The Actual Cheat Sheet

Roux

Equal parts fat and flour by weight. Whisk over medium heat.

Per 1 cup (240 mL) liquid	Fat + flour
Thin (soup)	1 Tbsp each
Medium (sauce, gravy)	2 Tbsp each
Thick (binder, soufflé)	3 Tbsp each

White 2 to 3 min: béchamel, cream sauces. **Blond** 5 to 7 min: velouté. **Brown** 15 to 20 min: brown gravy. **Dark** 30 to 45 min: gumbo.

Darker roux tastes nuttier but thickens less.

Whisk liquid in gradually, then simmer at least 5 min to reach full thickness and cook out the raw flour taste.

Mother sauces

Sauce	Built from	Becomes
Béchamel	milk + white roux	Mornay (+ cheese), mac sauce
Velouté	light stock + blond roux	suprême (+ cream), pot pie
Espagnole	brown stock + brown roux + tomato, mirepoix	demi-glace (+ stock, reduced by half)
Tomato	tomatoes + aromatics, simmered	marinara, arrabbiata
Hollandaise	yolks + melted butter + lemon	béarnaise (+ tarragon, shallot)

Hollandaise: 3 yolks, 1/2 cup (115 g) butter, 1 Tbsp lemon. Hold warm, not hot; it breaks if it overheats.

Everyday sauces

Gravy: 2 Tbsp fat + 2 Tbsp flour per 1 cup stock. Simmer 5 min, season last.

Pan sauce: sear, remove meat, pour off most fat. Soften a shallot, deglaze with 1/2 cup wine or stock, scrape the browned bits, reduce by half. Off heat, swirl in 1 to 2 Tbsp cold butter.

Vinaigrette: 3 parts oil to 1 part acid, salt, a little mustard to hold it together.

Cheese sauce: medium béchamel, then off heat stir in grated cheese a handful at a time. Boiling makes it grainy.

Thickeners

Per 1 cup liquid	Amount	Notes
Flour	2 Tbsp	as roux or slurry; opaque
Cornstarch	1 Tbsp	slurry with cold water; boil 1 min; glossy
Arrowroot	1 Tbsp	add at the end; freezes well
Liaison	1 yolk + 1/4 cup cream	temper first; do not boil

Starch slurries always go into hot liquid while you whisk. Reduction thickens with no starch at all.

Stocks

Stock	Simmer
Chicken (bones, cold water)	3 to 4 h
Brown beef (roasted bones)	6 to 8 h
Fish (white fish frames)	30 to 45 min
Vegetable	45 to 60 min

Start cold, bring to a bare simmer, never boil, skim the foam. Salt the dish, not the stock.

Aromatic bases

Mirepoix: onion, carrot, celery 2:1:1 (French).

Holy trinity: onion, celery, green bell pepper (Cajun, Creole).

Soffritto: onion, carrot, celery in olive oil (Italian). **Sofrito:** onion, garlic, peppers, tomato (Spanish, Latin).

Ratios by weight

Dough or batter	Ratio
Bread	5 flour : 3 water (+ yeast, salt)
Pie dough	3 flour : 2 fat : 1 water
Biscuit	3 flour : 1 fat : 2 liquid
Pasta	3 flour : 2 egg
Pancake	2 flour : 2 liquid : 1 egg : 1/2 butter
Muffin	2 flour : 2 liquid : 1 egg : 1 fat
Pound cake	1 butter : 1 sugar : 1 egg : 1 flour
Custard	2 liquid : 1 egg

Baking is chemistry

Weigh it. A cup of flour can be 110 g or 150 g depending on how it is scooped.

Baking soda needs an acid (buttermilk, yogurt, brown sugar, honey, natural cocoa): 1/4 to 1 tsp per cup of flour, set by how much acid is in the batter. **Baking powder** carries its own acid: about 1 to 1 1/4 tsp per cup.

Sugar is a wet ingredient. It holds moisture, browns, and makes cookies spread. Cut it much and the texture changes, not just the sweetness.

Fat makes it tender, **gluten** makes it chewy, **eggs** set and bind. Change one and the others shift.

Scaling: savory dishes scale freely. Bakes scale by weight and pan size; a deeper pan needs a lower oven and more time.

Bread is done at 190°F (88°C) enriched, 200 to 210°F (93 to 99°C) lean.

Yeast

1 packet = 2 1/4 tsp = 7 g. **Active dry:** proof in 105 to 110°F (40 to 43°C) water 5 to 10 min. **Instant:** mix straight into the flour.

Salt is about 2% of the flour weight. Rise until doubled, not by the clock.

Weights of a cup

1 cup	Grams
All-purpose flour	120 g
Granulated sugar	200 g
Brown sugar, packed	213 g
Powdered sugar	113 g
Butter (2 sticks)	227 g
Water, milk	240 g
Rolled oats	90 g
Honey, molasses	340 g

1 large egg out of the shell is about 50 g: 33 g white, 17 g yolk.

Measures

US	Equals	Metric
1 tsp		5 mL
1 Tbsp	3 tsp	15 mL
1/4 cup	4 Tbsp	60 mL
1 cup	16 Tbsp, 8 fl oz	240 mL
1 pint	2 cups	475 mL
1 quart	4 cups	950 mL
1 gallon	4 quarts	3.8 L
1 oz (weight)		28 g
1 lb	16 oz	454 g

Oven

°F	°C	Use
250	120	low and slow, meringue
300	150	cheesecake, custard
325	165	braises, roast turkey
350	175	most cakes, cookies
375	190	pies, muffins
400	200	roast vegetables
425	220	roast chicken, pizza
450	230	bread, high roast

Convection: lower by 25°F (15°C). Preheat at least 15 to 20 min.

Safe internal temps

Food	°F	°C
Poultry (all)	165	74
Ground beef, pork	160	71
Egg dishes	160	71
Beef, pork, lamb steaks, chops, roasts (+ 3 min rest)	145	63
Fish	145	63
Leftovers, casseroles	165	74

These are USDA minimums. Measure the thickest part, away from bone.

Steak doneness

Done at	°F	°C
Rare	120 to 125	49 to 52
Medium rare	130 to 135	54 to 57
Medium	140 to 145	60 to 63
Medium well	150	66
Well	160	71

Pull it about 5°F early: steaks climb 3 to 5°F as they rest, big roasts 5 to 10°F. Rest steaks 5 to 10 min, roasts 15 to 20, a turkey 30.

Heat and methods

Method	Heat
Poach	160 to 180°F (71 to 82°C), no bubbles
Simmer	185 to 205°F (85 to 96°C), small bubbles
Boil	212°F (100°C), rolling
Braise	covered, partly in liquid, 300 to 325°F oven
Deep fry	350 to 375°F (175 to 190°C); fill pot no more than half

Sear: pat dry, hot pan, oil shimmering, do not crowd, do not move it until it releases.

Smoke points

Fat	°F
Butter	350
Extra-virgin olive oil	350 to 410
Canola, vegetable	400 to 450
Peanut	450
Ghee, clarified butter	450+
Avocado (refined)	500+

Salt and brines

Kosher salt is not equal. 1 tsp Diamond Crystal is about 3 g; Morton kosher about 5 g; table salt about 6 g. Swap by weight.

Wet brine: 1 cup Diamond Crystal (or 1/2 cup table salt) per gallon of water. Shrimp 15 to 30 min, chops and chicken pieces 1 to 4 h, whole chicken 8 to 12 h, turkey 12 to 24 h. Skip on kosher or pre-salted birds.

Dry brine: about 1% of the meat's weight in salt, uncovered in the fridge. Steaks 1 h to overnight, turkey 1 to 3 days.

Pasta water: 4 qt per lb of pasta, 1 to 2 Tbsp kosher salt.

Grains and beans

Per 1 cup dry	Water	Time
White rice, long grain	1 3/4 cups	18 min + 10 rest
Jasmine, basmati (rinsed)	1 1/2 cups	15 min + 10 rest
Brown rice	2 1/2 cups	45 min + 10 rest
Quinoa (rinsed)	2 cups	15 min + 5 rest
Rolled oats	2 cups	5 min
Steel-cut oats	3 to 4 cups	25 to 30 min
Grits, polenta	4 cups	30 to 45 min
Lentils, brown or green	3 cups	20 to 30 min
Dried beans (soaked)	cover by 2 in	1 to 2 h

Simmer covered on low. 1 cup dry rice makes about 3 cups cooked; 1 lb dried beans about 6 cups.

Eggs

Boiled (large, from the fridge, lowered into boiling water, then ice water): 6 min runny, 8 min jammy, 10 min just set, 12 min hard.

Poached: water barely simmering, a splash of vinegar, 3 to 4 min.

Scrambled: low heat, keep stirring, take off the heat while still a little wet.

Sugar stages

Stage	°F	°C
Soft ball (fudge)	235 to 240	112 to 116
Firm ball (caramels)	245 to 250	118 to 121
Hard ball (nougat)	250 to 265	121 to 129
Soft crack (taffy)	270 to 290	132 to 143
Hard crack (brittle)	300 to 310	149 to 154
Caramel	320 to 350	160 to 177

Knife cuts

Cut	Size
Brunoise	1/8 in (3 mm) cube
Small dice	1/4 in (6 mm)
Medium dice	1/2 in (12 mm)
Large dice	3/4 in (2 cm)
Julienne	1/8 x 1/8 x 2 in sticks
Batonnet	1/4 x 1/4 x 2 to 3 in
Chiffonade	rolled leaves, thin ribbons

Substitutions

For	Use
1 cup buttermilk	1 Tbsp lemon or vinegar + milk to 1 cup; stand 5 min
1 cup self-rising flour	1 cup flour + 1 1/2 tsp baking powder + 1/4 tsp salt
1 cup cake flour	1 cup flour minus 2 Tbsp, plus 2 Tbsp cornstarch
1 tsp baking powder	1/4 tsp baking soda + 1/2 tsp cream of tartar
1 cup brown sugar	1 cup sugar + 1 Tbsp molasses
1 Tbsp fresh herbs	1 tsp dried
1 garlic clove	1/8 tsp garlic powder
1 egg (binding only)	1 Tbsp ground flax + 3 Tbsp water, 5 min

Fix the taste

If it is	Add
Flat	salt first, then acid
Too salty	more unsalted food, acid, fat
Too sour	a pinch of sugar, fat
Too sweet	acid, salt
Too bitter	salt, a little sweetness
Too spicy	dairy, sugar, acid, starch

Broken emulsion: whisk it slowly into a fresh yolk or a spoonful of warm water.

Food safety

Danger zone 40 to 140°F (4 to 60°C). Refrigerate within 2 h, 1 h above 90°F (32°C).

Fridge 40°F (4°C) or colder, freezer 0°F (−18°C). Leftovers keep 3 to 4 days.

Thaw in the fridge (a turkey takes 1 day per 4 to 5 lb) or in cold water, 30 min per lb, changing the water every 30 min.