#53545

Candy Making

Manual

University of Idaho
Extension

Candy Making

Taken from: “Candy,” World Book Encyclopedia

Candy is a confection whose main ingredient is sugar. There are more than 2,000 kinds of candy. People in the United States eat about 3,420,000,000 pounds of candy each year, or about 18 pounds of candy for each person.

All candies supply quick energy. Those candies made with butter, chocolate, fruit products, milk and nuts, in addition to sugar, provide extra nutrients. The carbohydrates in candy supply energy for vigorous physical and mental effort. Athletes often eat candy before they enter a competition. Some eat a little bit of almost pure sucrose or dextrose – forms of sugar easily used by the body. Explorers often pack a supply of candy with their food. On one of his expeditions to the South Pole, Admiral Richard Byrd took enough candy to supply each man in his party with about 100 pounds. Men in the U.S. Armed Forces receive small portions of candy as part of their regular field rations.

All the chief ingredients of candy are wholesome foods. In addition to sugar, ingredients may include chocolate, cocoa, coconut, cream and/or milk, eggs, fruits, gelatin, honey, lecithin (made from soybeans), molasses, nuts, and vanilla extract. The United States Food and Drug Law requires that all candy be made with pure ingredients and nonpoisonous flavorings and colorings. Harmless vegetable dyes and coal-tar colorings are among the ingredients approved for use in candy.

Candy has been known since ancient times. Approximately 2000 B.C., Egyptian records show confectionery processes used to make sweetmeats. In 1470, a candy maker in Venice learned to refine sugar imported from the Orient. The us of this sugar was the beginning of the modern candy industry. During American colonial times, sugar from ample tree sap provided candy for the people. The U.S. produces more candy than any other country. In the United States, about $1,320,000,000 worth of candy is sold each year at the wholesale level.

Candy classifications are dependent upon the thickness of the syrup or the extent to which the sugar is caramelized. As syrup boils and becomes thick, its temperature increases. The density of the syrup determines the general types of candies.
Candies are divided roughly into two classes:

1. creamy or crystalline, and
2. amorphous or noncrystalline.

Class one contains: fondant, fudge, penuche, divinity, sea-foam, and candies which have a distinct crystalline structure.
The second class contains: caramels, butterscotch, lollipops, marshmallows, and gumdrops. In amorphous or noncrystalline candies (sometimes referred to as “solid liquid”) the mass hardens or sets with no formation of crystals.
The type of candy made is determined by: ingredients used; degree of cooking or concentration; and manipulation after cooking.
Sugar (or some substance high in sugar) is the basis of all common candies. Other ingredients affect the flavor and the texture. Chocolate, nuts, and flavoring alter the flavor. Practically all solids which dissolve or mix with the sugar syrup alter the texture.

Uncooked Candies

The use of confectioner’s sugar as the main ingredient in fondant and fudge-type candies is becoming increasingly common. Sugar may be combined with butter or other fat, cream, egg, water, fruit juice, milk, flavorings and other foods. When fat, cream, milk or similar substances are used, the candy may remain soft and creamy for sometime.

History of Chocolate

Source: Kara Chocolates

Chocolate Through the Years

The story of chocolate, as far back as we know it, begins with the discovery of America. Until 1492, the Old World knew nothing at all about the delicious and stimulating flavor that was to become the favorite of millions.

The Court of King Ferdinand and Queen Isabella got its first look at the principal ingredient of chocolate when Columbus returned in triumph from America and laid before the Spanish throne a treasure trove of many strange and wonderful things. Among these were a few dark brown beans that looked like almonds and seemed most unpromising. There were cocoa beans, today's source of all our chocolate and cocoa.

The King and Queen never dreamed how important cocoa beans could be, and it remained for Hernando Cortez, the great Spanish explorer, to grasp the commercial possibilities of the New World offerings.

Food of the Gods

During his conquest of Mexico, Cortez found the Aztec Indians using cocoa beans in the preparation of the royal drink of the realm, "chocolate", meaning warm liquid. In 1519, Emperor Montezuma, who reportedly drank 50 or more portions daily, served chocolate to his Spanish guests in great golden goblets, treating it like a food for the gods.

For all its regal importance, however, Montezuma's chocolate was very bitter, and the Spaniards did not find it to their taste. To make the concoction more agreeable to Europeans, Cortez and his countrymen conceived of the idea of sweetening it with cane sugar.

While they took chocolate back to Spain, the idea found favor and the drink underwent several more changes with newly discovered spices, such as cinnamon and vanilla. Ultimately, someone decided the drink would taste better if served hot.

The new drink won friends, especially among the Spanish aristocracy. Spain wisely proceeded to plant cocoa in its overseas colonies, which gave birth to a very profitable business. Remarkably enough, the Spanish succeeded in keeping the art of the cocoa industry a secret from the rest of Europe for nearly a hundred years.

Chocolate Spreads to Europe

Spanish monks, who had been consigned to process the cocoa beans, finally let the secret out. It did not take long before chocolate was acclaimed throughout Europe as a delicious, health-giving food. For a while it reigned as *the* drink at the fashionable Court of France. Chocolate drinking spread across the Channel to Great Britain, and in 1657 the first of many famous English Chocolate Houses appeared.

The hand methods of manufacture used by small shops gave way in time to the mass production of chocolate. The transition was hastened by the advent of a perfected steam engine which mechanized the cocoa grinding process. By 1730, chocolate had dropped in price from three dollars or more per pound to within the financial reach of all. The invention of the cocoa press in 1828 reduced the prices even further and helped to improve the the quality of the beverage by squeezing out part of the cocoa butter, the fat that occurs naturally in cocoa beans. From then on, drinking chocolate had more of the smooth consistency and the pleasing flavor it has today.

The 19th Century marked two more revolutionary developments in the history of chocolate. In 1847, an English company introduced solid "eating chocolate" through the development of fondant chocolate, a smooth and velvety variety that has almost completely replaced the old coarse grained chocolate which formerly dominated the world market. The second development occurred in 1876 in Vevey, Switzerland, when Daniel Peter devised a way of adding milk to the chocolate, creating the product we enjoy today known as milk chocolate.

Chocolate Comes To America

In the United States of America, the production of chocolate proceeded at a faster pace than anywhere else in the world. It was in the pre-revolutionary New England -- 1765, to be exact -- that the first chocolate factory was established.

Chocolate has gained so much importance since that time, that any interruption in its supply would be keenly felt.

During World War II, the U.S. government recognized chocolate's role in the nourishment and group spirit of the Allied Armed Forces, so much so that it allocated valuable shipping space for the importation of cocoa beans. Many soldiers were thankful for the pocket chocolate bars which gave them the strength to carry on until more food rations could be obtained. Today, the U.S. Army D-rations include three 4-ounce chocolate bars. Chocolate has even been taken into space as part of the diet of U.S. astronauts.

Growing the Cocoa Bean

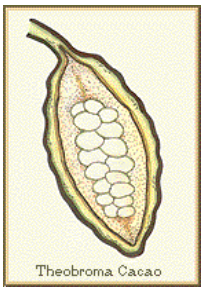
Cocoa beans are the product of the cacao tree. The origin of the cacao tree is in dispute. Some say it originated in the Amazon basin of Brazil, others place it in the Orinoco Valley of Venezuela, while still others contend that it is native to Central America.

Wherever its first home, we know the cacao tree is strictly a tropical plant thriving only in hot, rainy climates. Thus, its cultivation is confined to the lands not more than 20 degrees north of south of the equator.

Cocoa Flower

Cocoa Pods

Cocoa Bean



Cocoa Seeds

From the Bean to Chocolate

We now come to the remarkable art of chocolate making, a process that is comparable with the skill and finesse of the world's greatest chefs. The manufacturing process requires much time and painstaking care. Just to make an individual-size chocolate bar, for instance, takes from two to four days or more.

Manufacturing methods will differ in detail from plant to plant, but there is a general processing pattern which prevails everywhere. It is this pattern that makes the chocolate industry distinctive from every other industry.

For example, all manufacturers carefully catalogue each shipment according to its particular type and origin. This is very important, because it enables them later to maintain exact control over the flavor blending of beans for roasting.

Fermented Cocoa Bean

Prior to Roasting

While awaiting the blending process, the beans are carefully stored. The storage area must be isolated from the rest of the building so the sensitive cocoa does not come into contact with strong odors which it may absorb as an off-flavor. Every step of the way so far reflects the close regulation of conditions which is needed to ensure the production of uniformly high quality chocolate.

The first step to actual manufacturing is cleaning. This is done by passing the cocoa beans through a cleaning machine that removes dried cacao pulp, pieces of pod and other extraneous material that had not been removed earlier.

When thoroughly cleaned, the beans are carefully weighed and blended according to a company's particular specifications. These formulas are based on experience and desirability. In the science of chocolate making, much depends upon the ability to achieve the right formula for the desired end product through the proper selection of beans available.

To bring out the characteristic chocolate aroma, the beans are roasted in large rotary cylinders. Depending upon the variety of the beans and the desired end result, the roasting lasts from 30 minutes to two hours at temperatures of 250 degrees Fahrenheit and higher. As the beans turn over and over, their moisture content drops, their color changes to a rich brown, and the characteristic aroma of chocolate becomes evident.

What Follows Roasting

Proper roasting is one of the keys to good flavor, but there are still several more steps to follow. After roasting, the beans are quickly cooled and their thin shells, made brittle by roasting, are removed. In most factories, this is done by a "cracker and fanner," a giant winnowing machine that passes the beans between serrated cones so they are cracked rather than crushed. In the process, a series of mechanical sieves separate the broken pieces into large and small grains while fans blow away the thin, light shell from the meat or "nibs."

The nibs, which contain about 53 percent cocoa butter, are next conveyed to mills, where they are crushed between large grinding stones or heavy steel discs. The process generates enough frictional heat to liquefy the cocoa butter and form what is commercially know as chocolate liquor. The term liquor does not refer to alcohol, it simply means liquid. When the liquid is poured into molds and allowed to solidify, the resulting cakes are unsweetened or bitter chocolate.

Up to this point, the manufacturing of cocoa and chocolate is identical. The process now diverges, but there is an important interconnection to be noted. The by-product of cocoa shortly becomes an essential component of chocolate. That component is the unique vegetable fat, cocoa butter, which forms about 25 percent of the weight of most chocolate bars.

How to Make Cocoa Powder

The chocolate liquor, destined to become a cup of cocoa, is pumped into giant hydraulic presses weighing up to 25 tons, where pressure is applied to remove the desired cocoa butter. The fat drains away through metallic screens as a yellow liquid. It is then collected for use in chocolate manufacturing.

Cocoa butter has such importance for the chocolate industry that it deserves more than a passing mention. It is unique among vegetable fats because it is a solid at normal room temperature and melts at 89 to 93 degrees Fahrenheit, which is just below body temperature. Its success in resisting oxidation and rancidity makes it very practical. Under normal storage conditions, cocoa butter can be kept for years without spoiling.

The pressed cake that is left after the removal of cocoa butter can be cooled, pulverized and sifted into cocoa powder. Cocoa that is packaged for sale to grocery stores or put into bulk for use as a flavor by dairies, bakeries, and confectionery manufacturers, may have 10 percent or more cocoa butter content. "Breakfast cocoa," a less common type, must contain at least 22 percent cocoa butter.
In the so-called "Dutch" process, the manufacturer treats the cocoa with an alkali to develop a slightly different flavor and give the cocoa a darker appearance characteristic of the Dutch type. The alkali acts as a processing agent rather than as a flavor ingredient.

How to Make Eating Chocolate
While cocoa is made by removing some of the cocoa butter, eating chocolate is made by adding it. This holds true of all eating chocolate, whether it is dark, bittersweet, or milk chocolate. Besides enhancing the flavor, the added cocoa butter serves to make the chocolate more fluid.
One example of eating chocolate is sweet chocolate, a combination of unsweetened chocolate, sugar, cocoa butter and perhaps a little vanilla. Making it entails melting and combining the ingredients in a large mixing machine until the mass has the consistency of dough.
Milk chocolate, the most common form of eating chocolate, goes through essentially the same mixing process-except that it involves using less unsweetened chocolate and adding milk.
Whatever ingredients are used, the mixture then travels through a series of heavy rollers set one atop the other. Under the grinding that takes place here, the mixture is refined to a smooth paste ready for "conching.“

What is Conching?
Conching is a flavor development process which puts the chocolate through a "kneading" action and takes its name from the shell-like shape of the containers originally employed. The "conches," as the machines are called, are equipped with heavy rollers that plow back and forth through the chocolate mass anywhere from a few hours to several days. Under regulated speeds, these rollers can produce different degrees of agitation and aeration in developing and modifying the chocolate flavors.
In some manufacturing setups, there is an emulsifying operation that either takes the place of conching or else supplements it. This operation is carried out by a machine that works like an eggbeater to break up sugar crystals and other particles in the chocolate mixture to give it a fine, velvety smoothness.
After the emulsifying or conching machines, the mixture goes through a tempering interval-heating, cooling and reheating-and then at last into molds to be formed into the shape of the complete product. The molds take a variety of shapes and sizes, from the popular individual-size bars available to consumers to a ten-pound block used by confectionery manufacturers.

Inside a Chocolate Factory
In touring a chocolate factory, one is particularly impressed by the close controls maintained throughout operations. Work is carried out in an atmosphere of scientific exactness and nothing is left to chance.
Precision instruments regulate temperatures, stabilize the moisture content of the air, and control the time intervals of manufacturing operations and other items necessary to achieve quality results.
The equipment of a factory is heavy, massive and complex. Often representing an investment of many millions of dollars, there are literally tons of equipment that the cocoa beans must pass through on their way to becoming chocolate.

The Different Types of Chocolate

Unsweetened Cocoa -Sometimes called American-process cocoa, unsweetened cocoa is the product remaining after most of the cocoa butter has been extracted from the chocolate liquor. It has one of the lowest fat contents of 4 any chocolate product -varying from 10-24% fat.

European or Dutch Cocoa -Dutching is a process which neutralizes the natural acidity found in cocoa powder. This results in a darker, redder cocoa with a more mellow chocolate flavor than the American process cocoa. ill a recipe they can be substituted for one another, but the end result will be a different flavor and color. Use the cocoa called for in the recipe for best results.

Unsweetened Chocolate -Sometimes called bitter or baking chocolate. This product has no added sugar and contains near equal parts of cocoa butter and cocoa solids. It has the highest percentage of cocoa butter -50-58%. It is sold in bar form and always combined with sugar and other ingredients to make cakes, brownies and other delicacies. To substitute cocoa, use three tablespoons of cocoa plus 1 tablespoon of shortening to equal one ounce of unsweetened chocolate.

Extra-bittersweet Chocolate -May have up to 70%. chocolate liquor, so has less sugar added. Pastry chefs prefer it for its fuller, more intense flavor.

Bittersweet Chocolate -Usually interchangeable in recipes with semi-sweet chocolate, it has a bit less sugar than the semi-sweet (may be up to 60% chocolate liquor) and has a deeper chocolate flavor.

Semi-Sweet Chocolate -Known as one of the "dark" chocolates, it is made from the chocolate liquor, with just enough sugar, cocoa butter and vanilla added to give it a rich, sweet taste. It must contain at least 35% chocolate liquor, and is available in bars and, more commonly, in baking chips.

German Sweet Chocolate -This was created by Samuel German in 1852 as a quality snack-type chocolate bar. It is a special blend of chocolate, cocoa butter and sugar, and is usually sold in a four ounce bar. It tends to be a bit sweeter than semi-sweet chocolate, and can also be substituted for semi-sweet chocolate in a recipe.

Chocolate Chips -These come in various flavors and sizes and are formulated to withstand normal oven heat and to hold their shape. For this reason, they should not be substituted for bar chocolates in recipes calling for melted chocolate. They are usually semi-sweet in flavor.

Couverture -A very high-quality chocolate that has a larger amount of cocoa butter than semi-sweet so that it is more free-flowing when melted. It is good for coating candy centers. This is the best chocolate you can get.

Milk Chocolate -ill addition to sugar, this product contains cream or whole milk. It is the sweetest of the chocolates. It is the basis for many candy bars and is America's favorite eating chocolate. It is lighter in color and less intense than dark chocolate because it contains less chocolate liquor (at least 10%). It is rarely used for baking because of its high sugar content and heat-sensitive milk solids.

Is Chocolate Good For You?

Some recent studies seem to indicate that chocolate may contain chemical substances which may have potential cardiovascular health benefits. Chocolate contains flavonoids, naturally occurring compounds found in plant foods that are recognized as having health benefits. Flavonoids are found in a wide array of foods and beverages, such as cranberries, apples, peanuts, onions, tea, red wine and chocolate

White Chocolate -It resembles milk chocolate in composition (added sugar and milk products), except that it contains no chocolate liquor. This is the reason it is not brown. The cocoa butter it contains gives it a very milk, chocolate flavor and creamy mouth feel.

Confectionery Coatings -This chocolate product is made with a vegetable fat other than cocoa butter. It is less expensive and is flavored to taste similar to chocolate. These coatings vary in quality, but are easier to use since no tempering is needed -you just melt and use.
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Imitation Chocolate -This product contains no cocoa butter and can sacrifice flavor and performance. This product is usually referred to as chocolate.

The secret of making good candy is to follow recipe directions exactly. Don't try to substitute ingredients or double the recipe.

Chocolate Melting and Tempering

Chocolate is heat-sensitive and may burn easily. Never heat any chocolate to a temperature over 120 degrees as it will become un-useable. White chocolate is the most sensitive, followed by milk chocolate and then the dark chocolates. Remember that when melting chocolate, containers and stirring utensils must be clean and dry. Small amounts of water may cause the chocolate to "seized" chocolate by adding more liquid or vegetable shortening, but easier to avoid this situation all together! chocolate can be melted by using the microwave oven or heating over a pan of hot water. Either way, begin with chocolate pieces, no more than 1" in size to expedite the process.

Microwave Method - Fill a bowl no more than halfway with chopped chocolate. Microwave one to eight ounces at a time, beginning for 1 1/2 minutes on 50% power. Use low power (30%) for milk or white chocolate. Stir. If necessary, continue heating for shorter time amounts (stir after each heating) until most of the chocolate is melted. Remember, melted chocolate pieces sometimes holds their form, even when melted.

Hot Water Method - Place about 1/2 of the chocolate in to the top of a double boiler or in a bowl that fits snugly over the top of a small saucepan of hot water (about 130 degrees). Do not boil the water, as heat this high could cause damage to the chocolate product. Stir the chocolate to melt, add remaining pieces and remove from heat. Stir to melt all chocolate pieces. At this point, the chocolate is ready to use. Be aware, this can be a time consuming process. Do not allow the chocolate to cool to 77° or the tempering process will need to be repeated.

Candy Making Tools

Source: www.baking911.com

Some tools recommended will vary by recipe. Most tools you will have on hand already; others can be purchased at a general cookware or cake decorating store. Not all tools are needed when making a candy recipe; it will direct you as to what you need.

• Heavy (copper, anodized aluminum, cast aluminum or cast iron) pot with a 2 to 3-quart capacity for making sugar candy. Make sure it's a smooth, heavy-bottomed pan with straight sides for candy cookery because the sugar solution will boil upwards and you don't want to get burned or make a huge mess. Many candies scorch easily in lightweight pans. The saucepan should be an appropriate size for the recipe and match the size of the burner or be slightly smaller to minimize heat fluctuations in the candy.

• A double-boiler for chocolate candy making

• 4 quart Pyrex dish, if the recipe calls for it. The bowl needs to be heat safe since you'll be pouring molten sugar syrup directly into it. This effectively rules out plastic bowls.

• Long handled wooden spoons unless you can find heat proof metal spoons. Plastic spatula will melt since this solution is much hotter than boiling water. Make sure it is clean and dry **Every Time** you dip it in the candy mixture to stir.

• Candy thermometer: Can come mounted on a metal frame and made by Taylor, and it works very well for this. Select one that registers from 100-400 degrees Fahrenheit and handles easily in hot mixtures, such as one with a plastic handle. The thermometer should be immersed below the surface of the syrup, but it should not touch the bottom or sides of the pan. Hold the thermometer at eye level to read it accurately. It should be left there for the duration of cooking. When finished, let thermometer completely cool before washing.

• Spatulas (2-3) – ones that can handle high temperatures.

• Ice water in a large bowl, big enough to fit the pot when immersed and ready to dip your hands in, in case of burns.

• Pastry brushes are little tools you will also use a lot. Whenever a recipe calls for a hot, cooked sugar mixture, you will need to wash down the sides of the pan with a brush dipped in hot water. This prevents crystallization that would ruin the batch.

• Stand mixer with paddle attachment (not a hand-held one), optional (just easier than mixing by hand).

• Liquid and dry measuring cups and spoons.

• Pyrex glass or aluminum baking pans.

• Sieve or perforated spoon for skimming.

Candy Making Tools

(Continued)

• Marble or granite surface or vegetable-sprayed parchment paper placed on the back of a baking sheet, or a Silpat mat.
• Aluminum foil: For a candy making surface that can take the heat, use a sheet of foil, Spread candies such as peanut brittle, fudge and almond bark into a thin layer on a foil-lined cookie sheet. There's no sticking and no cleanup.

• Vegetable oil spray.
• Timer or clock.
• Good oven mitts, preferably ones that cover your forearm.
• Candy molds.
• Cooling racks
• Rubber cleaning gloves or surgical gloves – to protect your hands from the heat, cleaning gloves work best. Either thickness will also protect the sugar from any dampness on your hands as you work with it.

Metal Dipping Set

4 Flavor Candy Set

Candy Dipping Spoon & Fork

Confect Tool Set

Candy Thermometer Tips

Source: www.baking911.com

Using a Candy Thermometer is the most accurate way to determine when to stop the boil.

- Buy a thermometer with a clip that attaches to the side of your pan.
- Every time you place the thermometer in the pot, make sure it is spotless and dry. A speck of old sugar left on it could ruin the whole batch by crystallizing it.
- When you start to cook your candy, have the thermometer nearby, resting in a container of warm water. Be sure to dry it before using. Then it will be preheated when you lower it into the hot mixture.
- Clip the candy thermometer to pan after cleaning the sugar from the sides of the pan with a damp pastry brush and the right before syrup boils.
- The bulb of the thermometer must be covered with boiling liquid, not just foam, but it should never touch the bottom of the pan.
- **Knowing when to stop boiling the sugar solution is crucial.** Stopping the boil at 234 degrees Fahrenheit really means 234 degrees Fahrenheit. Don't sit and watch the thermometer climb to 236 degrees Fahrenheit 'just to be sure.' Remember, over boiling is as bad as under boiling.
- When you remove the thermometer, put it back into the warm water.
- To remove sticky sugar, while still warm, place in hot water. Dry and let the thermometer cool before putting away. Keep it in a drawer where it won't be disturbed.

The importance of temperature in candy making: With sugar and water, you can make five kinds of candy through temperature and density! Of course, you add other ingredients to the candy at different times depending on the recipe i.e. flavorings, nuts, chocolate, butter, coconut to make it taste better and to get variety. Often, you add food color to improve eye appeal but temperature remains the key to the kind of candy you make whenever you cook up a sugar mixture.

- Suppose you put sugar and water in a pan over heat, cover the pan and, shaking the pan, bring the mixture to a boil dissolving the sugar. Uncover the pan and continue cooking it at a low boil until the syrup reaches the soft-ball stage (234 to 240 degrees Fahrenheit -- syrup, when dropped into a bowl of very cold water, forms a soft ball which flattens on removal from the water.) If you take some out at this point, you can make fondant, fudge or penuche with it.
- If you continue cooking the syrup remaining in the pan until it reaches the firm-ball stage (244 to 248 degrees Fahrenheit – syrup, when dropped into a bowl of very cold water, forms a firm ball that does not flatten on removal from the water,) you could remove a part of it to make caramels.
- By cooking the rest of the syrup to the hard-ball stage (250 to 266 degrees Fahrenheit – syrup, when dropped into a bowl of very cold water, forms a hard ball which holds its shape, yet is plastic,) you could pour some out to cool and pull it for taffy or make divinity.
- Continue cooking the syrup still in the pan to the soft crack stage (270 to 290 degrees Fahrenheit – syrup, when dropped into a bowl of very cold water, separates into threads which are hard but not brittle,) and again pour out a part-you've got butterscotch or taffy.
- Bring the last of the syrup to the hard crack stage (300 to 310 degrees Fahrenheit –syrup, when dropped into a bowl of very cold water, separates into threats, which are hard and brittle,) and make lollipops or brittles.

High Altitude Candy Making **Note:** The temperatures specified here are for sea level. As with most cooking at high altitudes, there a modifications that need to be made to candy recipes. For every 500 feet above sea level, decrease the temperature by one degree. If for instance you are living at 3500 feet, and the recipe calls for cooking to 234 degrees Fahrenheit (112 degrees Centigrade), cook it to 227 degrees Fahrenheit (108 degrees Centigrade).

Candy Thermometer Read at eye level. Must be dry and clean when putting into the candy pot **Each Time**.	**Use**	**Cold Water Test: The cold water test is recommended for advanced candy makers.** Density or concentration of sugar to water is measured when a small amount (1/2 to 1 teaspoon) of syrup is dropped into a small bowl of very cold water (not ice cold) and then examined or carefully picked up. The firmness indicates temperature of syrup.
Stir over heat until dissolved	Imbibing cake layers	**Simple sugar syrup**
212 degrees F	**Water**	**Boils at 212 degrees F at sea level**
Thread Stage 230 – 235 degrees F sugar concentration: 80%	Syrup, fruit liqueur and some icings	At this relatively low temperature, there is still a lot of water left in the syrup. The liquid sugar may be pulled into brittle threads between the fingers. Or, take a small amount of the syrup onto a spoon, and drop it from about 2-inches above the pot. Let it drip into the pan. If it spins a long thread, like a spider web, it's done.
	Jelly, candy, fruit liqueur making and some icings	**Pearl**: 220-222 degrees F – The thread formed by pulling the liquid sugar may be stretched. When a cool metal spoon is dipped into the syrup and then raised, the syrup runs off in drops which merge to form a sheet.
	Delicate sugar candy and syrup	**Blow or Soufflé:** 230-235 degrees F – Boiling sugar creates small bubbles resembling snowflakes. The syrup spins a 2-inch thread when dropped from a spoon.
Soft-Ball Stage 235-240 degrees F	Fudge, Fondant, pralines, Pate A bombe or Italian meringue, peppermint creams and classic butter creams	**Soft-Ball:** A small amount of syrup dropped into chilled water forms a soft, flexible ball, but flattens like a pancake after a few moments in your hand.

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Firm-Ball Stage **245 – 250 degrees F** Sugar concentration: 87%	Caramels	**Firm-Ball:** Forms a firm ball that will not flatten when removed from water, but remains malleable and will flatten when squeezed.
Hard-Ball Stage **250-265 degrees F** Sugar concentration: 92%	Nougat, marshmallows, gummies, divinity, and rock candy.	**Hard-Ball:** At this stage, the syrup will form thick, "ropy" threads as it drips from the spoon. The sugar concentration is rather high now, which means there's less and less moisture in the sugar syrup. Syrup dropped into ice water may be formed into a hard-ball which holds its shape on removal. The ball will be hard, but you can still change its shape by squashing it.
Soft-Crack Stage **270-290 degrees F.** Sugar concentration: 95%	Taffy and butterscotch	**Soft-Crack:** As the syrup reached soft-crack stage, the bubbles on top will become smaller, thicker, and closer together. At this stage, the moisture content is low. Syrup dropped into ice water separates into hard but pliable threads. They will blend slightly before breaking.
Hard-Crack Stage Sugar concentration: 99%	Toffee, nut brittles, hard candy, and lollipops	**Hard-Crack:** The hard-crack stage is the highest temperature you are likely to see specified in a candy recipe. At these temperatures, there is almost no water left in the syrup. Syrup dropped into ice water separates into hard, brittle threads that break when bent.
Caramelizing Sugar		If you heat a sugar syrup to temperatures higher than any of the candy stages, you will be on your way to creating caramelized sugar (the brown liquid stage) – a rich addition to many desserts.
320-356 degrees F	From flan to caramel cages, etc.	**Caramel:** Syrup goes from clear to brown as its temperature rises. It will form a hard brittle ball in cold water. All the water has boiled away and the sugar concentration remains at 100%.
320 degree F	Barley sugar candy	**Caramel – Clear Liquid:** The sugar liquefies. All the water has boiled away. The remaining sugar is liquid and light amber in color.

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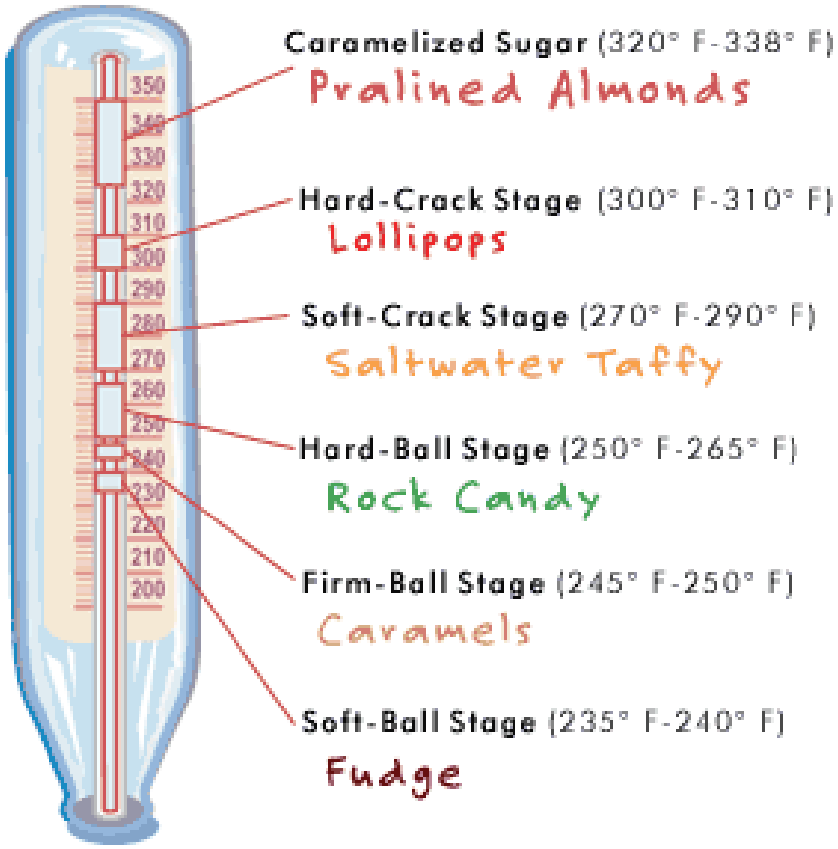
338 degree F	Light Caramel	**Caramel – Brown Liquid:** The liquefied sugar turns brown. Now the liquefied sugar turns brown in color due to caramelization. The sugar is beginning to break down and form many complex compounds that contribute a richer flavor. Caramelized sugar is used for dessert decorations and can also be used to give a candy coating to nuts.
356 degree F	Praline, spun sugar, caramel cages, nougatine	**Caramel – Medium Brown Liquid:** The liquefied sugar darkens.
374 degrees F	Coloring agent for sauces.	**Caramel – Dark Brown Liquid:** The liquefied sugar darkens further.
410 degrees F	None	**Black Jack:** The liquefied sugar turns black and then decomposes.



Candy Testing

Using a candy thermometer is the best way to ensure success in candy making. Use this test to check the accuracy of the thermometer each time you use it. Place the thermometer in boiling water. If it registers either below or above 212 degrees Fahrenheit, add or subtract the same number of degrees from the recipe temperature and cook to that temperature. For an accurate reading, make sure the thermometer bulb is completely covered with liquid, not just foam, and see that it doesn't touch the pan bottom.

Use the *cold water test* if a thermometer is not available. Remove the pan of candy from heat. Immediately drop a few drops of the syrup into a cup of very cold (but not icy) water. Use fresh water and a clean spoon for each test. Form the drops into a ball with your fingers. The firmness of the ball indicates the syrup's temperature. Retest every 2-3 minutes till the desired stage is reached.

Working with boiled sugar syrup can be dangerous because it is extremely hot and it burns. Sugar melts at 320 degrees, and can be heated up to 350 degrees Fahrenheit!! By comparison, water boils at 212 degrees Fahrenheit, and we all know how hot that is.

Source: www.baking911.com

Stage	Cold Water Test
Thread 230 - 234	Candy syrup that is dropped from a spoon spins a 2-inch thread.
Soft-ball 234 - 240	Candy syrup can be shaped into a ball that flattens when it is removed from water.
Firm-ball 244 - 248	Candy syrup can be shaped into a firm ball that does not flatten when removed from water.
Hard-ball 250 - 266	Candy syrup forms a hard but pliable ball.
Soft-crack 270 - 290	Candy syrup separates into threads that are not hard or brittle.
Hard-crack 300 - 310	Candy syrup separates into brittle threads.

Before you start making candy, calibrate your candy thermometer: Water should boil at 212 degrees Fahrenheit. Measure the boiling point of water with your new thermometer by leaving it in boiling water for 10 minutes. Add or subtract any difference when determining the end-point of the boil of your sugar slurry.
Source: www.baking911.com

First Aid for Burns

Minor Burn: No blister or small blister.

1. Run cold water over the burn for 5 minutes or until pain stops.
2. Do not apply medication or bandages

Severe Burn: Blisters or broken skin.
Call the Doctor immediately.

Burns covering a large area: Call the rescue squad.

1. **Do not** remove clothing or anything else stuck to the burn.
2. Cover burned area with clean gauze pads or clean wet cloth.
3. Give the person drinks of cool water.
4. Cover the person with a coat or blanket to prevent shock.

Candy Storage

Each type of candy is always stored according to its type. Airtight storage in a cool place is best. Some candies may be frozen, but avoid freezing those made with fruits and nuts.

Keeping candy for short term (two months or less):

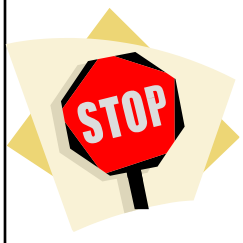
- Protect taffies, caramels, nougats, and popcorn balls from dampness by wrapping them individually in clear plastic wrap.
- Store individually wrapped candies in boxes, tins or cartons with tight-fitting lid.
- Exception: For small hard candies, sprinkle candy with finely ground sugar (not powdered) and store in jar with tight-fitting lid.
- Do not mix candies that absorb moisture (caramels, mints, hard candies) in the same container as candies that lose moisture (fudge, fondants, meringues). If these types of candies are mixed, the hard candies will become sticky. For instance, brittles soften if stored with creamy candies.
- Use waxed paper to individually wrap or separate layers of fudge in storage container.

Keeping candy for long term (up to 12 months:

Most candies freeze well for longer storage. Wrap tightly in plastic food wrap or aluminum foil. Be sure to label with contents and date. When ready to eat, thaw wrapped candy at room temperature for 1 to 2 hours.

- Truffles can be frozen up to 2 months.
- Fudge.
- Toffee can be frozen for up to 2 months.
- Most caramels should be stored about 2 weeks at room temperature.
- But brittles should be stored about 1 week at room temperature.

* **Be careful when freezing** – Make candy that freezes well first and save things like caramels till last. Be sure to use coating chocolate for candies that need to be dipped, otherwise freezing and storing can cause “bloom,” which is when the cocoa butter comes to the surface and causes gray or white streaks and dots – it doesn’t mean that the candy has spoiled but it doesn’t look very nice.



Always make candy on a cool, dry day. Heat, rain and humidity, as well as **altitude**, can affect how candy turns out (caramel syrup can be made, however) – cooking time can increase substantially or the sugar may never set up at all. This is because sugar affects water.

Candy making is really a scientific formula and is the least forgiving of all recipes. It's important not to substitute the main ingredients, such as sugar, butter, cream, etc. for something else. You can switch what I call are auxiliary ingredients or those that don't have an impact on its structure; for example you can substitute one type of nut for another or switch flavoring and color. Make sure you read the entire recipe before you begin. Collect the ingredients you will need and make sure you have the exact measurements. Keep everything close by and handy.

The process for a specific kind of candy depends on the desired consistency and the number of ingredients. (NOTE: see recipes for exact measurements).

	Fondant	Fudge	Caramels	Taffy	Toffee	Lollipops	Divinity	Marshmallows
Table Sugar	1 cup	1 cup	1 cup	1 cup	1 cup	1 cup	1 cup	1 cup
Corn syrup/ Cream of Tartar	1 Tbsp. or 1/16 tsp. cream of tartar	1 Tbsp.	1 cup	¼ cup	1 Tbsp.	1/3 cup	2 Tbsp.	1 Tbsp.
Liquid (water or milk)	½ cup water	½ cup milk	1 cup cream or evaporated milk	1/3 cup water	¼ cup water	½ cup water	¼ cup water	¼ cup water
Fat		1 Tbsp.	¼ cup		¾ cup			

The following information will help straighten out what the recipe's author means when an ingredient is just listed and isn't described:

Sweeteners: Since the appeal of candy is its sweetness, some type of sweetener is usually the primary ingredient. Unless the recipe states otherwise, when it says "sugar" use white, crystalline sugar called sucrose – the kind you sue everyday, also known as table sugar which is derived from sugarcane or sugar beets. Strain our any lumps or hard pieces. Other sweeteners are honey, molasses, maple sugar, corn sugar, and corn syrup. In recent years some candies have been made with artificial, non-caloric sweeteners such as saccharin or aspartame.

❖ **Use the best quality sugar when making candy.** Use a freshly purchased and unopened package of sugar; this will insure that there has been no contamination from other ingredients commonly found in the kitchen, such as flour or salt.

❖ **Corn Syrup.** Use light corn syrup if not specified in a recipe. If you only have dark, it can be used, but the candy will have a slight molasses taste and color. If the recipe specifies, follow it.

❖ **Molasses.** Conveniently for butterscotch makers, molasses contains a very dark caramel with a distinct burnt edge and a bit of sharpness. Because molasses is so strongly flavored, butterscotch recipes rarely use it straight.

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❖ **Can I substitute Brown Sugar for Refined Granulated Sugar?** Yes, only if you an experienced candy-maker. Don't let the brown sugar exceed 1/2 the amount of the total sugar. So if you were going to use 2 cups of total sugar, divide it into 1 cup brown and 1 cup regular sugar. Using brown sugar (which is basically refined white sugar but without all the molasses removed) also acts as one of the flavor agents and you can end up with a fudge called "Penuche.“

❖ **Can I substitute Unrefined Sugar ("Sugar in the Raw") for Granulated Sugar?** No, because you may get unexpected results because the crystal size of each differ. Sugar in the Raw (turbino) is very course granulation and my not dissolve completely during the boil. Also, unrefined sugar has a strong taste and brown cast due to some molasses in it.

❖ **Can I substitute Powdered Sugar for refined Sugar?** No. Powdered sugar is finely ground sugar with corn starch added. The corn starch may help thicken the fudge but it also doesn't dissolve well (unless heated) and you'll get a fudge with unmixed sugar & corn starch.

❖ **What sugar do you recommend?** Granulated, everyday white sugar.

❖ **What's the difference between beet and cane sugar?** After processing, the two sugars are chemically the same.

Water: Tap water is fine.

Butter and Fats: affect the sugar's final chemical structure and determine the brittleness, hardness, and flavor and texture (chewy versus crunchy). Always use unsalted (or salted) stick butter instead of margarine when you are making candy. Margarine contains a lot of water and different amounts of fat that will make your candy inconsistent and butter gives the best taste. Do not use vegetable oil spreads or tub products -- so that candies will "set up" or have a nice brittle texture.

Acids:

Cream of Tartar: This is used as a stabilizer. It's acidic because made from dried wine on casks. If you don't have it, use freshly squeezed lemon juice, instead.
Lemon Juice: use freshly squeezed, not the lemon juice that comes in a small squeeze bottle. Fresh has a higher acidic content than bottled, and will affect your recipe.
Vinegar: Use white distilled vinegar. Other vinegars impart a taste and color.

Dairy: Cream - Use heavy cream. Because of its higher butterfat than milk, it gives the candy a smooth texture and mouthfeel.

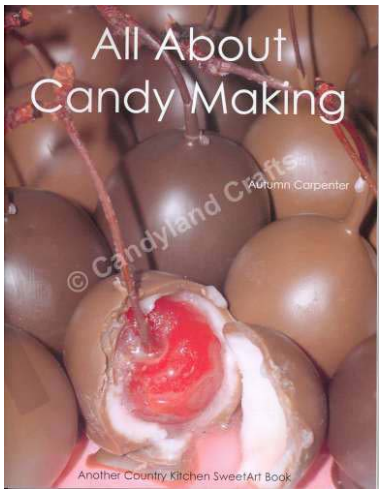
❖ **Can I substitute Evaporated Milk for Sweetened Condensed Milk?** In a nutshell, no ! Evaporated milk is used in many candy recipes. It is just that... milk that has had about half the water removed by evaporation. It's a very thick milk (be sure you shake the can) which contains milk proteins, milk fats, and water. This gives the semi-sweet chocolate a more milky chocolate taste when mixed.

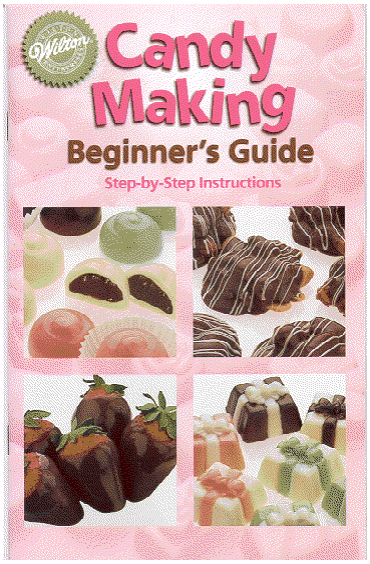
Flavoring: Candy oils can be used and are the preferred flavoring for candy. Because they are oil-based, it makes them strong and less likely to evaporate when subjected to heat or added to a hot mixture. Plus, they come in a wide spectrum of flavors. Some recipes call for extracts, which are fine to use but aren't as flavorful; they are alcohol based and evaporate easily that's why they are added at the end of the recipe, not during the cooking phase. Remember with candy oils, a little goes a long way. I use no more than 1/4-teaspoon per recipe and when using them instead of extracts, don't exchange the amounts one-for-one.

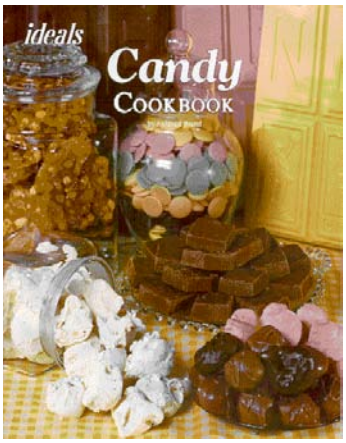
Coloring: For sugar based candy, food coloring is best to use. It is a liquid, which comes in little bottles available at any supermarket or from a **cake decorating store** (lots of colors). It's particularly suitable for mixtures that do not combine readily with liquid, such as chocolate or to be used in baking recipes.

Gelatin: If you add a gelatin, powdered or leaf, starch, pectin, or gum to the boiling mixture the sugar will gel and make products like jelly beans, Turkish delight, and licorices. The starch swells in water. The swelling forms a stress on the sugar crystal structure. Enough stress will change the basic chemical structure of the sugar at certain temperature ranges. When the syrup turns from clear to opaque the crystalline structure has disappeared and a jelly or gum has occurred. Gummy bears are also made from gelatins and sugars and poured into molds where the pieces set up and then are popped out of the molds.

Candy Making Book Ideas







List what you prepared at club meetings and at home. Be sure to show what you did complete the requirements.

Name of Recipe	Candy Type i.e. uncooked or hard-ball	Date you made it	Results

Web Links

www.baking911.com/candy_101.htm

www.wilton.com

www.landolakes.com/mealideas/holidaytips.cfm

www.cfs.purdue.edu/class/F&N202/animated_crystallization.ppt

www.leeners.com/candymaking.html

www.pattycakes.com

www.exploratorium.edu/cooking/candy

www.candylandcrafts.com/candy_making.html

www.sugarcraft.com

The follow resources were used to create this manual

www.baking911.com

Most pictures came from Google image section

Pictures on page 9 came from www.cocoatree.org & www.smm.org

Thermometer on page 3 came from www.smm.org

History of Chocolate came from www.karachocolates.com

by Rhea Lanting, M.S.,
Twin Falls County Extension Educator
Design and format
Hansi-Barbara Younkin
Twin Falls County Administrative Assistant

Candy Making Recipes

Unit I
Unit II
Unit III
Unit IV

University of Idaho Extension

Peanut Butter Cups

Ingredients:

¾ cup brown sugar
1 stick butter, melted
1 tsp. vanilla
1 – 1 pound box confectioner's sugar
2 cups peanut butter (natural type optional)

Directions:

Mix all ingredients with electric mixer until smooth. Roll out firmly onto a 10 x 15-inch jelly roll pan. Top with a 12 oz. bag of chocolate chips, melted. Chill. Cut into squares.

Mounds Balls

Ingredients:

1 can sweetened condensed milk
1 ½ pounds powdered sugar
2 tsp. vanilla
1 - 14 oz. package coconut
½ cup butter, melted
12 oz. chocolate chips
¼-1/2 cup paraffin wax
Whole almonds (if desired)

Directions:

Mix first five ingredients together. Chill for at least 2 hours. Meanwhile, put chocolate chips and paraffin wax in a double boiler. Melt slowly. Roll chilled mixture into balls. Dip into melted chocolate mixture. Place with toothpicks on wax paper to cool. Can put almonds on top before dipping. They taste great stored in the refrigerator.
Yield: 3-4 dozen.

Butterscotch Haystack

Ingredients:

2 – 6 oz. packages Butterscotch chips
1 1/2 cup salted cashew nuts
1 – 5 oz. can chow mein noodles

Directions:

Melt butterscotch bits in top of double boiler, stirring occasionally to blend. Meanwhile, combine nuts and chow mein noodles; place in pre-heated low oven (200 degrees). Add warmed nuts and noodles to melted butterscotch and stir until all are coated. Quickly drop with a dessert spoon onto waxed paper-lined baking sheet to form little haystacks. If nut and noodles are warmed, butterscotch will not set until all the stacks are spooned out. Makes 48 haystacks or about 1 pound.
Note: You can substitute 1 ½ cup salted peanuts for the cashews and add chocolate.

Rocky Road Candy

Ingredients:
1 package semi-sweet chocolate chips
1 can Eagle brand sweetened condensed milk
2 Tbsp. margarine
2 cups dry roasted peanuts
1 package miniature marshmallows

Directions:
In heavy saucepan over low heat melt chocolate chips, milk, and margarine; remove from heat. In large bowl combine nuts and marshmallows; pour over them the chocolate mixture and mix well.
Spread in waxed paper lined 13 x 9-inch pan and chill 2 hours. Remove from pan and peel off wax paper, cut in squares. This mixture can also be dropped by spoonfuls on waxed paper lined cookie sheets.

Peanut Butter Balls

Ingredients:
1 cup butter
2 cups peanut butter
1-1/2 pounds powdered sugar (3 cups)
Dipping chocolate or chocolate chips

Directions:
Mix first three ingredients well. Roll into balls and dip in melted chocolate. You can also press mixture into a buttered 9x13 inch baking dish and spread chocolate on top, then cut into bars.

Pretzel Candy

Ingredients:
1 (15 oz) bag small pretzels
1 (14 oz) bag Hershey's chocolate kisses
1 (14 oz) bag M&Ms plain chocolate candies

Directions:
Preheat oven to 275 degrees. On a greased cookie sheet, place as many pretzels as you can easily fit. Gently place a kiss on each pretzel. Bake for approximately 2 ½ minutes. Immediately after taking them out of the oven, place a M&M on top of the kiss and press down. Let cool.

Pralines

Ingredients:

1 cup granulated sugar
1 cup firmly packed brown sugar
½ tsp. baking soda
1 cup buttermilk
1/8 tsp. salt
2 Tbsp. butter or margarine
1-1/4 cup pecan halves
1 tsp. vanilla extract

Directions:

In a heavy 4-quart saucepan combine sugars, soda, buttermilk and salt. Stir over low heat until sugar is dissolved. Boil over moderate heat until candy thermometer registers 230 degrees F. (thread stage). Remove from heat. Add butter or margarine, nut meats and vanilla extract. Beat candy until it starts to become thick and sugary. Then place saucepan over low heat to prevent candy from becoming too hard before it is dropped into patties. Dip by tablespoonfuls onto waxed paper. Cool. Remove from paper and wrap individually in waxed or cellophane paper. Yield: about 15.

Tootsie Rolls

Ingredients:

2 tsp. margarine, melted
½ cup light corn syrup
3 cups powdered sugar
1 tsp. vanilla
¼ cup cocoa
¼ cup powdered milk

Directions:

Mix powdered sugar, dry milk, and cocoa together, this will be flaky. Add margarine, corn syrup, and vanilla. Blend with a fork until it will mold together. Knead until creamy. Roll and cut. Yield: 3 dozen.

Cream Cheese Mints

These mints can be frozen for up to one month

Ingredients:

1 - 3 oz. package cream cheese, softened
3 cups sifted powdered sugar
granulated sugar
½ tsp. peppermint extract
few drops food coloring

Directions:

In a small mixer bowl combine softened cream cheese and peppermint extract. Gradually beat in powdered sugar with electric mixer till mixture is smooth. (Knead in the last of the powdered sugar with your hands.) Knead in food coloring till evenly distributed.

Sprinkle small candy molds lightly with granulated sugar. Press about ½ to ¾ teaspoon cream cheese mixture into each mold. Remove from mold. (Or form mixture into 3/4 –inch balls. Dip each ball in granulated sugar, place on waxed paper. Flatten each with the bottom of a juice glass or with the tines of a fork. Let dry overnight. Makes 6 to 8 dozen molded mints or about 4 dozen patties.

Grandma's Vanilla Caramels

Ingredients:
1 cup sugar
¼ cup butter
1 tsp. vanilla
1 cup light Karo syrup
1 cup whipping cream

Directions:
Put all ingredients except vanilla into a heavy saucepan. Boil, stirring, until it reaches 245 degrees on candy thermometer. Remove from heat, beat in vanilla and pout into a well-buttered 8 or 9 inch square pan. When cool and firm, cut into squares and wrap in wax paper.

Penuche

Ingredients:
1 ½ cups granulated sugar
1/3 cup light cream
2 Tbsp. Butter or margarine
½ cup chopped pecans or walnuts
1 cup packed brown sugar
1/3 cup milk
1 tsp. vanilla

Directions:
Butter the sides of a heavy 2-quart saucepan. In it combine granulated sugar, brown sugar, cream, milk, and butter or margarine. Cook over medium heat, stirring constantly, till sugars dissolve and mixture comes to boiling. Continue cooking to 236 degrees (soft-ball stage), stirring only as necessary to prevent sticking (mixture should boil gently over entire surface.) Immediately remove from heat, cool without stirring, to lukewarm (110 degrees). Add vanilla. Beat vigorously about 10 minutes or till mixture becomes very thick and starts to lose its gloss. Quickly stir in nuts. Immediately turn into a buttered 8 x 4 x 2-inch or 9 x 5 x 3-inch loaf pan. Score into squares while warm. Cut when firm. Makes about 1 ½ pounds.

Marshmallow Eggs

Ingredients:
2 packages unflavored gelatin
1 cup cold water
2 cups sugar
¾ cup water
1 tsp. vanilla

Directions:
Mix gelatin in a large bowl with 1 cup water. Set aside. Bring sugar and ¾ cup water to a boil. Boil to soft ball stage-236 degrees Fahrenheit. Pour syrup into gelatin mixture beat about 20 minutes without stopping. Mixture should be thick and creamy. Add vanilla. Make flour forms in pan of flour with egg. Spoon mixture into flour forms. Leave until set. Dip in chocolate if desired.

Sea Foam Candy

Ingredients:

2 cups packed dark brown sugar
2 egg whites
½ cup chopped walnuts
¼ cup dark corn syrup
1 tsp. vanilla

Directions:

In a buttered heavy 2 quart saucepan combine sugar, corn syrup, and ¼ cup water. Cook and stir till sugar dissolves and mixture comes to boiling. Cook over **medium** heat to 250 degrees (hard ball stage), without stirring. Remove from heat. In a large mixer bowl beat egg whites with electric mixer until stiff peaks form. Gradually pour the hot syrup in a thin stream over beaten egg whites, beating constantly at high speed for 6 minutes. Add vanilla; beat 10 minutes more or till mixture forms soft peaks and begins to lose its gloss. Stir in nuts. Let stand 2 minutes. Drop by level teaspoonfuls onto a buttered baking sheet. Bake in a 300 degrees oven for 20 minutes. Makes 41/2 dozen.

Microwave Fudge

Ingredients:

1 pound powdered sugar, sifted
¼ cup milk
1 Tbsp. vanilla
½ cup cocoa
¼ pound butter or margarine
½ cup nuts

Directions:

Line a 8 x 8-inch glass baking dish with waxed paper. Blend sugar and cocoa in a 2-quart mixing bowl, add milk and butter or margarine. Cook on **high** for 1 minute 45 seconds. Remove bowl from oven and beat mixture until smooth. Add vanilla and nuts; stir until blended. Pour fudge into paper-lined baking dish. Refrigerate until firm. To serve, run a knife along the edge of the baking dish. Turn upside down on a plate. Remove wax paper. Place right side up on a cutting board and cut as desired. Makes 36 small pieces.

Fudge-Microwave (recommended for less experienced candy makers)

Ingredients:

1 ½ cups granulated sugar
12 oz. evaporated milk
12 oz. semisweet chocolate chips, 2 cups
1 tsp vanilla extract
2 cups mini-marshmallows, or 24 large marshmallows, quartered
¼ cup butter or margarine
¼ tsp. salt
1 cup walnuts or pecans, coarsely chopped

Directions:

Grease an 11 ½ x 7 1/2 –inch baking pan. Mix sugar, milk, butter, and salt in a 3-quart microwave-safe bowl. Cover loosely with waxed paper and microwave on high 3-4 minutes, until mixture begins to boil. Uncover; microwave on high 10 minutes longer, stirring every 3 minutes. Continue to microwave 4-8 minutes more, stirring every 2 minutes, until instant-read or microwave candy thermometer registers 234-240 degrees Fahrenheit. (soft-ball stage) or a small amount dropped into very cold water forms a soft ball that flattens when removed from water. Stir in marshmallows, chocolate chips and vanilla until marshmallows and chocolate is melted. Add nuts, stirring vigorously until mixture is creamy and slightly glossy. Spread in greased pan. Refrigerate about 2 hours until firm. Cut into 2 ½ x1 1/2 –inch bars. Yields: 25 pieces.

Fudge

From: Diane Lamere

Ingredients:

4 ½ cups sugar
1 cup butter
3 Tbsp. vanilla
1 large can evaporated milk
18 oz. chocolate chips
1 dash salt

Directions:

Use large stainless steel pot; cook sugar and canned milk to rolling boil for 6 minutes; stirring constantly; remove from heat.
Add butter, chocolate chips, vanilla, and dash of salt stir until mixed. Pour into buttered pan. Let stand 6 hours before cutting. Will keep a long time in cookie jar or a sealed container in a cool place.

Pistachio Swirl Fudge

From: 1,001 Home Ideas, February 1990

Ingredients:

1 package (3 oz.) cream cheese
1 can (14 ox.) sweetened condensed milk, divided
½ tsp vanilla
3 packages (6 oz. each) semi-sweet chocolate pieces
1 Tbsp sweet butter or margarine
½ cup coarsely chopped pistachio nuts

Directions:

Place cream cheese in small glass bowl of electric mixer or in a 1-quart microwave-safe bowl. Microwave on **High** (100%) 15 to 25 seconds or until cream cheese has softened. Add 2 Tbsp. of the sweetened condensed milk and the vanilla. Beat on low speed just until mixture is smooth; set aside.
Place remaining sweetened condensed milk, semisweet chocolate and butter in a 2 ½ quart microwave-safe bowl. Microwave on medium (50%) 2-3 ½ minutes or until mixture can be stirred smooth and is glossy, stirring twice.
Stir in pistachio nuts. Spread chocolate mixture evenly into prepared pan. Drop cream cheese mixture, by spoonfuls, over chocolate; swirl lightly over chocolate. Let stand until firm or place in refrigerator.
Cut into 25 even squares by making 4 lengthwise and 4 crosswise cuts equidistant from each other, then cut each square diagonally in half. Store in airtight container with waxed paper between layers. Keeps best if refrigerated. Yields: 50.

Fudge (recommended for 2nd year)

Ingredients:

¼ cup butter
¼ cup light corn syrup
2 cups sugar
½ cup milk
2 oz. unsweetened chocolate **or** 1-1/2 tsp. butter and 3 Tbsp. cocoa
1 tsp. vanilla
½ cup chopped nuts (optional)

Directions:

Boil the butter and corn syrup for a few seconds. Add sugar, milk, and chocolate. Cook until mixture comes to soft ball stage in cold water (234-238 degrees Fahrenheit.) Add vanilla and nuts. Beat until candy loses its gloss. Pour into buttered pan. Cool thoroughly and then cut into pieces.

White Fudge

Ingredients:

1 1/3 cups sugar
2/3 cup non-dairy liquid coffee cream
12 pound white chocolate coating (wafers or block chocolate, finely chopped)
½ cup butter or margarine
1/8 tsp salt
2 cups miniature marshmallows
½ tsp vanilla
dipping chocolate (optional)

Directions:

Excellent flavored, easy to make creamy white fudge. Cook first 4 ingredients without stirring to 238 degrees Fahrenheit.
Remove from heat and add the next 3 ingredients. Blend well
Pack into a 9-inch square pan. When partially cool, cut into squares.
Note: The fudge can be packed in pans and cut in squares or bars, or rolled in a log and sliced, then dipped in chocolate.
Makes about 64 pieces.

Velvet Fudge

Ingredients:

1 – 8 oz. package Velveeta cheese cut into chunks
1 cup butter

Melt in 2 ½ quart or larger glass saucepan in microwave on high for 21/2 to 3 minutes; stir after each 60 seconds. ADD

½ cup cocoa
2 pounds powdered sugar
2 tsp. vanilla
1 cup chopped nuts

Directions:

Mix thoroughly, should be smooth and pull away from sides of bowl slightly. Smooth into buttered 9 x 13-inch pan. Chill 1 hour before cutting. Store in refrigerator. Yield: 3 pounds.

Sour Cream Fudge

Ingredients:

2 cups sugar
2 oz. unsweetened chocolate, chopped
2 Tbsp. light corn syrup
1 tsp. vanilla
1 cup sour cream
½ tsp. salt
2 Tbsp. butter
½ cup chopped walnuts (optional)

Directions:

Combine sugar, sour cream, chocolate, salt and syrup in 2 quart saucepan. Cook over low heat, stirring until sugar dissolves. Heat to boiling, cover and cook 3 minutes. Uncover and cook to soft ball stage (238 degrees Fahrenheit) stirring frequently. Remove from heat and add butter and vanilla. Let cool to lukewarm (110 degrees Fahrenheit) without stirring, then beat vigorously until candy is creamy and has lost its gloss. Add walnuts if desired. Pour in buttered pan. Cut in squares when cool.

Old-Time Fudge

Ingredients:

2 cups sugar
2 squares (2 oz.) unsweetened chocolate, cut up
2 Tbsp. butter or margarine
1/2 cup coarsely chopped nuts
¾ cup milk
1 tsp. light corn syrup
1 tsp. vanilla

Directions:

Butter the sides of a heavy 2-quart saucepan. In it combine sugar, milk, chocolate, corn syrup, and dash salt. Cook and stir over medium heat till sugar dissolves and mixture comes to boiling. Continue cooking to 234 degrees (soft-ball stage), stirring only as necessary to prevent sticking (mixture should boil gently over entire surface). Immediately remove from heat: add butter or margarine but do not stir. Cool, without stirring, to lukewarm (110 degrees), for 35-40 minutes. Add vanilla and nuts. Beat vigorously for 7-10 minutes or till fudge becomes very thick and just loses its gloss. Immediately spread in a buttered 9 x 5 x3-inch loaf pan. Score into squares while warm. Cut when firm. Yields: 1 ¼ pounds.

Opera Fudge

Ingredients:

2 cups sugar
½ cup light cream
1 Tbsp. butter or margarine
½ cup milk
1 Tbsp. light corn syrup
1 tsp. vanilla

Directions:

Butter sides of a heavy 2-quart saucepan. In it combine sugar, milk, cream, corn syrup and ½ tsp. salt. Cook and stir over **medium** heat till mixture boils. Cook to 238 degrees (soft-ball stage), stirring only to prevent sticking (mixture should boil gently over entire surface.) Remove from heat. Add butter or margarine and vanilla but do not stir. Cool, without stirring, to lukewarm (110 degrees). Beat vigorously about 10 minutes or till mixture becomes very thick, starts to lose its gloss, and becomes creamier. Spread in a buttered 8 x 4 x 2-inch loaf pan. Core while warm, cut when firm. Makes about 1 pound.

Cherry Opera Fudge: Prepare Opera Fudge as above, except stir in ¼ cup chopped candied cherries before spreading into pan.

Almond Opera Fudge: Prepare Opera Fudge as above, except add ¼ tsp. almond extract with vanilla, stir in 1/3 cup chopped toasted almonds before spreading into pan.

Oven Caramel Corn

Ingredients:

2 1/3 cups brown sugar
1 cup light corn syrup
1 tsp. salt
1 tsp. butter flavoring
2 cubes of butter
8 quarts of popped corn

Directions:

Mix ingredients together in medium sauce pan and bring to boil. Boil 5 minutes. Pour over popped corn and mix until well coated. Pour on 2-3 large baking sheets and bake at 250 degrees Fahrenheit for 1 hour, stirring every 15 minutes. Cool and enjoy!

Cashew Brittle

From: Jo Ann Merrill

Ingredients:

2 cups sugar
1 cup butter
3 cups cashews, chopped
1 cup corn syrup, light
½ cup water
1 ½ tsp. baking soda, sifted

Directions:

Butter 2 large baking sheets; set aside.
In a saucepan, combine sugar, corn syrup, butter and water. Cook over medium-high heat to boiling; stirring constantly to dissolve sugar. Cook, stirring constantly, to soft crack stage.
Stir in chopped cashews and continue cooking, stirring frequently, to hard crack stage.
Remove from heat; quickly sprinkle in sifted baking soda over mixture, stirring constantly. Immediately pour mixture onto prepared pans. Cool completely then break candy into pieces. Store tightly covered.

Peanut Butter Brittle

Ingredients:

2 cups sugar
1 cup water
¼ tsp. salt
1 Tbsp. butter
1 cup light corn syrup
2 cups un-roasted Spanish or Virginia peanuts
¼ tsp. baking soda

Directions:

Combine sugar, corn syrup, and water; cook slowly, stirring until sugar is dissolved. Cook to soft-ball stage (238 degrees F.). Add peanuts and salt. Cook to hard-crack stage (290 degrees F.); stir constantly. Remove from heat; add butter and baking soda; stir slightly. Pour evenly over well-greased pans. Cool partially by lifting around edges with knife; when firm, turn entire slab. When cold break in pieces. Makes 2-3 dozen pieces.

Glazed Nuts

Ingredients:

1 ½ cups blanched whole almonds, cashews, raw peanuts or pecan halves
½ cup sugar
2 Tbsp. butter or margarine

Directions:

In a heavy 8-inch skillet combine nuts, sugar and butter or margarine. Cook over **medium** heat, stirring constantly for 6-8 minutes or till sugar is melted and golden in color and nuts are roasted. Spread nuts on a buttered baking sheet or aluminum foil: separate into clusters. Sprinkle lightly with salt. Cool. Makes about ½ pound.

Butterscotch

Ingredients:

½ cup brown sugar
¼ cup butter
½ cup granulated sugar
2 tsp. vinegar
½ cup water
½ tsp. vanilla
few grains salt

Directions:

Combine all ingredients except flavoring. Cover until mixture begins to boil. Boil without stirring to soft crack stage (275-280 degrees Fahrenheit). Add flavoring. Pour quickly into well-buttered pan. The candy should be in a thin sheet. Cool slightly and mark squares.

Twice Cooked Divinity

Ingredients:

2 ½ cups sugar
½ cup white corn syrup
½ cup water
1/8 tsp. salt
2 egg whites beaten stiff, not dry

Simmer, covered, for 45 minutes.
Increase heat and boil to 245 degrees F.
(String stage)

Beat ½ cooked sugar mixture into egg whites

Directions:

Continue cooking remaining syrup to 265 degrees F. (hard-crack). Add to egg white mixture and continue to beat. Add 1 teaspoon vanilla or other flavoring and 1 cup nuts (if desired). Beat until very stiff. Drop from spoon onto waxed paper or place in 9 x 9-inch square pan. Cut into desired size pieces. Store tightly covered. May be frozen for future use.

Popcorn Balls

Ingredients:
½ pound Popcorn
2/3 cup light corn syrup
2 cups sugar
2/3 cup boiling water
2 tsp. vinegar
2 tsp. cream of tartar
2 Tbsp. melted butter
2 tsp flavoring
1/8 tsp. baking soda
coloring (optional)

Directions:
Pop corn. Place in a large pan. Combine syrup, water, and vinegar. Heat to boiling. Add cream of tartar. Boil to soft crack stage (275-280 degrees Fahrenheit). Remove from heat. Add butter, baking soda, flavoring (may need more than recipe calls for depending upon flavor used), and coloring if needed. Pour over popcorn. Form into ball with buttered hands.

Oven Caramel *Corn*

Ingredients:
2 1/3 cups brown sugar
1 cup light corn syrup
1 tsp. salt
1 tsp. butter flavoring
2 cubes of butter
8 quarts of popped corn

Directions:
Mix ingredients together in medium sauce pan and bring to boil. Boil 5 minutes. Pour over popped corn and mix until well coated. Pour on 2-3 large baking sheets and bake at 250 degrees Fahrenheit for 1 hour, stirring every 15 minutes. Cool and enjoy!

Easy Caramel Popcorn

Ingredients:
3 quart popped corn
3 cups mixed unsalted nuts
1 cup firmly packed brown sugar
½ cup Karo light or dark corn syrup
½ cup margarine
½ tsp. salt
½ tsp. vanilla
1 tsp. baking soda

Directions:
In large shallow roasting pan combine popcorn and nuts. Place in 250 degrees Fahrenheit oven while preparing glaze. In heavy 2-quart saucepan stir brown sugar, corn syrup, margarine and salt. Stirring constantly, bring to a boil over medium heat. Without stirring, boil 5 minutes. Remove from heat; stir in vanilla and baking soda. Pour over warm popcorn and nuts; stir to coat well. Bake in 250 degrees Fahrenheit oven, stirring occasionally, 1 hour. Cool; break apart. Store in tightly covered container. Yields: 1 quarts.

Divinity

Ingredients:

½ cup light corn syrup
2 ½ cups sugar
¼ tsp. salt
½ cup water
2 egg whites
1 tsp. vanilla
1 cup nuts, coarsely chopped

Directions:

Combine corn syrup, sugar, salt and water in saucepan. Cook over medium heat, stirring constantly until dissolved. Cook, without stirring, to firm ball stage (248 degrees Fahrenheit) or until a small amount of syrup forms a firm ball which does not flatten when dropped into cold water. Just before syrup reaches 248 degrees Fahrenheit, beat egg whites with electric mixer or rotary beater until stiff but not dry. Pour about one half of the syrup slowly over egg whites, beating constantly. Cook the remainder of the syrup to soft crack stage (272 degrees Fahrenheit) or until small amount of syrup separates into threads which are hard but not brittle, when dropped into very cold water. Add syrup slowly to the first mixture, beating constantly. Continue beating with a wooden spoon. Add vanilla and nuts. Drop from tip of spoon onto waxed paper. Yields: A little over 1 pound.

Microwave Peanut Brittle

Ingredients:

1 cup raw peanuts
1 cup granulated sugar
½ cup white corn syrup
1/8 tsp. salt
1 Tbsp. butter
1 tsp. baking soda
1 tsp. vanilla

Directions:

Stir together first four ingredients in 1 ½ quart casserole dish. Place in microwave and cook on **high** for 5 minutes stirring well after 3 minutes. Add butter and blend well. Microwave 3 to 4-1/2 minutes more or until peanuts are golden brown. Add baking soda and vanilla, stir gently until mixture is foamy. Pour mixture onto greased platter or marble candy block and let cool. Quickly score candy which helps when breaking candy after cooling. Store in airtight container.

Peppermint Candy Canes

Ingredients:

2 cups sugar
½ cup light corn syrup
½ cup water
¼ tsp. cream of tarter
¾ tsp. peppermint oil
¾ to 1 tsp. red food coloring

Directions:

Blend together sugar, corn syrup, water and cream of tartar. Stir to dissolve the sugar. Without stirring, cook until the hard ball stage (262 degrees Fahrenheit).
Remove from heat and add peppermint oil; blend well. Divide into two portions. Add red food coloring to one-half of the candy. Pour candy onto two greased plates. Let cool. When cool enough to handle, pull each apart separately. Form into ropes and twist the white and red candy ropes together. Cut into desired length and shape into canes.

Microwave Butter Pralines

Ingredients:

2 cups granulated sugar
1 tsp. baking soda
1 cup buttermilk
¾ cup butter
1 tsp. vanilla
2 cups pecan halves

Directions:

Combine all ingredients, except vanilla and pecans in buttered large glass mixing bowl. Cover with plastic wrap. Microwave on **Medium** for 15 minutes. Stir and continue cooking on **Medium** for 13 to 15 minutes or until a soft ball forms in cold water. Add vanilla and beat until mixture forms soft peaks. Stir in pecans. Pour into buttered 2 quart (12 x 7) glass baking dish. Cool until firm; cut into pieces or drop by teaspoons onto waxed paper.

Microwave Almond Butter Crunch

Ingredients:

½ cup butter or margarine
1 ½ cups sugar
3 Tbsp. water
1 Tbsp. white corn syrup
4 - 1 1/8 oz. milk chocolate candy bars
½ cup chopped almonds

Directions:

Place 3 quart glass casserole dish in microwave. Heat butter on High for 1 ½ to 2 minutes or until melted; stir in sugar, water and corn syrup. Heat for 8-9 minutes or until mixture reads 290 degrees Fahrenheit (soft crack stage) when tested with candy thermometer **(do not use candy thermometer in dish while operating the microwave oven.)** Pour mixture onto well greased waxed paper, let stand ½ minute. Arrange chocolate on candy. As chocolate melts, spread evenly over candy. Top with nuts, pressing nuts into chocolate. Chill until chocolate is set; break into small pieces.

Microwave Caramel Corn

Ingredients:

1 cup brown sugar
½ cup butter
½ tsp. salt
¼ cup light corn syrup
½ tsp. baking soda
4-5 quarts popped corn

Directions:

In a large 3-4 quart glass measuring cup, mix up all ingredients except baking soda and popped corn. Cook in microwave until it boils. Cook 2 minutes or until mixture is smooth. Add baking soda and stir. Pour over popcorn and stir until corn is well coated. Put in brown paper bag or large mixing bowl and microwave for 1 ½ minutes. Take out and stir. Microwave for ½ minutes more. Take out and cool.

Microwave Macadamia Almond Brittle

Ingredients:

1 cup sugar
½ cup light corn syrup
¾ cup coarsely chopped macadamia nuts
¾ cup coarsely chopped almonds
1 Tbsp. butter or margarine
2 tsp. vanilla extract
1 tsp baking soda

Directions:

Combine sugar and corn syrup in a 1-1/2-quart microwave-safe bowl. Microwave on high for 5 minutes. Stir in nuts. Microwave on high for 4-5 minutes or until candy thermometer reads 300 degrees Fahrenheit (hard crack stage). Quickly stir in butter, vanilla and baking soda until mixture is light and foamy. When bubbles subside, pour onto a greased cookie sheet, spreading as thinly as possible with a metal spatula. Cool completely' break into pieces. Store in a airtight container with wax paper between layers. **Yield:** about 1 pound.

Note: This recipe was tested using a 700-watt microwave.

Toffee Butter Crunch

Ingredients:

½ cup nuts coarsely chopped
1 cup butter
1 cup sugar
3 Tbsp. water
1 Tbsp. light corn syrup
¾ cup semisweet chocolate chips
½ cup nuts, finely chopped

Directions:

Sprinkle the ½ cup coarsely chopped nuts on the bottom of a buttered 13x9x2 inch pan. Butter the sides of a heavy 2-quart saucepan. Melt butter then add sugar, water, and corn syrup. Cook over medium heat 270 – 280 degrees Fahrenheit (soft crack stage). Stir frequently; mixture should boil gently over entire surface. Watch carefully after 275 degrees Fahrenheit because the temperature will go up quickly. Remove from heat. Immediately turn into prepared pan. Wait for 2 to 3 minutes for toffee surface to firm, then sprinkle with chocolate pieces. Let stand for 1 to 2 minutes. When chocolate is softened, spread over toffee; sprinkle with the finely chopped nuts. Chill till firm; break into pieces. **Yield:** 1-1/2 pounds.

Chocolate Covered Pretzels

Ingredients:

1 - 12 oz bag chocolate chips
1 tbs. butter, melted
1 16 oz. bag pretzels

Directions:

Melt chocolate chips in microwave safe bowl with Microwave on 50% power and cook for 1 minute. Stir and cook for 30 seconds to 1 minute, depending on power of microwave. Stir until all chips are melted. If mixture is too thick, add 1 tsp. of melted butter and stir until mixed. You can dip pretzels one at a time, or pour the whole bag in and spoon out in clusters. Put dipped pretzels on wax paper and cool until set up. You can use half a bag of chocolate chips depending on how many pretzels you want to make. You can also use dipping chocolate in the place of chocolate chips.

Almond Roca

Ingredients:

2 cups (1 pound) butter
½ cup whole almonds
½ cup walnuts ground in a blender
2 cups sugar
1 large package chocolate chips

Directions:

Melt butter over high heat. Add sugar, stirring until it foams up well. Continue over high heat, adding almonds. Continue to cook, stirring continually until mixture is color of mahogany and sugar is all melted. (Take it off the heat for a moment if it starts to smoke.)

Stir as you take it off the heat permanently and pour quickly onto your biggest flat pan with sides. Tilt to spread evenly.

After 5 minutes, pour on chocolate chips. When they have melted a bit, spread them over the top of the hot mixture with a rubber scraper. Scatter ground walnuts over the top, shaking to distribute evenly.

Cool at least three hours at room temperature. Candy is thoroughly cooled when the chocolate is dull looking. Break into pieces and it's ready to eat.

Too-Easy Truffles

From Orange County Daily Pilot Newspaper

Ingredients:

1 ½ packages (12 oz.) baker's semi-sweet chocolate
3 cups powdered sugar
1 ½ tsp. vanilla
1 package (8 oz.) cream cheese, softened
ground nuts or baker's angel flake coconut, toasted

Directions:

Melt chocolate by placing in microwavable dish. Microwave on **high** 3-4 minutes or until almost melted, stirring after each minute.

Remove from microwave. Stir until completely melted.

Beat cream cheese until smooth. Gradually add sugar, beating until well blended. Add melted chocolate and vanilla; mix well. Refrigerate about 1 hour.

Shape into 1-inch balls. Roll in nuts or coconut. Store in refrigerator. Makes about 5 dozen truffles.

Chocolate-Dipped Strawberries

Ingredients:
1 pint strawberries with stems on
(preferably a long-stemmed variety),
washed and patted dry
4 oz. semisweet chocolate
1 Tbsp. cooking oil

Directions:
Spread strawberries on a working surface with wax-paper-covered tray nearby. You will also need one or two bamboo skewers or other picks.

In the top of a double boiler over hot water, melt the chocolate with the cooking oil, stirring to mix thoroughly. (The cooking oil will add a beautiful shine to the completed sweet.) Place melted chocolate near working surface, but keep chocolate warm.

One at a time, insert the skewer in the stem end of a strawberry and dip into the chocolate. Lift out and shake any excess chocolate back into the pot. Place the strawberry on the wax paper and continue with the remaining berries. The strawberries should set for about 10 minutes before being served.

Chocolate-dipped strawberries can be refrigerated for up to 24 hours, during which time the chocolate will harden. Yields: 6.

Coffee Truffles

From: Krups

Ingredients:
1 ¼ pounds bittersweet or semisweet chocolate, chopped
1 cup heavy cream
3 Tbsp. unsalted butter, softened
½ cup strong coffee, freshly brewed
¼ cup cocoa
2 Tbsp. finely ground coffee

Directions:
Melt chocolate in a double boiler. Heat on low. Stir occasionally until chocolate melts.

At the same time, bring the heavy cream to a boil.

Remove from stove and mix the melted chocolate and cream. Whisk in butter and brewed coffee. Stir thoroughly. Place mixture into a 10 x 7 or 9 x 9-inch pan lined with waxed paper. Chill for 2 to 3 hours or until firm to the touch.

When the chocolate mixture is chilled, sift the cocoa with the finely ground coffee on 16-inch waxed paper. Lift the chilled mixture from the pan, cut into squares and roll in the cocoa-coffee mixture. Serve immediately or store in refrigerator. Yields: 36.

Basic Hard Candy

Ingredients:

2 cups sugar
2/3 cup light corn syrup
¾ cup water
flavorings and colorings

Directions:

Blend sugar, corn syrup, and water in saucepan. Place over low heat, stirring until mixture boils. Now put in candy thermometer. Let candy boil without stirring. With pastry brush, wash off crystals which may have formed on sides of pan. When candy reaches 280 degrees Fahrenheit, lower heat. At 300 degrees Fahrenheit, remove pan from heat. Allow to stand until all bubbling slows down. Add coloring and flavoring. One teaspoon extract or a few drops of peppermint, wintergreen, or cinnamon is sufficient. (A favorite is anise with red coloring.) Add the coloring gradually until desired intensity is reached. Too much stirring will cause syrup to solidify into a hard sugary lump. Pour into molds, which have been lightly greased with spray shortening, and let stand until candy begins to thicken. Now insert sticks and let harden.

Suckers

This recipe has been adjusted for the elevation of 4200 feet

Ingredients:

2 cups sugar
2/3 cup light corn syrup
¾ cup water
Food coloring
1 tsp. flavoring of your choice

Directions:

Combine sugar, corn syrup and water. Place over low heat, stirring until mixture boils. Let candy boil without stirring. With pastry brush, wash off crystals which may have formed on sides of pan. Cook to 290 – 300 degrees Fahrenheit (hard crack stage) and remove from heat. Allow to stand until all bubbling slows down. Stir in flavoring and coloring.

Drop onto a stick about 3 inches apart or use sucker molds, which have been lightly greased with spray shortening on a greased cookie sheet.

Chocolate Halloween Mice

Ingredients:

4 (1 oz) semi-sweet chocolate baking squares
1 cup chocolate wafers, finely crushed
1/3 cup confectioners' sugar
24 sliced almonds (for ears)
1/3 cup sour cream
1/3 cup additional chocolate wafers, finely crumbled
24 silver dragees (small silver, edible balls for eyes)
12 licorice, strings (for tails)

Directions:

Melt the chocolate, and combine with sour cream. Stir in 1 cup of the chocolate wafer crumbs. Mix well. Cover and refrigerate until firm. Roll by level tablespoonfuls into balls. Mold a slight point at one end (the nose). Roll dough in confectioners sugar (for white mice), or in chocolate wafer crumbs (for dark mice0. On each mouse, place dragees in appropriate spot for eyes, almond slices for ears, and a licorice string for the tail. Refrigerate for at least two hours until firm.

Fondant

Storing the fondant overnight makes the candy smooth and creamy.

Ingredients:

2 cups sugar
2 Tbsp. light corn syrup or
1/3 tsp. cream of tartar
1½ cup water

Directions:

Butter the sides of a heavy 11/2 quart saucepan. In it combine sugar, the water, and corn syrup or cream of tartar. Cook and stir over **medium** heat till sugar dissolves and mixture comes to boiling. Cover and cook for 30-45 seconds. Uncover, cook to 240 degrees (soft-ball stage), for 20-25 minutes, without stirring (mixture should boil gently over entire surface).

Immediately pour mixture onto a platter. Do not scrape pan. Cool for 45-50 minutes or till candy feels only slightly warm to the touch; do not stir candy.

Using a spatula or a wooden spoon, scrape candy from edge of platter toward the center, then beat vigorously for 5-6 minutes or till fondant is creamy and stiff. Knead fondant with fingers about 2 minutes or till smooth and free of lumps. Form into a ball. Wrap fondant in clear plastic wrap: let ripen for 24 hours at room temperature. (Ripening is necessary for smooth and creamy fondant.)

Make Fondant Mint Patties or stuff pitted dates, prunes, or figs with fondant. Roll stuffed fruit in sifted powdered sugar, if desired. Or, dip molded fondant into melted chocolate. Makes about ¾ pound.

Fondant Mint Patties

Heat and stir ripened fondant in the top of a double boiler over hot, not boiling, water just till melted and smooth. Remove double boiler from heat but leave fondant over the hot water. Stir in 1 tablespoon softened butter or margarine, a few drops oil of peppermint or oil of cinnamon, and a few drops food coloring, if desired. Drop mixture from a spoon onto waxed paper, swirling tops. (If necessary, mint patties can be reheated and dropped again.) Makes about 3 dozen.

Chocolate Covered Cherries

Ingredients:

60 maraschino cherries with stems
3 Tbsp. light corn syrup
2 cups sifted powdered sugar
3 Tbsp. butter or margarine, softened
¼ tsp. salt
1 1/2 pounds candy-making milk chocolate, cut up

Directions:

Drain cherries thoroughly on paper toweling. Combine butter or margarine, corn syrup, and salt. Stir in powdered sugar; knead mixture till smooth (chill mixture if too soft.)

Shape 1 teaspoon of the sugar mixture around each cherry. Place coated cherries on a baking sheet lined with waxed paper: chill.

In a heavy 1 quart saucepan melt chocolate over low heat, stirring constantly. Holding by cherry stems, dip coated cherries, one at a time into chocolate. Spoon chocolate over cherries to coat. Place cherries on a baking sheet lined with waxed paper. Chill. Store in refrigerator in a covered container. Let candies ripen in refrigerator for one or two weeks before serving. Makes 60.

Saltwater Taffy

Ingredients:

2 cups sugar
2 Tbsp. butter or margarine
7 drops green food coloring (optional)
1 cup light corn syrup
¼ tsp. oil of peppermint (optional)

Directions:

Butter the sides of a 2 quart saucepan. In it combine sugar, corn syrup, 1 cup water, and 11/2 tsp. salt. Cook over medium heat, stirring constantly till sugar is dissolved. Continue cooking to 265 degrees (hard ball stage.) without stirring (mixture should boil gently over entire surface.)
Remove from heat, stir in butter or margarine. Add flavoring and food coloring, if desired. Pour into a buttered 15 x 10 x 1-inch pan. Cool about 20 minutes or till easily handled. Butter hands and pull candy till difficult to pull. Cut into fourths: pull each piece into a long strand about ½ inch thick. With buttered scissors snip taffy into bite-size pieces. Wrap each in clear plastic wrap. Store overnight. Makes 1 1/2 pounds.

Microwave Chocolate Caramels

Ingredients:

3 – 3 oz. squares unsweetened, baking chocolate
2 cups granulated sugar
½ cup butter or margarine
1 cup whipping cream
1 tsp. vanilla extract
1 cup packed brown sugar
1 cup dark corn syrup
Dash salt

Directions:

Butter surface of a 13 x 9-inch baking pan, set aside. Combine all ingredients except vanilla extract in 2 quarts glass bowl.

Microwave ingredients on **high**, uncovered for 4-5 minutes or until mixture starts to boil, stirring twice during cooking. Then, microwave on high, uncovered, for 16-18 minutes or until mixture reaches 250 degrees Fahrenheit (firm ball stage,) stirring once. Stir in vanilla. Pour mixture into prepared pan, cool completely (about 4 hours.) Cut into squares and wrap individually in small squares of waxed paper. Makes about 96 caramels ready to dip in chocolate.

Chocolate Pizza

Ingredients:

1 ½ cup semi-sweet chocolate chips
¾ cup miniature marshmallows
¾ cup crisp rice cereal
13 maraschino cherries, drained & cut in half
4 oz. White candy coating broken in squares
1 cup butterscotch chips
¾ cup chopped dry roasted peanuts
2 Tbsp. flaked coconut
¼ cup candy coated plain chocolate pieces or M & M's
1 tsp. vegetable shortening

Directions:

Draw 10-inch circle on parchment paper. Place on baking sheet. Set aside. In medium mixing bowl, combine chocolate and butterscotch chips. Microwave at 50% **Medium** or 4-6 minutes, or until chocolate melts and can be stirred smooth, stirring once during cooking. Stir in marshmallows, peanuts and crisp cereal. Mix well to coat. Spread mixture evenly to cover 10-inch circle. Sprinkle with coconut. Top pizza with maraschino cherries and chocolate pieces. Set aside.

In 2 cup measure, combine candy coating and shortening. Microwave at 50% Medium for 3-4 minutes, or until candy coating melts and can be stirred smooth, stirring once during cooking. Drizzle over chocolate pizza. Chill pizza for at least 1 – 1 ½ hours, or until set. Peel off parchment paper. Place on serving plate.

Three Chocolate Pizza

Ingredients:
1 pound (16 oz) Chocolate chip cookie dough, home made or store bought
2-3 ounces Dark baker's chocolate
2-3 ounces White baker's chocolate
2-3 ounces Milk baker's chocolate, wafers
1/16 teaspoon (one drop) Glucose
2 ounces Heavy Cream

Directions:
Lightly grease a 10-inch pizza pie pan and place cookie dough inside. Use your fingers to work it into a pizza shape. Once it is ready, bake it according to the recipe or manufacturer's instructions.

While the cookie is baking, use a chocolate shaver or vegetable peeler to shave several ounces of white chocolate to represent cheese. Set it aside until later.

In a double boiler melt 2 or 3 ounces of dark chocolate. Once dark chocolate is melted, add a drop of glucose (approximately 1/16 teaspoon) and two ounces of heavy cream. Stir well until it is fully blended and returns to a dark chocolate color. The glucose and cream will make this into a ganache that will stay soft even after cooling.

When the cookie is ready, remove it from the oven and allow to cool for several minutes. Note, that due to size, it may need to bake longer than small cookies, allow an additional 5 minutes for cooling. The cookies can be tested the same way as a cake – insert a toothpick and if it comes out clean it is done.

While the cookie is cooling, make a topping by dicing some milk chocolate wafers with a sharp knife. Be sure to use a cutting board to protect your counter and your knife.

Spoon the dark chocolate ganache "sauce" onto the cookie. Do not go all the way to the edges, to simulate a pizza crust. Sprinkle on your white chocolate "cheese" and your milk chocolate "topping". Use a pizza cutter to make slices before everything hardens. Let it cool fully before removing the slices, however slicing the pie while still warm allow for easier and neater serving later.

Holiday Logs

Ingredients:

1/3 cup soft butter or margarine
1 tsp. vanilla
1 pound powdered sugar
few drops flavoring
3 Tbsp. cream or evaporated milk
¼ cup light corn syrup
1-1/2 tsp. salt
red and green food coloring
1 pound candy caramels
1-1/2 cup chopped Pecans

Directions:

Fondant Center: Combine butter, syrup, vanilla and salt in large mixing bowl. Add powdered sugar; mix together with a fork, then knead with hands. Mixture will be very dry, but softens with kneading. Divide in thirds. Knead on board, blending green color and mint flavoring into one third, red color and desired flavoring into another third and other flavoring into the last third. (Adjust flavorings to taste). Form into rolls 1 inch in diameter. Cut fondant rolls in half crosswise to make 6 rolls. Wrap individually in waxed paper and refrigerate or freeze overnight.

Cream Nut Coating: Next day heat caramels and cream in double boiler. Dip chilled fondant rolls into warm caramel mixture, spooning to cover. (Work quickly so rolls don't soften). Immediately roll in chipped pecans, wrap in aluminum foil and chill. Store logs in refrigerator or freezer until ready to serve. Slice just before serving.

CANDY MAKING

SKILLS CHECKLIST

NAME: _____

UNIT I – MELT AND STIR

In this project you will be learning the basics in candy making and make melt and stir candies.

COMPLETED UNITS (X)

	Learn about kitchen safety and first aid for burns.
	Learn about different kinds of sugar used in candy making.
	Learn about different candy ingredients.
	Identify the different kinds of chocolates.
	Learn how to blend ingredients.
	Learn different melting techniques.
	Learn about candy storage.
	List candies made for Unit I with results/outcomes.
	Prepare four (4) different Melt and Stir items.
	Demonstration.

What you will exhibit:

- Completed Project Record Book (#91950).
- Completed Involvement Report (if required by your County).
- Completed Skills Checklist and list of Candies (#53541).
- Display four (4) pieces of suggested candy from the unit. Include recipe, neatly written on a 3x5 or 4x6 recipe card.

OR

- A Display 12”x16”x12” or Poster 14”x22” of something you learned in the project.

List candies made for Unit I as well as the Results/Outcomes of each recipe. For example, did the candy turn out the way you had planned? Did you need to do something different? Did you have any problems? You may add additional pages.

Date	Name of Recipe	Results/Outcome

Date	Name of Recipe	Results/Outcome

Date	Name of Recipe	Results/Outcome

Date	Name of Recipe	Results/Outcome

Date	Name of Recipe	Results/Outcome

CANDY MAKING

SKILLS CHECKLIST

NAME: _____

UNIT II – CREAM CANDIES

In this project you will be learning how to make cream candies.

COMPLETED UNITS (X)

	Be familiar with the principles taught in Candy Making Unit I.
	Learn the history of candy.
	Learn about the properties of corn syrup and its uses in candy making.
	Learn how to ready the candy thermometer (regular and microwave) and know the terms found on the thermometer up to hard ball. Be able to identify these terms using the cold water test.
	Learn about altitude adjustments.
	List candies made for Unit II with results/outcomes.
	Prepare four (4) different Cream Candies.
	Demonstration.

What you will exhibit:

- Completed Project Record Book (#91950).
- Completed Involvement Report (if required by your County).
- Completed Skills Checklist and list of Candies (#53542).
- Display four (4) pieces of suggested candy from the unit. Include recipe, neatly written on a 3x5 or 4x6 recipe card.

OR

- A Display 12”x16”x12” or Poster 14”x22” of something you learned in the project.

List candies made for Unit II as well as the Results/Outcomes of each recipe. For example, did the candy turn out the way you had planned? Did you need to do something different? Did you have any problems? You may add additional pages.

Date	Name of Recipe	Results/Outcome

Date	Name of Recipe	Results/Outcome

Date	Name of Recipe	Results/Outcome

Date	Name of Recipe	Results/Outcome

Date	Name of Recipe	Results/Outcome

CANDY MAKING

SKILLS CHECKLIST

NAME: _____

UNIT III – Hard Crack Candies

In this project you will be learning how to make hard crack candies.

COMPLETED UNITS (X)

	Be familiar with the principles taught in Candy Making Units I & II.
	Know ALL stages of candy making on the thermometer and be able to identify these terms using the cold water test.
	Review altitude adjustments.
	Learn skills for specialized items.
	Learn about altitude adjustments.
	List candies made for Unit III with results/outcomes.
	Prepare four (4) different Hard Crack Candies.
	Demonstration.

What you will exhibit:

- Completed Project Record Book (#91950).
- Completed Involvement Report (if required by your County).
- Completed Skills Checklist and list of Candies (#53543).
- Display four (4) pieces of suggested candy from the unit. Include recipe, neatly written on a 3x5 or 4x6 recipe card.

OR

- A Display 12”x16”x12” or Poster 14”x22” of something you learned in the project.

List candies made for Unit III as well as the Results/Outcomes of each recipe. For example, did the candy turn out the way you had planned? Did you need to do something different? Did you have any problems? You may add additional pages.

Date	Name of Recipe	Results/Outcome

Date	Name of Recipe	Results/Outcome

Date	Name of Recipe	Results/Outcome

Date	Name of Recipe	Results/Outcome

Date	Name of Recipe	Results/Outcome

CANDY MAKING

SKILLS CHECKLIST

NAME: _____

UNIT IV – Specialized Candy

In this project you will be learning how to make specialized candy.

COMPLETED UNITS (X)

	Be familiar with the principles taught in Candy Making Units I, II & III.
	Learn to melt dipping chocolate.
	Learn skills for specific candy centers.
	List candies made for Unit IV with results/outcomes.
	Prepare four (4) different Specialized Candies.
	Demonstration.

What you will exhibit:

- Completed Project Record Book (#91950).
- Completed Involvement Report (if required by your County).
- Completed Skills Checklist and list of Candies (#53544).
- Display four (4) pieces of suggested candy from the unit. Include recipe, neatly written on a 3x5 or 4x6 recipe card.

OR

- A Display 12”x16”x12” or Poster 14”x22” of something you learned in the project.

List candies made for Unit IV as well as the Results/Outcomes of each recipe. For example, did the candy turn out the way you had planned? Did you need to do something different? Did you have any problems? You may add additional pages.

Date	Name of Recipe	Results/Outcome

Date	Name of Recipe	Results/Outcome

Date	Name of Recipe	Results/Outcome

Date	Name of Recipe	Results/Outcome

Date	Name of Recipe	Results/Outcome