



## Fundamentals

### UNDERSTANDING TASTE

#### Equipment needed for exercises:

Smelling Vials  
Droppers  
Tasting spoons  
Ramekins  
Pint containers  
Soufflé cups  
Drinking cups  
Water for cleansing palate  
Salt display  
Sugar display  
Labels for products  
Compost bin/ trashcan

#### Equipment needed for prep/ set up:

Saucepot for water	Peeler
Ten 1/9 <sup>th</sup> pans	Chef knives
Pot for potatoes	pot for demi-glace
Pot for heavy cream	lined half sheet trays for serving
Food mill	microplane
Two bowls	sauté pan for onions
Plastic wrap	ice bath for sodas
Small strainer	coffee filter
2 Rubber spatulas	
Cutting board	

#### **Exercise 1- understanding the different taste sensations (slide 19)**

- Sweet- Mix ½ cup granulated sugar, 1-cup warm water. Dissolve completely. Cool to room temperature.
- Salty- Mix ¼-cup kosher salt, 1-cup warm water. Dissolve completely. Cool to room temperature.
- Bitter- Mix 1 cup warm water to 3 tsps. Bitters. Stir completely.
- Bitter- Mix 1 cup warm water to ¼-cup baking soda. Dissolve completely. Cool to room temperature.
  - How do you describe baking soda?
- Umami- Mix 1 cup warm water to 1 tbsp. MSG. Dissolve completely. Cool to room temperature.
- Sour- Mix 1 cup warm water to ½ cup white distilled vinegar.
- Astringent- brewed strong green tea- one-tablespoon loose-leaf green tea (or two tea bags) to 1-cup water at 200°F. Cool to room temperature.
- Astringent- brewed strong black coffee. Brew one part of coffee with 2x's the amount of recommended grounds. Cool to room temperature.
- Menthol- Mix 1 cup warm water to 1 tbsp. mint extract
- Pungent- Mix 2 cups warm water to 1 tbsp. cayenne pepper. Stir. Let sit for 10 minutes. Strain through coffee filter. (do last)

\*You will need about 1 cup of each liquid for 12 participants

#### Instructions

- Mix the different solutions. Place into containers with the numbers 1-10 on them.
- Have students use medicine dropper to portion onto tasting spoon- about a teaspoon worth.



## Fundamentals

3. Swish around tongue. Try to have them confer they taste the sensation on the right part of the mouth.
4. Have water for cleansing in between.
5. Ask which cup was which taste and what the sensation was.

### **Exercise 2- associating taste to smell (slide 23)**

Students get a ramekin with different flavored “unusual jellybeans”. Have them taste without the use of smell. Write down their guesses on the board.

- a. watermelon
- b. Pina colada
- c. cotton candy
- d. buttered popcorn
- e. cinnamon (do last)

#### Instructions

1. With your eyes closed and nose pinched, taste the jelly beans, one at a time. (Suggest only tasting ½ of the jelly bean at a time- saving the other half to taste again.) \* save the red one for last.
2. Keep chewing, without releasing your nose
3. It’s likely you’ll only taste the basic sweet or sour
4. Any idea of the flavor?
5. Release your nose, and now taste the second piece of the jellybean.
6. What are your guesses?

### **Exercise 3- Smell instead of taste (slide 25)**

#### Instructions

1. Pass around a ramekin of vanilla extract. Note the aromas.
2. Taste a small drop of the vanilla extract with the nose pinched.

### **Exercise 4- Identifying scents (slide 26)**

#### Instructions

1. Each team has several vials of a culinary essence (herb/spice).
2. Smell the essence and try to determine what it is- but do not taste!
3. It may be helpful to think of the dish it reminds you of and then try to work down from there.
4. Send around both the peppermint and spearmint vials and see if they can differentiate between them.



## Fundamentals

### Exercise 5- How does temperature affect taste? (slide 30)

1. Prepare a batch of mashed potatoes. They should be peeled, food milled, creamy, smooth, buttery, and seasoned perfectly.
  - a. Hold half of the batch at 165°F or hotter.
  - b. Hold half of the batch at around 70°F or colder.
2. Give students a sample of each batch of potatoes- serving the hot ones first.
3. Have them describe the flavor of each.

### Exercise 6- Describe the taste (slide 36)

- 4 apples per team
  - a. one granny smith,
  - b. one red delicious,
  - c. one Fuji,
  - d. one \*other variety

#### Instructions

1. Peel half of each apple.
2. Cut the peeled half of each apple and put into separate ramekins.
  - a. Students taste these samples first, and describe them
3. Cut the unpeeled (with skin) half of each apple and put into separate ramekins.
  - a. Students taste these samples first, and describe them
4. If enough, have students taste more than one variety together. How do the different tastes work with each other?

### Exercise 7- Describe the difference (slide 38)

- 2 types of cheddar cheese- same “strength”, maybe one store brand and one name brand.
- What other factors come into play?

### Exercise 8- Describe the difference (slide 40)

- a. Coke vs. Pepsi
  - b. Sprite vs. Sierra Mist
- What other factors come into play?
  - Do you know the difference?

### Exercise 9- Mouthfeel (slide 46)

- Demi-glace that is melted and cooled to slightly warmer than room temperature (fluid)

#### Instructions



## Fundamentals

1. Take a spoonful of Demi-glace at slightly warmer than room temperature
2. Have them move around their mouth to coat.

### Exercise 10- Astringency (slide 47)

- a. untoasted chopped walnuts
- b. (refer to green tea water and coffee water containers)

### Exercise 11- Bulby (slide 53)

- a. Finely sliced raw yellow Spanish onion
- b. Finely sliced raw sweet Vidalia or other sweet onion
- c. Finely sliced raw red onion
- d. Caramelized Spanish onions served at room temperature

#### Instructions

1. Have students taste a small piece of each onion, starting with the sweet onion, then Spanish, then red. Describe the flavor of each.
2. Have students then taste the caramelized onions. What has changed?

### Exercise 12- Spiced Aromatic (slide 55)

- a. Ground cinnamon
- b. Ginger water- bring 1 cup of water to a boil, with 1 inch of fresh ginger root grated in it. Boil until "spicy". Let sit until cool. Strain through chinois.

#### Instructions

1. Have students pinch their nose and taste a SMALL amount of ground cinnamon.
2. Release their nose
3. (cleanse palate)
4. Taste the ginger water. What is the taste and/or sensation?

### Exercise 13- Funky/ Meaty (slides 56 and 59)

- a. Small chunks of real parmesan cheese
- b. Small pieces of thinly sliced prosciutto di Parma
- c. Two tbsp. dried mushrooms reconstituted with 1-cup boiling water. Cooled to room temperature. Remove mushrooms for serving.
- d. Worcestershire sauce
- e. (refer to the MSG water container)

#### Instructions

1. Have students taste a small amount of each product.
2. Have them try to describe the "meatiness"

### Exercise 14- Salt (slide 63)



## Fundamentals

- The varieties of salts in the display unit.
  1. Have them describe the differences in aftertaste and texture
  2. Are they all the same saltiness?

### Exercise 15- Sugar and Sweeteners (slide 63)

- The varieties of sugars in the display unit (check the cooler too)
  1. Have them describe the differences in aftertaste and texture
  2. Are they all the same sweetness?
  3. What are the other flavors you taste?
  4. How do the sweeteners react in your mouth?

### Exercise 16- Chocolate (slide 64)

- Unsweetened/ bittersweet chocolate
- Semi-sweet chocolate (more than one %)
- Sweet chocolate
- Milk chocolate
- White chocolate
  1. Taste small pieces of chocolate, starting with the unsweetened first. Have them describe each of the taste sensations.
  2. What is the difference in tastes among the chocolates?

### Exercise 17- Mystery Basket

- Use today's knowledge to prepare yourself lunch with the provided ingredients as a team!