



Culinary Institute
of America

Day 1: Knife Skills, Culinary Fundamentals

Best of Boot Camp



Kitchen Responsibilities

- Keep stations clean
- Properly handle and store all food
 - NYS law – when handling “ready-to-eat” food items...if you don’t cook it, glove it!
 - Wash hands, cutting boards, knives, etc. when switching between meats and vegetables
- Clean all small equipment as you go
 - Student workers will put them away
- All pots, pans, and cutting boards go on the rolling rack
- At end of class, kitchens need to be left clean!
 - Student workers will remove all trash and compost

Learning Objectives

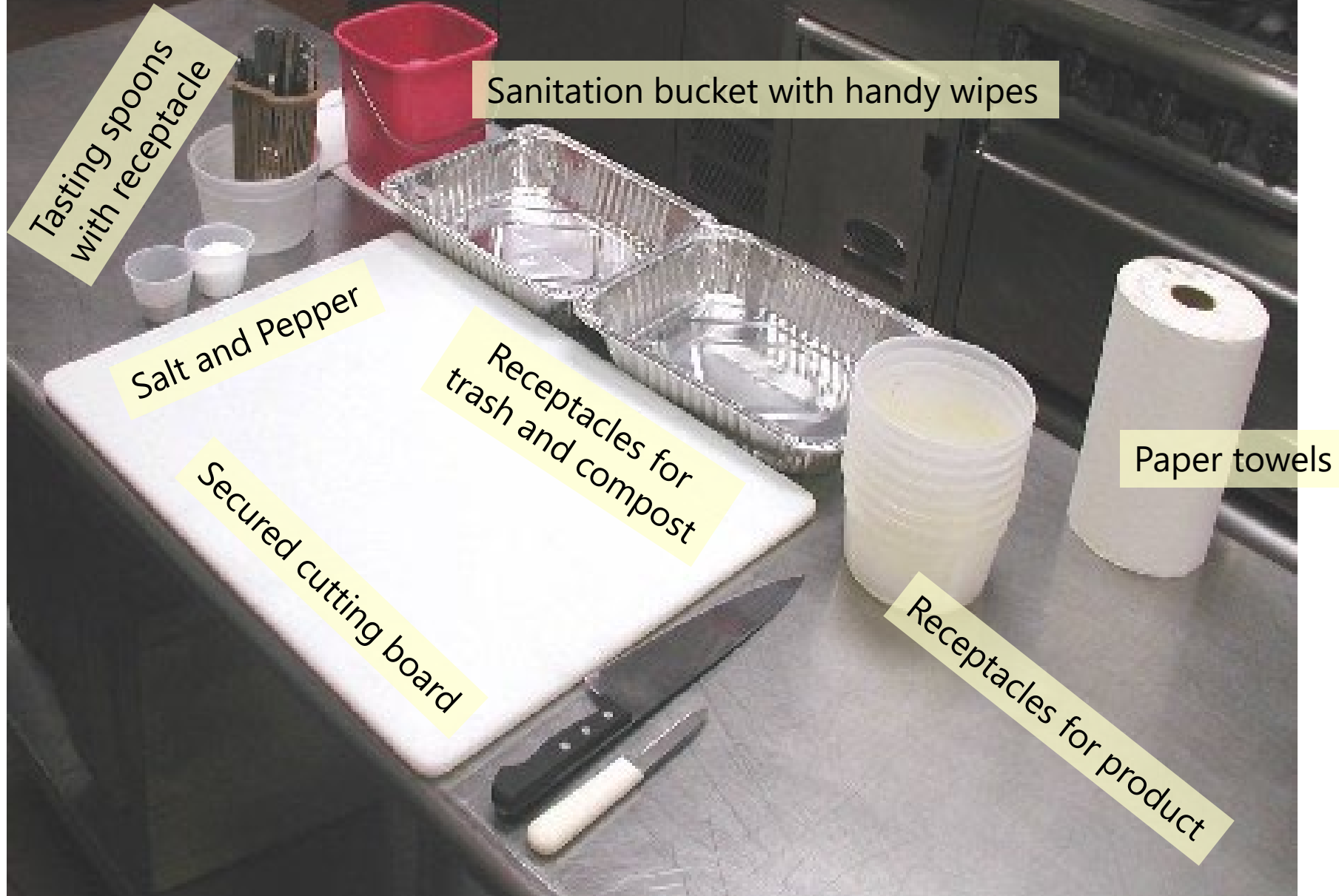
- Demonstrate how to effectively set up your workstation and organize your mise en place
- Identify various knives and their uses
- Identify how to hold and handle a knife
- Describe various knife cuts
- Define select dry-heat, moist-heat, and combination cooking techniques
- Identify appropriate tools/equipment and ingredients that may be used for each method
- Discuss the importance of temperature control and heat management in cooking
- Prepare a selection of dishes using various knife cuts and cooking methods
- *Learn from each other and have fun!*

Mise en Place

- French term for “everything in its place”
- What does this mean?
 - A clean, organized workstation
 - Recipe mise en place
 - Prep time vs. service
 - Physically ready to cook
 - Mentally prepared to cook – proper state of mind!



Mise En Place Starts at the Work Station



Recipe Mise en Place

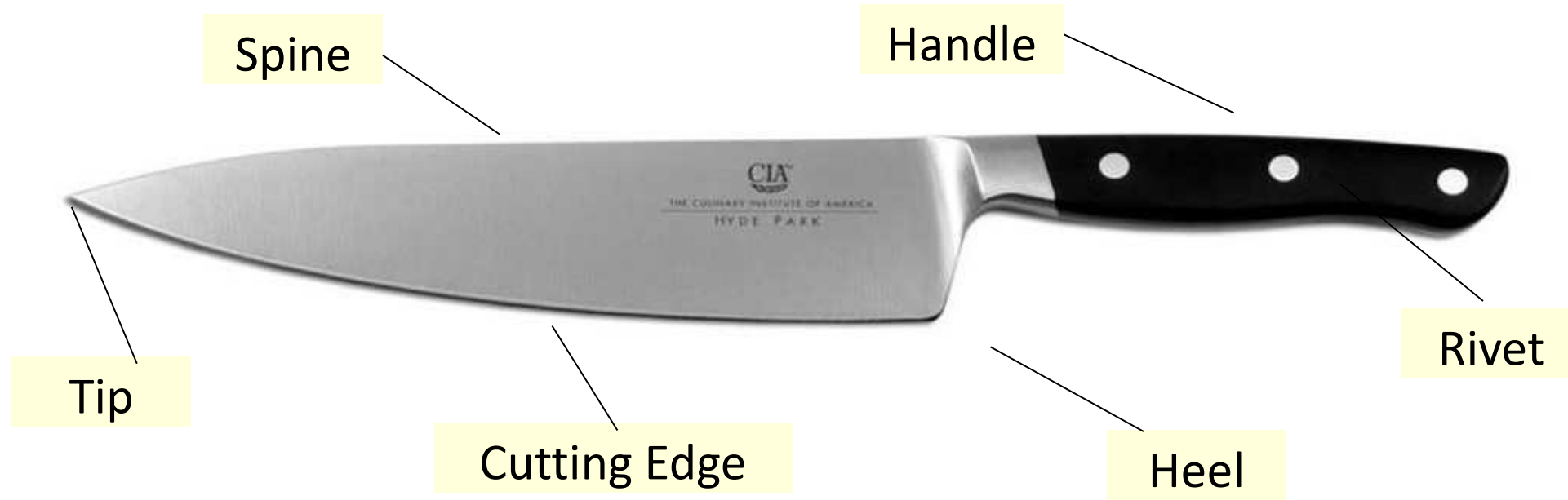
- Read through the recipe in its entirety before starting.
- Understand all terms and definitions. Ask questions!
- Check yield, temperature, cooking times.
- Gather ingredients before preparation time: FIFO – First In First Out.
- Complete the “pre” steps.
- Accurately measure or weigh each ingredient.
- Follow the listed steps in order.
- Time cooking periods accurately.



Mise en Place

- French term for “everything in its place”
- What does this mean?
 - A clean, organized work station
 - Recipe mise en place (MEP)
 - Make sure you read through the **entire** recipe
 - Prep time vs. service
 - Physically ready to cook
 - Mentally prepared to cook – proper state of mind!

Anatomy of a Knife



Knife Selection

Use the RIGHT knife for the job!!

French Knife



chopping, slicing, dicing,
mashing

Paring Knife



peeling, trimming, and shaping
fruits and vegetables

Boning Knife



cutting meat away from bones

Knife Selection

Slicer



slicing cooked meats and poultry

Serrated Knife



slicing through the crusts of bread

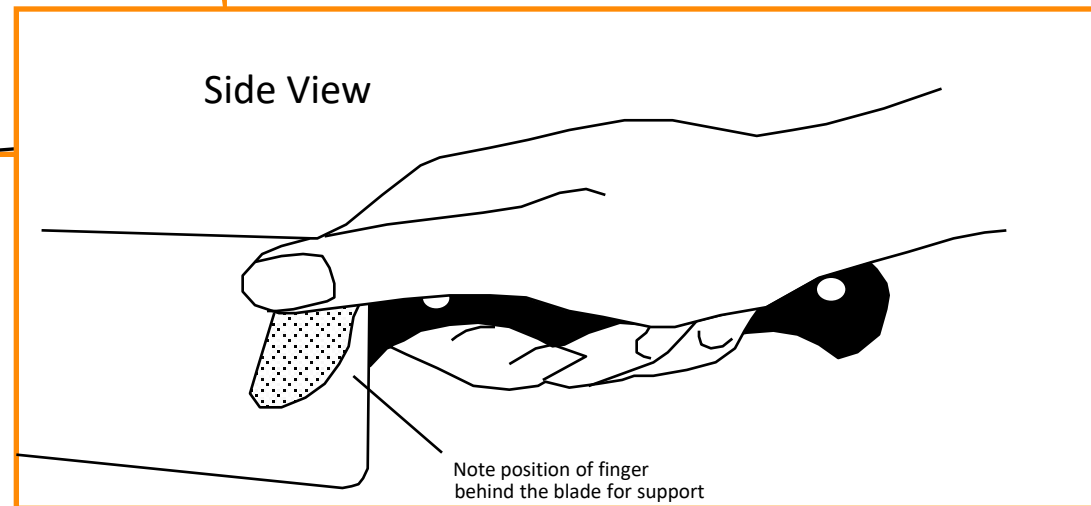
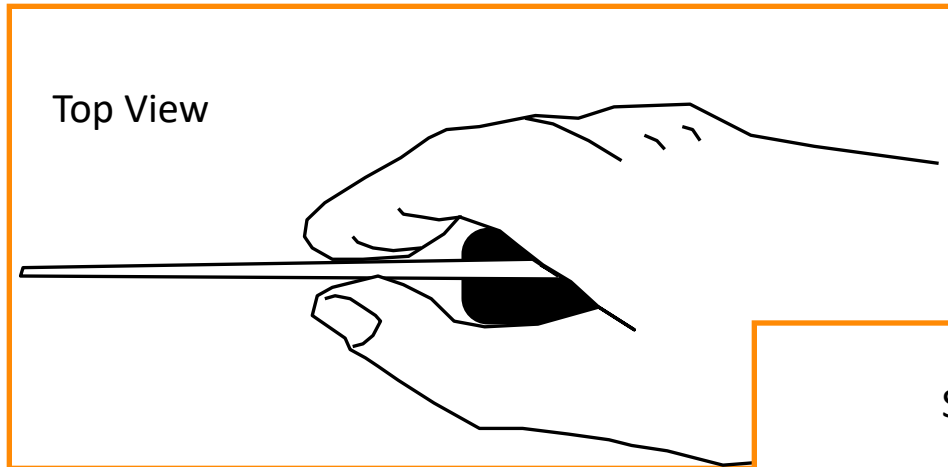
Honing and Sharpening

- **Sharpening** = removing metal to redefine the cutting edge.
- **Honing** = realigning/straightening the existing metal of the cutting edge.



Holding a Knife

Grasp the knife by the handle, allowing your thumb and index finger to rest on the blade for support.



Knife Safety

- Always use a sharp knife!
- Hold the knife firmly in your hand and cut away from your body.
- Always use a cutting board.
- Place knives on flat surfaces, away from the table edge, with the blade facing away from you.
- Keep knives in clear sight, never covered.
- Do not grab blindly for a knife.
- If a knife falls off the table, do not attempt to catch it.
- Pass a knife to someone using the handle, never the blade.
- When walking with a knife, carry it with the point down.

How To Julienne and Dice

1. Square off the ends and sides.
2. Slice into even slabs of the same thickness.
3. Stack the slabs and slice into even sticks.
4. Gather the sticks and cut into even cubes.



Julienne Sizes

Fine Julienne

$\frac{1}{16} \times \frac{1}{16} \times 1$ to 2 in.



Julienne/Allumette

$\frac{1}{8} \times \frac{1}{8} \times 1$ to 2 in.



Batonnet

$\frac{1}{4} \times \frac{1}{4} \times 2$ to 2½ in.



Dice Sizes

Small Dice

$\frac{1}{4} \times \frac{1}{4} \times \frac{1}{4}$ in.



Medium Dice

$\frac{1}{2} \times \frac{1}{2} \times \frac{1}{2}$ in.



Large Dice

$\frac{3}{4} \times \frac{3}{4} \times \frac{3}{4}$ in.



Brunoise Sizes

Fine Brunoise

$\frac{1}{16} \times \frac{1}{16} \times \frac{1}{16}$ in.



Brunoise

$\frac{1}{8} \times \frac{1}{8} \times \frac{1}{8}$ in.



Other Classic Vegetable Cuts

Tourné

2 in. long with 7 faces



Oblique

Uniform pieces with
2 angled cuts



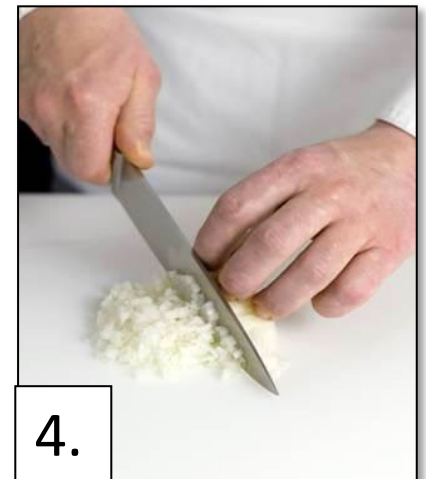
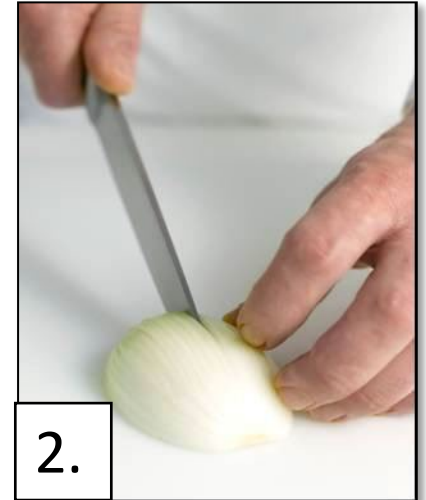
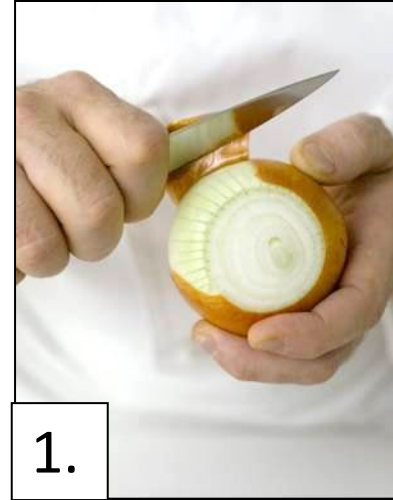
Rondelle

$\frac{1}{2}$ to $\frac{1}{8}$ in. thick rounds



Dice/Mince Onions & Shallots

1. Cut off tip end, peel, and cut through root to tip.
2. Make several evenly spaced parallel cuts, without cutting the root.
3. Make two to three horizontal cuts, without cutting the root.
4. Make even crosswise cuts working from tip to root.



Mince Garlic

1. Peel cloves
2. Slice cloves
3. Cut cloves into a rough chop
4. Using a rocking motion, chop to desired fineness



Chop/ Mince Herbs



1. Wash, dry, and remove leaves from stems; roll into a tight ball and chop roughly.
2. Move hand to front of knife and chop using a rocking motion.
3. Continue cutting to desired fineness.

Chiffonade Herbs

1. Remove leaves
2. Stack the leaves, placing smaller leaves on top of larger leaves
3. Roll into a cylinder
4. Make fine parallel cuts across the cylinder



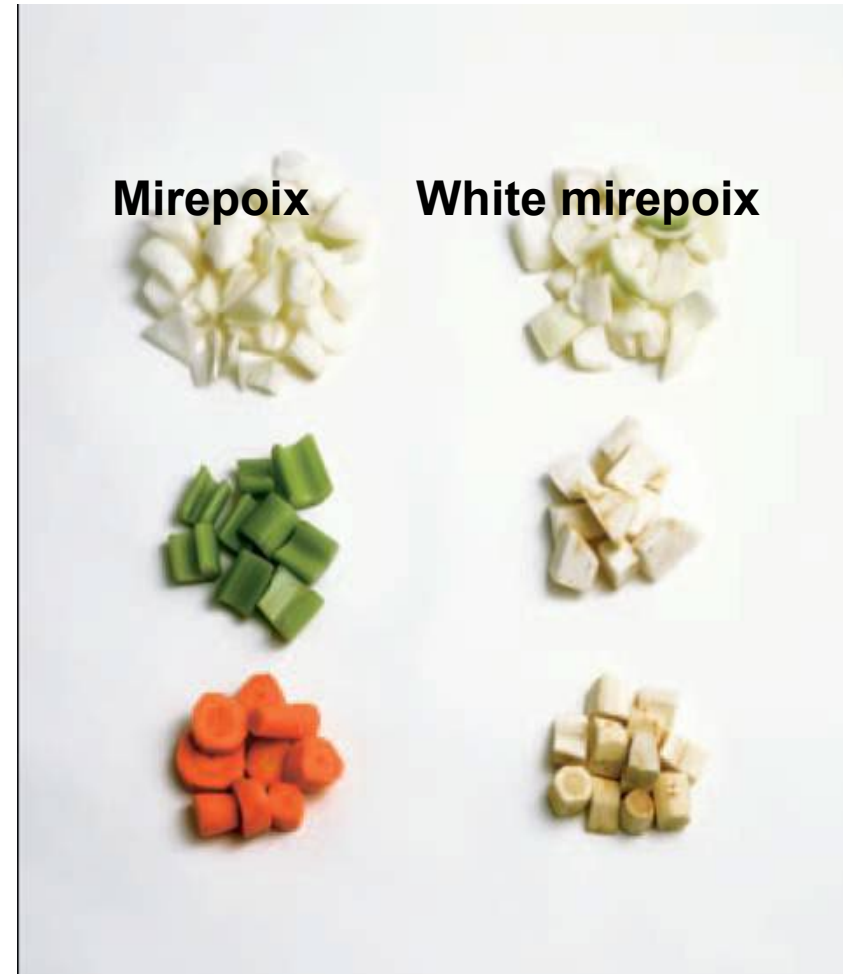
Suprême Citrus Fruit



1. Cut away the ends.
2. Cut away the rind and all the pith, leaving as much flesh as possible.
3. Cut along each side of the membrane to cut away the segments.

Key Terms/ Culinary Preparations

- Sachet d'épices
- Bouquet garni
- Mirepoix
- Oignon brûlé
- Tomato concassé



Sauté

- “To jump”
- High heat
- Rapid technique
 - Perfect mise en place required
- Small amount of fat used
- Sauces generally made in the pan
- Characteristics of items to be sautéed
 - Tender
 - Portion size or small pieces
 - Cooked to order



Technique: Pan-Frying

- Uses more fat than sautéing and stir frying
- Fat/oil
 - Should be neutral flavored
 - General rule – oil should come $\frac{1}{3}$ to $\frac{1}{2}$ way up side of item
 - Oil temperature = 325°F - 350°F
 - Items drained of excess fat
- Items are usually coated/breaded
- Different flavor than sautéed items because only exterior crust is browned
- Sauces are made and served separately
- Characteristics of items to be pan fried
 - Tender
 - Portion size or small pieces

Standard Breading Mise en Place



- Product
- Flour
- Egg wash
- Breading agent
- Empty pan for finished item

Deep Frying

- Item completely submerged in fat
- Fat/ oil selections
 - Should be neutral flavored with high smoke point
 - Oil temperature = 350°F
 - Items drained of excess fat
- Cooked to order
- Served immediately
- Sauce made and served separately



Grilling vs. Broiling



What's
the
difference?

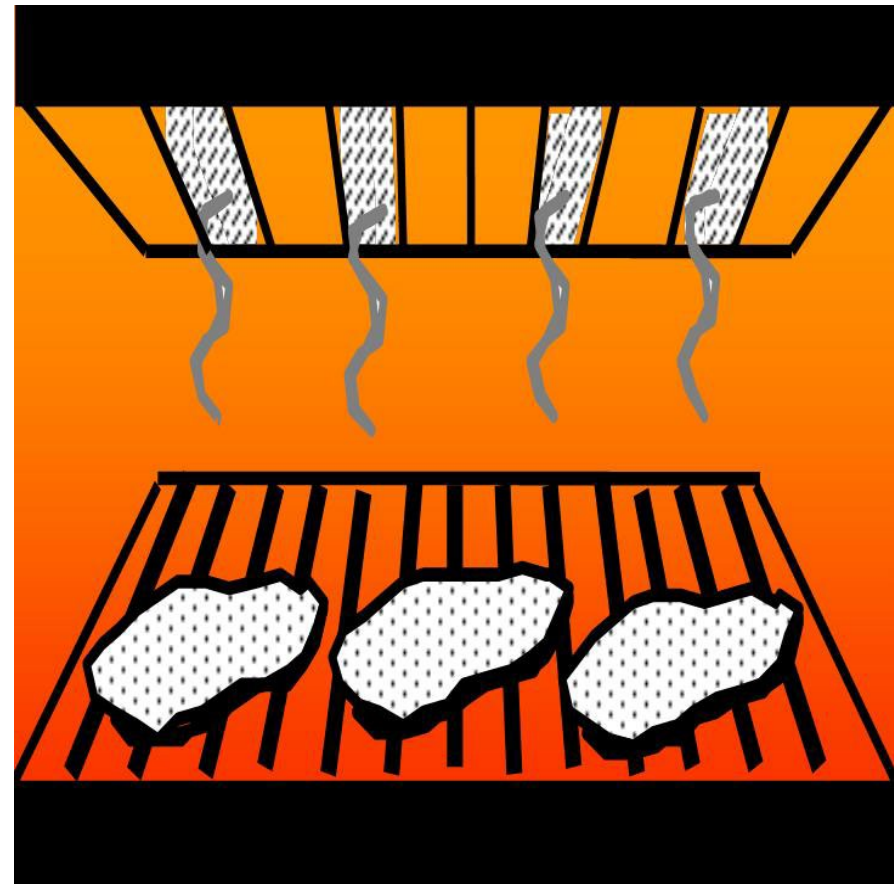


Grilling vs. Broiling



Heat source **below** the food

Heat source **above** the food

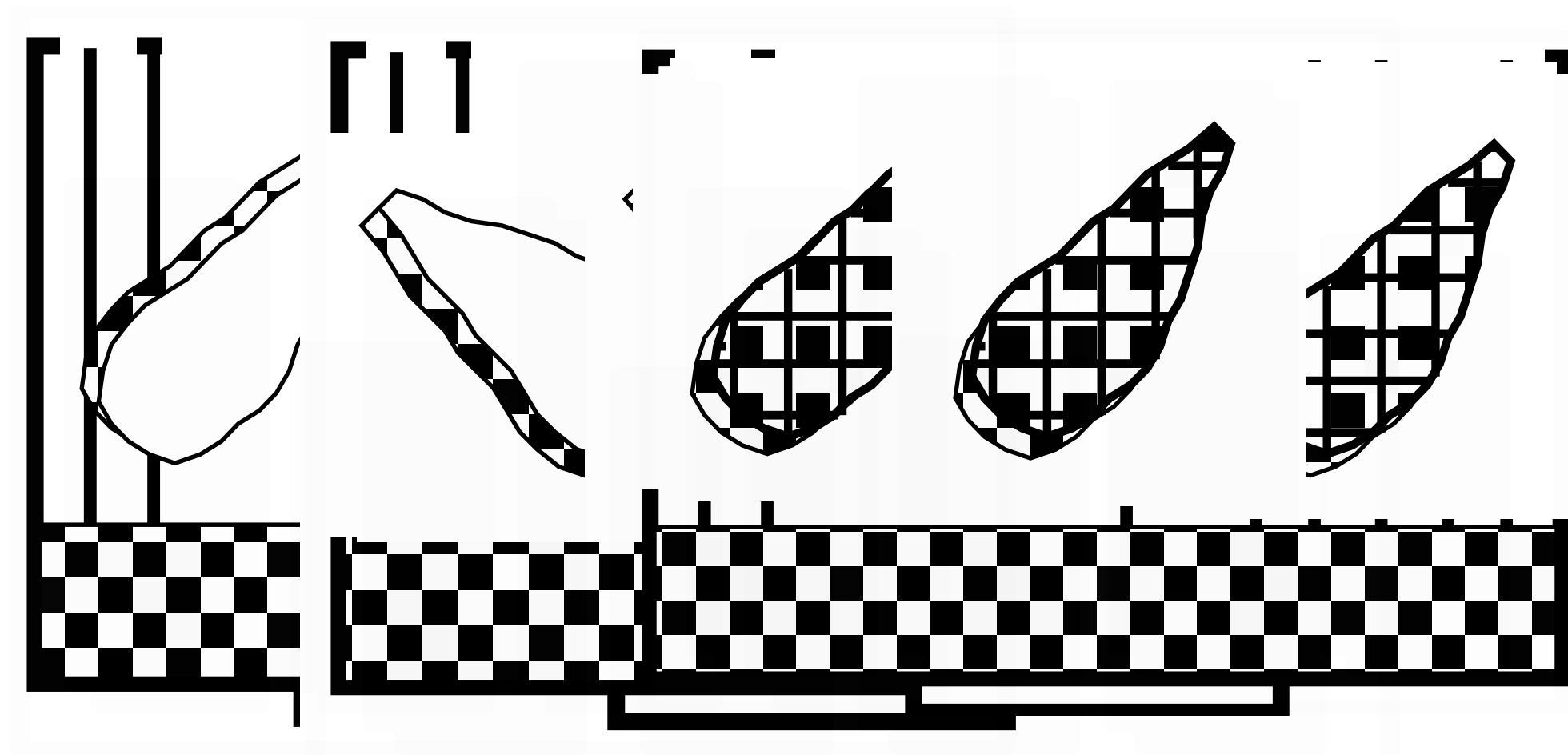


Grilling and Broiling

- Lightly charred exterior, moist interior, slightly smoky flavor
- Characteristics of items to be grilled/broiled:
 - Tender
 - Have intramuscular fat content (if possible)
 - Portion size
- Foods suitable for grilling/broiling:
 - Meats
 - Seafood
 - Vegetables (tender, high moisture content)
- Sauces are made separately, very versatile



How to Mark an Item



Roasting

- Cooked through contact with dry, heated air
- Full, rich flavor
- Browning exterior
 - Maillard reaction
 - Items sometimes seared
- Moist interior
- Pan drippings foundation for sauces and gravies



Roasting

Characteristics of items to be roasted:

- Tender
- Well marbled
- Larger than single portion

Foods suitable for roasting:

- Meats
- Seafood
- Vegetables

Determining Doneness

Internal Temperatures

- Fish 145°F
- Poultry 165°F
(What about duck breast?)
- Pork 145°F
- Veal 140°F
- Beef 120°-140°F

Other Methods

- Time
- Experience
- Finger pressure

Technique: Poaching

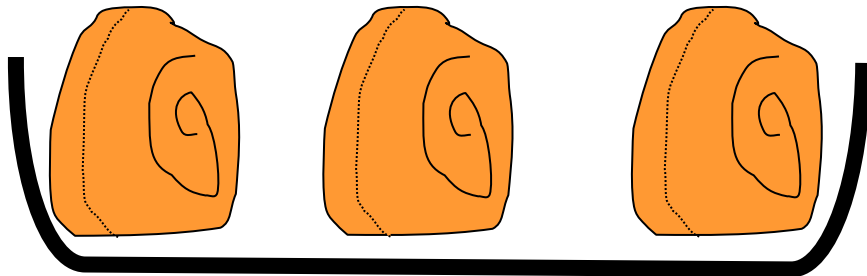
- 140°F to 185°F
- Tiny bubbles at surface - no agitation
- Used for naturally tender items
- Very delicate flavors
- Limited additional oils and fats
- Sauce typically served with item
- Short holding times

Poaching

- Characteristics of items to be poached
 - Tender
 - Portion sized
- Foods suitable for poaching
 - Meats, fish, shellfish, fruits, vegetables, and eggs
- Cooking medium
 - Should contribute flavor to food and sauce prepared from cooking liquid (if applicable)
 - Stock, court bouillon, wine, vinegar, citrus juices, etc.

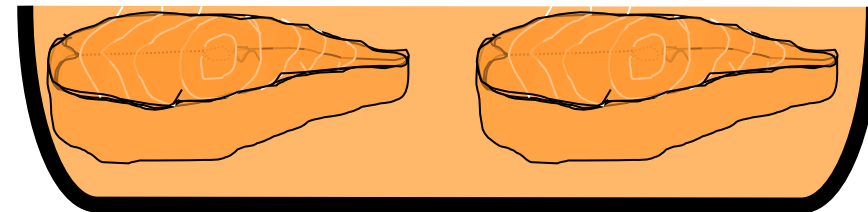
Shallow Poaching

- Less liquid used
- Combination of steam and acidic liquid with aromatics
- Lightly covered to trap steam
- Portion-size cuts
- Cuisson always used to make sauce
- Often cooked in oven



Deep Poaching

- Completely covered with liquid
- Portion size or larger cuts
- Cooking liquid not generally used for sauce
- NEVER covered
- Cooked on range



Braising and Stewing

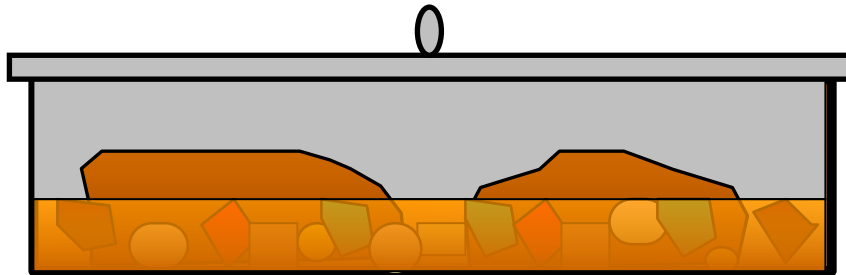


- Combination methods
 - Blend dry-heat and moist-heat
- Tenderizing effect - foods cooked until tender
 - Less tender cuts/ mature animals
- Hearty "peasant" foods
 - Less expensive cuts
- Comfort foods
- Covered cooking vessels



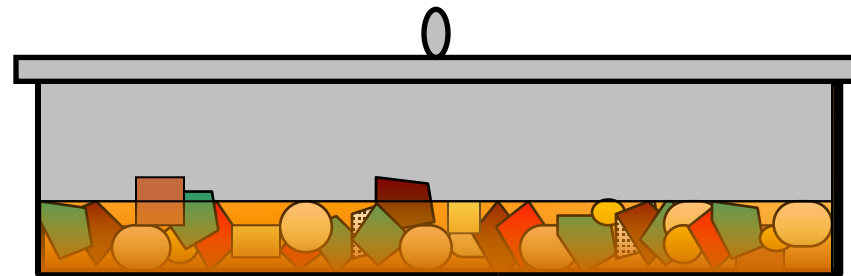
Braising

- Size: large, multi-portion
- Liquid: covers $\frac{1}{3}$ to $\frac{1}{2}$ item
- Garnish: cooked separately
- Sauce: strained
- Cooked: in oven



Stewing

- Size: small pieces
- Liquid: covers item
- Garnish: cooked with item or separately
- Sauce: not strained
- Cooked: oven or range





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Any Questions?