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DOMESTIC SCIENCE IN THE COUNTY HIGH SCHOOL.

by

Olive R. McKeeman.



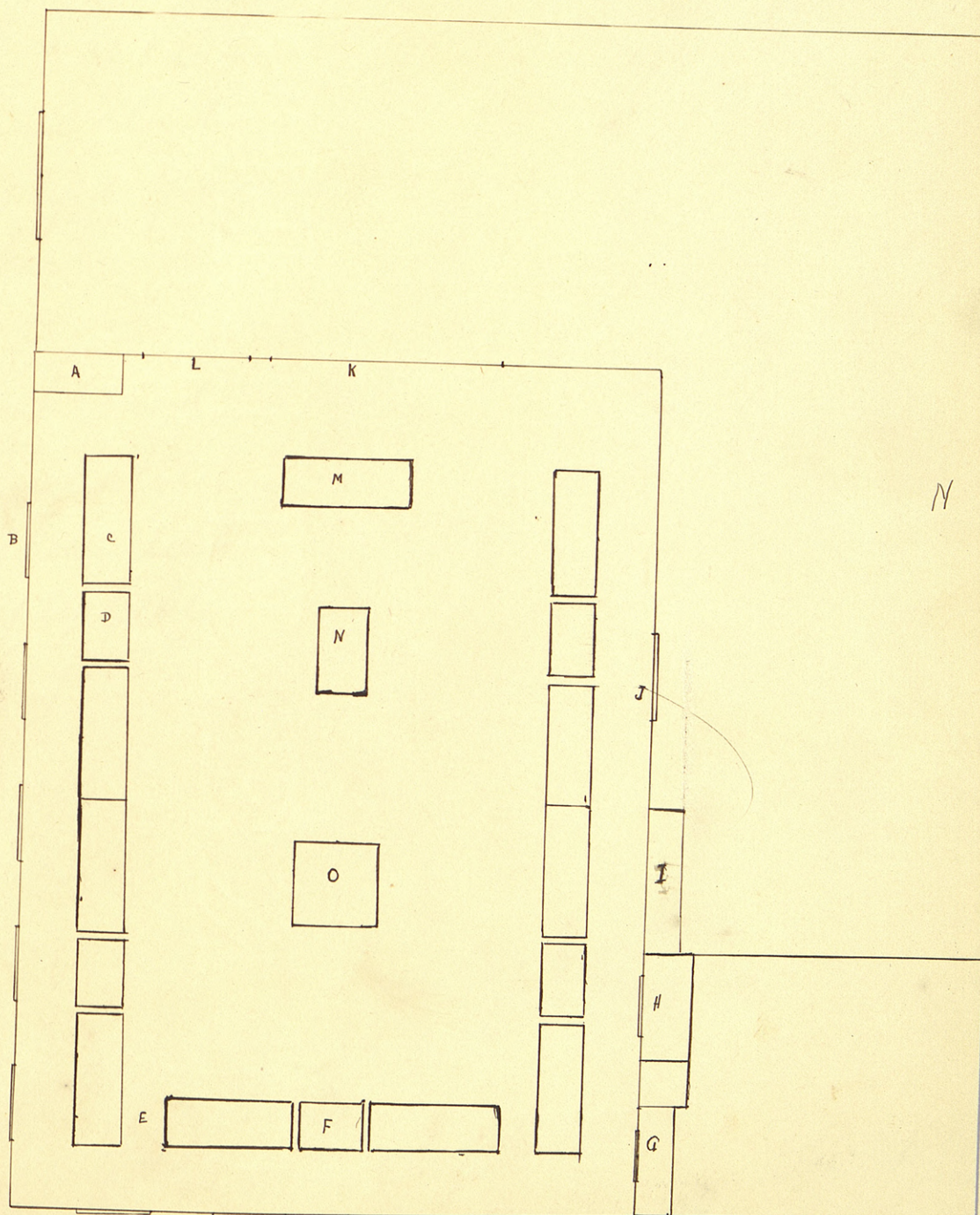
LABORATORY DRAWING.

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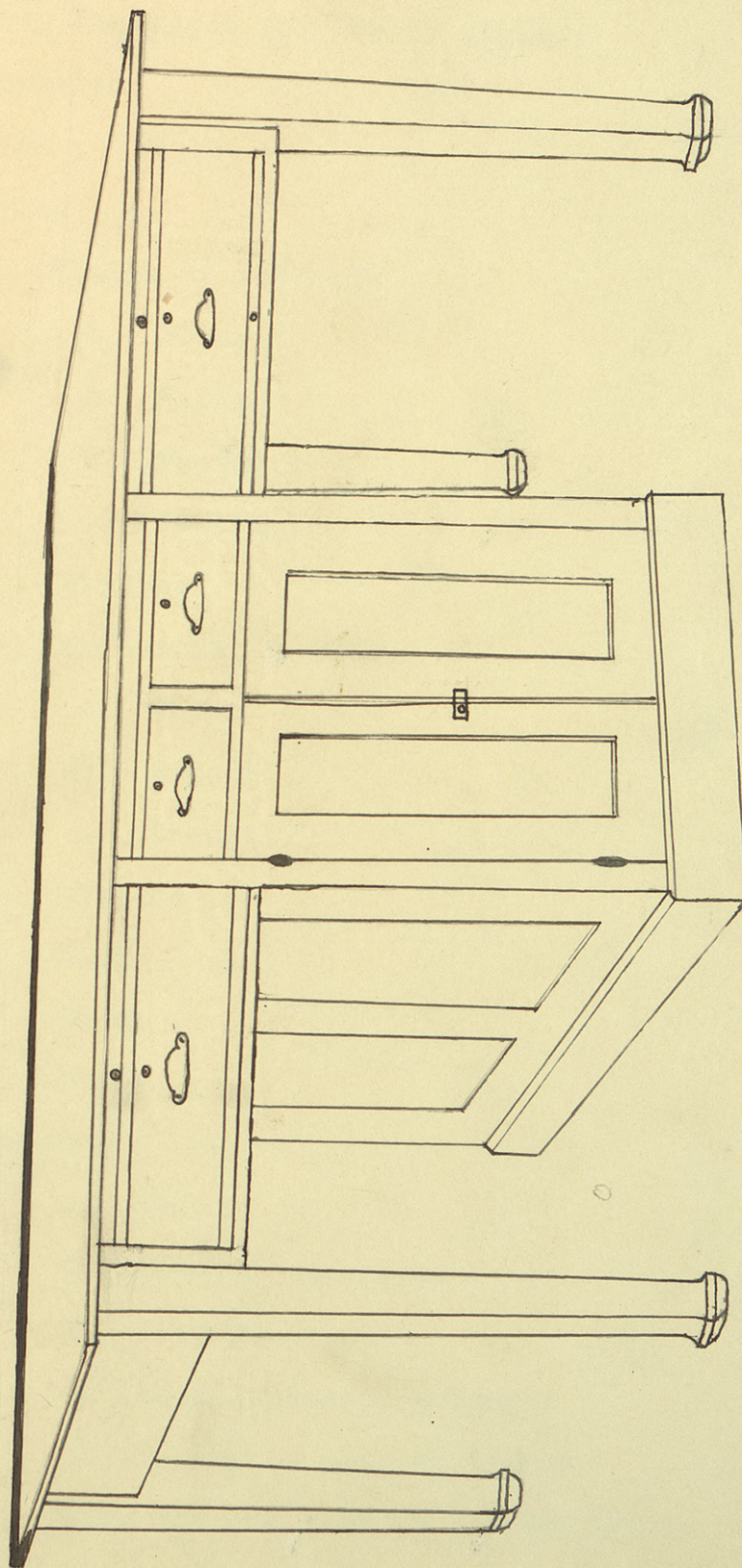


- A Refrigerator
- B Windows
- C Tables
- D Sinks 34 in. x 26 in.
- E Space between desks 2 ft.
- F Sink 32 x 26 in.
- G China closet.
- H Supply cupboard
- I Locker room
- J Door
- K Blackboard 11 feet.
- L Utensil closet.
- M Teacher's desk.
- N Supply table
- O Dining table.



DESK DRAWING

1408





## OUTLINE.

## I. Laboratory (equipped for twenty girls.)

## A. Location.

## B. Size

## C. Plan.

## 1. Finish of interior

## a. Floor

## b. Walls

## c. Woodwork

## c. Ceiling.

## 2. Windows

## 3. Cupboards

## a. China

## b. Supply

## c. Utensil.

## 4. Lockers

## 5. Heat

## 6. Desks

## 7. Sinks

## D. Equipment

## 1. China

## 2. General equipment

## 3. Desk Equipment

## 4. Desk cupboard equipment

## 5. Teacher's desk equipment.

## II. Outline of work for one year in the 9th grade. A plan of work and lessons.

## III. Recipes used with costs.



DOMESTIC SCIENCE IN THE COUNTY HIGH SCHOOL.

In equipping a laboratory for a domestic science class no provisions should be made for the accommodation of more than twenty girls as this is the limit to which a teacher can do justice. Viewing it from this standpoint, the laboratory just planned has been equipped for the accommodation of twenty girls of the ninth grade.

Any domestic science laboratory should, if possible, face the east and the south. This gives the early morning sunlight, much light, and yet the room does not become hot as a west room invariably does. There should be no large trees so close to the building that the light and air are impeded, nor should the building be situated in a low, damp or swampy place. A side slope makes an excellent location.

A laboratory to accommodate conveniently a class of this size should be thirty by forty feet. This gives plenty of room so that if things are arranged correctly the girls will need to take very few steps.

An ideal laboratory should have a tiled interior with a rubber mat at each desk for the girls to stand on. This is sanitary in every respect but it is such an expensive laboratory that we find it in very few places. The next best things and the things that have been used in this laboratory are those things that do not catch the dust easily and can be washed off. We find in this laboratory a floor of white ash. This makes a very good looking floor as well as a durable one. The walls are hard finished and tinted a soft gray. A delicate shade of green also makes an excellent wall. The ceiling is of the same material but it is of a lighter color being



almost white in the laboratory. The advantage of having a lighter colored ceiling than walls is that the light ceiling reflects the light into the room. The wood work is all plain and simple. Carved wood work in a laboratory is very poor taste as it increases surface to be kept clean. It should be plain and washable.

The windows are  $3\frac{1}{2}$  X 10 feet. There should always be as many windows as can be had without weakening the wall and in this laboratory there are five windows on the long side and four on the short side. This gives an abundance of sun light into every corner, desk and closet.

The cupboard in the northeast corner of the room is the china closet. It is one foot in depth; five feet in width and seven feet in height. The upper part contains shelves and it is provided with a sliding glass door that works on the same principle as the sliding window. The advantage of having a glass window is that the sunlight reaches the dishes and thus keeps them sweet and clean. The lower part of the cupboard is provided with three drawers. In the upper one is kept all silverware. This drawer is four feet in length and eight inches in depth. The next drawer is four feet in length and seventeen inches in depth. It is used for table linen. The last drawer is the same size and is used for towels.

The cupboard lying just to the left of the china closet is used for general supplies. It is two feet in depth, four feet in width and seven feet in height. It is constructed similar to the china closet, the chief difference being that there are two swinging doors to the bottom division in place of the drawers. All such articles as sugar, salt, and flour, are placed in the lower cupboard



while such things as spices, extracts, beverages, etc., are to be found in the upper division.

The cupboard on the west side of the room is built in the wall and is therefore the width of the wall. It is used for general utensils such as are not found in the girls's desks. The upper part is provided with a few large shelves for the utensils while all such articles as broom, dust pan, etc., are to be found in the lower part.

Just outside and to the east of the laboratory door is the locker room. Each girl keeps her apron in a locker. This is provided with a combination lock and thus avoids the necessity of carrying a key or the loss of aprons. Each girl marks her apron with her own name during the second lesson and during the same lesson she is assigned a locker in which to keep her apron. Each locker is 8 X 8 X 12 inches and all lockers are built together so that they look like a large cupboard.

Owing to the fact that the laboratory is equipped with individual burners and ovens no range is necessary. The building is heated by the hot water system. This gives an even temperature at all times.

Since the girls will do their work in groups of two, desks have been provided to accommodate two girls. The large cupboard in the central lower part of the desk is used for such utensils as the girls are most apt to need in common while the drawer on either side contains what is needed individually. The two small drawers in the middle of the desk and just above the desk cupboard are used for the girls books when they are in the laboratory. The desk board is just above the large drawer and the bread board is just below the large drawer. The desk is made of hard maple throughout. The



desk arrangement is in the form of a U. This permits of the girls sitting facing the teacher and she can easily watch them at their work. The large space in the center of the room is used for the supply table and the dining room table. The desk and sink arrangement is such that there is one sink for every four girls, two girls being on either side of the sink. It is economy in no wise to purchase a cheap desk, nor is it wise to purchase a desk with many panels, ornamental carvings, engravings, etc. While they may be pretty they are hard to keep clean, and are far from the proper thing for a laboratory.

The sinks are each 34 X 26 inches, except one and it is 32 X 26 inches. They are white enamel and are about one inch out from the desk to prevent dirt from accumulating along the edge.

#### China Closet.

1 Water pitcher and 1 doz glasses	\$1.50
2 sets salt and pepper shakers	.30
1 sugar bowl )	
1 Cream pitcher )	
	.50
12 bread and butter plates	.60
12 salad plates	.96
2 vegetable dishes	.40
1 Meat platter	.25
1 doz sauce dishes	.60
1 Carving set	3.00
	<hr/> \$8.11



## General Equipment.

1 Supply table	\$2.25
1 Dining table	15.00
1 refrigerator	30.00
20 Chairs at 1.50	30.00
10 tables with cupboards at 21.60	216.00
1 hamper	1.00
1 clock	1.00
5 enamel sinks at \$10.00	50.00
6 lemon reamers at 10	.60
12 large glass supply jars with metal tops	1.32
12 small " " " " " "	1.20
12 bottles for flavoring and chemicals	1.20
40 jelly glasses	4.00
120 Pint jars	6.00
5 glass drinking cups at 5	.25
1 dust pan	.20
4 tin gem pans (6 holes each) at 10	.40
2 frying baskets at 10	.20
1 large tin flour can	.75
5 sink strainers at 5	.25
5 small garbage pails at 25	1.25
1 large tin sugar can	.75
2 large tin milk pans for supplies on table	
1 four qt can .12	.12
1 six qt can .16	.16



5 toasters at 5	.25
1 tray	.25
2 tin bread boxes at 36	.72
1 flour sifter	.25
4 vegetable presses at 30	1.20
1 meat cutter	1.25
1 can opener	.10
1 butcher Knife	.75
1 bread knife	.60
1 ice pick	.25
10 towel racks at 10	1.00
1 cork screw	.10
1 standard scale	1.00
1 flat iron	.50
1 steel for sharpening	.50
2 two qt mixing bowls (crocks)	.15
1 one gallon jugs	.10
1 coffee pot 5 pts (Stransky)	.80
150 yards crash at 15	22.50
1 silence cloth (3 yds at 55	1.65
6 yards table linen at 85	5.10
12 napkins	2.75
1 broom	<u>.30</u>
	\$405.42



## Desk Equipment.

10 Enamel soap dishes at .08	.80
10 match holders at .16	1.60
20 one-pint china bowls at .08	1.60
20 one and 1/2 pint china bowls at .10	2.00
20 porcelain plates at .10	2.00
20 china cups and saucers at .06	1.20
20 gas burners (Plate) at .50	10.00
10 asbestos mats at .10	1.00
10 ovens at .75	7.50
20 tin sugar cans (labeled) at .05	1.00
20 tin flour cans " at .05	1.00
20 tin salt cans " at .03	.60
24 case knives )	
24 forks )	6.00
20 steel spatulas at .25	5.00
20 paring knives at .05	1.00
20 wooden spoons at .05	1.00
24 table spoons (Craig silver)	3.00
48 teaspoons " "	4.40
20 scrub brushes at .05	1.00
20 glass measuring cups at .05	1.00
	<hr/>
	\$52.70



## Desk Cupboard.

10 Dover egg beaters at .10	\$1.00
10 wire tea strainers at .06	.60
20 tin dish pans	8.00
10 tin biscuit cutters at .03	.30
10 graters at .12	1.20
20 small pie tins at .05	1.00
10 bread pans at .08	.80
10 Stransky stew pans 1 1/2 c at .22	2.20
10 " " " 2 c at .26	2.60
10 three-fourths quarts Stransky double boilers	6.99
10 small pudding pans (Stransky) 1 qt	2.10
10 small Stransky lids	.54
10 large " "	.60
10 rolling pins at .07	.70
20 omelet pans at .10	2.00
10 individual baking dishes at .05	<u>.50</u>
	\$31.13

## Teachers Desk Equipment.

1 table with cupboard and drawers	\$21.60
1 gas plate	.50
1 oven	.75
1 asbestos mat	.10
1 dover egg beater	.10



1 biscuit cutter	.03
1 grater	.12
1 match holder	.16
1 china plate	.10
1 cup and saucer	.06
1 china bowl 1 pint	.08
1 china bowl 1 1/2 pints	.10
1 paring knife	.05
1 case knife )	
1 fork )	included in desk list.
1 steel spatula	.25
1 omelet pan	.06
1 nickel plated tea kettle (small)	.75
1 wooden spoon	.08
1 rolling pin	.10
1 tablespoon)	
2 teaspoons )	included in other list
1 sauce pan (Stransky)	.26
1 double boiler "	.69
1 measuring cup	.10
	<hr/>
	\$26.24



## Total cost of laboratory equipment.

China equipment	\$8.11
General equipment	405.42
Desk equipment	52.70
Desk cupboard equipment	31.13
Teacher's desk equipment	26.24
Total	<hr/> \$513.60

## Outline of Lessons for Ninth Grade Pupils for One Year.

The Domestic Science class is to meet once a week in a term of nine months. Each lesson is to be one and one half hours long; the time to be divided between theory and practice as the teacher sees fit. The girls will work in groups of two and two housekeepers will be appointed each week. They will serve one week. These girls will take part in all theory work and unless there is special work they will take part in the practice work. The rules for the housekeeper will be included in lesson I. in the talk on behavior and work in laboratory.

## Lesson I.

1. Talk on conduct in laboratory.
2. Instruction concerning aprons and towels.
3. Enrollment
4. Explain lighting individual burners.

## Lesson II.

1. Mark aprons and towels.
2. Clean desks and utensils.



3. Explanation and rules of measurements.

Lesson III.

A. Theory.

1. Water

- a. Source
- b. Composition.
- c. Distribution.
- d. Contamination.
- e. Purification.
- f. Use to the body.

2. Utensils.

- a. Definition of ideal.

B. Practice.

- 1. Boil water (Experiment : note stages)
- 2. Sugar syrup.

Lesson IV.

A. Theory

1. Food

- a. Definition
  - 1. Complete
  - 2. Perfect.
- b. Five food principles.

2. Sugar

- a. Source
- b. Manufacture.

B. Practice

- 1. Peanut Brittle.



## Lesson V.

## A. Theory

## 1. Sugar (cont)

a. Review previous lesson.

b. Properties.

c. Digestion.

## B. Practice

## 1. Apple Sauce.

## Lesson VI.

## A. Theory

## 1. Test on previous six lessons.

## B. Practice.

## 1. Peach sauce.

## Lesson VII.

## A. Theory

## 1. Starch.

a. Source.

b. Manufacture.

c. Experiments.

## B. Practice.

## 1. White sauce.

## Lesson VIII.

## A. Theory.

## 1. Starch (cont)

a. Composition

b. Properties

c. Digestion.



B. Practice

1. Creamed onions.

Lesson IX.

A. Theory

1. Potato.
  - a. Growth
  - b. Composition.
  - c. Structure.

B. Practice

1. Plain boiled potato .

Lesson X.

A. Theory

1. Review starch lessons.

B. Practice.

1. Creamed pea soup.

Lesson XI.

A. Theory.

1. Wheat.
  - a. Description of plant and grain.
  - b. Structure of grain.
  - c. Composition.

B. Practice.

1. Cream of Wheat.



## Lesson XII.

## A. Theory

1. Test on last six lessons

## B. Practice

1. Clean cupboards and desks.

## Lesson XIII.

## A. Theory.

1. Chocolate

- a. Source.
- b. Composition.
- c. Manufacture.
- d. Cost.

## B. Practice.

1. Chocolate cornstarch mold.

## Lesson XIV.

## A. Theory.

1. Cocoa.

- a. Growth.
- b. Manufacture.
- c. Composition.
- d. Differs from chocolate.

## B. Practice.

1. Cocoa.

## Lesson XV.

## A. Theory.

1. Cellulose.

- a. Source.
- b. Structure.
- c. Digestibility.



## B. Practice.

1. Scalloped cabbage.
2. Buttered Crumbs.

## Lesson XVI.

## A. Theory.

1. Fat.
  - a. Kinds.
  - b. Occurrence.
  - c. Properties.
  - d. Uses to body.

## B. Practice. Apple Pie.

1. Apple pie.

## Lesson XVII.

## A. Theory.

1. Fat (Cont)
  - a. Digestibility.
  - b. Adulteration of fats.

## B. Practice.

1. Buttered Lima beans.

## Lesson XVIII.

## A. Theory.

1. Eggs.
  - a. Source.
  - b. Structure (Drawing)
  - c. Composition.
  - d. Cost.

## B. Practice.

1. Poached egg on toast.



## Lesson XIX.

## A. Theory.

## 1. Egg (Cont)

a. Digestibility.

b. Preservation.

## B. Practice.

## 1. Egg omelet (Demonstration)

## 2. Egg omelet.

## Lesson XX.

## A. Theory.

## 1. Milk.

a. Source.

b. Composition.

c. Use as a food.

## B. Practice.

## 1. Rennet pudding.

## Lesson XXI.

## A. Theory.

## 1. Cheese.

a. Source.

b. Manufacture.

c. Food Value.

d. Digestibility.

## B. Practice.

## 1. Scalloped cheese.



## Lesson XXII.

## A. Theory.

## 1. Meat.

- a. Source.
- b. Structure.
- c. Color.
- d. Cooking.

## B. Practice.

## 1. Steak.

## Lesson XXIII.

## A. Theory.

- 1. Meat (Cont)
- 2. Different cuts of meat (Illustrated).
- 3. Food value.
- 4. Digestibility of different meats.

## B. Practice. -- Demonstration.

- 1. Pot roast.
- 2. Brown gravy.

## Lesson XXIV.

## A. Theory.

- 1. Test on 1st lessons.

## B. Practice.

- 1. Clean desks.



## Lesson XXV.

## A. Theory.

## 1. Fish.

a. Kinds.

b. Food value.

c. How used as a food.

## B. Practice.

## 1. Fried Fish (in deep fat).

## Lesson XXVI.

## A. Theory.

## 1. Beverages in general.

## 1. Tea.

a. Growth.

b. Preparation.

## 2. Coffee.

a. Growth.

b. Preparation.

## B. Practice.

## 1. Coffee.

## Lesson XXVII.

## A. Theory.

## 1. Gelatine.

a. Occurrence.

b. Manufacture.

c. Uses.

## 2. Mineral matter in food.



## B. Practice.

## 1. Lemon Gelatine.

## Lesson XXVIII.

## A. Theory.

## 1. Leavening agents.

## a. Definition.

## b. Kinds.

## 1. Air.

## 2'. Soda and acid.

## 3'. Baking Powder.

## 4'. Yeast.

## 2. Rules for baking cake.

## B. Practice.

## 1. Sponge cake.

## Lesson XXIX.

## A. Theory.

## 1. Soda.

## a. Source.

## b. Manufacture.

## c. Use.

## 2. Baking Powder.

## a. Source.

## b. Manufacture.

## c. Kinds and adulterations.

## d. Use.

## e. Action in baking.

## B. Practice.

## 1. Baking powder biscuit.



## Lesson XXX.

- A. Theory.
  - 1. Test on last six lessons.
- B. Practice review.

## Lesson XXXI.

- A. Theory.
  - 1. Yeast.
    - a. Growth.
    - b. History of yeast.
    - c. Use.
    - d. Kinds.
- B. Practice.
  - Yeast.

## Lesson XXXII.

- A. Theory.
  - 1. Flour.
    - a. Manufacture.
    - b. Kinds.
    - c. Different sources.
- B. Practice.
  - 1. Bread.

## Lesson XXXIII.

- A. Theory.
  - 1. Bread.
    - a. Kneading.
    - b. Baking.
    - c. Care after baking.



B. Practice.

1. Bread.

Lesson XXXIV.

A. Theory.

1. Salad combinations.
2. Kinds of salads.
3. Digestibility.

B. Practice -- Demonstration and practice.

1. Fruit and nut salad.

Lesson XXXV.

A. Theory.

1. Review all previous lessons.

B. Practice.

1. Punch
2. Marguerites.

Lesson XXXVI.

Examination on last six lessons.



## Recipes used.

## General prices.

sugar	.06 per lb.
Flour	.02 1/2 per lb.
Butter	.32 " "
Eggs	.15 per doz
Peanuts	.15 per lb.
Milk	.05 per qt.
Salt	.014 per lb.
Chocolate	.40 " "
Corn starch	.05 " "
Potato	.90 per bu.
Lima Beans	.08 per lb.
Baking Powder	.50 " "
Lard	.15 " "
Cream	.40 per qt.
Oranges	.30 per doz.
Walnuts	.20 " lb.
Vinegar	.20 " gal.



## Sugar Syrup.

1/2 c Sugar	.015	.015
1/4 c water	.000	

## Peanut Brittle.

2 tbsp Sugar	.004	
2 tbsp water		
1 tbsp chopped peanuts	.004	.008

## Apple Sauce.

1 medium sized apple	.005	
1 tbsp sugar	.004	
2/3 c water	.00	.009

## Peach Sauce.

1 Peach	.01	
1 tbsp sugar	.002	.002
1/2 c water	.00	.012

## Plain Boiled Potato.

1 medium sized potato	.008	
1 1/2 c water		
1/2 tsp salt	.000004	.008004

## White Sauce.

1/4 c milk	.003	
1/4 tbsp flour	.00005	
1/4 tbsp butter	.0025	
spk salt	.00	.00555



## Creamed Onions.

1/4 c white sauce	.00555	
1 medium sized onion	.01	
1/4 tsp salt	.000002	.015552

## Chocolate Cornstarch Mould.

1/2 c milk	.00625	
1/4 sq chocolate	.006	
2 tbsp sugar	.004	
3 tsp cornstarch	.00156	
7 drops vanilla	.00189	.01970

## Scalloped Cabbage.

1/4 c white sauce	.00555	
1/4 c cooked cabbage.	.003	.003
2 tbsp buttered crumbs	.011	.01955

## Buttered Crumbs.

2 tbsp bread crumbs	.001	
1 tbsp Butter	.01	.011

## Poached egg on toast.

1 egg	.0125	
1 slice toasted bread	.00416	
pepper and salt	.000002	.016662

## Egg Omelet.

1/2 egg yelk )		
1/2 white )	.00625	
1 tbsp milk	.00075	
spk salt	.000	.00700



## Rennet Pudding.

1/4 c milk	.003	
1/2 tsp sugar	.00066	
2 tsp rennet liquid (1/12 table T)		.00083
4 drops flavoring	.0009	.00539

## Scalloped Cheese.

1/2 slice bread (Buttered)	.003	
3/4 oz. Grated cheese	.00266	
salt and pepper to taste	.000002	
1/2 egg	.00625	
1/2 c milk	.006	.017911

## Fried Steak.

2 oz piece of round	.015	
fat from steak	.00	.015

## Pot Roast (Demonstration)

Price of chuck or round	.25	
Water	.00	
1 1/2 tsp salt		
6 whole allspice	.0005	:250506
For 2 girls		.02505

## ,Brown Gravy.

1 c liquid(stock)		
1 tbsp flour	.00039	
1/4 tsp salt	.000001	.0003901



## Fried Fish.

4 oz piece of fish	.03	
2 tbsp crumbs	.001	
1/4 egg with little H2O	.0031	
1/4 tsp salt	.000001	.034101

## Apple Pie.

1/4 c flour	.00156	
1 tbsp lard	.002	
spk salt		
1/2 apple	.003	
1 tbsp sugar	.002	
1/2 tsp butter	.0013	.00986

## Buttered Lima Beans.

1/4 c lima beans	.0104	
1 c water		
little salt and pepper		
1/2 tsp butter (or small slice fat pork .0013)		.0117

## Yeast.

1 medium sized potato	.008	
1 c water		
1 tbsp sugar	.002	
1 tsp salt	.000004	
1/4 cake dry yeast	.0018	.011804



## Bread.

1/2 c water		
1/2 tsp butter	.005	
1/2 tsp sugar	.001	
1/2 tsp salt	.000002	
1/8 cake yeast or 1/8 cup		
Flour to make stiff dough.	.01182	.017822
For two girls		.035644

## Baking Powder Biscuit.

1 tsp baking powder	.0052	
1/2 c flour	.00357	
1 tbsp lard	.002	
spk salt & H2O to make soft dough		.010770

## Cocoa

1 tsp cocoa	.00324	
1 tsp sugar	.0006	
1/2 c milk	.006	
3 tbsp water		.00984

## Sponge cake.

1 egg white	.00625	
2 tbsp powdered sugar	.004	
few drops vanilla	.0009	
1 egg yelk	.00625	
2 tbsp flour	.0008	
spk salt		.0182



## Lemon Gelatin.

3/4 tsp gelatin	.00249	
1 tbsp cold water		
2 tbsp lemon juice	.015	
3 tbsp water		
1 1/2 tbsp sugar	.003	.02049

## Fruit and Nut Salad.

1/2 orange	.0175	
1 English walnut	.0035	
1 tbsp whipped cream	.006	
1 tsp powdered sugar or		
small spoon dressing	.00095	.02745

## Whipped Cream Dressing.

1/2 c Vinegar	.0062	
1 tsp butter	.0026	
3 egg yolks	.0188	
2 tsp sugar	.0012	
1/2 tsp mustard	.005	
1/2 tsp salt	.000002	
Speck cayenne		
1/2 c whipped cream	.05	.083802
For Two Girls		.00838



## Punch for eight Girls.

1 cup juice

2 oranges &amp; 1 lemon .07

3/4 c syrup (1 1/2 c sugar) .045

1 qt water .115

For Two Girls

.02874

## Marguerites.

1/2 c sugar .015

1/2 egg white .003

1/4 c water

1/2 c chopped nuts .05616

15 Saltines .0492 .12336

For Two Girls

.01762

## Cream of Pea Soup.

1/4 c peas .02

1/4 c white sauce .00555

Spk salt .02555

## Cream of Wheat.

2 tbsp Cream of wheat. .00187

1 c water

spk salt .00187



## Coffee.

1 tbsp ground coffee	.00625
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1/4 egg	.0031
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1 c water	.00935
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Total cost of lessons for two girls	.5008601
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" " per girl	.25043005
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Average cost per lesson for one girl	.00753.
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