



Volume & Weight Conversions

VOLUME CONVERSIONS (US Standard)

1 dash / pinch	< 1/8 tsp
1 tsp (teaspoon)	1/3 tbsp
1 tbsp (tablespoon)	3 tsp
1 fl oz (fluid ounce)	2 tbsp
1/4 cup	4 tbsp
1/2 cup	8 tbsp
1 cup	16 tbsp / 8 fl oz
1 pint (pt)	2 cups / 16 fl oz
1 quart (qt)	2 pints / 4 cups / 32 fl oz
1 gallon (gal)	4 quarts / 8 pints / 16 cups
Kitchen Tip:	Use liquid measuring cups (with a spout) for liquids and dry measuring cups (to level off) for dry ingredients for accuracy.

VOLUME CONVERSIONS (US to Metric)

1/4 tsp	1.2 ml
1/2 tsp	2.5 ml
1 tsp	5 ml
1 tbsp	15 ml
1 fl oz	30 ml
1/4 cup	60 ml
1/2 cup	120 ml
1 cup	240 ml
1 pint	480 ml / 0.48 liter
1 quart	960 ml / 0.96 liter
1 liter	~4.2 cups / ~33.8 fl oz
Watch Out:	US cups are not the same as UK/Australian cups. Always specify region for clarity in recipes.

Temperature & Pan Conversions

TEMPERATURE CONVERSIONS

Fahrenheit to Celsius:	$C = (F - 32) \times \frac{5}{9}$
Celsius to Fahrenheit:	$F = (C \times \frac{9}{5}) + 32$
250°F	120°C
300°F	150°C
325°F	165°C
350°F	175°C
375°F	190°C
400°F	200°C
425°F	220°C
Kitchen Tip:	An oven thermometer is a baker's best friend! Ovens can be off by 25-50°F (15-30°C).

WEIGHT CONVERSIONS

1 oz (ounce)	28.35 grams
1 lb (pound)	16 oz / 453.6 grams
1 kg (kilogram)	1000 grams / ~2.2 lbs
1 gram	0.035 oz
Kitchen Tip:	For baking, always use a digital scale for ingredients like flour and sugar. It's far more accurate than volume measurements.

COMMON INGREDIENT WEIGHTS (per 1 cup)

All-Purpose Flour	120-130g (4.25-4.5 oz)
Bread Flour	125-135g (4.4-4.8 oz)
Cake Flour	100-110g (3.5-3.9 oz)
Granulated Sugar	200g (7.0 oz)
Brown Sugar (packed)	220g (7.75 oz)
Powdered Sugar (sifted)	120g (4.25 oz)
Butter	227g (8 oz) per 2 sticks
Water	236g (8.3 oz)
Watch Out:	Flour weights vary depending on how it's measured (scooped vs. spooned). Spooning flour into the cup then leveling is generally recommended.

OVEN SETTING EQUIVALENTS

Term	Approx. Temp Range (F/C)
Very Low	225-250°F / 107-120°C
Low	275-300°F / 135-150°C
Moderate	325-350°F / 160-175°C
Hot	375-400°F / 190-200°C
Very Hot	425-450°F / 220-230°C
Broil / Grill	Typically 500-550°F / 260-290°C
Watch Out:	Always preheat your oven fully before placing food inside for consistent results.

PAN & BAKING DISH CONVERSIONS

Original Pan Size	Approximate Equivalent
8-inch Round (area: 50 sq in)	9-inch Square (area: 81 sq in) <i>Note: Larger volume, reduce ingredients by ~1/3 or fill to same depth.</i>
9-inch Round (area: 64 sq in)	8-inch Square (area: 64 sq in) <i>Direct swap in area.</i>
10-inch Round (area: 78 sq in)	9-inch Square (area: 81 sq in) <i>Close match in area.</i>
8x8 inch Square (area: 64 sq in)	9-inch Round (area: 64 sq in) <i>Direct swap in area.</i>
9x13 inch Rectangular (area: 117 sq in)	Two 9-inch Round (total area: 128 sq in) <i>Use for sheet cakes, adjust batter/layers.</i>
Standard Muffin Pan (12 cups)	Mini Muffin Pan (24-36 cups) <i>Bake time reduced by half; or Jumbo Muffin Pan (6 cups), bake time increased.</i>
Loaf Pan (8.5x4.5 inch)	Smaller loaf pans (adjust fill height) or a small round/square pan if batter depth allows.
Watch Out:	When changing pan sizes, remember to adjust baking time. A deeper pan needs more time; a shallower/wider pan needs less. Keep an eye on doneness!

Ingredient Substitutions & Tips

COMMON INGREDIENT SUBSTITUTIONS

Original Ingredient	Substitution (Amount)
1 cup Buttermilk	1 cup milk + 1 tbsp lemon juice or white vinegar (let sit 5-10 mins) OR 1 cup plain yogurt / sour cream (thinned with milk)
1 Large Egg	1/4 cup applesauce / mashed banana / pumpkin puree OR 1 tbsp ground flaxseed meal + 3 tbsp water (let sit 5 mins) OR 1 tbsp chia seeds + 3 tbsp water (let sit 5 mins)
1 cup Self-Rising Flour	1 cup All-Purpose Flour + 1.5 tsp baking powder + 1/4 tsp salt
1 tsp Baking Powder	1/4 tsp baking soda + 1/2 tsp cream of tartar OR 1/4 tsp baking soda + 1/2 cup buttermilk (reduce other liquids)
1 tsp Baking Soda	3 tsp baking powder (for recipes without acidic ingredients)
1 cup All-Purpose Flour (GF Swap)	1 cup Gluten-Free All-Purpose Flour blend (ensure it contains xanthan gum)
1 cup Dairy Milk	1 cup non-dairy milk (almond, soy, oat, coconut)
1 cup Heavy Cream	1 cup evaporated milk (chilled and whipped) OR 1 cup full-fat coconut cream (chilled, for vegan)
1 tbsp Cornstarch (for thickening)	2 tbsp All-Purpose Flour OR 1 tbsp arrowroot powder
Kitchen Tip:	Substitutions aren't always 1:1, especially for critical ingredients in baking. Understand the role (e.g., leavening, binding, moisture) of the original ingredient.

<p>1. Leveling Dry Ingredients:</p> <ul style="list-style-type: none">For flour, spoon it lightly into the measuring cup, then level off the top with a straight edge (like a knife or flat spatula). Don't pack it down or scoop directly from the bag, which can compact it and add too much.For granular sugar, scoop and level.
<p>2. Measuring Liquids:</p> <ul style="list-style-type: none">Use clear liquid measuring cups with pour spouts. Place the cup on a flat surface and view it at eye level to ensure the liquid reaches the correct mark.
<p>3. Packing Brown Sugar:</p> <ul style="list-style-type: none">Unlike flour, brown sugar should be firmly packed into the measuring cup. When inverted, it should hold the shape of the cup. This is crucial for accurate measurement.
<p>4. Weighing is Superior for Baking:</p> <ul style="list-style-type: none">For precise baking, a digital kitchen scale is invaluable. Ingredients like flour, sugar, and butter can vary significantly in volume measurements, but their weight is consistent. Many recipes (especially from professional bakers) now include weight measurements.
<p>5. Room Temperature Ingredients:</p> <ul style="list-style-type: none">For baking, many recipes call for butter and eggs at room temperature. This helps them emulsify better with other ingredients, creating a smoother, more uniform batter and a better final texture. Plan ahead and take them out 30-60 minutes before baking.
<p>Never guess! If a recipe calls for a specific measurement and you're unsure, look it up or use these conversions. Precision prevents waste and ensures delicious results.</p>