## Chapter 1



To make baked goods with outstanding flavor and wonderful texture, you need to start with quality ingredients-you really can taste the difference! Baked goods are all about flavor, and you can't get great flavor from imitation or low-quality ingredients. Yes, a good butter and pure vanilla extract cost more money than their lesser counterparts, but they also pack a bigger flavor wallop.

Each ingredient in a baking recipe has a specific purpose and plays an important role in the success or failure of the baked goods. The selection of the ingredients, their proportions to one another, and how they are combined determine the flavor and texture of the finished baked item. Understanding how ingredients interact and contribute to making great baked goods is the first step to a successful recipe. Let's take a closer look at each ingredient and its specific role in baking.

## FLOURS

Flour serves many functions in baking. It separates and evenly distributes the other ingredients throughout the dough or batter, it binds all of the ingredients together, and it also contains starches that absorb liquids and act as a thickener. The natural sugars in flour caramelize during baking and aid in browning the outside of baked goods.

The proteins in flour help produce the texture of baked goods. These proteins contribute to the structure and crumb of cakes, cookies, and breads and help determine whether baked goods will be soft and tender or tough and chewy. Each type of flour has its own protein composition and lends its own characteristic to baked goods.

Different types of flour have different gluten levels. Those of us who do a lot of baking are very familiar with gluten and all of its wonderful properties. Gluten is the protein found in wheat flour that, when developed, gives bread dough its elastic texture and strong structure to trap and hold the gas bubbles released by yeast. It gives wheat bread a chewy, light, and airy texture. To bake tender cookies, cakes, quick breads, muffins, biscuits, and scones, use all-purpose flour, cake flour, or a combination of the two. I primarily use all-purpose flour when baking yeast breads. If you have trouble with your yeast breads falling during baking, try using bread flour, which contains more gluten and will provide stronger support to the structure created as the bread rises.

## All-Purpose Flour

All-purpose flour is the best choice for most types of baking. It is made with a blend of "soft" low-protein wheat and "hard" high-protein wheat. This combination provides the structure needed to support the other ingredients during baking and also produces baked goods that are soft and tender.

There are two types of all-purpose flour: bleached and unbleached. Bleaching makes the flour slightly acidic. This acidity interacts with the leavener, helping baked goods rise
to their full potential. If you use unbleached flour in a recipe leavened with baking soda and your baked goods don't rise properly, you may need to add some acid to the dry ingredients, such as a small amount of cream of tartar, to help activate the baking soda.

Because of the acidity, cookies made with bleached flour spread less during baking than cookies made with unbleached flour. Baked goods made with unbleached flour also tend to be darker and crisper. Unbleached flours are preferred by many bakers for making breads, so some flour manufacturers formulate their unbleached all-purpose flour with a higher protein content than their bleached all-purpose flour. These high-protein allpurpose flours will yield slightly tougher cookies, biscuits, scones, and cakes, and baked goods with a darker color than those made with bleached all-purpose flour.

The choice of bleached or unbleached flour depends on the finished texture and appearance that you prefer in your baked goods. I prefer bleached all-purpose flour for baking. You may use bleached or unbleached all-purpose flour in the recipes in this book.

## Cake Flour

Cake flour is a bleached flour that contains significantly more "soft" or low-protein wheat than all-purpose flour. It is used in baked goods such as cakes where a light, nonchewy structure is preferred. A blend of cake flour and all-purpose flour is often used to create light, fluffy biscuits.

## Bread Flour

Bread flour is made with high-protein wheat, which absorbs more liquid and gives breads their chewy texture. When the protein is developed, often through kneading, the gluten forms the strands that give loaves of yeast bread their structure. Because of the higher protein content in bread flour, it is not recommended for general baking.

## OATS

Oatmeal cookies, breads, and muffins have many fans. Oats for baking come in two forms: old-fashioned and quick-cooking rolled oats. They are the same basic product except that quick-cooking oats have been cut into smaller pieces so they cook much faster. I use quick-cooking oats in all of my baking recipes because they absorb moisture, soften, and bake in a much shorter time than old-fashioned oats. The smaller pieces also combine better with other ingredients and create a more cohesive mixture. This produces a better texture in baked goods.

Never use instant oats or oatmeal for baking. These oat products are preprocessed and turn gummy when baked. Steel-cut oats, also called Irish or Scottish oats, should not be used in baked goods. They will remain hard after baking and will ruin the texture of your products.

## SUGARS AND SWEETENERS

Sugars and sweeteners play a huge role in blue ribbon baking, far more than just adding sweetness to baked goods. Sugar provides both flavor and structure, makes baked goods tender, and enhances their texture and crumb. It also attracts and retains moisture, helping baked items maintain their flavor and prolonging freshness.

When heated above the melting point, sugar caramelizes, developing a delicious flavor and tantalizing aroma. During baking, sugar chemically reacts with the proteins in the flour and other ingredients, causing the surface of baked goods to brown.

The amount and type of sugar used in a recipe affects the finished baked goods. For example, cookies with a high sugar content will spread more during baking. Liquid sweeteners such as molasses and honey also cause cookies to spread more, resulting in
thinner cookies. Brown sugar makes cakes, cookies, and quick breads moister and softer than granulated sugar.

## Granulated Sugar

An all-purpose sugar, granulated sugar is the type of sugar most frequently used in baking. The particle size of granulated sugar grains creates friction with the butter in creamed batters and doughs, incorporating air into the mixture and producing light and tender baked goods.

Granulated sugar is made by extracting the juice from sugarcane or sugar beets and clarifying it to reduce impurities. The juice is cooked down to concentrate it until sugar crystals form. The remaining juice is then removed, later to be made into molasses, and the crystals are further refined and purified to make granulated white sugar. I use granulated sugar made from sugarcane in all of my baked goods.

## Superfine Sugar

Superfine sugar is an extremely fine-grained granulated sugar. Because it dissolves very quickly, it is an excellent choice to use for making meringues, curd fillings, and glazes. Superfine sugar can be substituted in recipes in equal amounts for regular granulated sugar.

> Baker's Sugar

Baker's sugar is an ultrafine granulated sugar designed specifically for baking, with sugar crystals that are slightly coarser than superfine sugar. It is the type of sugar most commonly used by professional bakers and pastry chefs. Originally created for and marketed only to professional bakeries, baker's sugar is now found in most large supermarkets. It may be substituted for granulated sugar in equal amounts in any baking recipe.

## Brown Sugar

Brown sugar is basically refined granulated sugar with molasses added. It is made by one of two processes: molasses is boiled down until sugar crystals form, or more commonly, the molasses syrup is combined with granulated sugar crystals. Brown sugar has the same sweetening power as granulated sugar, but the molasses makes it moister and gives it a richer flavor.

For blue ribbon baking, I recommend using brown sugar made from sugarcane. This is a natural combination of sugar and molasses formed using the traditional method of crystallization. Brown sugar from sugar beets is frequently made with added color and flavorings.

Dark brown sugar contains more molasses than light brown sugar, also called golden brown sugar, giving it a deeper flavor. Light brown sugar has a more delicate caramel flavor than the richer dark brown sugar. I specify light brown sugar in recipes when I want a subtler, milder molasses flavor and dark brown sugar for a stronger, more intense flavor. However, light and dark brown sugars can be used interchangeably, so you can use whichever you have in the pantry with only a slight change in the flavor of the finished baked goods.

Brown sugar has four times the moisture content of granulated sugar, making it an excellent choice for baking moist cakes and quick breads and chewy cookies and brownies. Baked goods containing brown sugar stay softer and moister longer than those made with only granulated sugar. In some baking recipes, brown sugar may be substituted for all or part of the granulated sugar to add flavor and moistness. It is also higher in acid than granulated sugar. Depending on the quantity of brown sugar in the recipe, it can act alone or in partnership with other ingredients to provide the acid level needed to activate baking soda.

When brown sugar dries out, it can become as hard as a rock and also loses a lot of its flavor. To keep this from happening, store bags and boxes of brown sugar tightly sealed in a heavy-duty zippered plastic storage bag or in an airtight container and use within six months of purchase for maximum flavor. If your brown sugar does dry out, it's time to buy fresh.

## Confectioners' Sugar

Confectioners' sugar, also known as powdered sugar, is primarily used for making icings, frostings, and glazes. It can also be dusted on the tops of cakes and cookies to create pretty decorations and add a touch of sweetness. Confectioners' sugar is made by grinding granulated sugar to a consistency ten times finer than regular granulated sugar and blending it with about 3 percent cornstarch, which gives the sugar a smooth, powdery texture and absorbs moisture from the air to prevent it from becoming lumpy. It doesn't have the same sweetening power as granulated sugar, so it can't be directly substituted for granulated sugar in baking recipes.

## Molasses

Molasses is a byproduct created during the sugar-refining process. The juice that remains after the sugar crystals are removed is boiled down to create molasses. It adds moisture, a rich flavor, and deep color to baked goods.

Molasses is sold in two forms-sulphured and unsulphured. Sulphured molasses contains sulfur dioxide and has a stronger, more robust flavor. Unsulphured molasses has a milder and smoother flavor. It is the type of molasses most commonly used in baking.

There are three strengths of molasses-light, dark, and blackstrap. Light molasses is made in the first refining stage. The color is dark amber and the flavor is similar to burnt sugar. Made during the second refining stage, dark molasses is darker in color and less sweet, with a heartier, somewhat bitter flavor. Light molasses is the best choice for use in most baking recipes, while the stronger flavor of dark molasses works well in gingerbread. Thick and rather bitter, blackstrap molasses has an intense flavor and is not recommended for baking, as it will overpower the other flavors in baked goods.

## Honey

Honey has nearly the same sweetening power as granulated sugar. Because honey is a liquid sweetener, it doesn't contain the necessary sugar particles to create friction with the butter during the creaming process. Baked goods made with honey tend to be denser and heavier than those made with granulated sugar or brown sugar. It can be difficult to create light, fluffy baked goods using honey as the primary sweetener. The taste of honey can also change when exposed to high oven temperatures.

Honey comes in a variety of flavors, which are determined by the type of flowers harvested by the bees. Some honeys, such as buckwheat, have a strong flavor that can overpower baked goods. To keep the honey from overshadowing the other flavors in a recipe, choose a mildflavored honey for baking, such as clover, wildflower, or my favorite, orange blossom.

## Corn Syrup

Corn syrup is made from cornstarch that is converted into corn sugar and then turned into a liquid. It is available in both light and dark varieties. Clarified and flavored with vanilla, light corn syrup is used most frequently in baking. Dark corn syrup has a more pronounced caramel flavor and a deeper color.

Frequently added to frostings to create a glossy sheen and silky texture, corn syrup helps prevent the recrystallization of granulated sugars. Corn syrup browns at a lower temperature than sugar, making baked goods crisper on the outside and soft on the inside.

## Artificial Sweeteners and Sugar Substitutes

Unless you are on a sugar-restricted diet, I don't recommend using artificial sweeteners or sugar substitutes for baking. While sugar provides many important characteristics such as texture, color, volume, moisture, and flavor in baked goods, artificial sweeteners and some sugar substitutes do not produce these qualities when used for baking. Baked goods made with artificial sweeteners and sugar substitutes also turn stale faster and have a shorter shelf life.

Artificial sweeteners only provide sweetness. They do not aerate cake batters or cookie doughs, do not add moisture and tenderness, and do not prolong freshness in baked goods. Artificial sweeteners don't have the same volume as sugar and this difference significantly alters the chemistry of the recipe, resulting in baked goods that can be very disappointing. The chemical composition of artificial sweeteners changes when exposed to the heat of the oven and they can turn quite bitter or develop an unpleasant "off" flavor during baking.

Baked goods made with artificial sweeteners and some sugar substitutes tend to be much paler in color than those made with sugar. The doneness of the baked goods made with artificial sweeteners can't easily be determined by color or appearance. Because baked goods made with artificial sweeteners bake faster than those containing sugar, it is easy to overbake and dry out your baked goods.

If you decide to use a sugar substitute, be sure to use one that replaces sugar in a one-to-one volume ratio. Otherwise it will not balance the recipe in relation to the proportions of the other ingredients and the results will be disappointing.

## FATS

There are two basic types of fats used in baking-solid fats and liquid fats. Butter and shortening are examples of solid fats, while vegetable oil is a liquid fat.

Fats play several key roles in baking. They influence flavor and color, add moisture to baked goods, and help keep them fresh. Fats are also an important element in determining the texture of baked goods. They make cakes, cookies, and biscuits tender by keeping the proteins in the flour from developing into gluten. When creamed with sugar, solid fats trap air that lightens the batter or dough, adds structure, and gives baked goods a tender crumb. During baking, solid and liquid fats release moisture in the form of steam, which helps baked goods rise, set, and crisp.

Different fats react differently when exposed to heat. For example, cookies made with butter, which melts at a lower temperature, will tend to spread more, while cookies made with shortening, which melts at a higher temperature than butter, will hold their shape better. To take advantage of their different characteristics, some baking recipes will call for a combination of butter and shortening to produce the best texture.

Baking recipes are formulated to balance all of the ingredients, including their specific characteristics and reactions, to achieve the best results. Reducing the amount of fat in a recipe will make the baked goods tougher, less flavorful, and drier. Substituting one fat for another in a recipe can yield significantly different results.

## Butter

Butter adds great flavor to all kinds of delicious baked goods. It also helps make them tender and provides moisture that is essential during baking. Butter browns as it bakes, helping to give baked goods a lovely golden color.

Always choose a high-quality unsalted butter in stick form for your baking needs. Not only is it easy to measure, but stick butter has a higher fat content than whipped or spreadable butters. Butter sold in tubs contains a higher percentage of water and air than
stick butter, which will significantly alter the texture of baked goods. Unsalted butter also has a fresh flavor that adds to the overall taste of the baked goods. Salt is added to butter to increase its shelf life, and the amount of salt can vary significantly from one brand to the next. Using unsalted butter gives you control over the amount of salt in the recipe.

## Margarine

I don't use margarine in my baked goods and I strongly advise against substituting it for butter in any baking recipe. You just won't get the same results. Margarine is made from vegetable oil and contains a significant amount of water, which will alter both the flavor and texture of baked goods. Margarines with a high water content yield tougher baked goods that will dry out much faster than those made with butter. Nearly all margarines contain a significant amount of salt, which can upset the flavor balance of baked goods.

If you need to substitute margarine for butter for dietary reasons, buy margarine in stick form only and make sure it contains at least 80 percent vegetable oil. Never use any product labeled as a "spread" for baking. These contain a higher proportion of air and water and will alter the texture of your baked goods.

## Vegetable Shortening

Vegetable shortening is a solid fat made from vegetable oil. It produces cookies, biscuits, and pie crusts with a lighter, tenderer texture than those made with only butter. Shortening melts at a higher temperature than butter, so the structure of the dough partially sets before the shortening fully melts. Cookies made with shortening also don't spread as much and get their flavor from other ingredients, such as chocolate, extracts, and spices.

While both plain and butter-flavored shortenings are commonly available, I prefer to use plain shortening and add other ingredients to flavor the baked item. Butter-flavored shortenings are artificially flavored and can sometimes develop an "off" or rancid taste, especially if stored at warm room temperatures.

> Lard

Lard is a natural fat made from the rendered fat of a pig. Like shortening, it is essentially flavorless. It is a popular choice for making pastry as it produces very flaky pie crusts. It also makes light, fluffy, and tender biscuits and can be substituted for shortening or butter in any pastry or biscuit recipe.

Oil
Like butter, oil provides fat and moisture and makes baked goods tender. However, it does not aid in leavening, because it doesn't incorporate a significant amount of air when beaten with sugar. I like to use canola oil for baking. It has a neutral flavor that doesn't alter the taste of baked goods. Vegetable oil is a blend of neutral-flavored oils and is also a good choice for baking. Always smell the oil before you use it in baking to make sure it hasn't turned rancid.

I do not recommend using oils with a strong or distinct flavor, such as olive oil or peanut oil, for baking. These oils will impart their robust taste to baked goods and significantly alter their flavor. If you choose to use olive oil, it's best to avoid baking with extra-virgin olive oil because of its strong flavor and low smoke point. Save it for making salad dressings.

## EGGS

Providing proteins, fat, and moisture, eggs contribute important structure and texture to baked goods. Like flour, they help bind the other ingredients together and give strength to batters and doughs. As eggs are beaten their proteins create a structure
that traps air and liquids, which helps define the finished texture of baked goods. During baking, these trapped air bubbles expand and cause breads and cakes to rise. Eggs also add richness, tenderness, and color to baked goods.

Egg yolks add moisture to baked goods and encourage browning. They also act as an emulsifier, helping to blend the fat into the liquid ingredients. Egg whites dry out baked goods and make them crispier. Never substitute all egg whites for the whole eggs in a recipe, as the baked item will be very dry and crumbly.

Eggs should be brought to room temperature before beating or adding to other ingredients. Room-temperature eggs beat to a higher volume and incorporate into doughs and batters faster and better than cold eggs. This will produce lighter baked goods. If the eggs are too cold, they can cause a creamed butter and sugar mixture to break, or appear curdled.

All of the recipes in this book use large eggs, the standard size used for baking. If you do not have large eggs, then lightly beat your eggs and substitute $1 / 4$ cup beaten egg for each large egg called for in the recipe.


## DAIRY

The moisture in dairy ingredients works to activate the leavening agents of baking powder and baking soda, moisten the dry ingredients, and bind them together. The milk sugars in liquid dairy ingredients caramelize when exposed to heat and turn golden brown during baking, adding another layer of flavor to baked goods.

Many nonfat and reduced-fat dairy products, such as sour cream, cream cheese, and cheese, contain thickeners that can alter the texture of baked goods. While reduced-fat products can usually be substituted for regular dairy ingredients with minimal effect, nonfat products are not designed for baking and their texture can change significantly when exposed to heat.
Milk

Milk contains both fat and proteins that help to build and support the structure and texture of baked goods and give them a tender crumb. The higher the fat content in the milk, the more it will enhance the flavor of the baked product. The recipes in this book call for whole milk. Low-fat 2 -percent milk may be substituted, but there will be a slight difference in flavor and texture. Using nonfat milk will cause a noticeable difference in both the flavor and the texture of the finished item.

## Half-and-Half

Half-and-half cream is a blend of whole milk and cream. It lends richness and flavor to baked goods and a smooth, creamy texture to frostings, icings, and glazes. Whole milk may be substituted, but its lower milk fats will alter the flavor and texture of the baked item or icing.

## Whipping Cream

Whipping cream contributes flavor and texture in baking recipes. Whole milk or half-and-half should not be substituted for whipping cream unless indicated in the recipe, as the reduction in fat will alter the finished structure. In the United States, most grocery stores carry products labeled "light" and "heavy" whipping cream. Light whipping cream contains 30 percent milk fat, and heavy whipping cream contains between 36 and 49 percent milk fat. When a recipe calls for whipping cream, light or heavy whipping cream may be used. If it specifies heavy whipping cream, then the heavy cream should be used to achieve the right texture. Heavy whipping cream should be used when the cream is to be whipped, such as for the topping of a cream pie.

## Buttermilk

Buttermilk is a thick and creamy cultured milk, which has been curdled by the addition of an acidic ingredient. This process of adding an acid to fresh milk causes it to separate into liquids and solids. Buttermilk has a tantalizing tang that adds great flavor and gives baked goods a very tender texture, making it a favorite ingredient of many bakers. It also provides the acid needed in some recipes to activate the baking soda. For the best results, choose a high-quality buttermilk containing little bits of butter and a good, fresh flavor.

## Sour Cream

Sour cream is made by souring cream with an acidifier such as lactic acid. Like buttermilk, it contributes a rich tangy flavor and tender texture, adds moisture to baked goods, and provides the acid needed to activate the baking soda. Reduced-fat and fat-free sour creams have a stronger sour flavor and contain thickeners that will alter the flavor and texture of your baked goods. In some cases, thick plain yogurt may be substituted for sour cream with minimal differences in the finished dish.

## Cream Cheese

Cream cheese is a soft, fresh cheese made from cream. It adds wonderful flavor and a very tender texture to baked goods. Cream cheese also makes a luxurious frosting for cakes and cookies. Reduced-fat and fat-free cream-cheese products contain thickeners that can alter their texture and flavor when baked. Because the fat in cream cheese is an integral part of the recipe, substituting reduced-fat and fat-free varieties can significantly affect the quality of the finished baked goods.

Cheese
Regular full-fat cheeses work best in baking. They have more flavor than reduced-fat and fat-free cheeses and the fat adds to the texture of the baked item. While reduced-fat cheeses may be substituted for regular cheese, fat-free cheese is intended to be eaten as is and is not designed for baking.

## Sweetened Condensed Milk

Sweetened condensed milk is a thick, sweet, canned milk product made by removing half of the water from whole milk, then combining up to 40 percent sugar with the thick milk. Regular, reduced-fat, or nonfat sweetened condensed milk may be used in baked goods recipes without any noticeable difference in the results.

## Evaporated Milk

Evaporated milk is a canned milk product in which 60 percent of the water has been removed. Do not substitute evaporated milk for whole milk in any baking recipe, as the results will be significantly different.

## LEAVENERS

Baking soda and baking powder are chemical leaveners that lighten the texture of baked goods. These two leaveners have different chemical compositions and react with ingredients in different ways. The leavening strength of baking soda is four times as powerful as baking powder and these leaveners are not interchangeable. If the recipe calls for baking soda and all you have in the cupboard is baking powder, it's time for a trip to the store.

When combined with liquid, both baking soda and baking powder release carbon dioxide, which causes the batter or dough to rise. Baking powder is a universal leavening agent, while baking soda works best when an acid is present to trigger it into action. In recipes containing both baking powder and baking soda, the baking powder does most
of the leavening. The baking soda is added to neutralize the acids in the recipe, add tenderness, and provide some additional leavening.

If your baked items don't rise properly, do not increase the amount of leavener in the recipe. Too much baking soda or baking powder can cause peaked domes on the tops of cakes, muffins, and quick breads and tunnels and air pockets inside. Adding an excessive amount of baking soda to a recipe can cause baked goods to taste too salty, while too much baking powder can result in a metallic aftertaste.

## Baking Soda

Baking soda, also known as sodium bicarbonate, is a natural alkaline that, when combined with liquid and an acid ingredient, immediately releases carbon dioxide. In recipes calling for baking soda as the only leavener, the recipe must include a sufficient amount of an acid ingredient, such as brown sugar, molasses, chocolate, natural cocoa powder, citrus, buttermilk, or sour cream, in order for the baking soda to work properly. Baking soda works to balance the acid, which allows baked goods to develop a goldenbrown color as they bake. If there is too little acid in the recipe to neutralize the alkalinity of the baking soda, the baked goods will not rise properly and can develop a soapy taste.

Because the leavening process begins immediately after contact with liquid, baking soda should not be used as the primary leavener in any recipe that requires chilling prior to baking. A delay in baking after mixing will cause the baking soda to be less effective.

## Baking Powder

Baking powder is a compound leavener containing baking soda, an acid, and cornstarch. The cornstarch prevents caking and acts as a buffer to delay the reaction between the baking soda and acid after the liquid is added to the mixture. The baking soda to acid ratio is already sufficient in baking powder, so the amount of acid in the recipe doesn't need to be balanced to the proportion of the leavener as it does when using baking soda.

Single-acting baking powder contains one acid, usually cream of tartar, and starts working as soon as it comes into contact with liquid. Double-acting baking powder, the kind commonly found in most grocery stores, contains two acids and requires both liquid and heat to fully activate. This makes it the ideal leavening choice for cookie doughs that are chilled before baking. I use double-acting baking powder for all of my baking because it works effectively in batters that are going straight into the oven and also in doughs that will be refrigerated before baking.

## Cream of Tartar

Tartaric acid, commonly known as cream of tartar, helps baking soda react and start the leavening process when combined with a liquid. In baking recipes leavened with baking soda alone that contain no other acid ingredients, cream of tartar is added to activate the baking soda. It can be found in the grocery store spice section.

## YEAST

Yeast is a living organism that is dormant and just waiting to be brought back to life again. When provided with food, moisture, oxygen, and a warm environment, yeast begins to grow and ferment. This fermentation process produces carbon dioxide bubbles, which make bread dough expand and rise.

Yeast is available in $1 / 4$-ounce packets, jars, or bulk packages. Each $1 / 4$-ounce packet of yeast contains about $2^{\frac{1}{4}}$ teaspoons yeast. Be sure to check the expiration date before baking. Outdated yeast may not become fully active, resulting in flat bread loaves and shrunken rolls. To extend the life of your yeast, store it in a tightly sealed container in

## How fresh is your baking powder and baking soda?

Have those containers of baking soda and baking powder been sitting in your pantry for a while? Are you wondering if they're still good for baking? Here's a quick test to check their effectiveness.

## Baking Soda

In a small bowl or glass, mix 2 teaspoons white vinegar and $1 / 4$ teaspoon baking soda. If the mixture immediately bubbles up, your baking soda is good.

## Baking Powder

In a small bowl or glass, mix $1 / 4$ cup hot water and $1 / 2$ teaspoon baking powder. If the mixture immediately bubbles up, your baking powder is good.
the freezer. Bring the measured amount of yeast to room temperature before using it for baking.

## Active Dry Yeast

Active dry yeast, the traditional form of dry yeast, is available in all grocery stores. It must be rehydrated before being combined with the other ingredients in a bread recipe. The yeast is mixed with warm water ( 105 to 110 degrees) and usually a little bit of food in the form of granulated sugar, and then set aside to let it activate, grow, and foam. Failure to properly activate the yeast will result in your bread not rising adequately. Active dry yeast works slower than instant or rapid-rising yeast.

## Instant Yeast

Developed in the 1980s, instant yeast has smaller granules than active dry yeast. This allows more surface area of the yeast to come in contact with the liquid in the recipe. It absorbs liquid rapidly, dissolves quicker, and works faster than active dry yeast, and it doesn't need to be proofed. You can simply combine instant yeast with part of the flour in the mixer bowl and add very warm liquid ( 120 to 130 degrees) to activate the yeast. Instant yeast works well for breads made in a stand mixer or stirred by hand. I find it very easy to work with and it yields excellent results. I use instant yeast in all of my bread, roll, and pastry recipes.

Instant yeast works a little faster than active dry yeast, shortening the amount of time needed for the first rising in the bowl and the second rising in the pan after shaping. Two brands of instant yeast, Red Star ${ }^{\circledR}$ and $S A F^{\circledR}$, are sold in many supermarkets and are also available from online sellers.
$\mathrm{SAF}^{\oplus}$ also makes an instant yeast specially formulated to work in yeast breads containing a high proportion of granulated sugar, such as sweet rolls and pastries. Sugar absorbs a lot of moisture, so in sweet doughs there is less liquid available for the yeast. SAF ${ }^{\circledR}$ Gold yeast requires less liquid so it works very effectively in sweet yeast breads. I have had great success with it and this is my go-to yeast for all of my sweet roll and pastry baking.

## Rapid-Rising Yeast

Rapid-rising yeast is a type of instant yeast that doesn't need to be dissolved and proofed and often includes ascorbic acid, which acts as a dough conditioner. It works very fast and is intended for breads that will be completed quickly. Rapid-rising yeast starts out fast and then slows down. It is a good choice for batter breads and quick-rising breads that only rise once before going into the oven to bake. It is not intended for regular breads and artisan breads, which need a slower, not faster, rise.

## THICKENERS

Cornstarch, flour, and tapioca are the most popular starch thickeners used to thicken pie fillings, puddings, and sauces. They have different strengths and weaknesses and every baker has their own favorite thickener. Starch thickeners can turn a filling lumpy if not added to the fruit or liquids properly. They don't add much flavor to food, although they can impart a starchy flavor when undercooked.

## All-Purpose Flour

Flour is sometimes combined with cornstarch for making pie fillings and puddings. It has less thickening power than cornstarch and creates a smoother texture than that achieved by using cornstarch alone.

## Cornstarch

Cornstarch is a fine, powdery flour made from corn kernels. It is most commonly used in baking as a thickener in pie fillings and has twice the thickening power of flour. It is also sometimes added to biscuit recipes to lower the protein content of the all-purpose flour and produce a tenderer biscuit. Cornstarch is the best choice for thickening dairy-based pie fillings and sauces. Fruit pie fillings made with cornstarch can separate or turn spongy when frozen. If you plan to freeze a pie, use Instant ClearJel ${ }^{\circledR}$ powder as the thickener.

## Instant ClearJel ${ }^{\circledR}$ Powder

Instant ClearJel ${ }^{\circledR}$ powder is a very fine, flavorless, modified cornstarch and the secret ingredient most commercial bakers use in their fruit pie fillings. It tolerates high temperatures and doesn't cause pie fillings to separate or turn cloudy when frozen. Instant Clear $\mathrm{Jel}^{\circledR}$ is available in some major supermarkets and from online retailers.

## Tapioca

Tapioca is a starchy substance extracted from dried cassava roots. It is commonly used for making pudding and as thickener. It is sold in both a tiny-grained instant or quick form used to make pudding or thicken pie fillings and as a flour used to thicken some sauces.

## CHOCOLATES AND COCOA POWDERS

For many people, chocolate is the only flavor for cookies and cakes. There are two ingredients responsible for bringing that luxurious flavor to baked goods-chocolate and cocoa powder.

## Chocolate

There are many varieties of chocolate, each with its own unique flavor characteristics. Traditionally, unsweetened chocolate was considered the standard for baking. However, many professional bakers and home bakers choose to use bittersweet chocolate instead of unsweetened chocolate for all their baking. I fall into this category. I don't like to bake with unsweetened chocolate, which doesn't have a good flavor when eaten out of hand. Too much effort and other ingredients need to be put into the recipe to make the final product taste good. My recipes are designed to use bittersweet chocolate or semisweet chocolate as the primary baking chocolate.

Chocolate is made by grinding roasted cacao beans. The beans are heated during grinding, causing them to release cocoa butter. This mixture of ground beans and cocoa butter is called chocolate liquor, which is the base from which all chocolate is made. The higher the amount of chocolate liquor in the chocolate, the more intense the flavor. Emulsifiers are added to the cocoa particles to make the chocolate smooth. Additional cocoa butter, granulated sugar, cream or milk solids, and vanilla are then added to create the different varieties of chocolate and their distinct flavors.

The flavor of chocolate can vary significantly from one brand to another. Some contain more chocolate liquor and additional cocoa butter, while others contain more sugar. The very best chocolates contain pure vanilla extract rather than artificial vanillin flavoring. Which brand of chocolate to use in baking is very much a personal choice. Taste several different kinds and bake with the one that tastes best to you.

Chocolate chips contain less cocoa butter than bar chocolate, helping the chips retain their shape during baking. This makes chocolate chips great for making chocolate chip cookies but not a good choice for melting. Bar chocolate melts more uniformly with a smoother texture and combines better with the other ingredients in the batter or dough.

Chocolate chips are available in all chocolate flavors, and semisweet chocolate chips even come in a fun miniature size. I advise against using artificially flavored chocolate
chips as they can develop an "off" flavor during baking. Some lesser-known or generic brands use a lower-quality chocolate and no cocoa butter in their chips. Always check the ingredient label to make sure the chocolate chips contain cocoa butter.

Chocolate can sometimes develop a powdery coating called bloom. When stored in a warm or humid location, a small amount of cocoa butter can separate from the chocolate. This cocoa butter bloom is harmless and will reincorporate back into the chocolate when it is melted. To help prevent bloom from forming, store chocolate in a cool, dry place. Never store it in the refrigerator or freezer. When melted, the moisture on the chilled chocolate will cause it to seize up and harden into lumps.

## Unsweetened Baking Chocolate

Unsweetened chocolate, also called baking chocolate, is made entirely of chocolate liquor and contains no added granulated sugar or cream. It is very bitter and meant for baking only, not for eating.

## Bittersweet Chocolate

Bittersweet chocolate contains a minimum of 35 percent chocolate liquor, with many brands around 50 percent and some as high as 70 percent. The more chocolate liquor, the more intense the chocolate flavor. Bittersweet chocolate also contains some granulated sugar, additional cocoa butter to make it richer and smoother, and vanilla.

## Semisweet Chocolate

Semisweet chocolate contains a minimum of 15 to 35 percent chocolate liquor, additional cocoa butter, vanilla, and more granulated sugar than bittersweet chocolate. This is the type of chocolate used most often for baking chocolate chip cookies.

## Sweet Dark Chocolate

Sweet dark chocolate contains as much as 70 percent chocolate liquor, additional cocoa butter, and vanilla. It is made with more granulated sugar than bittersweet chocolate but less than semisweet chocolate. This is my favorite chocolate for baking chocolate chip cookies and eating out of hand.

## Milk Chocolate

Milk chocolate contains a minimum of 10 percent chocolate liquor, additional cocoa butter, vanilla, and a fair amount of granulated sugar. It also contains between 12 and 20 percent cream or milk solids.

## White Chocolate

White chocolate is technically not a chocolate because it doesn't contain chocolate liquor. It is made from cocoa butter, granulated sugar, cream or milk solids, and vanilla. Read the label ingredients to make sure you are buying real white chocolate. If the label doesn't list cocoa butter, then it isn't white chocolate.

Imitation products, frequently made with palm-kernel oil or other oils instead of cocoa butter, are usually labeled as white confectionery bars. Imitation chips are called vanilla chips or white chips. These products have little flavor, poor texture, don't melt well, and should not be used in baking as the results will be very disappointing.

## Cocoa Powder

Cocoa powder is made from the solid particles that are left after most of the cocoa butter has been removed from the roasted and crushed cacao beans. The particles are ground and sieved to produce a very fine powder. The amount of cocoa butter remaining in the cocoa powder varies by brand and can range from virtually nothing to nearly 35 percent.

There are two standard types of unsweetened cocoa powder available in storesDutch process and natural. For the best results, use the specific type of cocoa powder called for in a recipe and always use unsweetened cocoa powder for baking.

## Dutch-Process Cocoa Powder

Dutch-process cocoa powder is a refined cocoa made from cacao beans that have been washed in an alkali solution to neutralize their natural acids. This produces a darker color and more complex, mellower flavor, making it the perfect choice for baking rich, intense brownies and cakes.

## Natural Cocoa Powder

Natural cocoa powder is made from untreated cacao beans and is more acidic with a somewhat bitter flavor. Recipes using natural cocoa powder often contain more sugar and baking soda to balance the sharper flavor of the cocoa. There is also a reaction that occurs between natural cocoa powder and baking soda that gives baked goods a reddish color. While you can substitute natural cocoa powder for Dutch-process cocoa powder in most recipes, the flavor of the finished baked goods will be slightly bitter. When a recipe calls for natural cocoa powder, do not use Dutch-process cocoa powder. Depending on the amount of cocoa powder in the recipe, the lower acidity level of Dutch-process cocoa powder may not be enough to fully activate the baking soda.

## Black Cocoa Powder

Black cocoa is the very darkest cocoa powder. A standard in the baking industry, it is a Dutch-process cocoa powder treated with additional alkali to deepen the color and mellow the flavor even more. If you've wondered how professional bakers make those really dark, chocolaty cakes and cookies, the answer is black cocoa. It is available to home bakers from mail-order and online sellers. Black cocoa powder may be substituted in a recipe for half of the regular Dutch-process cocoa powder.

## Cocoa Powder Blends

There are special cocoa powder blends available in many grocery stores that are a combination of black cocoa and natural cocoa powders. My favorite is Hershey's ${ }^{\circledR}$ Special Dark ${ }^{\oplus}$ and I love to use it to make decadent fudgy brownies, cookies, and cakes. It can be used in an equal amount in any recipe calling for Dutch-process cocoa powder.

## FRUITS AND NUTS

There are many fruits and nuts that can be added to baked goods to enhance their flavor and provide a nice texture. Choose high-quality nuts, fruits, and fruit products.

## Fresh Fruit

Fresh fruit is frequently used in a variety of baking recipes to add great flavor. With the exception of bananas, select fresh fruit that is fully ripe but not soft. Underripe fruit will not have a good flavor, while overripe fruit may turn mushy when baked and release too much juice, which can result in soggy baked goods. Bananas used for quick breads and muffins should have a deep golden hue and flecks of brown.

## Citrus Fruit

Citrus juice and zest give baked goods a bright, fresh, tangy flavor. The outer, colored portion of the citrus peel is known as the zest. This colored zest contains all of the flavorful citrus oils. The white pith underneath the zest is very bitter and will cause baked goods to taste quite bitter and unpleasant.


## Dried Fruit

Dried fruits, such as apricots, cranberries, raisins, and cherries, add incredible bursts of flavor to baked goods. Choose dried fruit that is plump, tender, and soft. Store dried fruit in tightly sealed containers, as exposure to air will draw out the remaining moisture and make the fruit tough and chewy.

## Coconut

Coconut is a wonderful ingredient to add to many types of baked goods to give them a tropical flair. A number of recipes in this book are built around coconut and its sweet flavor. The recipes specify sweetened flaked coconut. This is the standard coconut found in the baking aisle at grocery stores. The recipes are designed to take into account the sweetness and moisture of the coconut. If you substitute unsweetened or desiccated coconut for sweetened flaked coconut, you may need to adjust the amount of sugar or liquid in the recipe.

## Nuts

Nuts add a tantalizing crunchy texture and delightful flavor to baked goods. Each type of nut has its own characteristics and unique taste. In many recipes, the type of nuts used can be changed to suit your preference. Toasting or roasting nuts dries out the natural oils, enhancing the flavor and crunchy texture of the nuts. Many varieties of nuts can be purchased already toasted or roasted and ready for baking. Salted nuts are great eaten out of hand but should not be used in baking, as they can make baked goods taste too salty.

Some people have serious allergies to nuts, while others just don't like the flavor. Except where the nuts are an integral part of the recipe, they can easily be omitted from baked goods without altering the texture too much. You can also add nuts to many recipes that don't already include them.

Nut oils can turn rancid very quickly. Before adding nuts to your baked goods, always taste them to make sure they are fresh. If you're not planning to use your nuts right away, seal the package in a zippered freezer bag and freeze until ready to use. Frozen nuts will thaw quickly. Bring them to room temperature before adding them to doughs and batters.

## EXTRACTS AND FLAVORINGS

There are a number of extracts and flavorings that can be used in baking. Whenever available, use pure extracts, as these are made from the essence of the ingredient and have the best, cleanest flavor. They will make your baked goods taste wonderful. Imitation flavorings just can't compare to the real thing and can sometimes leave an artificial aftertaste.

Flavorings such as maple, rum, and brandy give baked goods a stronger flavor than their liquid counterparts. A teaspoon of maple flavoring will give you as much maple flavor as $1 / 4$ cup maple syrup but without the extra liquid. This allows you to make intensely flavored baked goods without adding too much moisture to the batter or dough.

## Vanilla Extract

The only edible fruit of the orchid plant, vanilla is the most labor intensive agricultural crop in the world. It takes three years after planting before a vanilla vine blooms for the first time, and then the fruit must mature for nine months before it can be harvested. The harvested beans are treated with hot water or heat and sun-dried for several weeks or even months. Then the dried beans are allowed to rest for a couple of months to fully develop their flavor.

Pure vanilla extract is made by circulating diluted alcohol through finely chopped
dried vanilla beans, then carefully straining the extract. It has a strong, rich flavor and tantalizing aroma that is unmistakable. Vanilla extract can be the primary flavor in a recipe or enhance the taste of other ingredients and flavorings. It also really brings out the flavor of chocolate.

Imitation vanilla is made from synthetic flavors and colors. The taste doesn't even come close to the flavor of pure vanilla extract. I strongly recommend using only pure vanilla extract in baking. If you're baking with love for yourself, your family, and friends, why use an artificial ingredient that leaves your baked goods lacking in flavor?

## Almond Extract

After vanilla, almond is the most frequently used extract in baking. It is made from bitter almonds, not the sweet kind that we eat and add to baked goods. The oil from the almonds is processed to destroy the prussic acid found in bitter almonds, and then combined with alcohol to create almond extract.

As with imitation vanilla, imitation almond extract is made from synthetic flavors and colors and should not be used as a substitute for pure almond extract in any baking recipe.

## Instant Espresso Powder

Instant espresso powder adds immense flavor to baked goods. Do you love coffee and want to give your baked goods a rich coffee flavor? Instant espresso powder is the answer. It packs an intense coffee taste without adding liquid. It is made by spray-drying brewed espresso, a concentrated coffee made from darkly roasted coffee beans, and then processing it into very fine granules.

## SALT

Salt acts as a flavor enhancer in baked goods. It balances and intensifies the flavor of other ingredients in the dough or batter. Salt has a distinct flavor all its own, and too much salt can upset the delicate flavor balance in the recipe and overpower the taste of the other ingredients. A small amount of salt is frequently added to frostings to cut the sweetness of the confectioners' sugar.

Table salt is my preferred choice for baking because the fine grains distribute well throughout the dry ingredients. Kosher salt has coarser grains that don't dissolve evenly during baking and can create salty pockets in baked goods. Sea salt usually has a stronger flavor than table salt. If you use sea salt for baking, make sure it is very fine grained and adjust the amount based on the strength of the salt flavor.

## SPICES

Spices, such as cinnamon, ginger, and nutmeg, contribute a lot of flavor to baked goods. Because they are strong and can easily overpower the flavors of other ingredients, spices need to be used with restraint, especially cloves. Too many cloves in a recipe can ruin the flavor of baked goods. The flavor of spices deteriorates over time and exposure to heat and moisture will cause them to fade rapidly. Buy spices in small quantities and use within one year for the best flavor.

