

4-H Foods Project

Plan I

Division 5

let's bake

—*pies*

—*cakes*

—*bread*s

by

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4-H Foods Project

Plan I

Division 5

Your selection of Plan I suggests that you are interested in learning more about baking. You have practiced baking cookies, quick breads, yeast bread and simple cakes. In this project we will repeat all of the things we did in preparing family and guest meals. In addition we will learn to make angel, sponge, and chiffon cakes and to bake pies. All are excellent desserts, and it's fun to make them if you do it well.

Requirements for completion of the project

1. Make at least two angel or sponge cakes.
2. Make at least one chiffon cake.
3. Make pie pastry until you feel satisfied with your results.
4. Make two two-crust pies.
5. Make two one-crust pies.
6. Make one cracker-crust pie.
7. Make sweet yeast bread on at least two occasions.
8. Make a file or notebook of your recipe collection.
9. Learn to judge the products you bake.
10. Keep neat, accurate records in the food record book of all dishes and meals that you prepare.
11. Outline and give a pie making demonstration at the fair.

Requirements for exhibit

1. A complete record book.
2. A display of your recipe collection.
3. Show by notebook, poster or chart how desserts fit into meal plans.
4. One unfrosted angel or sponge cake.

Pointers for Handling Ingredients and Utensils for Butterless Cakes

Sift the flour before measuring it. Take care that you do not shake the cup or tap it on the table when you are filling it. The coarseness of the sugar seems to make little difference. Sift the sugar before you measure it, too.

Eggs kept at room temperature for an hour or two will beat easily. Take care in separating the whites from the yolks. Even the smallest amount of yolk in the white will ruin its beating qual-

ity. Add cream-of-tartar and salt during the first part of the beating period. Do the beating as rapidly as possible, either with an electric mixer or a large, strong hand-beater. Continue beating until the foam will just stand in peaks. Overbeating causes holes to develop in the cake during the baking. The salt makes the egg whites beat better, and the acid of the cream of tartar helps to make the eggs tender and the cake whiter.

Add part of the sugar rapidly to the egg whites and continue beating for $\frac{1}{2}$ minute. Mix the flour with any remaining sugar by sifting them together several times. Add the sifted flour-and-sugar mixture by a folding motion.

Bake in an ungreased tube pan. You may rinse the pan in water or dust it lightly with flour if you wish. Test doneness by pressing the surface of the cake lightly with your finger. No impression should remain when the cake is done. Cool the cake away from drafts. Invert the pan until the cake is thoroughly cool. This takes about 1 hour.

Angel Food Cake

In your experimenting with angel cakes you might try some of these suggestions. For parties, angel cakes rate "tops." There are many recipes. Here is a new one you will enjoy making and be proud to serve.

DeLuxe Angel Cake

1 c sifted cake flour	$1\frac{1}{2}$ t cream of tartar
$1\frac{1}{2}$ c sugar	1 t vanilla or
$\frac{1}{2}$ t salt	$\frac{1}{2}$ t vanilla and
$1\frac{1}{2}$ c egg whites (10-12 eggs)	$\frac{1}{4}$ t almond extract.

Sift flour and $\frac{1}{2}$ cup of sugar together four times.

In a large bowl beat egg whites with the salt to a coarse foam.

Add cream of tartar and flavoring and continue beating until egg whites just begin to pile up in soft peaks.

Add remaining sugar in two portions, sprinkling it over the surface of the whites.

Beat each portion gently. The batter will be moist, glossy, and fine-textured.

Fold the flour-sugar mixture into the meringue in four portions. This requires about 15 fold-over strokes each time. Fold an additional 10 strokes. Pour the mixture into an ungreased 4 by 10 inch tube pan. Pass a knife through the batter, circling the pan twice. Drop once on the table from one inch height.

Bake in a preheated oven at 350° for about 40 minutes. Test by pressing the surface lightly with the finger. No impression will remain when the cake is done.

Invert the pan to cool thoroughly—about 1 hour.

Chiffon Cake

Chiffon cake is not a sponge cake, not a butter cake. It is a

tender, airy combination of the two. It cuts easily and it keeps well. The method of mixing is so different that you will need to follow the directions quite carefully to be successful.

Orange Chiffon Cake

Measure and sift together in a mixing bowl:

2 $\frac{1}{4}$ c sifted cake flour	Make a well and add in order:
1 $\frac{1}{2}$ c sugar	
1 t salt	$\frac{1}{2}$ c cooking oil
3 t double action baking powder	5 unbeaten egg yolks
	Grated rind of 2 oranges

Juice of 2 medium-sized oranges plus water to make $\frac{3}{4}$ cup.

Beat with a spoon until smooth

Measure into a large mixing bowl:

1 c egg whites (7 or 8 eggs)
$\frac{1}{2}$ t cream of tartar

Whip until egg whites form very stiff peaks. They will be much stiffer than in your angel food cakes.

Gradually pour egg yolk mixture over the beaten egg whites, gently folding with a rubber spatula just until blended. Do not stir.

Pour into ungreased 4 by 10 inch tube pan.

Bake for 65-70 minutes in a 325° oven until the top springs back when you touch it lightly with your finger. Invert the pan to cool.

Sponge Cake

This hot water sponge cake is not a true sponge because it has baking powder in it. This recipe makes a large, feathery cake from only four eggs. You may have another recipe that you prefer making.

Hot Water Sponge Cake

4 eggs	$\frac{2}{3}$ c boiling water
2 t cold water	2 c cake flour
1 $\frac{1}{2}$ c sugar	1 t baking powder
$\frac{1}{2}$ t salt	1 t vanilla or lemon juice
$\frac{1}{2}$ t cream of tartar	

Separate the eggs. Beat the egg yolks and cold water together.

Gradually beat in the sugar and continue beating until thick and lemon colored.

Gradually add the boiling water.

Sift the flour with the baking powder.

Whip the egg whites and salt to a fluffy foam. Add the cream of tartar and beat until egg whites stand in glossy peaks.

Fold the egg whites into the yolk mixture.

Pour into a tube pan, ungreased. Bake in a pre-heated 325° oven for one hour.

Invert the pan until the cake is cool.

Altitude changes:

In parts of Idaho it may be necessary to make slight changes for altitude when you are baking. These butterless cakes require less change than rich butter cakes. If you live more than 7000 feet above sea level, decrease the sugar by 2 tablespoons for angel and sponge cakes. If you live at an altitude of more than 5000 feet, use $1\frac{1}{2}$ teaspoons baking powder for the chiffon cake. Do not change the oven temperature unless your elevation nears 10,000 feet; then increase them 10 degrees.

Points To Consider in Judging Sponge - Type Cakes

General Appearance

Level or slightly rounded top, free from humps or cracks.

Volume light, weight in proportion to size—nearly twice its original size.

Surface delicate brown with tender, thin rough crust, free from stickiness or excessive sugar.

Inside appearance

Tender, fluffy, moist texture.

Feathery. Springs back when pressed lightly. Free from toughness.

Fine-grained with even-sized holes throughout. Free from tunnels.

Thin cell walls.

Breaks easily; flaky when torn apart.

Color uniform; natural color of ingredients used.

Flavor, odor, and eating quality

Flavor and odor delicate and agreeable.

Free from excessive taste of egg, acid, or flavorings.

Tender when eaten; free from doughiness or toughness.

Pastry Pointers

How to Make Pie Pastry for America's Favorite Dessert is a Technique Every Girl Has to Learn to Rate the Title of "Good Cook."

A good pastry is tender, flaky, and golden brown color around the edge with a slightly lighter brown near the center. A good pastry has a rough, blistered surface rather than a smooth firm one.

Excess fat makes a crumbly pastry.

Excess water makes a tough pastry. Have lard at room temperature so it is soft. This prevents overuse of water.

A basic proportion is $\frac{1}{4}$ c. lard or $\frac{1}{3}$ c. vegetable shortening and $\frac{1}{2}$ t. salt to each cup of flour. Allow $1\frac{1}{2}$ c. flour for a two-crust pie and 1 cup for a large one-crust pie.

The American Meat Institute recommends this method for experienced as well as inexperienced pie pastry makers. This variation of the conventional method promises extra flakiness.

Ingredients:

1 $\frac{3}{4}$ c sifted all-purpose flour	1/2 c lard
1 t salt	1/4 c water.

Directions:

Sift flour and salt together
Place 1/2 c flour-salt mixture in bowl
Add 1/2 c lard (room temperature) to bowl
Measure water

Using a spoon, blend the 1/2 c lard with the 1/2 c flour until no dry particles of flour remain—1 to 2 minutes. Add the rest of the flour-salt mixture; cut in with edge of spoon until flour fat particles start getting bigger—1 to 2 minutes.

Add water all at once. Stir just until a ball of dough is formed and the bowl is clean—1 to 2 minutes. Form into two balls with your hands. Roll each ball separately to 1/8" thickness. Roll dough from center to edge, lifting rolling pin each time the edge is reached. A lightly floured pastry cloth and stocking-covered rolling pin will make this step easy. Do not turn the dough over. Fold the dough in half. Lift carefully with both hands to place in ungreased pie tin for single or double pie.

For single crust:

Fit the dough gently into ungreased pie tin by pressing into place rather than stretching. Leave 1/2 inch all around. Fold this edge under. Flute by placing the tip of the forefinger of the left hand on the outside edge of the pastry rim and press against the inside edge with the thumb and forefinger of the right hand. Prick the crust generously with a fork to prevent "blistering." Bake at 450° for 12 to 15 minutes.

For double crust:

Fill the pie with the prepared filling. Moisten the rim with the finger dipped into water. Put the top crust in place by wrapping around the rolling pin and lifting on the filling. Press firmly to lower crust. Flute the edge or pull extension of lower crust over the top of the top edge to prevent bubbling over in the oven. Cut several gashes in the top crust to allow the steam to escape. Bake at 450° for about 10 minutes and then at 350° until the filling is done.

Pastry Mixing:

Pastry made in the conventional way is an art many beginners find difficult. You might like to try the other methods to see if you are successful with any one of them. Anyway, it is good to know about these new ones.

In method No. 1 the water tends to be uniformly distributed.

1. Take out $\frac{1}{2}$ c flour sifted with salt (for a 3 c recipe). Mix with the water to form a paste.
2. Cut the lard into the rest of the flour-salt mixture until the fat is broken into pieces about the size of a pea.
3. Stir in the flour paste to form a dough.

In method No. 2 hot water is used.

1. Pour boiling water over the fat and beat until creamy.
2. Sift flour-salt mixture gradually into the fat-water mixture.
3. Stir only until a ball of dough is formed.
4. Chill thoroughly before rolling.

Pie-Crust Mix:

You may make up this mix at any time. Store it in a tight container in a cool place.

7 c sifted all-purpose flour
5 t salt
2 c lard

Sift flour and salt together.

Cut lard into flour until the crumbs are coarse and granular.

Use $1\frac{1}{2}$ c mix with approximately $2\frac{1}{2}$ T water for each crust.

Proceed as for plain pastry.

Crumb Crusts:

Cereal and crumb crusts offer good flavor, ease in preparation, and welcome variations. For crumb crust, roll ten sweet crackers, cookies, or graham crackers to crumbs. Mix with $\frac{1}{4}$ c sugar (either white or brown). Add $\frac{1}{3}$ c melted butter and blend thoroughly. Press onto bottom and sides pie pan. Chill.

Variation No. 1: Substitute $\frac{1}{4}$ lb. chopped semi-sweet chocolate for the sugar. Bake the crust at 325° for 12 minutes. Cool.

Variation No. 2: Add $\frac{1}{2}$ t cinnamon to the crackers.

Meringue:

Meringue long has been a mystery even to the experienced pie-maker. Common troubles are shrinkage, weeping, toughness, beading and stickiness. For tender, moist meringue try this method.

Directions: Have the egg whites at room temperature. Add a pinch of salt for each white. Beat until the foam forms rounded peaks when you lift the beater. Then

gradually add two tablespoons of sugar for each egg white and continue beating until meringue is stiff but not dry. Spread the meringue over the hot filling to meet the edge of the pie-shell rim at every point to prevent shrinkage. Bake at 425° for 4 to 4½ minutes. Leakage and beading are caused by long cooking. When the meringue is baked to a nice, golden brown color, put the pie on a rack to cool. Keep it away from drafts to avoid weeping. A thin, sharp knife dipped in hot water will cut the meringue easily.

Apple Pies:

You will really impress your mother when you show her that you can bake an apple pie in only 15 minutes. Here is a new recipe:

Quick Apple Pie

4 or 5 apples (about 2 lbs.)	1/8 t salt
1 c sugar	1 T lemon juice
1/4 t cinnamon	1 T melted butter.
2 T flour	

Turn the oven to 350°.

Grate the peelings from the apples into a bowl. Cut the apples into 16ths and place them in a baking dish. Mix sugar, cinnamon, flour, salt and apple peel. Add to the apples. Dribble with lemon juice and butter. Cover tightly and steam in the oven until the apples are soft but not done. While the apples steam make the pastry and fit it into the pie pan. Spoon the hot apples into the crust, turn the oven to 450°, cover with a top crust, and press edges firmly. Slash the top for steam escape. Bake at 450° for 15 minutes.

Cream Pies:

You can use this basic filling in plain or in crumb pastry shells. Fresh berries, sliced bananas, toasted coconut, or almond extract offer a few ideas for additions to vary the flavor. You may top with meringue or whipped cream.

Cream Pie Filling

1/2 c sugar	3 eggs separated
2 1/2 T cornstarch	1 t vanilla
2 c hot milk	1 T butter.
1/4 t salt	

Thoroughly mix the sugar, cornstarch and salt. Add to the hot milk and cook over moderate heat until thickened. Stir constantly. Beat the egg yolks slightly and gradually stir in. Add the milk mixture slowly. Heat thoroughly. Add 1 t. vanilla and 1 T butter. Pour hot into shell and top with meringue, or pour into shell after cooling and top with whipped cream.

Chiffon Pies:

You can be as cool as your pie when you serve this gelatine fluff in a crumb crust. Make the crumb crust from vanilla wafers, graham crackers,ingersnaps, or chocolate cookies.

Lemon Chiffon Filling

1	envelope gelatin	$\frac{1}{4}$ c	lemon juice
$\frac{1}{4}$ c	cold water	$\frac{1}{4}$ t	grated lemon rind
4	egg yolks	$\frac{1}{2}$ c	egg whites
$\frac{1}{2}$ c	sugar	$\frac{1}{4}$ c	sugar.
$\frac{1}{4}$ t	salt		

Soak the gelatin in the cold water.

Beat the egg yolks with the sugar and salt until thick.

Add the lemon juice and rind. Cook over boiling water until thickened. Stir in gelatin. Chill until syrupy. Beat the egg whites with $\frac{1}{4}$ c sugar until they stand in peaks. Fold into the egg yolk mixture. Pour into pie shell. Chill.

Points To Consider In Judging Two-Crust Pies**General appearance**

Regular shape free from bulges.

Uniformly browned crust free from cracks.

Flaky, blistered appearance.

Inside characteristics

Crust tender; free from tendency to crumble.

Bottom crust not soaked.

Flaky.

Filling of well-cooked fruit thickened enough to prevent running over the plate; free from pastiness

Flavor and eating quality

Crust—rich, blended flavors free from greasiness or rancidity.

Filling—characteristics of ingredients used. Free from excessive sweetness.

No taste of uncooked starch.

Additional Points In Judging One-Crust Pies**Meringue**

Slightly browned, rough surface; free from weeping or beading.

Adheres to crust.

Tender and moist. Free from toughness or stickiness when cut.

Filling

Smooth consistency.

Stiff enough to prevent running but free from pastiness or rubberiness. Natural color and flavor of the ingredients used.

Sweet Rolls

Here is a basic dough to make raised doughnuts for Hallowe'en, hot cross buns for Easter, and Swedish tea rings for Christmas. The varieties are as unlimited as your imagination. Ask your home demonstration agent for additional suggestions. Magazines and cookbooks will give you other ideas.

Sweet Yeast Dough

2 cakes yeast	2 t salt
$\frac{1}{4}$ c lukewarm water	2 eggs
1 c milk	1 t grated lemon rind
$\frac{1}{4}$ c shortening	5 c sifted enriched flour
$\frac{1}{3}$ c sugar	(about).

Soften yeast in lukewarm water. Scald milk. Add shortening, sugar, and salt. Cool to lukewarm. Add 2 cups flour. Mix well. Add enough more flour to make a soft dough. Turn out on lightly floured board and knead until satiny. Place in greased bowl. Cover and let rise until doubled. When light, punch down. Shape into tea rings, rolls or coffee cakes. Let rise until doubled. Bake at 375° 20 to 30 minutes for coffee cakes, 20 to 25 minutes for rolls.

Yield: Two 12-inch tea rings

Three and one-half dozen rolls.

Here are two family favorites you might try:

Sugar Crunch Coffee Cake

$\frac{1}{2}$ recipe sweet yeast dough	$\frac{1}{4}$ t salt
French filling:	$\frac{1}{4}$ t cinnamon
$\frac{1}{4}$ c sifted flour	2 T butter
$\frac{1}{4}$ c brown sugar	2 T chopped nuts.

Blend flour, sugar, salt and cinnamon. Cut in butter and add nuts. Mix well. When dough has risen, punch down and let rest 10 minutes. Roll out rectangular sheet $\frac{1}{4}$ inch thick and 6 inches wide. Cut lengthwise in two equal strips. Sprinkle $\frac{1}{2}$ the French filling down center of each strip. Seal edges of dough over filling. Twist two strips together. Form strips into oval on greased baking sheet. Seal ends. Let rise until doubled in bulk ($1\frac{1}{2}$ hrs.). With sharp knife or scissors slash tops of twisted strips. Bake at 375° about 25 minutes. You may glaze or frost the top, if you wish.

Honey Twist

For one twist use $\frac{1}{3}$ recipe of sweet yeast dough.

$\frac{1}{4}$ c butter (melted)	1 egg white
$\frac{2}{3}$ c confectioner's sugar	2 T honey, warmed.

Beat the egg white. Gradually beat in sugar, butter, and honey to make a thick sauce. When dough is light, form into a long roll about 1 inch in diameter. Coil the roll into a greased cake pan, beginning at the outside edge and covering the bottom. Brush with honey topping. Let rise until double in bulk and bake at 375° for 20 to 25 minutes.

Recipe Collection

This year you will collect many recipes worth keeping. A notebook may serve for your collection, but you will find a recipe file more practical and easier to use. If you can, get 4 by 6 cards and a wooden or cardboard box of the right size to hold them. You may write or type the recipes or paste a clipping to the card. File or arrange the recipes alphabetically under suitable headings.

COOPERATIVE EXTENSION SERVICE IN AGRICULTURE AND HOME ECONOMICS
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