chapter twenty-one

Chocolates and confections

his chapter introduces principles and techniques involved with working with chocolate and sugar. These techniques are used to make ganaches, gianduja, caramels, candied fruit, fondant, marzipan, and gelées, as well as aerated, molded, and deposited candies, chocolates, and other confections.

Melting chocolate

- 1. Chocolate that is to be melted should be finely chopped. The smaller the pieces, the more surface area is exposed, and the quicker the chocolate melts, helping to prevent overheating. This is an important consideration, as overheating chocolate will render it unusable. A heavy chef's knife is generally best for chopping chocolate, but some pastry chefs prefer to use a long serrated knife because the serrated blade breaks the chocolate into fine shards ideal for melting.
- 2. A hot water bath is usually used for melting chocolate, but it is important that moisture (steam, water, or condensation) never comes in contact with the chocolate. Moisture causes chocolate to "seize," or to become thick and grainy, rendering it unfit for tempering and most other uses. For this reason, it is important that the bowl (or the top of a double boiler) is completely dry and that the bowl (or top) fits snugly over the pan of water, forming a tight seal.
- 3. The water should be steaming hot but not simmering.
- **4.** Gently stir the chocolate occasionally as it melts. Gently stirring the chocolate ensures even heating and melting.
- **5.** Remove the chocolate from the heat promptly once it is fully melted. Removing the chocolate promptly will keep the chocolate from becoming overheated.

A microwave may also be used to melt chocolate. Some pastry chefs consider it the best choice because the chocolate does not come near water. The chocolate must be chopped or broken into small pieces about the same size. Use medium power rather than high and heat the chocolate for 30-second intervals, removing and stirring it after each to ensure even heating and melting.

Working with couverture

Couverture is chocolate that contains a minimum of 32 percent cocoa butter. This means it is thinner when melted than other chocolates and can easily form a thin coating, making it ideal for dipping and enrobing confections.

The temperature of the workspace and the temperature of the items to be coated are important factors in ensuring that tempered chocolate retains its smooth, glossy appearance when set. When coating or dipping items in couverture, recrystallization must take place within a specific period of time. The ambient temperature should be between 65° and 70°F/18° and 21°C. The item to be dipped or enrobed should also be at room temperature. Confections that are too warm could cause the chocolate to bloom or to have a matte finish, while items that are too cold could "shock" the couverture, resulting in a dull finish.

Tempering chocolate

Chocolate is purchased in temper, but in order to work with it, it must be melted and then tempered again, so that as it cools and sets it will return to the same state as when purchased. Tempered chocolate has the snap and gloss associated with good chocolate, and will store better

and for a longer period of time. Dipping or coating confections in tempered chocolate adds flavor, improves appearance, and helps to preserve them, as the tempered chocolate prevents moisture migration and keeps the filling from coming in contact with the air, which can cause spoilage.

Tempering is accomplished through a specific process of cooling and agitation. There are several different methods of tempering chocolate, but all are based on the same general principles. Chocolate contains different types of fat crystals. When tempering chocolate, the object is to get the right type of crystals to form. Otherwise, when the chocolate sets, it will lack hardness, snap, and shine, and will bloom. First, the chocolate must be heated to the following temperatures to ensure that all the different types of fat crystals melt: 110° to 120°F/43° to 49°C for dark chocolate, 105° to 110°F/41° to 43°C for milk chocolate and white chocolate. A portion of chocolate that is already in temper is then added to "seed" the untempered chocolate and begin the formation of the beta crystals (the desirable stable fat crystals). Then the chocolate must be cooled to about 80°F/27°C while being constantly agitated. It is gradually brought back up to the appropriate working temperature. When tempering chocolate, it is best to melt more than you will need, as it is easier to keep larger amounts of chocolate in temper.

WORKING TEMPERATURES FOR TEMPERED CHOCOLATE		
Dark chocolate	86° to 90°F/30° to 32°C	
Milk chocolate	84° to 87°F/29° to 31°C	
White chocolate	84° to 87°F/29° to 31°C	

The temperatures given above are ranges because different brands of chocolate vary in terms of tempering. Each chocolate manufacturer, in fact, has specific recommended working temperatures for the couvertures it produces.

Seed method

- 1. Chopped tempered chocolate—approximately 25 percent of the weight of the melted chocolate to be tempered—is added to the warm (110°F/43°C) melted chocolate and gently stirred to melt and incorporate it. The stable crystals in the chopped chocolate help stimulate the formation of stable beta crystals in the untempered chocolate.
- 2. The whole mass is then brought to the appropriate working temperature.

Block method

- 1. With the block method of chocolate tempering, a single block of tempered chocolate is added to warm melted chocolate and gently stirred until the desired temperature is reached. The block of chocolate not only reduces the temperature of the melted chocolate, but also provides the seed crystals necessary for tempering.
- After the chocolate is brought into temper, the seed, or block of chocolate, is removed. The block can be used again. This method is simple and effective, but slightly more time-consuming than other methods of tempering.



Seeding chocolate to bring it to temper

Tabling method

- 1. Approximately one-third of the melted chocolate (at 110°F/43°C) is poured onto a marble surface and spread back and forth with a spatula and scraper until it begins to thicken. A marble surface is used because it has a high thermal mass and so is most efficient in pulling heat from product it is in contact with.
- 2. As the tabled chocolate begins to set, the beta crystals form and it becomes dull and takes on a pastelike consistency. This resulting mass is then added to the remaining melted chocolate and gently stirred to seed the chocolate to be tempered with the stable beta crystals.
- **3.** The whole mass is then gradually brought to the appropriate working temperature.

For any method of tempering chocolate, it is wise when finished to test the chocolate, making sure that it is in full temper. To do this, dip a tool such as a small spatula into the chocolate and set it aside. Continuing to gently stir the tempered chocolate, examine how the chocolate cools on the spatula. Properly tempered chocolate should set within 3 to 5 minutes at room temperature, and should be streak-free with a satiny shine. Chocolate not in full temper may be streaky, speckled, and dull, and will set more slowly; if this occurs the chocolate needs to be seeded further until full temper is achieved.



Tabling chocolate to bring it to temper



LEFT TO RIGHT: Chocolate that is in temper, untempered that has set with spots, and untempered still wet with streaks Tempered chocolate sets quickly. Working with relatively large amounts helps to keep it from cooling and setting too rapidly. If tempered chocolate begins to set and thicken as you work, act quickly so the chocolate will not have to be melted and retempered: Stirring constantly, hold the bowl of chocolate directly over a burner for 2 to 3 seconds; remove the chocolate from the heat while continuing to stir. Repeat the process, checking the temperature of the chocolate each time after remov-

thinning tempered chocolate

To thin the tempered chocolate for dipping, use 10 percent cocoa butter per weight of chocolate; blend in and temper before dipping.

ing the bowl from the heat so the chocolate does not overheat and come out of temper, until the chocolate is again at the optimal working temperature and consistency. Be careful not to return the bowl to the heat until the bottom of the bowl feels cooler than body temperature.

Cream ganache

Cream ganache has a wide range of uses, from filling centers for confections to glazing and filling cakes and pastries. In confectionery work, cream ganache is most commonly used as the center for truffles, but other confections are made with ganache as well.

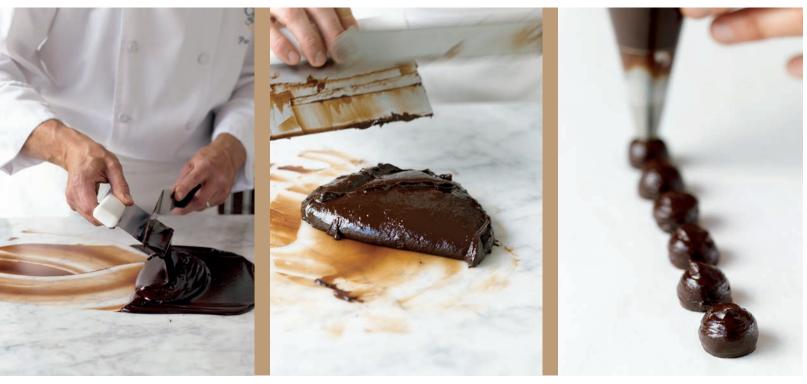
The consistency of ganache may be hard, soft, or any variation in between, depending on the ratio of chocolate to cream. Soft ganache and medium ganache are not firm enough, nor do they have an adequate shelf life, to be used in confectionery work. As a rule, hard ganache is required for piped and rolled truffle centers.

Chocolate and cream are the basic ingredients for making ganache, but other ingredients may be added for flavoring and to provide a smoother texture. The addition of butter and/ or corn syrup or glucose syrup can yield a superior finished product in both flavor and texture. Butter is added to the ganache to increase fat content when some of the cream in the formula is replaced with liqueur. Typically, the amount of butter to be added is half the weight of the liqueur. The butter is usually added to the ganache after the chocolate is fully melted. (For more information, see "Butter Ganache," page 767.)

Light corn syrup or glucose syrup may be added to ganache to help prevent recrystallization of the sugar and maintain a smooth texture. The weight of the added corn syrup generally should not exceed 10 percent of the total weight of the ganache. Light corn syrup is typically added to the cream before it is boiled.

- 1. Chop the chocolate into small pieces of uniform size so the pieces will melt quickly and at the same rate. Dark, milk, or white chocolate may be used to make cream ganache. Milk and white chocolate contain less cocoa solids and less cocoa butter than a dark variety and so require a higher recipe ratio of chocolate to cream. Percentages of cocoa solids or butter may also vary based on the chocolate manufacturer, so ratios should be adjusted as needed.
- 2. Bring heavy cream to a boil in a heavy-bottomed saucepan.
- **3.** Pour the hot cream over the chocolate. Let the mixture stand undisturbed for a few minutes to allow the hot cream to begin melting the chocolate. When combining the chocolate and cream, some pastry chefs add the chocolate directly to the pan of hot cream; however, this practice risks scorching the chocolate on the bottom of the hot pan.

4. Stir the mixture gently to blend and melt the chocolate completely without incorporating air. If the chocolate is not fully melted at this point, warm the ganache over simmering water, stirring gently. When making ganache to be tabled, it is advisable to allow the boiled cream to cool to 170°F/77°C in order not to melt all the stable cocoa butter crystals.



LEFT: Tabling the ganache
MIDDLE: Ganache at the proper consistency for piping
RIGHT: Piping truffles from the prepared ganache

Flavoring ganache for truffles

Infusion is an effective method of flavoring cream ganache.

- 1. Bring the cream to a boil, add the flavoring, and remove the pan from the heat. Examples of common flavorings to be infused into ganache include vanilla, coffee, teas, and spices.
- 2. Cover and allow to stand until the flavor has been infused into the cream, 5 to 10 minutes.
- **3.** After steeping, aromatics such as teas, herbs, and spices are strained out of the cream.
- **4.** After straining, water or milk should be added as necessary to bring the liquid to its original weight so the finished ganache will be the proper consistency.
- **5.** Before the infused cream is added to the chocolate, it should be rewarmed so it is hot enough to melt the chocolate.

A liqueur or other spirit may be added for flavoring. Pastes and compounds may also be used. Because these are strongly flavored, they are usually added to taste to the finished ganache.

Butter ganache

The sweetener used for butter ganache must be smooth—that is, its texture must not be discernible on the palate, because the mixture does not contain enough moisture to melt the sweetener. Examples of sweeteners well suited for making butter ganache are jam, corn syrup, glucose syrup, and fondant. The amount of sweetener used may equal as much as half the weight of the butter. The basic ratios for butter ganache are 2:1 or 2½:1 chocolate to butter.

Spirits and liqueurs added for flavoring should be added last. When adding spirits, be careful to maintain the 2:1 or 2½:1 ratio of chocolate to butter. The spirit is calculated as part of the butter. To maintain the ratio, you can reduce the amount of butter or recalculate the quantity of chocolate based on the new value of butter plus spirit.

Butter ganache may be either piped or spread into a slab and cut to form confections. The butter is treated differently depending on which of the two techniques is used. If the ganache is to be piped, the butter is creamed with the sweetener until light and aerated. If the ganache is to be spread out into a slab to harden and be cut, the butter is blended with the sweetener, incorporating as little air as possible; if too much air is incorporated into the butter, the ganache is likely to crack when cut.

Butter ganache must be worked with quickly and in small batches. Once it has set, it is very difficult to bring butter ganache back to a working consistency, as softening would require heat and that would ruin the structure by melting the butter.

- 1. Mix a sweetener with softened butter.
- 2. Add tempered chocolate and flavoring. Tempered chocolate must be used for making butter ganache. The chocolate must be in temper when it is added to the butter or the butter ganache will not set properly.

Egg ganache

This ganache is made much the same way as is cream ganache: melting chocolate by blending it with a hot liquid. The distinguishing difference is the type of hot liquid; for egg ganache, cream is heated with butter and then blended with egg yolks before it is added to the chocolate. Egg ganache, like cream ganache, may also be flavored by infusion.

making stencils

The stencil (also known as a cutout or base) is a component of many different types of confections. A stencil provides a base for piped fillings.

To form stencils, spread a thin, even layer of tempered chocolate onto a sheet of parchment paper laid out on a

wooden work surface or countertop (a marble, metal, or other cold surface would cause the chocolate to set too quickly). Allow the chocolate to set until it begins to firm, then cut disks, typically with a ¾-inch/2-cm round cutter. Allow the chocolate to set completely on the parchment paper.

Forming truffles and other ganache confections

Piping

Ganache that is to be used as a center for a confection must be agitated (through stirring or tabling) so that it is firm enough to be piped or shaped. When the ganache has the proper consistency, it is piped, then rolled into perfect spheres, which will be coated with tempered chocolate or otherwise finished.

- Ganache that will be portioned by piping should not be refrigerated because it will become too firm. Instead, agitate the ganache by stirring it in a bowl or working it on a marble surface (tabling) to bring it to piping consistency. Care must be taken not to overwork the ganache, or it will separate, resulting in a grainy texture.
- 2. For piping truffles, a #3 or #4 plain tip is most commonly used. Sometimes the ganache is piped onto tempered chocolate disks to form a teardrop or peak shape; in this case the confection is allowed to set until firm and then dipped. For truffles, pipe the ganache into even rows of small round domes onto parchment-lined sheet pans.
- 3. After it has been portioned, allow the ganache to set at room temperature until firm. At this point, depending on the desired shape, they should be rolled by hand to create a perfect sphere. Centers should never be dipped when cold, as the chocolate coating will be thick and will not have the desired shine.

Scooping

Scooping may be the easiest method for portioning ganache for truffles, but it has certain disadvantages. The moisture added to the ganache by dipping the scoop in hot water changes the texture and flavor. In addition, although scooping requires less skill, it is much more time-consuming than piping.

- 1. Chill the ganache until it has firmly set.
- 2. Using a very small ice cream scoop or a Parisian scoop, dip the scoop in hot water, scoop the ganache, and then release the truffle onto a parchment-lined sheet pan. Allow to set until firm.
- 3. Roll the portioned ganache into perfect spheres. Finish as desired.

Alternative method

An alternative method for portioning ganache is to pour it into a frame made by metal caramel rulers, spread it evenly if necessary, and allow it to set until firm. After the ganache has set, the bars are removed and the ganache is spread with a thin coat of tempered chocolate. Once the chocolate has set, the slab of ganache is inverted onto a guitar cutter. The cut pieces are dipped in tempered chocolate and finished. Ganache that is slabbed may also be cut by hand using a sharp knife or small cutters.



LEFT: Rolling truffles after the ganache has been portioned and has set firm enough to handle RIGHT: Precoating truffles

Coating truffles in tempered chocolate

One of the distinguishing characteristics of a high-quality truffle is a thin outer coating of tempered couverture. Two coats of chocolate should always be applied, a precoat and a final coat. As the outer shell of tempered chocolate coating hardens, it contracts and tightens around the ganache center, sometimes developing small cracks that allow the ganache or sugar within to seep out of the shell. Precoating truffles can prevent this from happening; it also makes the centers easier to handle and prolongs the shelf life of the final product.

- 1. To precoat a truffle, smear a small amount of tempered chocolate over the palm of your hand and gently roll the ganache center in the chocolate. It is important, with each coat, to use only enough chocolate for a thin coating; this reduces the chance of the truffles developing feet (chocolate that pools around the base). Set the coated truffle on a parchment-lined sheet pan and repeat the process with the remaining truffles. Allow the precoat to set completely before applying the second, final coating.
- Apply the final coat of chocolate in the same manner as the precoat, but make a thicker coat by using more chocolate.

Dipping confections

1. To dip a center, place it in the tempered chocolate, slip the dipping fork under the confection in the chocolate, and, with a scooping motion, pick it up so that it is sitting right side up on the fork. When dipping confections, make sure to use a bowl of chocolate large enough to immerse them easily.

- 2. Gently raise and lower the confection on the fork a few times, allowing the base to just touch the surface of the melted chocolate. This removes excess chocolate from the dipped confection, so a foot does not form. (A foot occurs when excess chocolate pools around the base of the confection.)
- **3.** Remove the confection from the bowl, gently scraping it on the edge of the bowl to remove any remaining excess chocolate from the base and to slide the confection so that one edge is hanging over the end of the fork. Sliding the confection until one edge is hanging over the end of the fork is done to facilitate a clean and easy transfer of the product from the fork to the sheet pan.
- **4.** Carefully lower that edge of the confection onto the clean parchment-lined sheet pan and gently pull the fork out from under the confection.

Purchased premade chocolate shells can also be used to make truffles (see page 772).

Finishing truffles and confections

Décor is important in confectionery not only for eye and taste appeal, but also as a means of differentiating one filling from another. A dusting of cocoa powder is the classic finishing technique for truffles, but they can also be dusted with confectioners' sugar. Truffles and other round confections can also be rolled in a garnish, such as chocolate shavings or curls, chopped nuts, or toasted flaked coconut. Rolling a just-dipped truffle on a wire screen is another option that creates an erratic but aesthetically pleasing spiked surface. When spiking truffles, be sure to remove them from the screen before the chocolate sets completely.

Decorated transfer sheets can be applied to the top of any smooth, flat confection. After the confection has been dipped, immediately lay the transfer sheet on its surface. After the coating is completely set, remove the sheet.

Another common décor for flat confections is made with a dipping fork. After the confection has been dipped, allow it to set for a moment, and then touch the fork to its surface, lifting the chocolate up to create small waves.



TOP LEFT: Proper workflow for dipping chocolates BOTTOM LEFT: Creating a decoration with the dipping instrument

TOP RIGHT: Spiking chocolate truffles

BOTTOM RIGHT: Finishing techniques, from top: nuts, transfer sheets, filigree, fruit confit, dried fruit powder, waves created with a dipping instrument

Premade chocolate shells

Premade shells guarantee consistent shape and size, are time efficient, and make packaging easier due to their uniformity. Of course, the cost and quality of the shells must be taken into consideration.

Typically, premade shells are used for fillings too soft to be formed by piping or rolling. The shells must be filled carefully and completely because any small air pockets will allow mold to grow. Additionally, although hollow shells permit the use of soft fillings, you must be mindful of the water content of fillings and their potential for spoilage.

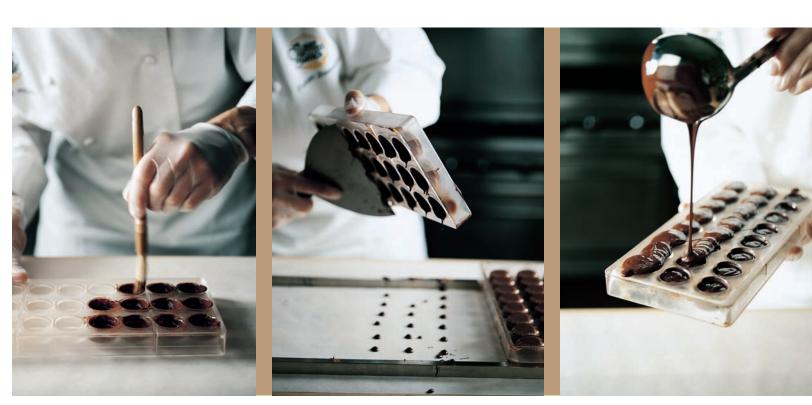
After the shells are filled, they are capped with chocolate. The cap should extend over the edges of the hole in the shell so that as it hardens and contracts it will remain attached to the shell.

Molding chocolates

Couverture is always used for molding, as its high percentage of cocoa butter makes for a more fluid chocolate. The tempered chocolate used to fill the molds should be as warm as possible within the ideal working temperature range.

- 1. Clean and temper the molds to room temperature. Chocolate molds should be completely clean and at room temperature before use. They should always be polished with a clean soft cloth to remove any debris or water spots, which would give the surface of the unmolded chocolate a blotchy or dull appearance. The temperature of the mold is also important. If a mold is cold, the chocolate will set too quickly; if the mold is warm, it may bring the chocolate out of temper.
- 2. When using molds that have an intricate design, first brush some of the chocolate into the mold. Brushing forces chocolate into the crevices of the design, ensuring that the detail of the mold will show clearly when the chocolate is unmolded.
- 3. Pour the tempered chocolate into the mold, completely filling it.
- **4.** Working quickly, tap or vibrate the mold to release any air pockets and to ensure that the chocolate fills all the crevices.
- 5. Immediately invert the mold, pouring the excess chocolate back into the container of tempered chocolate, leaving only a thin coating in the mold. Do not reinvert the mold, or chocolate may pool, creating a layer of chocolate that is too thick. Instead, suspend the mold upside down by balancing the edges on two containers or bars over a sheet of clean parchment paper and let stand until the chocolate in the mold reaches a semisolid consistency.
- 6. To clean the surface of the mold, hold the mold at a 45-degree angle, bracing one edge against a flat surface; starting halfway up the mold, push a bench scraper down the mold, removing any chocolate on or above the surface of the mold. The edges of the chocolate must be flush with the surface of the mold so that the chocolate can be properly sealed after filling. If the chocolates are not properly sealed, they will have a shorter shelf life. Turn the mold around and remove excess chocolate from the other half.

- **7.** Fill the mold 80 to 90 percent full with the desired filling, which must be liquid enough so that there is no possibility of creating air pockets.
- 8. Once it is filled, tap or vibrate the mold to release any air bubbles and settle the filling. To ensure that the mold is not overfilled, hold the mold up at eye level and look across the surface; there should be no filling visible above the surface. Any excess filling should be removed before the seal coat of chocolate is applied, or the filling will become mixed into the chocolate, which will not harden or effectively seal the confection.
- **9.** Coat and seal the molded confections by drizzling on a thin layer of tempered chocolate, then gently spreading the chocolate out to cover and completely seal.
- **10.** Let stand until the chocolate is in a semisolid state (it should be wet and tacky but not fluid), then clean the surface of the mold using a bench scraper as described above.
- **11.** Chill molded chocolates under refrigeration for 5 to 10 minutes; do not freeze. To test whether the chocolates are ready to be unmolded, give the tray a slight twist; you should hear a crackle. With clear plastic molds, you can check the underside to see if the chocolates are releasing.
- **12.** To unmold, turn the mold upside down and, holding it at a 45-degree angle, gently but firmly tap it once. Molded chocolates must be handled carefully at every step of the process. Even when finished, the chocolates can be damaged easily; picking up fingerprints, smudges, scratches, and the like will render a delicious product visually unappealing.



LEFT: Brushing chocolate into the molds

MIDDLE: Suspending a mold upside down and scraping its surface

RIGHT: Drizzling a chocolate seal over a filled mold



LEFT: Incorporating the nut-fruit mixture with the thinned chocolate RIGHT: Depositing the prepared rochers onto a sheet pan

Rochers

The ideal rocher is shaped like a haystack. The individual shapes of the nuts or candied fruit should be clearly visible through the chocolate. Tossing the nuts or fruit with melted cocoa butter before adding the chocolate will act to thin the chocolate and give more definition to the shape of the nuts or fruits.

Work quickly and in small batches when making rochers. If the chocolate is too firm when it is deposited, the confections will not hold together and will have a dull finish.

Knackerli

For knackerli, as with rochers, it is important to work in small, manageable batches to ensure the chocolate disks do not set too much or completely before the garnish is added.

Gianduja

Gianduja may be made with any variety of chocolate—dark, milk, or white. It is traditionally made with either hazelnuts or almonds, but other nuts may be substituted in part or in whole. The nuts can be roasted to any degree desired.

The final variable in the production of gianduja is the ratio of nuts to sugar to chocolate. For a firmer gianduja, use more chocolate. For a softer gianduja, use less. The basic ratio for a medium-consistency gianduja that is suitable for candy centers is 1 part nuts to 1 part sugar to 1 part dark chocolate (or 1½ parts milk or white chocolate). If possible, gianduja should be





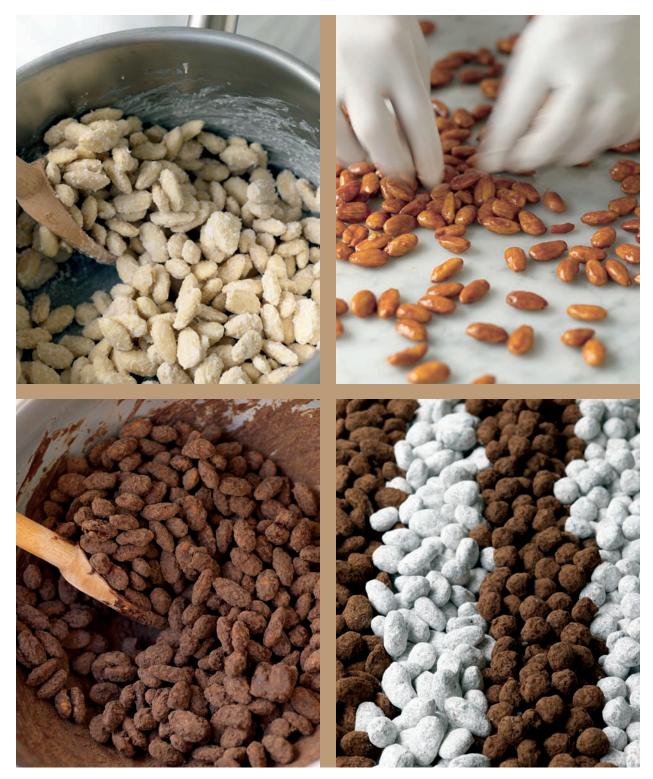
ground in a mélangeur for the smoothest texture, but a food processor will make an acceptable gianduja. When using a food processor, always use confectioners' sugar, not granulated.

Because of its low moisture content, gianduja is not prone to spoilage and has a long shelf life.

Dragées

To ensure the desirable thin coating of caramel, only a relatively small amount of sugar is used when making dragées. The larger the nut, the less sugar you should use. Typical proportions by weight vary from 3 parts nuts to 1 part sugar for small nuts to 6 parts nuts to 1 part sugar for large nuts.

The nuts used for dragées should not be toasted, as they will roast as the sugar caramelizes.



TOP LEFT: The sugar syrup crystallized on the nuts. BOTTOM LEFT: Adding the chocolate and stirring to coat the dragée nuts

TOP RIGHT: Pulling the nuts apart on a marble after the sugar casing has caramelized BOTTOM RIGHT: A variety of dragées

Cooking sugar to different stages

When cooking sugar, all your equipment must be clean and free of any grease. The sugar must also be free of impurities, such as flour or other ingredients. Sugar has a very high caramelization point and any impurities in the sugar are likely to burn at a much lower temperature, before the sugar begins to caramelize. A copper or other heavy-bottomed saucepan should be used to ensure constant, even heat. Sugar may be cooked by one of two methods: wet or dry.

When cooking or caramelizing sugar by any method, a small amount of an acid (typically lemon juice at approximately $\frac{1}{2}$ tsp/1.25 mL for 8 oz/227 g of sugar) can be added to help prevent crystallization from occurring during cooking. (For more information on crystallization, see page 762.)

Regardless of the cooking method, when caramelizing sugar, it is important to stop the cooking process by shocking the pan in an ice water bath just as, or just before, it reaches the desired color. Sugar retains heat and can easily become too dark or burn if the cooking process is not arrested.

It is also important to heat any liquids to be added to the caramel and to add them carefully. Caramelized sugar is very hot and will splatter when a colder ingredient is introduced.

Wet method

The wet method is best used when sugar must be cooked to a specific stage or temperature.

- 1. Combine the sugar in a saucepan with 30 percent or more of its weight in water. The sugar is intended to dissolve in the added water; if not enough water is added the result may be undissolved sugar crystals in the syrup that in turn could cause recrystallization.
- 2. Place the pan over high heat and stir constantly until the mixture comes to a boil to ensure all the sugar is melted. As the dissolved sugar is heated, the water evaporates, acting to increase the concentration of sugar; as the temperature increases, water continues to evaporate, leaving behind a supersaturated noncrystalline sugar solution. Stirring constantly is important as agitation will prevent the collision of particles in the solution that leads to crystallization.
- 3. Once it has come to a boil, stop stirring and skim off any impurities.
- 4. Using a pastry brush, wash down the sides of the pan with cool water to prevent crystals from forming. Crystallization of the cooking sugar occurs readily on the side of the pan where crystals are deposited from evaporating liquid. These crystals, in turn, can easily act to "seed" the rest of the sugar in the pan, causing it to begin to crystallize, becoming lumpy and granular. Repeat as often as necessary to keep the sides of the pan clean until the sugar has reached the desired temperature, consistency, and color.

A "seed" in this context is anything that will act as a surface hosting the growth of sugar crystals. Examples of seeds are whole sugar crystals, air bubbles, or skewers (as sometimes used in making candy). Brushing the sides of the pan with cool water prevents crystals from forming by adding moisture lost in evaporation during cooking.

Dry method

The dry method is used exclusively for caramelizing. The characteristically nutty and roasted flavor of caramel is best achieved through the use of this method.

- **1.** Add a small amount of the sugar to a preheated medium-hot pan set over medium heat and allow it to melt.
- 2. Add the remaining sugar in small increments, allowing each addition of sugar to fully melt before adding the next. Continue this process until all the sugar has been added to the pan. Cook to the desired color. Using this method, sugar crystals are melted through the application of heat, resulting in sugar that caramelizes almost as soon as it melts. Because it cooks so quickly, it is important to monitor the sugar constantly.

Of the two techniques for cooking sugar—wet and dry—only the wet method allows the sugar to be cooked to and used at the various stages that are vital for countless preparations. The dry method of sugar cooking melts the sugar crystals by the application of heat, resulting in sugar that caramelizes almost as soon as it melts.

The wet method of sugar cooking, however, dissolves the sugar in water; then as the solution cooks, the water evaporates, acting to increase the concentration of sugar and resulting in a supersaturated, noncrystalline sugar solution. The concentration of the sugar solution increases as the solution is cooked, the temperature increases, and more of the water evaporates.

- To cook sugar by the wet method, use a heavy-bottomed pot to ensure even heat conduction. The water should equal approximately 30 percent of the weight of the sugar. If too little water is used, there may be undissolved sugar crystals in the syrup, which may cause recrystallization.
- **2.** Bring the mixture to a boil, stirring constantly. Stirring constantly is important, as agitation will prevent the collision of particles in the solution that lead to crystallization.
- 3. When the mixture comes to a boil, stop stirring.
- 4. Skim the impurities that rise to the surface.
- 5. Brush down the sides of the pan using a pastry brush moistened with cool water. Brushing the sides of the pan with cool water prevents crystals from forming by adding moisture lost in evaporation during cooking.
- 6. Add the acid ingredient (cream of tartar, lemon juice, etc.), if using. Adding a small amount of an acid can help prevent crystallization during cooking; when boiled with a dilute acid, sugar will result in an invert sugar that interferes with the crystallization process.



Caramelize part of the sugar and add the remainder in parts for an even, smooth caramel.

SUGAR STAGES AND TEMPERATURES		
STAGE	DEGREES FAHRENHEIT	DEGREES CELSIUS
Thread	215–230	102–110
Soft ball	240	116
Firm ball	245	118
Hard ball	250–260	121–127
Soft crack	265–270	129–132
Hard crack	295–310	146–154
Caramel	320	160

Soft caramels

If the mixture for caramels is undercooked, they will be too soft and will not have the proper caramel flavor. If it is overcooked, they will be too firm. Although a thermometer is helpful in making caramels, the final assessment of whether the caramel is ready should be determined by testing the batch using ice water and a spoon. If the caramel is too firm, more liquid can be added to adjust the consistency.

Soft caramels may be flavored in any number of ways. Strong flavorings such as coffee beans, hazelnut paste, or spices can be added to the cream at the beginning of the cooking process. To make fruit caramels, replace up to half of the liquid in the recipe with a fruit purée. When using a fruit purée, it is advisable to cut the amount of glucose syrup by half, and it is likely that you will have to cook the caramels to a higher temperature to achieve the same consistency, due to the acidity of the fruit and the reduced amount of milk solids in the formula.



Pouring soft caramels between bars

Cutting the caramel once it is properly set

Peanut brittle

Some caution is necessary when making peanut brittle. Temperature and color must be carefully monitored to achieve the characteristic flavor and texture. If your peanut brittle is pale or milky white and granular, it probably was either not cooked to a high enough temperature or was stirred too much and/or too rapidly during cooking. Peanut brittle demands a slow, steady stir, especially after the peanuts have been added. As a general rule, if the mixture has reached the proper temperature but the color is not fully developed, continue cooking to the desired color.



Stretching peanut brittle

Hard candies

Oils, extracts, and concentrated synthetic or natural flavors are the most common flavorings used for hard candies. These flavorings are added at the end of the cooking process because they are often not heat-stable and because any acid they contain will prevent the finished product from becoming completely hard. Hard candies can be poured onto a slab, partially cooled, and then pulled and cut, or they can be cast in starch molds or other types of molds.

Classic truffles

MAKES 50 TRUFFLES

Heavy cream	8 fl oz	240 mL
Light corn syrup	1 oz	28 g
Dark chocolate, finely chopped	1 lb	454 g
Butter, soft	1 oz	28 g
Dark chocolate, melted, tempered, for coating	as needed	as needed

- 1 Bring the cream and corn syrup to a boil.
- 2 Pour the hot cream over the chocolate and allow to sit, without stirring, for 2 minutes. Gently stir the mixture using a wooden spoon or rubber spatula until fully blended and smooth. If necessary, heat over a hot water bath to melt all of the chocolate. Add the butter and stir until melted and smooth. Allow to set until the ganache reaches room temperature. To table the ganache, work it with a metal spatula on a clean marble work surface until it is piping consistency.
- **3** Fill a pastry bag fitted with a #4 plain tip and pipe out truffles onto parchment-lined sheet pans. Allow the truffles to set until firm.

- 4 Roll the truffles by hand until perfectly round. Place on a clean parchment-lined sheet pan. Cover and allow to set until firm. Depending on the ambient temperature and the consistency of the ganache, it may be necessary to refrigerate the truffles at this point just until they are firm enough to coat.
- 5 To finish the truffles, spread a small amount of the tempered chocolate in the palm of your hand and gently roll each truffle in the chocolate to coat. Place the coated truffles on a clean parchment-lined sheet pan. Allow the chocolate to set completely, then repeat the process.

Tea truffles

MAKES 52 TRUFFLES

Heavy cream	4 fl oz	120 mL
Milk	4 fl oz	120 mL
Earl Grey tea	½ oz	14 g
Dark chocolate, finely chopped	8 oz	227 g
Milk chocolate, finely chopped	8 oz	227 g
Butter, soft	2 oz	57 g
Dark chocolate, melted, tempered, for coating	as needed	as needed

- 1 Bring the cream and milk to a boil. Remove from the heat, add the tea, cover, and allow to steep for 10 minutes.
- 2 Strain the mixture through dampened cheesecloth and wring out thoroughly. Add water if necessary to return the liquid to 8 fl oz/240 mL.
- **3** Bring the liquid back to a boil and pour it over the chopped chocolates. Allow to sit for 3 minutes, then stir until well blended and smooth. If necessary, heat over a hot water bath to melt all of the chocolate.
- **4** Gently stir in the butter until melted and smooth. Allow to set until the ganache reaches room temperature. To table the ganache, work it with a metal spatula on a clean marble work surface until it is piping consistency.
- **5** Fill a pastry bag fitted with a #3 or #4 plain tip and pipe out truffles onto parchment-lined sheet pans. Allow the truffles to set until firm.
- 6 Roll the truffles by hand until perfectly round. Place on a clean parchment-lined sheet pan. Allow to set until firm. Depending on the ambient temperature and the consistency of the ganache, it may be necessary to refrigerate the truffles at this point just until they are firm enough to coat.
- 7 To finish the truffles, spread a small amount of tempered chocolate in the palm of your hand and gently roll each truffle in the chocolate to coat. Place the coated truffles on a clean parchment-lined sheet pan. Allow the chocolate to set completely, then repeat the process.

Coconut lime truffles

MAKES 160 TRUFFLES

Heavy cream	7 oz	198 g
Glucose syrup	2 oz	57 g
Cream of coconut	4 oz	113 g
Lime zest, finely grated	2 limes	2 limes
White chocolate, chopped	1 lb 12 oz	794 g
Lime juice	3 limes	3 limes
White chocolate, melted, tempered, for dipping	as needed	as needed
Lime zest, finely grated, for garnish	as needed	as needed

- 1 Combine the cream, glucose syrup, cream of coconut, and lime zest in a saucepan and bring to a boil.
- 2 Pour over the chopped chocolate. Stir gently until the chocolate melts entirely. If the chocolate does not completely melt, gently warm over barely simmering water until it melts and the ganache is smooth.
- 3 Stir in the lime juice.
- 4 Pour into a half hotel pan and cover. Allow the ganache to set until it reaches room temperature. To table the ganache, work it with a metal spatula on a clean marble work surface until it is piping consistency.
- 5 Fill a pastry bag fitted with a #4 round tip and pipe out $\frac{1}{4}$ oz/7 g balls onto parchment-lined sheet pans. Allow the truffles to set until firm.
- **6** Roll the truffles by hand until perfectly round. Dip in tempered white chocolate. Garnish with lime zest before the chocolate sets.

Sesame ginger truffles

MAKES 130 TRUFFLES

Ginger, thinly sliced	1½ oz	43 g
Heavy cream	9 oz	255 g
Glucose syrup	2½ oz	71 g
Tahini paste	1½ oz	43 g
Bittersweet chocolate, finely chopped	1 lb 2 oz	510 g
Toasted sesame oil	1 tbsp	15 mL
Dark chocolate, melted, tempered, for dipping	as needed	as needed
Sesame seeds, toasted	as needed	as needed

- 1 Combine the ginger and cream in a sauce pot. Bring to a boil. Remove from the heat and cover. Allow to steep for 5 minutes.
- 2 Strain out the ginger using dampened cheesecloth. Wring the cheesecloth well. Add water if necessary to bring the cream back to 9 oz/255 g.
- **3** Combine the infused cream, glucose syrup, and tahini and bring to a boil. Pour over the chopped chocolate. Stir gently until the chocolate melts entirely. If the chocolate does not completely melt, gently warm over barely simmering water until it melts and the ganache is smooth.
- 4 Stir in the sesame oil.
- **5** Pour into a half hotel pan and cover. Allow the ganache to set until it reaches room temperature. To table the ganache, work it with a metal spatula on a clean marble work surface until it is piping consistency.
- 6 Fill a pastry bag fitted with a #4 round tip and pipe out ¼ oz/7 g balls onto parchment-lined sheet pans. Allow the truffles to set until firm.
- **7** Roll the truffles by hand until perfectly round. Dip in tempered chocolate and garnish with toasted sesame seeds before the chocolate sets.

Honey lavender truffles

MAKES 130 TRUFFLES

Lavender flowers, dried	1 tbsp	15 mL
Heavy cream	9 oz	255 g
Honey	3 oz	85 g
Milk chocolate, chopped	1 lb 7 oz	652 g
Milk chocolate, melted, tempered, for dipping	as needed	as needed
Lavender flowers, dried, for garnish	as needed	as needed

- 1 Combine 1 tbsp/15 mL of the lavender flowers and the cream in a small saucepan. Heat just to a simmer. Remove from the heat, cover, and allow to steep for 5 minutes.
- 2 Strain out the lavender using dampened cheesecloth. Wring the cheesecloth well. Add water if necessary to bring the cream back to 9 oz/255 g.
- 3 Combine the infused cream and the honey and bring to a boil. Pour over the chopped chocolate. Stir gently until the chocolate melts entirely. If the chocolate does not completely melt, gently warm the ganache over barely simmering water until it melts and the ganache is smooth.
- 4 Pour into a half hotel pan and cover. Allow the ganache to set until it reaches room temperature. To table the ganache, work it with a metal spatula on a clean marble work surface until it is piping consistency.
- 5 Fill a pastry bag fitted with a #4 round tip and pipe out ¼ oz/7 g balls onto parchment-lined sheet pans. Allow the truffles to set until firm.
- 6 Roll the truffles by hand until perfectly round. Dip in the tempered chocolate. Garnish with a few dried lavender flowers before the chocolate sets.

Milk chocolate truffles

MAKES 120 TRUFFLES

Vanilla beans	1 each	1 each
Heavy cream	8 fl oz	240 mL
Milk chocolate, finely chopped	1 lb 5 oz	595 g
Butter, soft	2½ oz	71 g
Milk chocolate, melted, tempered, for coating	as needed	as needed

- 1 Split the vanilla bean and scrape the seeds into the cream. Add the pod to the cream and bring to a boil. Allow to steep for 10 minutes.
- 2 Strain the cream through dampened cheesecloth. Wring the cheesecloth well. Add water if necessary to return the liquid to $8 \, \text{fl}$ oz/240 mL.
- 3 Bring the liquid back to a boil and pour over the chopped chocolate. Allow to sit for 3 minutes, then stir gently with a wooden spoon or rubber spatula until well blended and smooth. If necessary, heat over a hot water bath to melt all of the chocolate. Gently stir the butter into the ganache until melted and smooth.
- 4 Pour into a half hotel pan and cover. Allow the ganache to set until it reaches room temperature. To table the ganache, work it with a metal spatula on a clean marble work surface until it is piping consistency.
- **5** Fill a pastry bag fitted with a #3 or #4 plain tip and pipe out truffles onto parchment-lined sheet pans. Allow the truffles to set until firm.
- 6 Roll the truffles by hand until perfectly round. Place on a clean parchment-lined sheet pan. Allow the truffles to set until firm. Depending on the ambient temperature and the consistency of the ganache, it may be necessary to refrigerate the truffles at this point just until they are firm enough to coat.
- 7 To finish the truffles, spread a small amount of tempered milk chocolate in the palm of your hand and gently roll each truffle in the chocolate to coat. Place the coated truffles on a clean parchment-lined sheet pan. Allow the chocolate to set completely, then repeat the process.

Rum truffles

MAKES 85 TRUFFLES

Heavy cream	5 fl oz	150 mL
Milk chocolate, finely chopped	11 oz	312 g
Butter, soft	½ oz	14 g
Rum	1¼ fl oz	38 mL
Milk chocolate truffle shells	85 each	85 each
Milk chocolate, melted, tempered, for coating	as needed	as needed

- 1 Bring the cream to a boil. Pour over the chopped chocolate. Allow to sit for 3 minutes, then stir with a wooden spoon or rubber spatula until well blended and smooth. If necessary, heat over a hot water bath to melt all of the chocolate.
- 2 Gently stir in the butter until melted and smooth. Stir in the rum.
- 3 Pour the ganache into a half hotel pan. Cover, placing plastic wrap directly on the surface, and cool to $85^{\circ}F/29^{\circ}C$.
- 4 Pipe into the truffle shells. Seal and dip in the tempered milk chocolate. After dipping, place the confections on a wire screen and roll them to create a spiked finish. Place on a parchment-lined sheet pan.

Orange truffles

MAKES 120 TRUFFLES

Heavy cream	8 fl oz	240 mL
Corn syrup	1 oz	28 g
White chocolate, finely chopped	1 lb 12 oz	794 g
Butter, soft	1 oz	28 g
Cointreau	2 fl oz	60 mL
Candied orange peel (page 796), finely minced	4 oz	113 g
Milk chocolate, melted, tempered, for coating	as needed	as needed

- 1 Bring the cream to a boil. Add the corn syrup and stir until incorporated.
- 2 Pour the hot cream over the chopped chocolate. Allow to sit for 3 minutes, then stir gently with a wooden spoon or rubber spatula until fully blended and smooth. If necessary, heat over a hot water bath to melt all of the chocolate.
- **3** Gently stir in the butter and liqueur until smooth and completely blended. Add the orange peel and blend thoroughly.
- 4 Pour the ganache into a half hotel pan and cover, placing plastic wrap directly on the surface. Allow the ganache to cool completely.
- 5 Table the ganache by working it with a metal spatula on a clean marble work surface until it is piping consistency.
- 6 Fill a pastry bag fitted with a #3 or #4 plain tip and pipe out truffles onto parchment-lined sheet pans. Allow the truffles to set until firm.
- 7 Roll the truffles by hand until perfectly round. Place on a clean parchment-lined sheet pan. Allow the truffles to set until firm. Depending on the ambient temperature and the consistency of the ganache, it may be necessary to refrigerate the truffles at this point just until they are firm enough to coat.
- 8 To finish the truffles, spread a small amount of tempered chocolate in the palm of your hand and gently roll each truffle in the chocolate to coat. Allow the chocolate to set completely, then repeat the process.

Pistachio ganache confections

Marzipan, for base	as needed	as needed
Dark chocolate, melted, tempered, for coating and dipping	as needed	as needed
Heavy cream	8 fl oz	240 mL
Dark chocolate, finely chopped	1 lb	454 g
Pistachio paste	2½ oz	71 g
Dark rum	1 fl oz	30 mL
Pistachios, blanched and finely chopped	as needed	as needed

- 1 Roll out the marzipan 4 by 6 in/10 by 15 cm and $\frac{1}{2}$ in/3 mm thick. Brush with a thin layer of tempered dark chocolate. Allow the chocolate to set completely.
- 2 Cut the marzipan lengthwise into strips % in/9 mm wide.
- 3 Bring the cream to a boil. Pour over the chopped chocolate. Allow to sit for 3 minutes, then stir gently with a wooden spoon or rubber spatula until fully blended and smooth. If necessary, heat over a hot water bath to melt all of the chocolate. Stir in the pistachio paste and rum until fully blended. Cool to room temperature.
- 4 To table the ganache, work it with a metal spatula on a clean marble work surface until it is piping consistency.
- **5** Fill a pastry bag fitted with a #2 plain tip with the ganache and pipe in a spiral onto the marzipan strips. Allow the ganache to set completely.
- **6** Cut the marzipan strips into 1 in/3 cm lengths. Dip in tempered dark chocolate. Sprinkle with chopped pistachios before the chocolate sets.

Butter ganache confections

Dark chocolate, melted, tempered	as needed	as needed
Butter, soft	4½ oz	128 g
Glucose syrup	1¼ oz	35 g
White chocolate, melted, tempered	8 oz, plus as needed for dipping	227 g, plus as needed for dipping
Cocoa butter, melted and cooled to 86°F/30°C	½ oz	14 g
Dark rum	2¾ fl oz	83 mL
Coarse sugar	as needed	as needed

- 1 Spread a thin layer of tempered dark chocolate on a sheet of parchment paper and allow to set until firm but still malleable. Using a ¾-in/2-cm round cutter, cut out 100 disks, leaving them attached to the parchment paper. Allow the chocolate to set completely.
- 2 Cream together the butter and glucose syrup on medium speed with the paddle attachment, scraping down the bowl periodically, until smooth, fluffy, and lighter in color, about 5 minutes. Using a handheld whisk, vigorously blend in 8 oz/227 g tempered white chocolate and the cocoa butter until fully combined and creamy. Blend in the rum.
- 3 Allow the mixture to cool until it is firm enough to hold its shape when piped, about 3 minutes.
- 4 Fill a pastry bag fitted with a #6 plain tip with the ganache and pipe a teardrop shape onto each chocolate disk. Allow the ganache to set completely.
- **5** Dip each confection in tempered white chocolate and place on a parchment-lined sheet pan. Decorate the tip of each chocolate with a sprinkling of coarse sugar.

Honey passion fruit butter ganache pralines

MAKES 120 PIECES

Passion fruit concentrate	6 oz	170 g
Butter, soft	5 oz	142 g
Honey	4 oz	113 g
Milk chocolate, melted, tempered	1 lb 6 oz, plus as needed for dipping	624 g, plus as needed for dipping

- 1 Boil the passion fruit concentrate until reduced by half its volume.
- 2 Mix together the butter and honey. Blend in 1 lb 6 oz/624 g chocolate and then the passion fruit concentrate. Pour into a frame (6 by 12 by $\frac{1}{2}$ in/15 by 30 by 1 cm), cover, and allow to set overnight.
- **3** Brush a thin coating of tempered milk chocolate on one side of the slab. Allow the chocolate to set completely.
- 4 Remove the frame. Cut the slab into rectangles ½ by 1¼ in/1 by 3 cm and dip in tempered milk chocolate. Allow the chocolate to set completely, about 30 minutes.

Raspberry creams

4 oz	113 g
6 oz	170 g
4 oz	113 g
3½ oz	99 g
1 oz	28 g
1 fl oz	30 mL
as needed	as needed
as needed	as needed
	6 oz 4 oz 3½ oz 1 oz 1 fl oz as needed

- 1 Place a metal frame (9 by 12 by $\frac{1}{2}$ in/23 by 30 by 1 cm) on parchment paper or a silicone baking mat.
- 2 Mix together the butter and jam by hand, scraping down the bowl periodically, just until homogeneous.

- **3** Blend together the milk and semisweet chocolates with the cocoa butter. Temper the chocolate mixture. (See page 762 for tempering instructions.)
- **4** Gently fold the chocolate mixture into the butter mixture. Blend in the liqueur. Spread the mixture evenly in the prepared frame. Allow to set until firm.
- **5** Brush the raspberry cream with a thin layer of tempered dark or milk chocolate and allow the chocolate to set completely.
- 6 Remove the frame and cut the slab into strips ½ in/1 cm wide. Cut the strips into ¾-in/2-cm diamonds. Dip in tempered dark or milk chocolate. Allow the chocolate to set completely, about 30 minutes.

Fujiyamas

Dark chocolate, melted, tempered	as needed	as needed
Butter, soft	4½ oz	128 g
Corn syrup	½ oz	14 g
Cocoa butter, melted and cooled to 86°F/30°C	1 oz	28 g
White chocolate, melted	9 oz	255 g
Crème de cassis	3½ oz	99 g
White chocolate, melted, tempered, for garnish	as needed	as needed

- 1 Spread a thin layer of tempered dark chocolate onto a sheet of parchment paper and allow to set until firm but still malleable. Using a ¾-in/2-cm round cutter, cut out 100 disks, leaving them attached to the parchment paper. Allow the chocolate to set completely.
- 2 Cream together the butter and corn syrup on medium speed with the paddle attachment, scraping down the bowl periodically, until smooth, fluffy, and lighter in color, about 5 minutes.
- 3 Blend together the cocoa butter and white chocolate and temper.
- 4 Using a handheld whisk, vigorously blend the chocolate–cocoa butter mixture into the butter mixture until fully combined and creamy. Blend in the liqueur.
- 5 Allow the mixture to cool until it is firm enough to hold its shape when piped, about 3 minutes.
- 6 Fill a pastry bag fitted with a #5 plain tip with the ganache and pipe a peak shape onto each chocolate disk. Allow to set until firm.
- 7 Dip in tempered dark chocolate and allow the chocolate to set completely.
- 8 Decorate each piece with a "snowcap" of white chocolate by piping tempered white chocolate on the tip.

Apricot pralines

Dark chocolate, melted, tempered	as needed	as needed
Butter, soft	4½ oz	128 g
Apricot jam	3 oz, plus as needed for piping	85 g, plus as needed for piping
Glucose syrup	1¼ oz	35 g
Milk chocolate, melted, tempered	8 oz, plus as needed for dipping	227 g, plus as needed for dipping
Cocoa butter, melted and cooled to 86°F/30°C	½ oz	14 g
Apricot brandy	2¾ fl oz	83 mL
Coarse sugar, for garnish	as needed	as needed

- 1 Spread a thin layer of tempered dark chocolate onto a sheet of parchment paper and allow to set until firm but still malleable. Using a ¾-in/2-cm round cutter, cut out 100 disks, leaving them attached to the parchment paper. Allow the chocolate to set completely.
- 2 Cream together the butter, 3 oz/85 g of the apricot jam, and the glucose syrup on medium speed with the paddle attachment, scraping down the bowl periodically, until smooth, fluffy, and lighter in color, about 5 minutes. Vigorously blend in the 8 oz/227 g milk chocolate and the cocoa butter until fully combined and creamy. Blend in the apricot brandy.
- **3** Allow the ganache to cool until it is firm enough to hold its shape when piped, about 3 minutes.
- 4 Fill a small parchment piping cone with apricot jam and pipe a small dot onto the center of each chocolate disk.
- **5** Fill a pastry bag fitted with a #2 plain tip with the ganache and pipe a teardrop shape over each jam dot. Allow the ganache to set completely.
- 6 Dip each disk in tempered milk chocolate. Allow the chocolate to set until tacky, then sprinkle with coarse sugar. Allow the chocolate to set completely.

Almond dragées

MAKES 110 DIECES

Sugar	5 oz	142 g
Water	1½ fl oz	45 mL
Almonds, whole, blanched	1 lb	454 g
Butter	½ oz	14 g
Dark chocolate, melted, tempered	12 oz	340 g
Cocoa powder	½ oz	14 g

- 1 Combine the sugar and water in a heavy-bottomed saucepan and stir to ensure that all the sugar is moistened. Bring to a boil over high heat, stirring constantly. When the syrup comes to a boil, stop stirring and skim the surface to remove any scum. Continue to cook without stirring until the syrup reaches the thread stage $(215^{\circ} \text{ to } 230^{\circ}\text{F}/102^{\circ} \text{ to } 110^{\circ}\text{C})$. Remove from the heat.
- 2 Immediately add the nuts and stir until the sugar crystallizes. Return to the heat and stir constantly until the sugar melts and caramelizes on the nuts.
- **3** Stir in the butter. Pour the mixture onto a marble slab and immediately separate the clusters of nuts. Allow to cool completely on the slab, then place in a bowl and chill for 3 minutes under refrigeration.
- 4 Add 4 oz/113 g of the tempered chocolate and stir (so the nuts don't stick together) until the chocolate sets. Repeat with another 4 oz/113 g chocolate. Add the remaining 4 oz/113 g chocolate and stir until it is almost set. Add the cocoa powder and stir to coat. Toss the nuts in a strainer to sift off the excess cocoa powder.

VARIATIONS HAZELNUT DRAGÉES Substitute whole blanched hazelnuts for the almonds.

WALNUT DRAGÉES Substitute whole walnuts for the almonds

Rochers

MAKES 100 PIECES

Almonds, blanched, sliced or slivered	1 lb	454 g
Liqueur or spirits of choice	3 fl oz	90 mL
Sugar	3 oz	85 g
Milk chocolate, melted, tempered	12 oz	340 g

- 1 Toss the almonds together with the liqueur and sugar.
- 2 Spread on a sheet pan. Toast in a 350°F/177°C oven, turning the mixture several times to ensure even color, until golden brown, about 10 minutes. Cool completely.
- 3 Combine one-third of the chocolate with one-third of the nut mixture, toss together to coat the nuts evenly, and spoon out into high little mounds on a parchment-lined sheet pan. Repeat with the remaining chocolate and nuts in 2 more batches. Allow the chocolate to set completely.

NOTE Any variety of nuts may be used. Any type of chocolate may be used in place of milk chocolate. Chopped dried fruit may be used with the nuts.

Knackerli

MAKES 50 PIECES

Dark chocolate, melted, tempered	8 oz	227 g
Pistachios, blanched	50 each	50 each
Dried cranberries	50 each	50 each
Dried apricots, coarsely chopped	10 each	10 each

- 1 Fill a parchment cone with the tempered chocolate and pipe onto a parchment-lined sheet pan in 1-in/3-cm disks.
- 2 When the chocolate has begun to set, place 1 pistachio, 1 cranberry, and 1 piece of apricot onto each disk.
- 3 Allow the chocolate to fully set before removing the disks from the parchment paper.

NOTES

Tempered milk or white chocolate may be substituted for the dark chocolate.

The chocolate may be piped in larger or smaller disks if desired.

Any type of nuts or dried fruit may be substituted for the pistachios, cranberries, and apricots. It is important to remember when making knackerli that the size of the nuts and fruits should correspond to the size of the chocolate disk and that the colors and flavors should complement each other.

Praline-filled chocolate cups

MAKES 120 CONFECTIONS

Dark chocolate, melted, tempered	as needed	as needed
Butter, soft	8 oz	227 g
Fondant	8 oz	227 g
Praline paste	8 oz	227 g

- 1 Coat the inside of 120 foil cups, % in/2 cm in diameter by % in/1.5 cm high, with tempered dark chocolate. Allow the chocolate to set completely.
- 2 Cream the butter, fondant, and praline paste on medium speed with the paddle attachment, scraping down the bowl periodically, until smooth and light in color, about 5 minutes.
- **3** Fill a pastry bag fitted with a #2 plain tip with the praline mixture and pipe into the cups, filling them 80 percent full. Allow to set until firm.
- 4 Fill a parchment cone with tempered dark chocolate and pipe onto the top of each filled cup in a spiral motion, creating a seal. Tap each cup to smooth the top.
- 5 Allow the chocolate to set.

Candied orange peel

MAKES 9½ OZ/269 G

Orange peel, cut into strips ¼ by 2 in/6 mm by 5 cm	8 oz	227 g
Water	as needed	as needed
Light corn syrup	4 oz	113 g
Sugar	1 lb	454 g

- 1 Place the orange peels in a pan of cold water to cover and bring to a boil; drain. Repeat this process 3 times, using fresh cold water each time, to remove some of the bitterness from the pith.
- 2 Combine 12 oz/360 mL water, the corn syrup, and sugar in a heavy-bottomed saucepan and bring to a boil, stirring to dissolve the sugar. Reduce to a very low simmer, add the peels, and poach until translucent, about 1 hour.
- 3 Store the peels in the syrup in a tightly covered container under refrigeration. If the peels are not to be dipped in chocolate, toss them in granulated sugar before drying on wire racks.
- 4 To dry the peels, drain them and spread on a wire rack set over a parchment-lined sheet pan. Allow to dry and crystallize overnight at room temperature. Alternatively, place the peels on a parchment-lined sheet pan in a 280°F/138°C convection oven for 1½ hours.

NOTE Lemon, lime, or grapefruit peels may be used in place of the orange peels.

Peel is opaque before cooked and translucent afterward.



Soft caramels

MAKES 126 PIECES

Evaporated milk	14 fl oz	420 mL
Sugar	14 oz	397 g
Vanilla beans, split and scraped	¾ each	¾ each
Orange zest, grated	½ oz	14 g
Glucose syrup	4 oz	113 g
Butter	½ oz	14 g
Dark chocolate, melted, tempered, for coating and dipping	as needed	as needed

- ${f 1}$ On a piece of lightly oiled parchment paper, set up a frame (6 by 12 in/15 by 30 cm) of caramel rulers.
- 2 Combine the evaporated milk, sugar, vanilla bean seeds and pod, and orange zest in a heavy-bottomed saucepan and bring to a boil, stirring constantly. Add the glucose syrup while continuing to stir. Continue cooking, stirring, to 245°F/118°C (the consistency should resemble the firm ball stage). Stir in the butter.
- **3** Immediately pour the mixture into the prepared frame. Remove the vanilla bean pod and cool completely.
- **4** Brush the caramel with a thin layer of tempered dark chocolate and allow the chocolate to set completely.
- **5** Using caramel cutters, cut the slab into %-in/2-cm squares. Dip in tempered dark chocolate and allow to set.

Toffee

MAKES 400 PIECES

Heavy cream	13 fl oz	390 mL
Sugar	1 lb 6 oz	624 g
Glucose syrup	4 oz	113 g
Vanilla beans, scraped seeds only	¾ each	¾ each

- 1 Combine all the ingredients in a heavy-bottomed saucepan and cook over medium heat, stirring constantly and occasionally washing down the sides of the pan with a wet pastry brush, until the mixture reaches 293°F/145°C.
- 2 Pour the toffee onto a silicone baking mat (12 by 16 in/30 by 41 cm); it should be about $\frac{1}{2}$ in/3 mm thick. Cool slightly until the toffee begins to set, but not so much that it is brittle.
- 3 Using caramel cutters, score the toffee into %-in/2-cm squares. Cool completely.
- **4** Break the toffee apart at the scored marks. If the plain toffee is to be stored, it should be immediately wrapped tightly in plastic wrap or placed in an airtight container.

Raspberry caramels

MAKES 160 PIECES

Evaporated milk	9 fl oz	270 mL
Seedless raspberry purée	6 fl oz	180 mL
Sugar	14 oz	397 g
Lemon zest, grated	1 tbsp	9 g
Glucose syrup	4 oz	113 g
Butter	⅔ 0Z	19 g
Dark chocolate, melted, tempered, for dipping	as needed	as needed

- 1 On a silicone baking mat, set up a frame (6½ by 12 in/17 by 30 cm) of caramel rulers.
- 2 Combine the evaporated milk, raspberry purée, sugar, and lemon zest in a heavy-bottomed saucepan and bring to a boil, stirring constantly. Add the glucose syrup while continuing to stir. Cook, stirring, to $230^{\circ}F/110^{\circ}C$.
- 3 Add the butter and continue cooking to 245° F/118°C, or firm ball stage. Immediately pour the caramel into the prepared frame and cool.

- 4 Brush the cooled caramel with a thin layer of tempered dark chocolate and allow the chocolate to set completely.
- **5** Using caramel cutters, cut into %-in/2-cm squares. Dip in tempered dark chocolate and allow to set.

Peanut brittle

MAKES 6 LB/2.72 KG

Sugar	1 lb 12 oz	794 g
Water	12 fl oz	360 mL
Glucose syrup	1 lb 4 oz	567 g
Peanuts, blanched	2 lb	907 g
Salt	½ oz	14 g
Butter	2 oz	57 g
Vanilla extract	½ fl oz	15 mL
Baking soda	2 tsp	8 g

- 1 Combine the sugar, water, and glucose syrup in a heavy-bottomed saucepan and stir to ensure all the sugar is moistened. Bring to a boil over high heat, stirring constantly.
- 2 When the syrup comes to a boil, stop stirring and skim the surface to remove any impurities. Continue to cook without stirring to 264°F/129°C, occasionally washing down the sides of the pan using a wet pastry brush.
- 3 Add the peanuts and salt. Continue cooking, stirring gently with a wooden spoon, until the mixture reaches 318°F/159°C.
- 4 Remove from the heat and stir in the butter and vanilla until incorporated. Stir in the baking soda. Pour the mixture onto a lightly oiled marble work surface. Cool slightly, to a plastic texture.
- **5** Wearing latex gloves to protect your hands, pull the brittle, working from the edges and breaking off pieces as they harden. (This must be done quickly, before the brittle hardens, so it's best to have two people work on it.) The pieces will be different shapes and sizes.

Pecan butter crunch

MAKES 4 LB 11 OZ/2.13 KG

Butter	1 lb	454 g
Sugar	1 lb	454 g
Water	3 fl oz	90 mL
Salt	⅔ OZ	19 g
Pecans, lightly toasted and coarsely chopped	12 oz	340 g
Dark chocolate, melted, tempered	14 oz	397 g

- 1 Melt the butter in a heavy-bottomed saucepan. Add the sugar, water, and 1 tsp/5 g of the salt. Bring to a rolling boil over high heat. Cook, stirring constantly with a wooden spoon, until the mixture reaches 295°F/146°C and is light golden brown.
- 2 Pour the mixture onto a full-size silicone baking mat and spread evenly over the mat with an offset metal spatula; the mixture should be about ½ in/3 mm thick. Cool completely.
- 3 Toss the pecans with the remaining salt.
- 4 Spread the cooled toffee with a thin layer of the tempered chocolate. While the chocolate is still fluid, scatter half of the pecans over the top. Allow the chocolate to set completely.
- **5** Turn the slab of toffee over and brush with a thin layer of tempered chocolate. While the chocolate is still fluid, scatter the remaining pecans over the top. Allow to set completely, then break into pieces.

Leaf croquant

MAKES 70 PIECES

Almonds, blanched and lightly toasted	1 lb	454 g
Confectioners' sugar	2 oz	57 g
Sugar	1 lb	454 g
Glucose syrup	2 oz	57 g
Dark chocolate, melted, tempered, for dipping	as needed	as needed

- 1 Grind the almonds and confectioners' sugar to a thick paste in a food processor.
- **2** Place the sugar in a heavy-bottomed saucepan and cook over medium heat, stirring constantly, to a rich golden brown. Blend in the glucose syrup.

- 3 Immediately pour the caramel into a rectangle on a sheet pan lined with a silicone baking mat, spreading it evenly over the mat. Cool just enough to be able to handle: it should still be very warm; if it cools too much, it will crack.
- **4** Spread the almond paste over two-thirds of the caramel. Warm the slab if necessary to make it malleable. Make a three-fold (see page 220), folding the third with no almond paste over first.
- **5** Warm the slab if necessary and roll it into a rectangle. Make another three-fold, and roll the slab out again. Repeat for a total of five three-folds.
- 6 Cut the croquant into %-in/2-cm squares. If it has cooled too much to cut, rewarm it.
- 7 Cool the pieces completely. Dip them in tempered dark chocolate and allow to set.

Hard candies

MAKES 120 PIECES

Water	10 fl oz	300 mL
Sugar	1 lb 11 oz	765 g
Glucose syrup	5½ oz	156 g
Cream of tartar	¼ tsp	1 g
Coloring	as desired	as desired
Flavoring	as desired	as desired

- 1 Lightly oil a frame (8 by 12 by ½ in/20 by 30 by 1 cm).
- 2 Combine the water and sugar in a heavy-bottomed saucepan and bring to a boil, stirring constantly. Stir in the glucose syrup and cream of tartar and, if using, add powdered or liquid coloring as desired. Return the syrup to a boil.
- 3 Continue to cook without stirring, occasionally washing down the sides of the pan using a wet pastry brush, until the mixture reaches 293°F/145°C.
- 4 Immediately pour into the prepared frame. Cool for 3 minutes, then add paste coloring, if using, and the desired flavoring, and fold it into the sugar.
- 5 While still hot and pliable, pull out and twist the sugar until satiny in appearance (twisting multiple colors is also possible). Snip into small candies with sharp scissors. Cool.
- 6 Store in an airtight container.

NOTE Add the flavoring according to the manufacturer's instructions.

Mint fondant

MAKES 100 PIECES

Mint leaves	35 each	35 each
Fondant	1 lb 13 oz	822 g
Brandy	as needed	as needed
Peppermint oil	1 drop	1 drop
Dark chocolate, melted, tempered, for dipping	as needed	as needed

- 1 Grind the mint leaves with 8 oz/227 g of the fondant in a food processor until smooth.
- 2 Transfer the mint mixture to a bowl, stir in the remaining 1 lb 5 oz/595 g fondant, and heat over a water bath until the mixture reaches 175°F/79°C. Adjust the consistency with brandy; the fondant should be thin enough to be deposited with the fondant funnel but should not be runny. Blend in the peppermint oil.
- 3 Dispense with a fondant funnel into molds on a parchment-lined sheet tray. The finished fondant should be $\frac{3}{4}$ in/2 cm in diameter and $\frac{1}{4}$ in/6 mm thick. Allow to set until firm, about 10 minutes.
- 4 Dip the fondants into tempered dark chocolate, transfer to parchment-lined sheet pans, and, when the chocolate has begun to set, use a three-pronged dipping fork to make 3 lines across the surface of each confection.

Fudge

MAKES 4 LB 4 OZ/1.93 KG

Milk	8 fl oz	240 mL
Heavy cream	12 fl oz	360 mL
Sugar	2 lb	907 g
Light corn syrup	6 oz	170 g
Butter	1 oz	28 g
Salt	½ tsp	2.50 g
Unsweetened chocolate, finely chopped	8 oz	227 g
Vanilla extract	1 tbsp	15 mL
Walnut halves	5 oz	142 g

1 Line the bottom and sides of a half sheet pan with aluminum foil.

- 2 Combine the milk and cream. Pour 8 fl oz/240 mL of the mixture into a heavy-bottomed saucepan, add the sugar and corn syrup, and bring to a boil, stirring constantly to dissolve. Continue to cook and stir until the mixture reaches 230°F/110°C.
- 3 Add the butter and salt and stir to blend. Slowly add the remaining milk-cream mixture and continue to cook to 236°F/113°C. Add the chocolate and vanilla. Stir twice and pour onto a clean marble surface. Do not stir again. Allow to cool to 120°F/49°C.
- 4 Agitate the mixture by working it with a metal spatula on the marble surface until it begins to thicken. Quickly add the nuts before the fudge becomes too thick, and pour onto the prepared sheet pan. Allow to set completely before cutting into 1-in/3-cm squares.

VARIATIONS Substitute any of the following for the unsweetened chocolate: white or dark chocolate, peanut butter, or pistachio or praline paste.

> You can also omit the walnuts and add 1 oz/28 g of garnish for every 8 oz/227 g fudge. For example, for white chocolate and dried cherry fudge, substitute white chocolate for the unsweetened chocolate and add 8½ oz/241 g dried cherries.

Maple Fudge

MAKES 132 PIECES

Maple syrup	3 lb 1 oz	1.39 kg
Invert sugar	6 oz	170 g
Heavy cream	12 oz	340 g
Glucose syrup	5 oz	142 g
Fondant	6 oz	170 g
Vanilla extract	1 oz	28 g
Walnuts, toasted, chopped	9 oz	255 g

- 1 Combine the maple syrup, sugar, cream, and glucose syrup in a heavy-bottomed saucepan. Cook the mixture to 245°F/118°C, stirring constantly.
- 2 Pour onto a marble slab and place the fondant, vanilla extract, and toasted walnuts on top of the cooked syrup.
- 3 Let the mixture cool to 122°F/50°C. Agitate using a scraper until the mixture turns creamy and opaque, about 8 minutes.
- 4 Place the fudge into a frame (12 by 12 by ½ in/30 by 30 by 1 cm) set on lightly oiled parchment paper.
- 5 Place a sheet of oiled parchment paper on top of the fudge and use a rolling pin to flatten the top. Allow the fudge to crystalize before removing the parchment.
- 6 Cut the fudge into 1-in/3-cm squares.

Frappe chocolate fudge

MAKES 1 HALF SHEET PAN (12% BY 17% IN/ 33 BY 45 CM)

FRAPPE		
Gelatin, granulated	2 tsp	7 g
Water, cold	3 fl oz	90 mL
Vanilla extract	1 tsp	5 mL
Sugar	14 oz	397 g
Glucose syrup	8 oz	227 g
Molasses, unsulfured	1½ oz	43 g
FUDGE		
Semisweet chocolate, finely chopped	2 lb	907 g
Unsweetened chocolate, chopped	4 oz	113 g
Vanilla extract	¾ fl oz	23 mL
Frappe (above)	1 lb 10½ oz	751 g
Evaporated milk	18 fl oz	540 mL
Sugar	3 lb 12 oz	1.70 kg
Butter, cut into ¼-in/6-mm slices	12 oz	340 g
Walnuts, chopped	12 oz	340 g

- 1 To prepare the frappe, bloom the gelatin in $1\frac{1}{2}$ fl oz/45 mL of the cold water with the vanilla extract. Melt over hot water.
- 2 Cook the sugar, glucose syrup, molasses, and remaining $1\frac{1}{2}$ floz/45 mL water to 241°F/116°C, stirring constantly. Let the mixture cool to 208° F/98°C and stir in the gelatin solution.
- 3 Whip the mixture on high speed with the whip attachment until medium peaks form.
- **4** To prepare the fudge, line a half sheet pan with aluminum foil. Place the chopped chocolates, vanilla extract, and frappe in a large bowl.
- **5** Warm the evaporated milk, stir in the sugar, and cook, stirring constantly, to 235° F/113°C. Turn off the heat, add the butter, and stir for 10 seconds to incorporate. Melt the chocolates together.
- 6 Pour the hot milk-sugar mixture onto a marble slab; add the frappe and chocolate. Agitate the mixture until blended and smooth.
- **7** Fold in the chopped nuts.
- **8** Pour immediately into the prepared sheet pan and allow to set to room temperature. Chill before removing from the pan and cutting into 1-in/3-cm squares.



LEFT: Cooked syrup is poured onto the marble and frappe and chocolate are added. RIGHT: The mixture is agitated until blended and smooth.



VARIETIES OF FINISHED FUDGE FROM BACK TO FRONT: Peanut Butter Fudge (page 802), Fudge (page 802), Maple Fudge (page 803), Frappe Chocolate Fudge (page 804)

Nuss bonbon

MAKES 85 PIECES

Fondant	8 oz	227 g
Almond paste	10 oz	284 g
Sugar	5 oz	142 g
Heavy cream, hot	8 fl oz	240 mL
Walnuts, finely chopped	10 oz	284 g
Dark chocolate, melted, tempered, for coating and dipping	as needed	as needed
Walnut halves	85 each	85 each
Dark chocolate, melted, tempered	as needed	as needed
Cocoa butter	as needed	as needed

- 1 Grind together the fondant and almond paste in a food processor until smooth.
- **2** Place the sugar in a heavy-bottomed saucepan and cook over medium heat, stirring constantly, to a rich golden brown, occasionally washing down the sides of the pan using a wet pastry brush.
- **3** Add the hot cream to the caramel, stirring until blended. Add the almond paste mixture and the chopped walnuts. Cook, stirring constantly, until the mixture reaches $248^{\circ}F/120^{\circ}C$; it will pull away from the sides of the saucepan.
- 4 Immediately pour onto a lightly oiled sheet of parchment paper. Place another lightly oiled parchment sheet on top and roll into a slab ½ in/1 cm thick.
- **5** Brush the slab with a thin layer of tempered dark chocolate and allow the chocolate to set completely.
- **6** Cut into pieces using a 1-in/3-cm oval praline cutter. Top each bonbon with a walnut half and dip in tempered dark chocolate thinned with cocoa butter.

Gianduja

MAKES 1 LB 8 OZ/680 G

Hazelnuts, blanched and toasted	8 oz	227 g
Confectioners' sugar	8 oz	227 g
Dark chocolate, coarsely chopped	8 oz	227 g

- 1 Process the nuts and 2 oz/57 g of the sugar together in a food processor to an oily paste. Add the chocolate and remaining sugar and process for 1 to 2 more minutes, until as smooth as possible.
- 2 Table the gianduja until it begins to thicken.
- 3 Cool completely. Wrap tightly in plastic wrap and store in a cool, dry place.

VARIATIONS MILK CHOCOLATE GIANDUJA Substitute milk chocolate for the dark chocolate and very lightly toasted blanched almonds for the hazelnuts. Reduce the sugar to 6 oz/170 g.

> WHITE CHOCOLATE GIANDUJA Substitute white chocolate for the dark chocolate and very lightly toasted blanched almonds for the hazelnuts. Reduce the sugar to 6 oz/170 g.

Milk chocolate peanut butter gianduja

MAKES 12 OZ/340 G

Milk chocolate, coarsely chopped	4¼ oz	120 g
Creamy peanut butter	7 oz	198 g
Trimoline	1 oz	28 g

- Melt the chocolate in a bowl over barely simmering water until smooth.
- 2 Warm the peanut butter separately over barely simmering water. Combine the chocolate and peanut butter and stir until well combined. Stir in the trimoline.
- 3 Cool completely. Wrap tightly in plastic wrap and store in a cool, dry place.

Branchli Branches

MAKES 55 PIECES

Gianduja (page 807), melted	8 oz	227 g
Praline paste	4 oz	113 g
Confectioners' sugar	4 oz	113 g
Dark chocolate, melted	5 oz	142 g
Coconut oil, melted and cooled to 92°F/33°C	2½ oz	71 g
Nougatine couverture, tempered, for dipping	as needed	as needed

- 1 Combine the gianduja, praline paste, sugar, chocolate, and coconut oil in a bowl and blend thoroughly. Allow to set.
- 2 Table the mixture until it reaches a piping consistency.
- **3** Fill a pastry bag fitted with a #5 plain tip with the mixture and pipe into strips 16 in/41 cm long and ¼ in/6 mm thick onto parchment paper. Allow to set until firm.
- **4** Cut into pieces 2 in/5 cm long. Dip into tempered nougatine couverture and allow to set completely.

Three brothers

MAKES 100 PIECES

Gianduja (page 807)	1 lb	454 g
Hazelnut dragées (page 793)	1 lb	454 g
Dark chocolate, melted, thinned with cocoa butter, and tempered, for dipping	as needed	as needed

- 1 Table the gianduja until it reaches a piping consistency.
- 2 Fill a pastry bag fitted with a #3 straight tip with the gianduja and pipe into $\frac{3}{-in}/2$ -cm bulbs on a parchment-lined sheet pan.
- 3 Place 3 dragée hazelnuts together on each bulb of gianduja. Allow to set.
- 4 Dip in thinned tempered dark chocolate and allow the chocolate to set completely.

Tremors

MAKES 120 PIECES

Dried cherries, chopped	3 oz	85 g
Sliced almonds, blanched, toasted, and coarsely chopped	5 oz	142 g
Gianduja (page 807), melted	1 lb	454 g
Milk chocolate, melted, tempered	1 lb	454 g

- 1 Line 4 triangle molds with plastic wrap.
- 2 Combine the cherries and almonds with the gianduja, folding them in with a rubber spatula.
- **3** Table the mixture until it is very cool to the touch.
- 4 Spread the mixture into the prepared molds. Allow to set at room temperature. Refrigerate for 10 minutes to allow the mixture to release from the mold.
- **5** Remove the triangular strips from the molds. Brush with a thin layer of the tempered milk chocolate and allow it to set completely.
- **6** Enrobe one strip in tempered milk chocolate. (Enrobe and slice only one strip at a time; if the chocolate sets too hard, it will crack when cut.) Immediately remove the strip from the rack. When the chocolate is just set, place on a parchment-lined sheet pan and slice into $\frac{1}{2}$ -in/1-cm pieces. Repeat with the remaining strips.

Pistachio marzipan

MAKES 1 LB 9 OZ/709 G

Almonds, blanched	4½ oz	128 g
Pistachios, blanched	4½ oz	128 g
Sugar	1 lb	454 g
Water	5 fl oz	150 mL
Glucose syrup	2 oz	57 g
Kirsch, rum, or other spirit	as needed	as needed

- 1 Lightly oil a clean marble slab or silicone baking mat.
- **2** Combine the almonds and pistachios in a food processor and pulse just until coarsely ground. Set aside.
- **3** Combine the sugar, water, and glucose syrup in a heavy-bottomed saucepan and stir to ensure all the sugar is moistened. Bring to a boil over high heat, stirring to dissolve the sugar. When the syrup reaches a boil, stop stirring and skim the surface to remove any impurities. Continue to cook without stirring, occasionally washing down the sides of the pan using a wet pastry brush, to 250°F/121°C, or hard ball stage.
- 4 Add the ground nuts to the syrup, stir only twice, and immediately pour the mixture onto the prepared surface. Allow to cool to room temperature.
- **5** Grind the mixture to a paste in a food processor, adding only as much of the spirit as necessary for processing. Add a little spirit if the marzipan starts to separate.
- 6 If storing the marzipan, wrap tightly in plastic wrap and store in a cool, dry place.

Walnut marzipan

MAKES 1 LB 9 OZ/709 G

Almonds, blanched	4½ oz	128 g
Walnuts	4½ oz	128 g
Sugar	1 lb	454 g
Water	5 fl oz	150 mL
Glucose syrup	2 oz	57 g
Kirsch, rum, or other spirit	as needed	as needed

- 1 Lightly oil a clean marble slab or silicone baking mat.
- 2 Combine the almonds and walnuts in a food processor and pulse just until coarsely ground. Set aside.
- **3** Combine the sugar, water, and glucose syrup in a heavy-bottomed saucepan and stir to ensure all the sugar is moistened. Bring to a boil over high heat, stirring to dissolve the sugar. When the syrup reaches a boil, stop stirring and skim the surface to remove any impurities. Continue to cook without stirring, occasionally washing down the sides of the pan using a wet pastry brush, to 250°F/127°C, or hard ball stage.
- 4 Add the ground nuts to the syrup, stir only twice, and immediately pour the mixture onto the prepared surface. Allow to cool to room temperature.
- **5** Grind the mixture to a paste in a food processor, adding only as much of the spirit as necessary for processing. Add a little more spirit if the marzipan starts to separate.
- 6 If storing the marzipan, wrap tightly in plastic wrap and store in a cool, dry place.

NOTE

Alternatively, to finish, roll the marzipan out $\frac{3}{2}$ in/9 mm thick. Cut into 1-in/3-cm diamonds. Dip in tempered dark chocolate. When the chocolate is almost set but still tacky, place a toasted walnut half on top of each diamond.

Tree trunks

MAKES 118 PIECES

Gianduja (page 807), melted	1 lb	454 g
Pistachio marzipan	1 lb	454 g
Cocoa butter, melted	as needed	as needed
Dark chocolate, melted, tempered, for coating	as needed	as needed

- 1 Table the gianduja until it is firm enough to hold its shape when piped.
- 2 Fill a pastry bag fitted with a #5 or #6 straight tip with the gianduja and pipe cylinders 16 in/41 cm long onto a parchment-lined sheet pan. Allow to set until firm, 10 to 15 minutes.
- 3 Roll the marzipan out on a clean marble slab into a rectangle 16 in/41 cm long and $\frac{1}{4}$ in/6 mm thick. Brush with a thin layer of cocoa butter.
- 4 Place one cylinder of gianduja on the marzipan and roll up the marzipan to encase the gianduja, overlapping the seam slightly; cut the marzipan at that point. Smooth the seam, then roll until as smooth as possible.
- **5** Brush the log with tempered chocolate to coat. Continue to brush until the chocolate starts to set, creating a bark-like pattern. Slice $\frac{1}{2}$ in/1 cm thick on a slight bias. Do not let the chocolate set completely before cutting.

Fruit gelées

MAKES 125 PIECES

Applesauce	11 oz	312 g
Fruit purée of choice	1 lb	454 g
Glucose syrup	3 oz	85 g
Pectin powder	1 oz	28 g
Sugar	3 lb 3½ oz, plus as needed for coating	1.46 kg, plus as needed for coating
Lemon juice	1 fl oz	30 mL

- **1** Spread the applesauce in a hotel pan and place in a 200°F/93°C oven for 30 minutes to remove moisture.
- 2 Line a half sheet pan with parchment paper.
- **3** Combine the applesauce, fruit purée, and glucose syrup in a heavy-bottomed saucepan. Blend the pectin with 3½ oz/99 g of the sugar and, off the heat, whisk into the fruit purée mixture. Bring to a rolling boil over medium heat, stirring constantly.
- 4 Add 1 lb 8 oz/680 g of the sugar and return to a rolling boil. Add the remaining 1 lb 8 oz/680 g sugar, return to a rolling boil, and boil for 2½ minutes.
- 5 Stir in the lemon juice. Pour onto the prepared half sheet pan and allow to set overnight.
- 6 Sprinkle the fruit slab with sugar. Using a guitar, cut into 1¼-in/3-cm squares. Toss the gelées in sugar to coat.



Gelées on a guitar to be cut into bitesize portions

Marshmallows

MAKES 1 HALF SHEET PAN (12% BY 17% IN/ 33 BY 45 CM)

Gelatin, granulated	1¼ oz	35 g
Water, cold	16 fl oz	480 mL
Granulated sugar	1 lb 8 oz	680 g
Glucose syrup	12 oz	340 g
Honey	12 oz	340 g
Vanilla extract	1 tbsp	15 mL
Confectioners' sugar, for cutting	as needed	as needed

- 1 Line a half sheet pan with parchment paper.
- 2 Bloom the gelatin in 8 fl oz/240 mL of the cold water.
- 3 Combine the granulated sugar, glucose syrup, honey, and the remaining 8 fl oz/240 mL water in a heavy-bottomed saucepan and stir to ensure all the sugar is moistened. Bring to a boil over high heat, stirring to dissolve the sugar. When the syrup reaches a boil, stop stirring and skim the surface to remove any impurities. Continue to cook without stirring, occasionally washing down the sides of the pan using a wet pastry brush, to 252° F/122°C. Remove from the heat and cool to approximately 210° F/99°C.



LEFT: The marshmallow mixture is spread into a sheet pan.
RIGHT: Cutting the marshmallows requires a fair amount of confectioners' sugar.

- **4** While the syrup is cooling, melt the gelatin over simmering water. Remove from the heat and stir in the vanilla.
- 5 Stir the gelatin mixture into the syrup. Whip the mixture on high speed with the whip attachment until medium peaks form.
- 6 Spread the mixture evenly in the prepared sheet pan. The easiest way to do this is to place the mixture in the pan, place a sheet of oiled parchment paper on top, and roll out the marshmallow into the pan. Allow to set completely before unmolding and cutting.
- **7** Remove the slab from the pan, inverting onto a work surface, and peel off the paper. Cut the marshmallows into 1-in/3-cm squares, dusting with confectioners' sugar as necessary.

VARIATION

CINNAMON MARSHMALLOWS Add 1 tbsp/6 g ground cinnamon in step 5 after the gelatin is added

Seafoam

MAKES 125 PIECES

Sugar	3 lb	1.36 kg
Glucose syrup	1 lb 10 oz	737 g
Water	14 fl oz	420 mL
Honey	1½ oz	43 g
Gelatin solution (page 898)	¼ oz	7 g
Baking soda	1½ oz	43 g

- 1 Butter and lightly flour 2 disposable aluminum half hotel pans.
- 2 Cook the sugar, glucose syrup, and water to 280°F/138°C, stirring constantly just until the sugar has dissolved. Stop stirring once the mixture comes to a boil.
- 3 Add the honey and continue to cook to 302°F/150°C.
- 4 Remove the pan from the heat and allow to cool for 5 minutes.
- **5** Blend in the gelatin solution. Blend in the baking soda and allow the mixture to rise to the top of the pan.
- 6 Pour into the prepared pans. Cool overnight.
- **7** Remove the slab from the pan, inverting onto a work surface, and peel off the paper. Cut into 1-in/3-cm pieces.

NOTE This confection may be dipped in tempered dark chocolate after cutting.

Nougat montélimar

MAKES 100 PIECES

Sugar	11½ oz	326 g
Water	3½ fl oz	105 mL
Glucose syrup	2 oz	57 g
Honey, boiling	8 oz	227 g
Egg whites	2 oz	57 g
Vanilla beans, scraped seeds only	½ each	½ each
Almonds, blanched and toasted	7 oz	198 g
Hazelnuts, blanched and toasted	2½ oz	71 g
Pistachios, blanched	2½ oz	71 g
Assorted dried fruit	5 oz	142 g
Sliced almonds, blanched and toasted	2½ oz	71 g
Cocoa butter, melted	3½ oz	99 g
Dark chocolate, melted, tempered, for dipping	as needed	as needed

- 1 Combine 11 oz/312 g of the sugar, the water, and glucose syrup in a heavy-bottomed saucepan and stir to ensure all the sugar is moistened. Bring to a boil over high heat, stirring to dissolve the sugar. When the syrup reaches a boil, stop stirring and skim the surface to remove any impurities. Continue to cook without stirring, occasionally washing down the sides of the pan using a wet pastry brush, to 310° F/154°C.
- 2 Add the honey and bring once more to 310°F/154°C.
- 3 Meanwhile, whip the egg whites and the remaining ½ oz/14 g sugaon medium speed with the whip attachment until soft peaks form.
- 4 With the mixer on medium speed, pour the hot syrup into the egg whites in a fine stream, beating until fully incorporated. Continue to whip until lighter in color, about 4 minutes; the meringue should still be warm.
- **5** Warm the vanilla bean seeds, blanched almonds, hazelnuts, pistachios, dried fruit, and sliced almonds in a low oven. Fold into the meringue.

- 6 Transfer the nougat onto an oiled sheet of parchment paper and roll out to $\frac{1}{4}$ in/6 mm thick. Cool completely.
- 7 Cut the slab into strips ¾ in/2 cm wide. Cut the strips into 1-in/3-cm pieces. Stand the pieces of nougat on end (that is, on one short end). Brush the top edge of each one with melted cocoa butter to seal it. Dip only to the upper edge in tempered dark chocolate, so that the top surface is uncoated nougat.

VARIATION

For a different finish, the slab of nougat can be coated on both sides with tempered dark chocolate and then cut into pieces.



Rolling out the nougat

Cutting the nougat

Soft chocolate nougat

MAKES 100 PIECES

Granulated sugar	1 lb 6 oz	624 g
Water	6 fl oz	180 mL
Glucose syrup	1 lb 9 oz	709 g
Egg whites	2 oz	57 g
Vanilla extract	1 tbsp	15 mL
Nonfat dry milk	4½ oz	128 g
Confectioners' sugar	1½ oz	43 g
Dark chocolate, melted	4 oz	113 g
Cocoa butter, melted	1½ oz	43 g
Dark chocolate, melted, tempered, for dipping	as needed	as needed

- 1 Combine the granulated sugar, water, and 1 lb 7 oz/652 g of the glucose syrup in a heavy-bottomed saucepan and stir to ensure all the sugar is moistened. Bring to a boil over high heat, stirring to dissolve the sugar. When the syrup reaches a boil, stop stirring and skim the surface to remove any impurities. Continue to cook without stirring, occasionally washing down the sides of the pan using a wet pastry brush, to 252°F/122°C.
- 2 When the mixture reaches 230° F/110°C, in a mixer on medium speed, with the whip attachment, begin to whip the egg whites and the remaining 2 oz/57 g glucose syrup until the whites form medium peaks. Add the vanilla extract.
- **3** When the syrup reaches 252°F/122°C, pour it into the egg whites in a fine stream, whipping until fully incorporated. Let cool slightly.
- 4 Sift together the dry milk and confectioners' sugar. Slowly fold the mixture into the meringue until fully incorporated. Cool until just warm to the touch.
- 5 Blend together the melted dark chocolate and cocoa butter. Add to the meringue and fold to combine.
- 6 Pour the mixture onto a sheet of oiled parchment paper. Place another sheet of oiled parchment paper on top and roll the mixture to % in/9 mm thick. Allow to cool completely.
- **7** Brush the nougat with a thin layer of tempered dark chocolate and allow the chocolate to set completely.
- 8 Cut the nougat into 1-in/3-cm squares with a hot knife, wiping the knife clean after each cut. Dip in tempered dark chocolate and let set completely.

NOTE The texture of this nougat improves as it crystallizes after dipping.

(OPPOSITE PAGE) FINISHED VARIETIES OF NOUGATS FROM TOP TO BOTTOM: Nougat Montélimar (page 816), Soft Chocolate Nougat (above), variation of Nougat Montélimar with dried cherries, dried apricots, almonds, pistachios, and hazelnuts (page 816)



Chocolate nut clusters

MAKES 5½ OZ/156 G

Pecans, coarsely chopped	2 oz	57 g
Sugar	1½ oz	43 g
Water	½ oz	14 g
Dark chocolate, 64%, chopped	1½ oz	43 g

- 1 Combine the pecans, sugar, and water and cook, stirring constantly, to a light caramel color.
- 2 Spread the mixture on a parchment-lined half sheet pan. Freeze for 1 hour.
- 3 Melt the chocolate in a medium bowl and bring into temper.
- **4** Break apart the nuts into small clusters and drop into the chocolate. Stir until the clusters are well coated. Separate the clusters on a sheet of parchment paper.
- **5** Let the clusters set completely. Store in an airtight container.

NOTE The mixture may be used as the base for individual pastries or desserts by placing at the bottom of a mold.