in glasses. Shake 3/4 cup margarita with 1 cup ice. Strain into glasses with frozen watermelon ice cubes. Garnish with basil.

What's Happening?

Muddling the basil with the tequila infuses linalool, eucalyptol, and estragole into your drink. This gives it the floral, spiced, piney smell we love from basil, which is a great addition to the refreshing watermelon.

Basil-ica Cocktail

Basil contains quite a mix of subtle spices and sweet aromas. This makes it the perfect addition to a summer drink! Whether you're muddling the basil directly into the drink or creating a basil simple syrup, this Basil-ica Cocktail is both refreshing and sweet. This recipe was found at thespruceeats.com!



Ingredients:

4 Large Basil Leaves
1/2 oz. Lemon Juice
1/2 oz. Simple Syrup
2 oz. Plymouth Gin
1/2 oz. Elderflower Liqueur
1 Dash Orange Bitters
1 Dash Peychaud's Bitters
Garnish: Basil Leaf, Long Orange Twist

Directions:

Muddle basil, lemon juice, and simple syrup in the bottom of a mixing glass. Add the gin, elderflower liqueur, and bitters. Fill with ice and cap glass. Shake for 15 seconds, strain in to a chilled cocktail glass, and garnish with basil and orange peel.

What's Happening?

Muddling the basil releases the linalool, eucalyptol, and estragole into the simple syrup. The linalool will give a floral flavor, as we see with plants like lavender, and the eucalyptol gives a subtle bite or spice. Estragole will give a piney, slightly anise-like smell to your drink that mixes perfectly with the orange flavors.