



Culinary Institute
of America

Day 1: Knife Skills, Culinary Fundamentals

Best of Boot Camp



Learning Objectives

- Demonstrate how to effectively set up your workstation and organize your mise en place.
- Identify various knives, their uses, and how to hold and handle a knife.
- Describe various knife cuts.
- Define dry-heat, moist-heat, and combination cooking techniques.
- Identify appropriate equipment and ingredients used for each method.
- Recognize the importance of temperature control/ heat management.
- Following standardized recipes, prepare a selection of dishes using various knife cuts and cooking methods.

Kitchen Responsibilities

- Silence and put away phones
- Clean your workstation as you go
- Place waste in proper receptacle:
 - **Green:** food scraps for compost
 - **Blue:** recyclables
 - **Gray:** trash for landfill
- Use paper towels, cleaning cloths, red sanitation bucket for spills
- Use side towel for handling hot objects, not for cleaning
- Place dirty utensils, tools, etc. on speed rack, not in sink
- Place anything with an edge in pan labelled "Sharps Only"
- Place dirty linen in linen bag

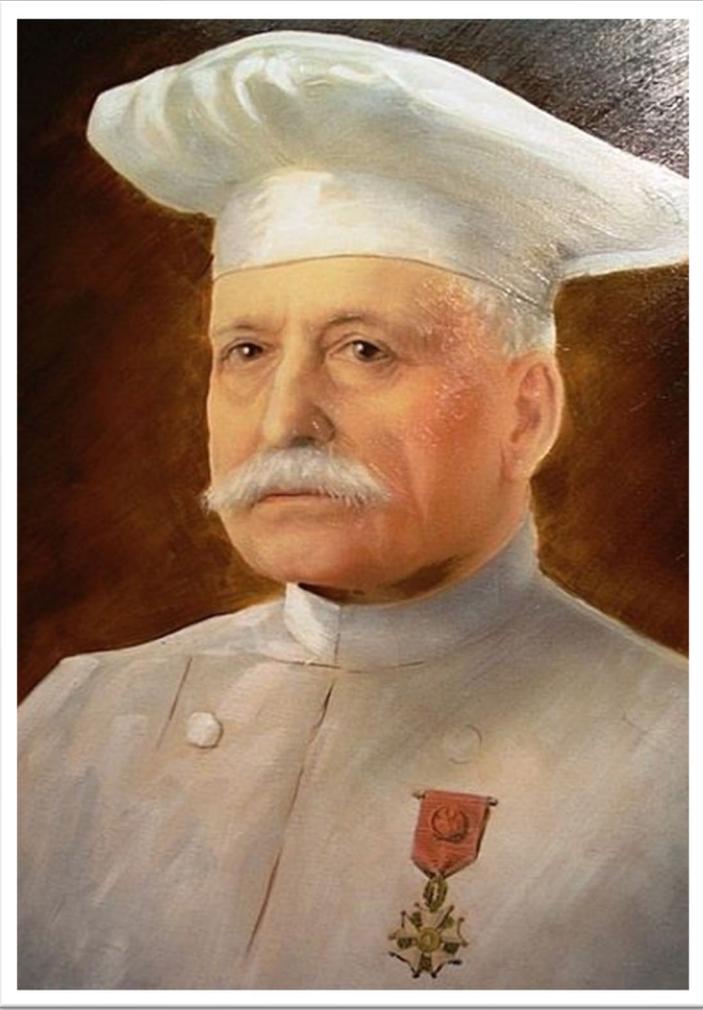


Food Safety

- Keep hair contained with toque, hair net, hair tie, beard guard
- Wash hands before starting work
- Wash hands after:
 - Touching hair, face, phone, pen, etc.
 - Coughing/ sneezing into tissue
- Wash, dry all produce
- Wash cutting board, knives, tools after each use
- Keep perishables refrigerated until needed
- Wear gloves when handling ready-to-eat food
- Keep raw meat, poultry, eggs, seafood separate from other foods
- Cook food to the temperature safe zone



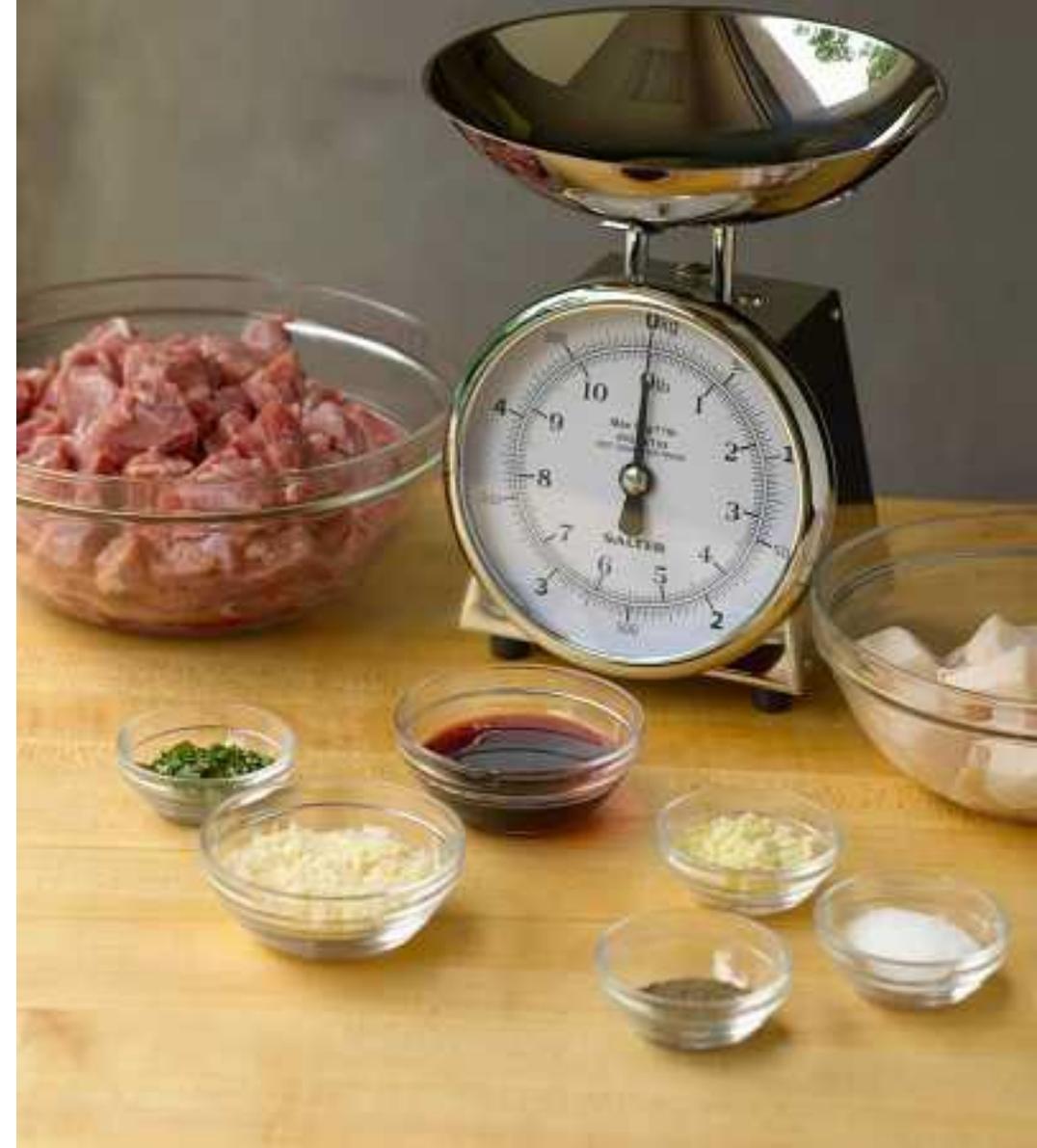
Mise en Place



- French for “everything in its place”
- Organizational system developed in 1800s by Auguste Escoffier, a former soldier
- Preparing the workspace, planning the cooking process
- Having everything ready **before** you cook, bake, or assemble your dish
- Vital part of all successful kitchens, required skill of professional chefs

Recipe Mise en Place

- Read entire recipe before starting
- Review yield, temp., cook times
- Understand terms, techniques– ask questions if unsure!
- Visualize the cooking process from start to finish
- Complete any pre-steps (soak, marinade, etc.)
- Gather, measure/ weigh all ingredients
- Complete all basic prep (wash, trim, grind, dice, etc.)





Tasting spoons

Sanitation bucket with handy wipes

Paper towels

Salt + pepper

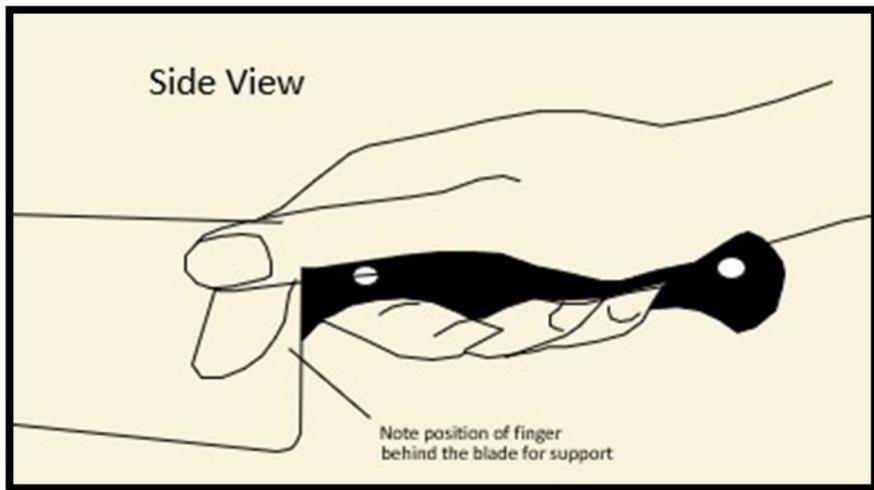
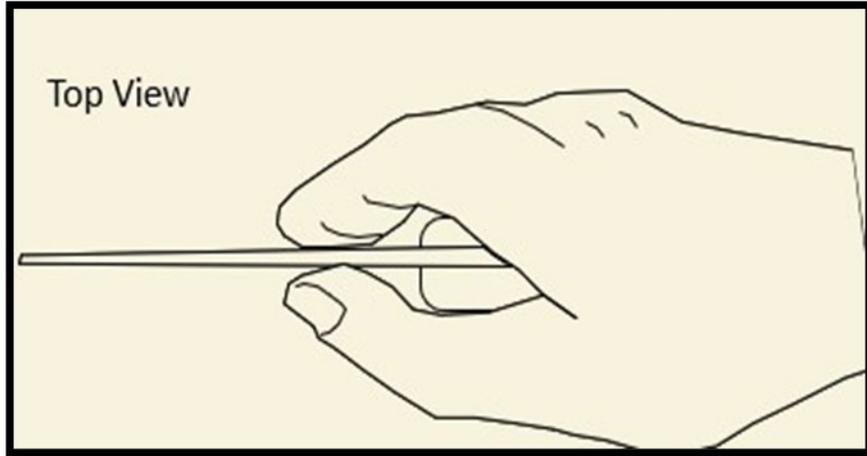
Receptacles for trash + compost

Secured cutting board

Receptacles for product

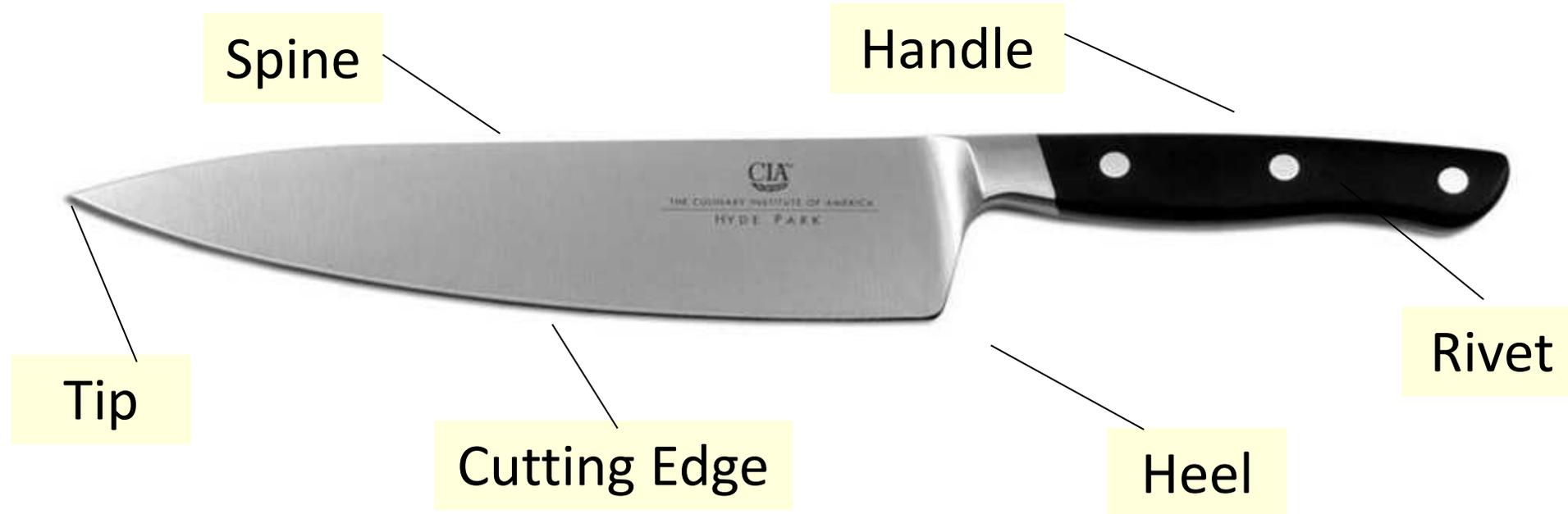
Workstation Mise en Place

Knife Safety



- Use a sharp knife
- Hold the knife firmly with correct finger positioning
- Cut away from your body
- Use a cutting board
- Place knives on flat surface, away from table edge
- Keep knives in clear sight, never covered
- Do not grab blindly for a knife
- Pass knives using handle, never the blade
- Carry knives with point down

Anatomy of a Knife



Knife Selection

Use the RIGHT knife for the job.

French Knife



chopping, slicing, dicing, mashing

Paring Knife



peeling, trimming,
shaping fruits/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

Honing = Realigning/
straightening the existing metal
of the cutting edge

Sharpening = Removing metal
to redefine the cutting edge



Knife Safety

- Always use a sharp knife.
- Hold the knife firmly in your hand. 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 or try to catch a falling knife.
- 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



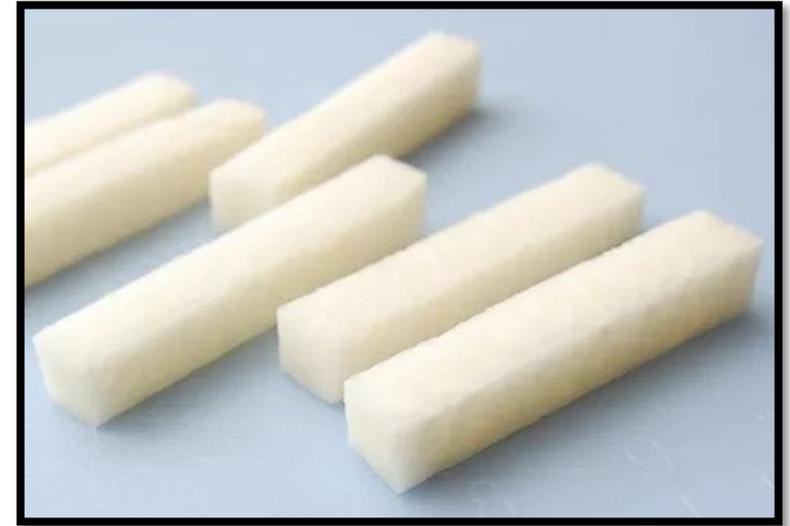
Fine Julienne

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

$1/16 \times 1/16 \times 1/16$ in.



Brunoise

$1/8 \times 1/8 \times 1/8$ in.

Other Classic Vegetable Cuts

Tourné

2 in. long, 7 faces



Oblique

Uniform pieces, 2 angled cuts



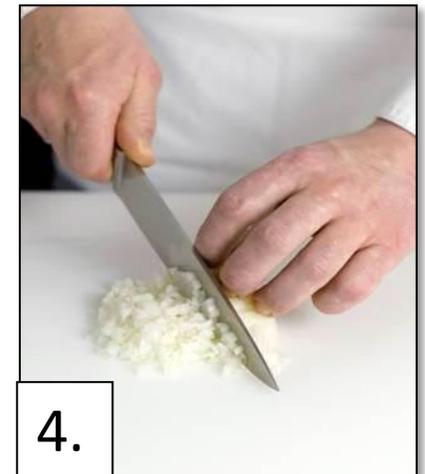
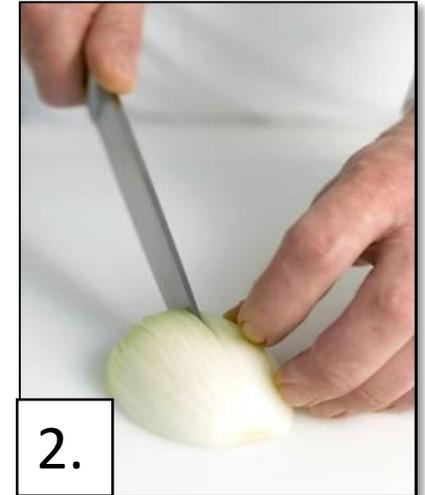
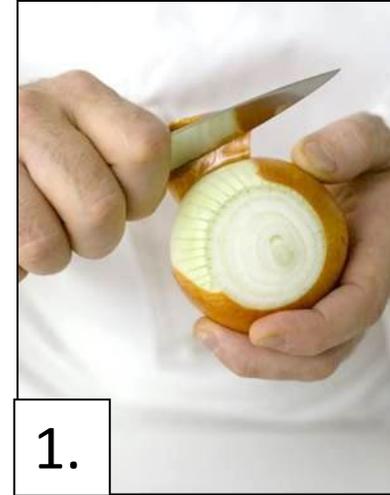
Rondelle

1/2-1/8 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 the cloves.
2. Slice the cloves.
3. Cut the cloves into a rough chop.
4. Using a rocking motion, chop to desired fineness.



Chop/ Mince Herbs



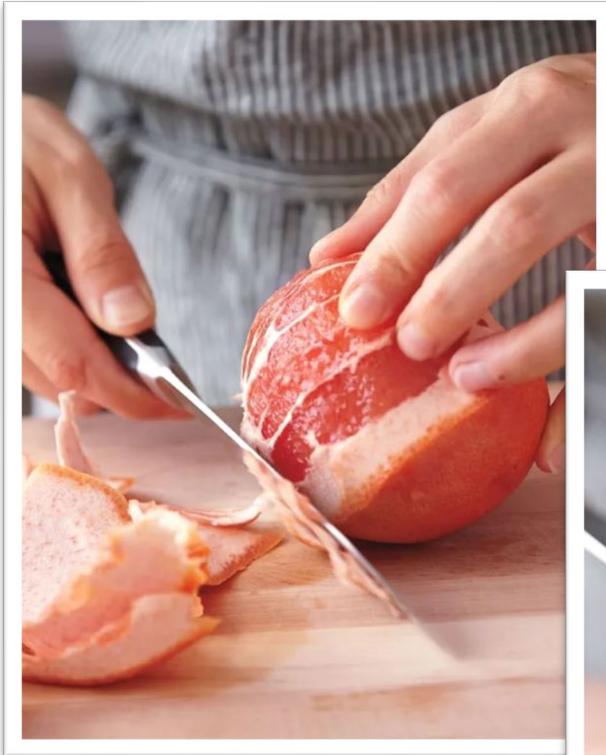
1. Wash, dry, and remove leaves from stems.
2. Roll into a tight ball.
3. Chop roughly.
4. Move hand to front of knife and chop using a rocking motion.
5. Continue cutting to desired fineness.

Chiffonade Herbs

1. Remove the 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.

Culinary Preparations

- Sachet d'épices
- Bouquet Garni
- Mirepoix
- Onion Brûlé
- Tomato Concassé



Sauté

- Quickly cooking foods in a small amount of fat, high heat
- Sauces usually made in the pan by deglazing fond (browned bits)
- Best for items that are:
 - Tender
 - Portion size or small pieces
 - Cooked to order



Pan Fry



- **More fat:** neutral oil $\frac{1}{3}$ to $\frac{1}{2}$ way up the side of item
 - Oil temp: 325°F - 350°F
- Items usually coated/ breaded, then completely cooked in pan or finished in the oven
- Only exterior crust is browned
- Sauces made, served separately
- Best for tender items, portion-size, small pieces

Breading Mise en Place

1. Product

2. Flour

3. Egg Wash

4. Breading Agent

5. Finished Item



Deep Fry

- **Fat:** fully submerged in neutral oil with a high smoke point
 - Oil temp: 350°F
 - Items drained of excess fat
- Best served immediately; cook to order
- Basket versus swimming methods
- Sauce made, served separately



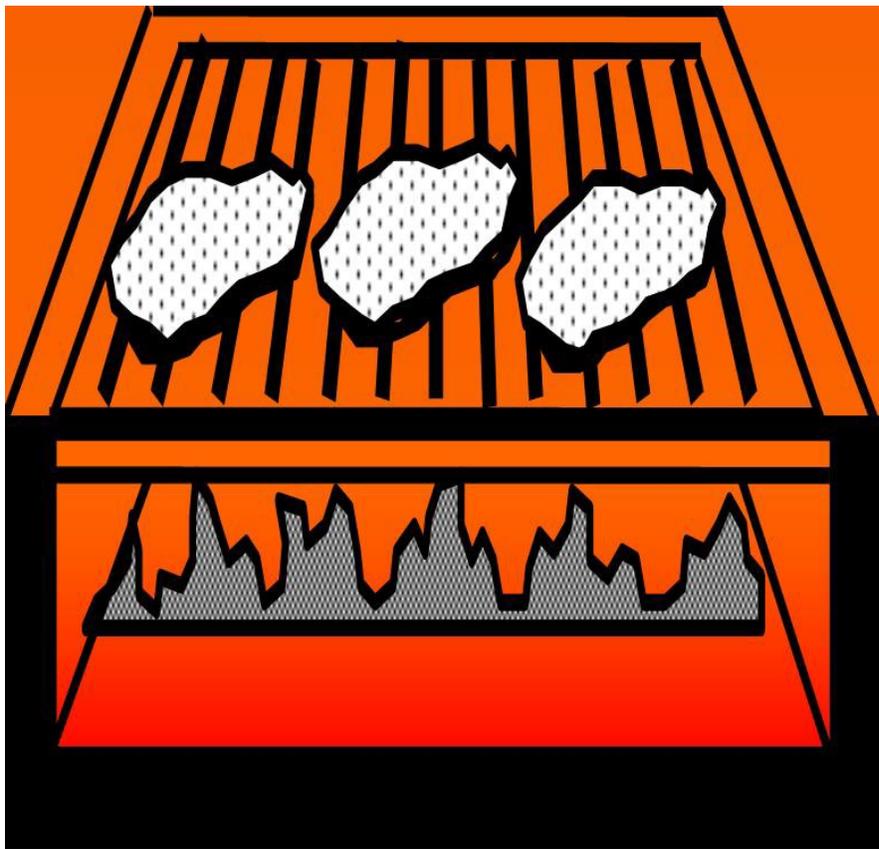
Grilling vs. Broiling



What's
the
difference?

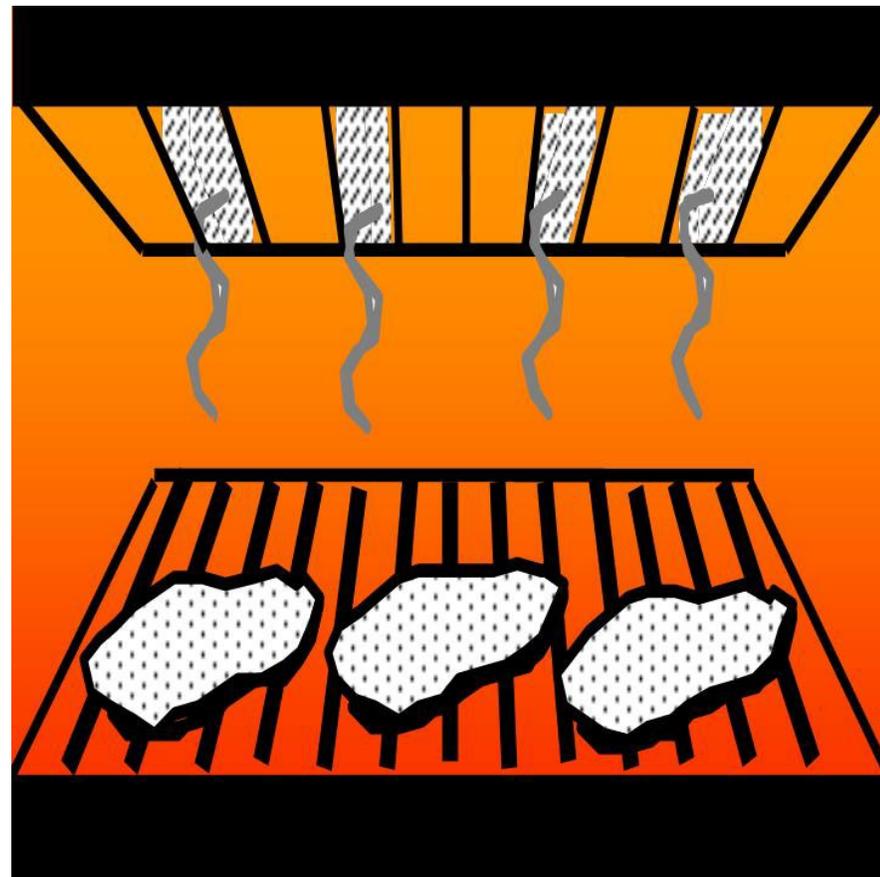


Grilling vs. Broiling



Heat source **below** the food

Heat source **above** the food

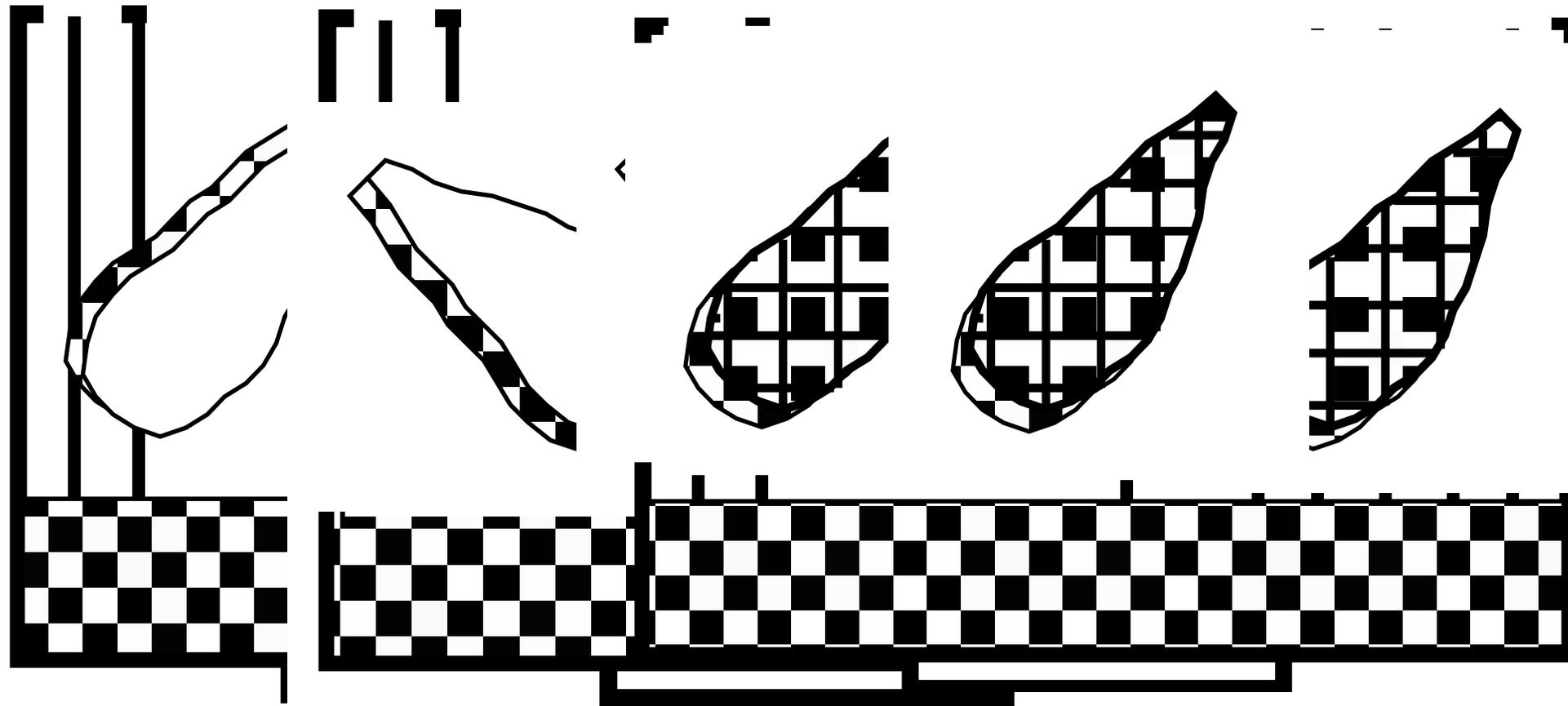


Grill/ Broil

- Dry heat, high temp
- Highly flavored, charred exterior; moist interior
- Smokey flavor
- Best for items that are:
 - Naturally tender, high moisture
 - Portion-sized
- Sauces made separately



How to Mark an Item



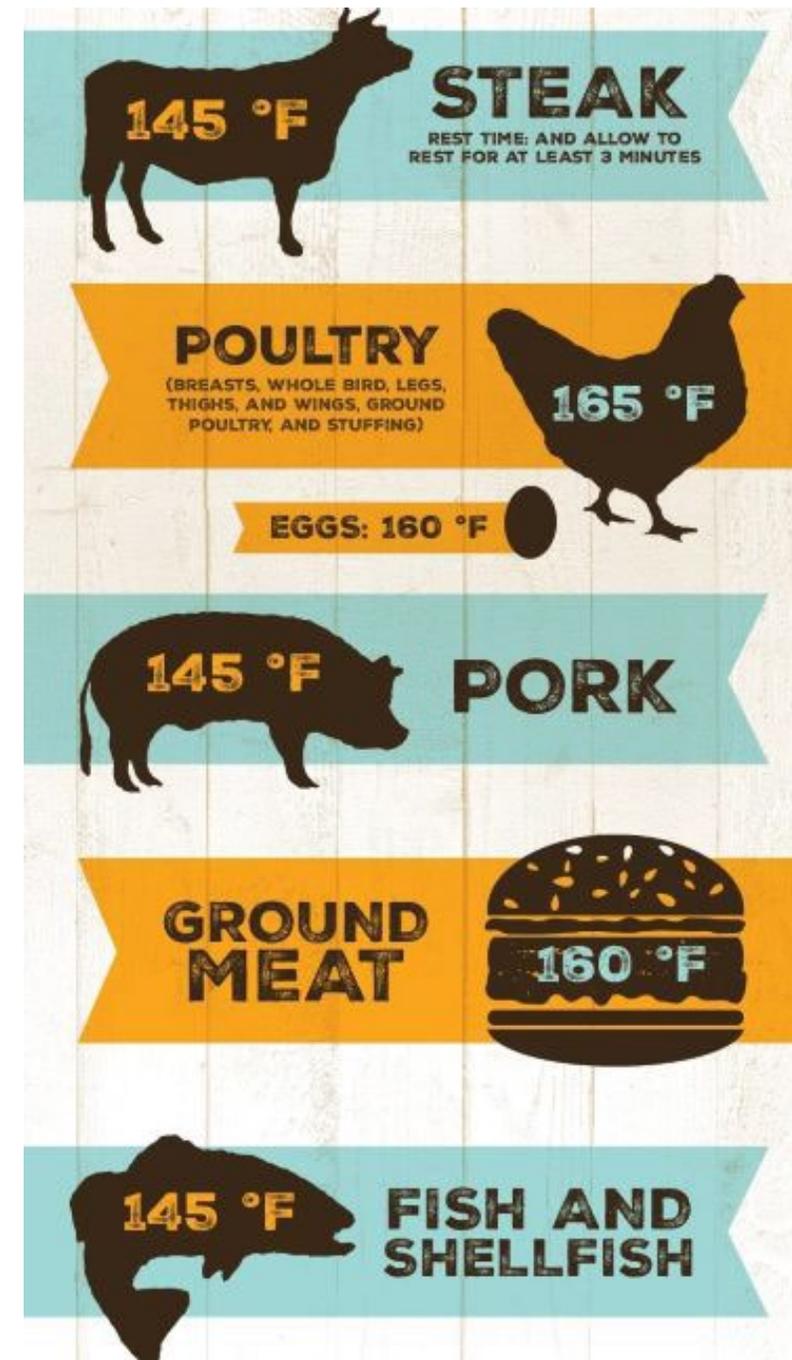
Roasting



- Dry heat, high temp
- Full, rich flavor
- Browning exterior (Maillard reaction); moist interior
 - Items sometimes seared
- Sauces rendered from pan juices
- Best for tender, well-marbled, larger items
- Consider carryover cooking

Determining Doneness

- Appearance, color not reliable indicators of safety or doneness
- Using a food thermometer the safest way to tell if harmful bacteria have been destroyed
- Insert thermometer into the thickest part of the food, avoiding any bone, fat, or gristle
- Cook until thermometer shows recommended internal temperature



Poach



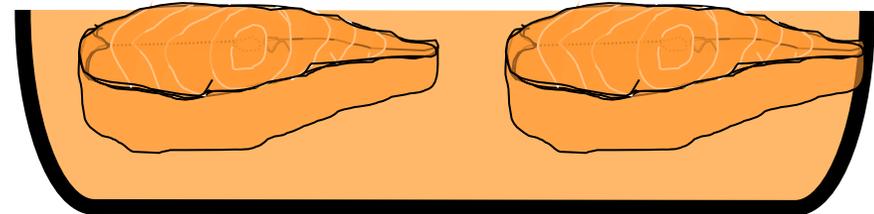
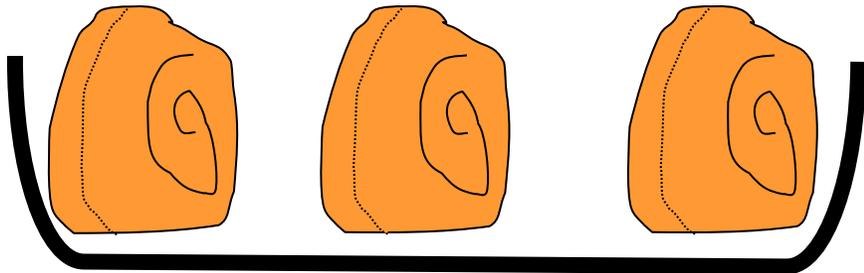
- Item partially or fully submerged in low temp liquid
- 140°F to 185°F: tiny bubbles
- Delicate, portion-sized items
- No added fat/ oils
- Cooking medium adds flavor, sometimes used for sauce
- Short holding times

Shallow Poaching

- Less liquid used
- Combination of steam, 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



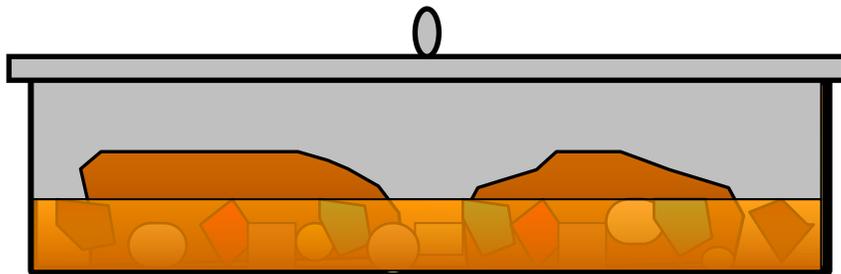
Braising and Stewing

- **Combination method:** dry-heat + moist-heat
- Cooked until tender
- Less tender cuts/ mature animals
- Hearty “peasant”/ comfort foods, less expensive
- Seared, then covered with liquid + lid



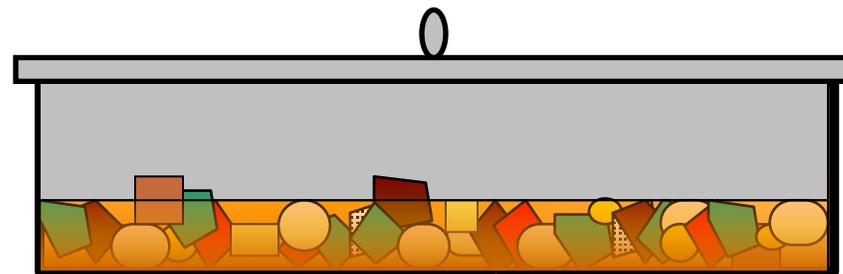
Braising

- 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?