

August 11, 1959

To the Graduate Council:

I am submitting herewith a thesis written by Ray Jones entitled "The Need and Desire for Instruction in Farm Home Repair Mechanics in the Porter High School Community." I recommend that it be accepted for nine quarter hours of credit in partial fulfillment of the requirements for the degree of Master of Science with a major in Agricultural Education.

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THE NEED AND DESIRE FOR INSTRUCTION
IN FARM HOME REPAIR MECHANICS
IN THE PORTER HIGH
SCHOOL COMMUNITY

A THESIS

Submitted to
The Graduate Council
of
The University of Tennessee
in
Partial Fulfillment of the Requirements
for the degree of
Master of Science

by

Ray Jones

August 1959

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CHAPTER I

THE PROBLEM AND ITS DEFINITION

Statement of the Problem

Should Farm Home Repair Mechanics be taught as a part of the vocational agriculture curriculum in the Porter High School, and if so, what should be the teaching units? In order to solve this problem, the following questions will be answered:

1. Is there a need for Farm Home Repair Mechanics education in the Porter community?
2. Should Farm Home Repair Mechanics be taught in the Porter High School?
3. Should Farm Home Repair Mechanics be taught to vocational agriculture students?
4. What repairs and adjustment units should be taught in a course on Farm Home Repair Mechanics to students studying vocational agriculture?

Need for the Study

The need for this study was fully realized by the writer from many personal contacts with home owners and during the annual program planning meeting of the Porter Vocational Agriculture Advisory Council. During this meeting the teaching calendar for the school year, 1959-60, was mimeographed; and each advisory council member was given a copy to

study. The program, which includes all four grades taught, was as follows:

<u>Course Area</u>	<u>Number of Scheduled Hours</u>
Farm mechanics	180
Supervised farming programs	57
Future Farmers of America	49
Type jobs	84
Sail management	29
Agricultural economics	52
Dairy	12
Beef	3
Poultry	13
Swine	8
Home garden	12
Tobacco	11
Corn	3
Small grain	3
Pasture	5
Hay	5
Silage	5
Miscellaneous	164

After studying and discussing the proposed program at length, the council suggested that much more time should be spent in mechanics and less in some of the productive enterprises. Some of the typical statements made by the council members relative to the calendars were as follows:

Most everyone owns his home and needs training on how to repair the things that go wrong.

Since this contract farming has started, the companies tell you how to feed the poultry. Why teach it? Let's cut that part of the program out and teach more mechanics.

Some of these boys do not have much of a chance to farm but do own their homes. They need more mechanics.

We spend thirteen hours on poultry. How many boys have poultry as an enterprise in their farm programs? Let's teach something that most of them have.

Later, an analysis was made by the writer of the enterprises included by forty-six high school students in their programs of vocational agriculture. The following is the situation as he found it:

<u>Enterprise</u>	<u>Per Cent of Enrollees Having the Enterprise in Their Supervised Farming Program</u>
Swine	58
Corn	39
Dairy cattle	30
Tobacco	26
Home garden	20
Poultry	11
Beef cattle	7
Mixed hay	4
Irish potatoes	2
Oats	2
Tomatoes	2

Comparing the enterprises actually carried by students and the proposed teaching calendar, it is evident that much teaching is done in areas where the student has very little concern. Part of this teaching may be necessary in order to give a well rounded education in agriculture, but some could be replaced by teaching those things which will meet more of the students' needs such as Farm Home Repair Mechanics. This type of instruction would be common to all students.

The writer is familiar with many homes where repairs have recently been made. Some of these repairs were on items such as the following:

1. Electric motors not operating properly
2. Rusty guttering
3. Loose down spouts
4. Rotten porch floors
5. Broken asbestos siding
6. Broken interior door locks
7. Washing machine not operating properly

In a majority of cases the home owner was not able to make these repairs, nor was any member of the owner's family.

According to Anderson,¹ since 1846 the Purdue Opinion Poll has given the results of opinion polls conducted three or more times each year with several thousand high school students participating. One of these surveys was mimeographed under the title, "Youth Looks Toward the Future in Education." The report contains some timely information for teachers as may be seen from the following observations which were taken from this study.

More than two-thirds replied that they would like to take a course in high school where time is spent learning how to repair articles used in the home.²

In discussing the results of this survey, Anderson makes the following comment about this particular finding of the poll:

Do you offer a home mechanics course in the senior high school? How long can we continue to ignore the wishes of more than two-thirds of our customers and still purport to be meeting their needs? Seniors . . . are not far removed from the responsibilities of managing a home. Some mechanical know-how is an important asset for the modern homemaker in our highly mechanized society.³

It is the job of agricultural educators to try to develop a curriculum which will best meet the needs of their pupils. If this is to be done, a continuous effort should be made to improve the courses in agriculture. If Farm Home Repair Mechanics is a part of family life,

¹Stuart Anderson, "How Does Industrial Education Rate?," School Shop, XI (March, 1952), pp. 5-7.

²Ibid.

³Ibid., p. 7.

and a need for Farm Home Repair Mechanics in agriculture exists, then it is the job of the school to develop a curriculum which will take these needs into consideration.

Situations Relating to the Problem

Carpentry and the skills connected with building a house, such as plumbing, wiring, and painting have been the writer's hobby since high school days. He has helped build, remodel, and repair several houses. However, for the past six years he has been a teacher of vocational agriculture, which has given him the opportunity of visiting many farm homes and making many personal contacts with home owners. Through these contacts, and due to this special interest in houses, he has noted the many problems encountered by home owners. He has also had the opportunity of making many observations and conclusions concerning the farm home.

The average farm home is a very comfortable and efficient dwelling today. Contrary to popular beliefs of those people far removed from the farm and the farm conditions, most farm homes today have plumbing, electricity, central heating, and many of the modern conveniences, most of which are complicated equipment, present problems to the already over-worked farmer. This complicated equipment, like any modern farm equipment such as the tractor, combine, or hay baler, is useless if it is not in proper working order. Like the tractor, combine, or hay baler, it does get out of order from time to time and requires care and attention. A house is different from the farm equipment and the modern appliances of the home. When the farm equipment and appliances get old and are worn

they are replaced. When a house gets old, the roof leaks, the plaster cracks, or screens rust, it is not usually replaced with a new one but is repaired or remodeled. A house needs constant maintenance if it is to be a comfortable and an attractive place in which to live.

When something goes wrong about the house, the owner has at least these alternatives: he can let it remain unrepaired; he can do the repair job himself; or he can call in a specialist and let him do the job. The specialist's services are costly to the consumer, whether he be an electrician, plumber, or mason. When an electrician is called in to repair a broken wall plug, it is much like calling in a mechanic to completely overhaul the farm tractor. The electrician, like the mechanic, is going to charge the farmer on the basis of how much his time is worth to him, and not on the simplicity or the difficulty of the job to be done.

Looking at farm home repair work from a strictly dollars and cents point of view, no labor cost will be involved if the home owner can replace the broken wall plug; but if he must call in an electrician to do the job, it will cost several dollars, depending on the distance the electrician must travel. The same holds true for practically every minor repair job that comes up about the house.

So far, only mention has been made of the financial gains that are to be had by doing farm home repair work oneself. There is another gain perhaps even more important to some, and this is the self-satisfaction that one may get from the job. This self-satisfaction, whether it be from a simple job such as repairing an extension cord or a complicated one such as rewinding an electric motor, cannot be measured.

Binns expresses the writer's thoughts on this all important and complex job of farm home repair mechanics:

. . . The building in which you live, with all its complex utilities and appliances, the transportation which serves you, the entertainment which you enjoy, even the medical care you receive is closely entwined with the field of trades and industry and the training program which helps it to function so efficiently.⁴

The Porter High School Community Situation

The Porter High School community is in Blount County, Tennessee, which lies in the upper eastern part of the state. It is located about six miles from Maryville and fifteen miles from Knoxville on an improved road. This community consists of a grade school, high school, two stores, two churches, and several houses in close proximity. The community in general extends out into the adjoining area.

The school district covers the immediate area around the school, extending about fifteen miles in some directions to about eight miles in other directions. This district includes some reasonably good farming land that is slightly rolling in topography and, in the outer extremities, slightly mountainous. The leading farm enterprises are dairying, livestock, tobacco, and grain crops.

The community is located in an industrial region, and many of the farmers are considered as part-time farmers. This enables them to enjoy a rather high and stable income. The farmers are rather progressive and

⁴J. E. Binns, Jr., "Trade and Industrial Education," The Tennessee Teacher, (March, 1958), p. 10.

avail themselves to adult classes and other learning activities that are available.

The Porter High School community was originally strictly a farming community; but with the establishment of the Alcoa Aluminum Company of America, and with other industries in Oak Ridge and Knoxville, this condition has been altered considerably. Because of the building of modern roads and automobiles, many of the personnel employed in these industries have been able to establish and maintain homes in this rural area. Former residents of Sevier County are largely responsible for the increased population in this area. About 50 per cent of the residents of the community are favorably inclined toward the Baptist beliefs. The majority of the remaining residents are Methodists.

Living in the community are approximately twenty Negro families. The Negro children attend either a grade school located in the community or a high school located at Alcoa.

The elementary schools, located in the high school service area, do not offer instruction in farm home repair or industrial art classes.

The high school does not offer its students any training in industrial arts. The only farm home repair training they receive is the training they get in vocational agriculture. The training received through the vocational agriculture department has been in the past oriented toward farm machinery, farm equipment, and farm buildings. Although not specific, some of the training received in these areas may be used in farm home repair. The training received in this manner would be of minor importance and certainly not enough to meet any great part of the need for this type of training.

Assumptions

The writer is assuming that the teaching of Farm Home Repair Mechanics in vocational agriculture falls within the intent of the Smith-Hughes Act.

If a course in Farm Home Repair Mechanics is desired for vocational agriculture students, the vocational agriculture department at Porter High School could obtain the necessary facilities to provide such instruction.

Delimitations

This study is delimited to the Porter High School community. Furthermore, it is delimited to answers given by the parents of present and prospective vocational agriculture students and the adult farmer class members. It is delimited to the opinions of the advisory council members of the vocational agriculture department and the observations of the vocational agriculture teacher of Porter High School.

Definition of Terms

Home. Home, as used in this study, is one's dwelling place. This will include the place owned by a person, a house rented by a person, or an apartment rented by a person.

Farm Home Repair. Farm Home Repair, as used in this study, will include all repairs to the exterior and interior of a house. Also, it will include all mechanical devices used within the house.

Minor Repairs. Minor repairs are those repairs which would not require the services of a skilled mechanic.

Major Repairs. Major repairs are those repairs which would require the services of a skilled mechanic.

Course Area. Course area, as used in this study, will include all repairs listed in any one of the nine major groups, plumbing, heating, masonry, doors, windows, and stairs, outside repairs, floors, inside walls, electrical wiring and appliances, or painting and decorating.

Unit. Unit, as used in this study, will include any one repair listed in either of the nine major groups of repair.

Productive Enterprise. Productive enterprise will include any farming activity undertaken by the student for profit.

Procedure Used in Conducting Study

Since this study was delimited to the parents of present and prospective vocational agriculture students, adult class members of Porter High School, the information herein presented will deal primarily with a formal survey conducted among these groups. The parents of both present and prospective vocational agriculture students were chosen to answer the questions on Farm Home Repair education because these parents seemed to be a fair sampling of the Porter High School community, and they were the residents that would be affected most by a program of instruction of this nature. The vocational agriculture adult class members at Porter High School were chosen to answer the questions on Farm Home Repair education because they are most familiar with the

vocational agriculture department and its facilities for offering such a program of instruction. The survey included the use of household mechanics information blanks which were used to gather the information needed for this study. (Appendix A, page 55) The first six questions asked seemed to have little bearing on the study; therefore, they were not used. The main body of the survey contained a list of 139 farm home repairs in nine separate fields of maintenance. Selected literature* was reviewed by the writer in identifying the questions to include in the survey. Others were added by the writer and by a member of the teacher training staff in the Agricultural Education Department at the University of Tennessee.

After the household mechanics information blanks were completed, five parents of the presently enrolled vocational agriculture students were selected for a test survey. These were surveyed by the writer to see if there was any part of the information blank that was not clear or could easily be misinterpreted. Instruction was given to the other students enrolled in vocational agriculture to take the information blanks home and have their fathers fill them out.

*Bedell and Gardner, Household Mechanics (Scranton, Pennsylvania: International Textbook Company, 1945), p. 241.

*Andrew C. Lang, Mechanix Illustrated Home Repairs (Greenwich, Connecticut: Fawcett Publications, 1957), p. 144.

*Gaylor Paul Bridges, "Parents' Opinions Concerning Home Repair Education," (Unpublished Master's Thesis, The University of Illinois, 1952), Appendix A, p. 62.

Of the forty-three taken by the students, all were returned and all were usable. Twelve adult farmer class members, all excepting six that had sons enrolled in vocational agriculture, were surveyed by the writer. From the eighth grade teachers at Porter grade school, the names of the students who would likely take vocational agriculture the following year were obtained. The writer surveyed twenty such students' parents in their homes. This made a total of eighty completed household mechanics information blanks which were used in this study.

The completed blanks were divided into two groups for tabulation purposes. There were forty-eight completed information blanks from parents who had sons enrolled in vocational agriculture and thirty-two information blanks from parents who did not have sons enrolled. After the data had been tabulated, it was discovered that there was no noticeable difference between answers of the parents who had sons enrolled in vocational agriculture and of those who did not. Therefore, all eighty surveys were used in making the tabulations as to whether they had such repairs and desired training for vocational agriculture students.

CHAPTER II

THE NEED FOR FARM HOME REPAIRS IN THE PORTER HIGH SCHOOL COMMUNITY

Explanation of Data

This chapter is an attempt to establish the need for repairs and adjustments in the homes of farmers of the Porter High School community, as shown by the positive answers of those surveyed.

In the survey that was administered to parents of present and prospective high school students in vocational agriculture and adult class members (Appendix A, page 55), questions were asked concerning the need for repair or adjustment of specific items in the area of farm home mechanics. There was a space for the participant to check either "yes" or "no" to the 139 repair items listed in nine different areas of home repair. Only the "yes" answers were checked; therefore, only the positive answers will be used in the following tables. Eleven different tables will be used to show the need for farm home repairs. The rank in order of importance as to the number and percentage in each area is used.

In discussing the data presented in this chapter, the number of repairs reported as needed in each major area will be referred to as groups A, B, C, and D. These groups will represent the following:

- Group A - 20 per cent or higher
- Group B - 15 through 19 per cent
- Group C - 10 through 14 per cent
- Group D - 1 through 9 per cent

As shown in Table I, ten of the twenty repairs listed are within groups A, B, and C. Six of the repairs are in group A, one in group B, and three in group C. Of these repairs two, leaking valve or faucet and frozen water pipes, are considerably higher than the others, being 51 per cent and 50 per cent respectively. A noticeable drop from 50 per cent to 26 per cent appears between the second repair, frozen water pipes, and the third repair, clogged kitchen sink.

From the data presented, it can be seen that the repairs needed, which run in the higher percentages, are defects of water leakage, stoppage of water, clogged water or drainage pipes, and not enough hot water.

Seven of the heating repairs and adjustments (Table II) are within groups A, B, and C, two in group A, three in group B, and two in group C. It will be noted that the two repairs in the highest percentages, house needs insulating and unbalanced heat, are common to any type of heating system used in the home. About the same amount of defects were found in homes heated by electricity as were found in homes being heated with other types of heat.

Others, as listed in item sixteen, included wood burning stoves. The small number having sheared feed pin in the stoker is due in part to the fact that most pins had been replaced with steel ones, resulting in a blown fuse instead of a sheared pin.

Of the masonry repairs shown in Table III, two are in group A, three in group B, and three in group C. It is assumed that the two repairs, broken concrete steps and cracked concrete walks, shown in

TABLE I
PLUMBING REPAIRS AND ADJUSTMENT NEEDED
BY EIGHTY PARENTS AND ADULT
CLASS MEMBERS

Repairs and adjustment needed	Number of yes responses	Per cent of yes responses
Group A		
1. Leaking valve or faucet	41	51
2. Frozen water pipes	40	50
3. Clogged kitchen sink	21	26
4. Not enough hot water	19	24
5. Sweating pipes	18	23
6. Leak in water pipes	17	21
Group B		
7. Clogged water pipe	14	18
Group C		
8. Humming in pipes	10	13
9. Rusty water in pipes	8	10
10. Clogged field line	8	10
Group D		
11. Hammering in pipes	7	9
12. Clogged toilet bowl	7	9
13. Warm water in cold water pipes	6	8
14. Overheated water	6	8
15. Leaking flush box	6	8
16. Clogged vent pipe	5	6
17. Discolored hot water	4	5
18. Clogged soil line	3	4
19. Leaking cast iron pipe	3	4
20. Other	2	3

TABLE II

HEATING REPAIRS AND ADJUSTMENTS NEEDED
BY EIGHT PARENTS AND ADULT
CLASS MEMBERS

<u>Repairs and adjustments needed</u>	<u>Number of yes responses</u>	<u>Per cent of yes responses</u>
Group A		
1. House needs insulating	40	50
2. Unbalanced heat	28	35
Group B		
3. Down draft in chimney	13	16
4. Electric coils burning out	13	16
5. Dust coming from register	12	15
Group C		
6. Thermostat not working	10	13
7. Coal gas coming into room	9	11
Group D		
8. Fireplace smoking	7	9
9. Smoke coming out of hopper in stoker	5	6
10. Noise in radiator	3	4
11. Fireplace damper won't work	3	4
12. Air vent valve not working	2	3
13. Lack of heat in radiator	2	3
14. Hammering in pipes	2	3
15. Sheared feed pin in stoker	1	1
16. Others	2	3

TABLE III

MASONRY REPAIRS NEEDED BY EIGHTY PARENTS
AND ADULT CLASS MEMBERS

Repairs and adjustments needed	Number of yes responses	Per cent of yes responses
Group A		
1. Broken concrete steps	19	24
2. Crack in concrete walks	18	23
Group B		
3. Concrete block walls leaking	15	19
4. Foundation wall cracked	14	18
5. Uneven concrete floors	14	18
Group C		
6. Damp concrete floors	11	14
7. Broken concrete walks	10	13
8. Flashing pulled loose from chimney	10	13
Group D		
9. Brick walls leaking	7	9
10. Crack in concrete wall	7	9
11. Mortar joints coming out of brick	7	9
12. Joints in flue lining cracked	7	9
13. Mortar joints coming out of blocks	4	5
14. Stucco walls leaking	2	3
15. Stone walls leaking	1	1

group A, are in the higher percentages because they are subject to more normal use and abuse than the others listed.

Floor repair, as shown in Table IV, mostly falls within groups A and D, four being in group A, one in group B, one in group C, and four in group D. Two of the four found within the higher percentages, hardwood floors finished and pine floors finished, are jobs usually left by the builders for the home owner to do. The other two found within the higher percentages, creaky floors and hole in linoleum, are found within the higher percentages due to their frequent use and abuse.

Most of the floor repairs listed in Table IV are found in the homes surveyed. An exception to this would be tile and composition block.

As shown in Table V, eight of the doors, windows, and stairs repairs needed fall within group A, five in group B, three in group C, and four in group D. One of the needed repairs, putty cracked in windows, is considerably higher than the others listed.

The twenty needed repairs as shown, run from 5 to 65 per cent, eight being higher than 24 per cent. Noticeable is the fact that six of the eight repairs listed in the top percentages are the repairs of doors.

As shown in Table VI, cracked plaster was the only inside wall plaster repair that fell within group C. The other four fell within group D.

Many of the homes surveyed did not use plaster for inside walls. This would account for the low per cent of plaster repairs needed.

TABLE IV
FLOOR REPAIRS NEEDED BY EIGHTY PARENTS
AND ADULT CLASS MEMBERS

Repairs needed	Number of yes responses	Per cent of yes responses
Group A		
1. Hardwood floors finished	26	33
2. Creaky floors	22	28
3. Hole in linoleum	16	20
4. Pine floors finish	16	20
Group B		
5. Subflooring weak	13	16
Group C		
6. Spongy flooring	8	10
Group D		
7. Rotten floor joist or girders	7	9
8. Tile floors broken or coming loose	6	8
9. Tile floors uneven	4	5
10. Broken composition block in floor	4	5

TABLE V
 REPAIRS NEEDED ON DOORS, WINDOWS, AND STAIRS
 BY EIGHTY PARENTS AND ADULT
 CLASS MEMBERS

Repairs needed	Number of yes responses	Per cent of yes responses
Group A		
1. Putty cracked in windows	52	65
2. Screen door needs new screen	31	38
3. Sticking window sash	27	34
4. Loose door knob	25	31
5. Door lock not working	23	29
6. Door sticking (doesn't fit in frame)	21	26
7. Screen door doesn't fit in frame	21	26
8. Door rattling	19	24
Group B		
9. Leaking around windows	15	19
10. Door hinge loose	14	18
11. Screen door rotten	14	18
12. Broken windows	13	16
13. Rotten window sills	12	15
Group C		
14. Glass panel broken in wood door	11	14
15. Loose joints in wood trim	10	13
16. Door hinge broken	9	11
Group D		
17. Creaky stairs	7	9
18. Broken sash cord on windows	7	9
19. Broken window sash	7	9
20. Worn stair treads	4	5

TABLE VI
INSIDE WALLS PLASTER REPAIRS NEEDED
BY EIGHTY PARENTS AND ADULT
CLASS MEMBERS

Repairs needed	Number of yes responses	Per cent of yes responses
Group B		
1. Cracked plaster	11	14
Group D		
2. Bulging plaster	6	8
3. Loose plaster	4	5
4. Damp spots in plaster	3	4
5. Rough plaster	3	4

Four of the wall board repairs needed, listed in Table VII, fall within group A, one in group B, and one in group D. The larger per cent falling in group A may be explained by the fact that many of the farmers construct their own homes. Also, it is common for the home owner to hire the major part of the house constructed, doing the finishing work by himself and by members of the family.

As indicated in Table VIII, all of the inside wall repairs needed in the bathroom fall within group D. Noticeable is the percentage of each repair listed being relatively constant, running from a low of 5 per cent to a high of 80 per cent.

As shown in Table IX, three of the outside repairs listed fall within group A, three in group B, four in group C, and six in group D. The higher percentages of repairs needed are those repairs of gutters, chimney or flue, porch, screens, and caulking of doors and windows. These repairs are needed in 16 to 25 per cent of the cases reported.

Noticeable is the fact that 10 per cent reported leaks or rains through cracks, and 10 per cent reported having decayed framing.

Painting and decorating, as indicated in Table X, is an area of repair needed by many home owners. Ten of the fifteen repairs listed are within group A, one in group B, three in group C, and only one in group D.

Forty-four per cent of those surveyed reported that paint was peeling off their homes. None of the repairs listed fell below 6 per cent, while six were reported as needed by 30 per cent or more.

TABLE VII

REPAIRS NEEDED ON WALL BOARD (DRY WALL
CONSTRUCTION) BY EIGHTY PARENTS
AND ADULT FARMER CLASS
MEMBERS

Repairs needed	Number of yes responses	Per cent of yes responses
Group A		
1. Nail heads showing	25	31
2. Rough along joints	20	25
3. Rough over nails	20	25
4. Cracked along joints	18	23
Group B		
5. Cracked in corners	13	16
Group D		
6. Holes in wall	4	5

TABLE VIII

INSIDE WALL REPAIRS NEEDED ON THE
BATHROOM BY EIGHTY PARENTS
AND ADULT CLASS
MEMBERS

Repairs needed	Number of yes responses	Per cent of yes responses
Group D		
1. Cracked joints between ceramic tile and tub	7	8
2. Loose or chipped tile	5	6
3. Cracked joints between ceramic tile	4	5

TABLE IX
OUTSIDE REPAIRS NEEDED BY EIGHTY PARENTS
AND ADULT CLASS MEMBERS

Repairs needed	Number of yes responses	Per cent of yes responses
Group A		
1. Gutter leaking	20	25
2. Wood porch floor needs repair	19	24
3. Leak around chimney or flue	16	20
Group B		
4. Broken window screen	14	18
5. Doors and windows need caulking	14	18
6. Gutter and downspout rusted	13	16
Group C		
7. Porch post rotted off	10	13
8. Leaks or rains through cracks	8	10
9. Weather stripping off doors and windows	8	10
10. Decayed framing	8	10
Group D		
11. Leak in shingle roof	7	9
12. Downspout broken	6	8
13. Storm sash not tight	5	6
14. Broken shingles	5	6
15. Leak in valley	3	4
16. Leak around plumbing vents	1	1

TABLE X
 PAINTING AND DECORATING REPAIRS NEEDED
 BY EIGHTY PARENTS AND ADULT
 CLASS MEMBERS

Repairs needed	Number of yes responses	Per cent of yes responses
Group A		
1. Paint peeling off	35	44
2. Preparing surface for paint	27	34
3. Paint screens	25	31
4. Reupholster furniture	24	30
5. Combine paints to get new colors	24	30
6. Remove varnish and paint	24	30
7. Furniture needs repair and refinishing	23	29
8. Varnish wood	22	28
9. Paint a sash	21	26
10. Paint composition walls	17	21
Group B		
11. Paint old plaster	13	16
Group C		
12. Stain wood	11	14
13. Tint paint	10	13
14. Paint masonry walls	9	11
Group D		
15. Paint old wallpaper	5	6

Electrical wiring and appliance repairs, as shown in Table XI, consist of major and minor repairs needed. Noticeable are the five repairs in the higher percentages with the exception of item three, electric washing machine doesn't operate properly, and the other four, blown fuse, iron won't work, broken wall switch, and broken plug, are minor repairs. These five repairs listed as needed most, were reported as needed by 23 to 31 per cent of those reporting. Of the fifteen repairs shown in Table XI, five fell within group A, four in group B, four in group C, and two in group D.

Summary

Of the 139 farm home repairs listed in Chapter III, the repairs needed as reported by the eighty parents and farmers surveyed, ranged from 1 per cent to 51 per cent. Of these repairs listed, 32 per cent are in group A, 16 per cent in group B, 17 per cent in group C, and 35 per cent in group D.

In the area of painting and decorating, 67 per cent of all repairs listed are in group A, followed by the area of doors, windows, and stairs with 40 per cent of all repairs listed in group A.

TABLE XI

REPAIRS AND ADJUSTMENTS NEEDED ON ELECTRICAL
WIRING AND APPLIANCES BY EIGHTY PARENTS
AND ADULT CLASS MEMBERS

Repairs and adjustments needed	Number of yes responses	Per cent of yes responses
Group A		
1. Blown fuse	25	31
2. Iron won't work	22	28
3. Electric washing machine doesn't operate properly	21	26
4. Broken wall switch	18	23
5. Broken plug	18	23
Group B		
6. Electric stove doesn't operate properly	15	19
7. Electric fan doesn't operate properly	13	16
8. Electric motor doesn't operate properly	13	16
9. Electric sweeper doesn't operate properly	12	15
Group C		
10. Electric heater doesn't operate properly	11	14
11. Electric refrigerator doesn't operate properly	11	14
12. Broken wire	10	13
13. Electric food mixer doesn't operate properly	9	11
Group D		
14. Electric freezer doesn't operate properly	6	8
15. Electric disposal unit doesn't operate properly	2	3

CHAPTER III

THE DESIRE FOR TRAINING IN FARM

HOME REPAIR MECHANICS

Chapter III presents tables showing the type of training that parents and farmers in the Porter High School community feel would be of most value to the vocational agriculture students. In the survey form, Appendix A, page 55, there are two places to check as to their desire for the training in vocational agriculture. After each repair or adjustment the respondents were asked to check either "yes" or "no." The "no" answers were not tabulated since most checked either "yes" or "no." If the tabulation shows that 85 per cent desire training in one repair job, then it is assumed that 15 per cent does not desire the training.

In discussing the data presented, the repairs listed as recommended for instruction by parents and farmers, will be referred to as groups A, B, C, and D. These groups will represent the following:

- Group A - 80 per cent or higher
- Group B - 75 to 79 per cent
- Group C - 70 to 74 per cent
- Group D - 65 to 69 per cent

Recommendations for instruction in plumbing repairs and adjustments as shown in Table XII, are from a low of 65 per cent to a high of 85 per cent. Two of the repairs listed are in group A, six in group B, eight in group C, and three in group D.

Comparing the seven repairs most recommended by parents and farmers for instruction and the repairs reported as most needed, it was found that

TABLE XII

PLUMBING REPAIRS AND ADJUSTMENTS INSTRUCTION
RECOMMENDED BY EIGHTY PARENTS
AND FARMERS

Repairs and adjustments	Number of yes responses	Per cent of yes responses
Group A		
1. Frozen water pipes	68	85
2. Leak in water pipes	64	80
Group B		
3. Clogged water pipe	61	76
4. Leaking valve or faucet	61	76
5. Leaking cast iron pipes	61	76
6. Sweating pipe	61	76
7. Clogged kitchen sink	60	75
8. Leaking flush box	60	75
Group C		
9. Overheated water	59	74
10. Clogged toilet bowl	59	74
11. Rusty water in pipes	58	73
12. Hammering in pipes	58	73
13. Warm water in cold water pipes	58	73
14. Not enough hot water	58	73
15. Humming in pipes	57	71
16. Clogged field line	57	71
Group D		
17. Discolored hot water	54	68
18. Clogged vent pipe	52	65
19. Clogged sail line	52	65

they were the same except for one. Leaking cast iron pipes is item number five in Table XII and item number nineteen in Table I. The higher percentages of recommended instruction, like the higher percentages of repairs needed, seem to be in the area of water leakage, stoppage of water, and clogged water or drain pipes.

As indicated in Table XIII, two of the heating repairs recommended for instruction are in group A, one in group B, five in group C, and seven in group D. The recommended instruction for the repair of electric coils burning out and house needs insulating is considerably higher than the others listed, being recommended by 83 per cent and 81 per cent respectively. Recommended instruction for the adjustment of unbalanced heat is next being recommended by 75 per cent of those reporting. The ten repairs most recommended for instruction are also the ten repairs listed as needed most in Table II. An exception to this is the repair, sheared feed pin in stoker, appearing sixth in the recommendation for instruction and as number fifteen in repairs needed.

Five of the masonry repairs recommended for instruction, as shown in Table XIV, are in group A, six in group B, three in group C, and one in group D. Although none of the repairs were recommended for instruction by less than 69 per cent, five were recommended for instruction by 80 per cent or more. Eighty-six per cent of those reporting recommended instruction for damp concrete floors.

Instruction in floor repairs, as shown in Table XV, was recommended by 70 to 80 per cent of those reporting. One repair being recommended in group A, four in group B, and five in group C. The repairs recommended

TABLE XIII

HEATING REPAIRS AND ADJUSTMENTS INSTRUCTION
RECOMMENDED BY EIGHTY PARENTS
AND FARMERS

Repairs and adjustments	Number of yes responses	Per cent of yes responses
Group A		
1. Electric coils burning out	66	83
2. House needs insulating	65	81
Group B		
3. Unbalanced heat	60	75
Group C		
4. Smoke coming out of hopper in stoker	59	74
5. Thermostat not working	58	73
6. Sheared feed pin in stoker	57	71
7. Down draft in chimney	57	71
8. Fireplace smoking	56	70
Group D		
9. Coal gas coming into room	55	69
10. Dust coming from register	54	68
11. Air vent valve not working	54	68
12. Fireplace damper won't work	53	66
13. Noise in radiator	52	65
14. Hammering in pipes	52	65
15. Lack of heat in radiator	48	60

TABLE XIV
MASONRY REPAIRS INSTRUCTION
RECOMMENDED BY EIGHTY
PARENTS AND FARMERS

Repairs	Number of yes responses	Per cent of yes responses
Group A		
1. Damp concrete floors	69	86
2. Foundation wall cracked	67	84
3. Mortar joints coming out of brick	66	83
4. Crack in concrete wall	64	80
5. Flashing pulled loose from chimney	64	80
Group B		
6. Brick walls leaking	63	79
7. Broken concrete walks	62	78
8. Joints in flue lining cracked	62	78
9. Mortar joints coming out of blocks	61	76
10. Uneven concrete floors	61	76
11. Crack in concrete walks	60	75
Group C		
12. Concrete block walls leaking	59	74
13. Broken concrete steps	58	73
14. Stucco walls leaking	56	70
Group D		
15. Stone walls leaking	55	69

TABLE XV

FLOOR REPAIR INSTRUCTION RECOMMENDED BY
EIGHTY PARENTS AND FARMERS

Repairs	Number of yes responses	Per cent of yes responses
Group A		
1. Rotten floor joist or girders	64	80
Group B		
2. Tile floors broken or coming loose	63	79
3. Subflooring weak	62	78
4. Hardwood floors finish	62	78
5. Tile floors uneven	60	75
Group C		
6. Creaky floors	59	74
7. Pine floors finish	59	74
8. Broken composition block in floor	59	74
9. Spongy flooring	57	71
10. Hole in linoleum	56	70

the highest for instruction in Table XV, and the repairs reported as needed most in Table IV are not the same.

As shown in Table XVI, the recommended instruction for repairs of doors, windows, and stairs are mostly in group C. Of the twenty repairs listed none is in group A, six in group B, twelve in group C, and two in group D.

The ten repairs recommended highest for instruction in Table XVI are also the ten repairs needed most as shown in Table V. An exception to this is the recommended instruction of door hinge broken and glass panel broken in wood door, appearing in the seventh and eighth place in the recommended instruction and in the sixteenth and fourteenth place in the repairs needed. With the exception of item number six, which is leaking around windows, the eight repairs recommended highest for instruction are all repairs of doors.

The five repairs listed under plaster repairs in Table XVII, were classified as important training for vocational agriculture students by 69 per cent to 76 per cent of those surveyed. One of the repairs listed is classified in group B, three in group C, and one in group D.

Due to the small number of plaster repairs listed, no relation can be seen between the number of repairs recommended for instruction and the number of repairs reported as needed in Table XI. The number of recommendations for the instruction of the repair of loose plaster is considerably higher than for the other repairs listed.

Only one of the six inside wall board repairs listed in Table XVIII is classified in group A. Two are classified in group B, and three in group C.

TABLE XVI

INSTRUCTION IN REPAIR OF DOORS, WINDOWS,
AND STAIRS RECOMMENDED BY EIGHTY
PARENTS AND FARMERS

Repairs	Number of yes responses	Per cent of yes responses
Group B		
1. Door sticking (doesn't fit in frame)	63	79
2. Door lock not working	61	76
3. Screen door doesn't fit in frame	61	76
4. Door rattling	60	75
5. Screen door needs new screen	60	75
6. Leaking around windows	60	75
Group C		
7. Door hinge broken	59	74
8. Glass panel broken in wood door	59	74
9. Sticking window sash	59	74
10. Screen door rotten	59	74
11. Broken window sash	58	73
12. Loose joints in wood trim	58	73
13. Putty cracked on windows	57	71
14. Broken windows	57	71
15. Creaky stairs	56	70
16. Worn stair treads	56	70
17. Broken sash cord on windows	56	70
18. Rotted window sills	56	70
Group D		
19. Loose door knob	54	68
20. Door hinge loose	53	66

TABLE XVII

INSIDE PLASTER REPAIR INSTRUCTION
RECOMMENDED BY EIGHTY PARENTS
AND FARMERS

Repairs	Number of yes responses	Per cent of yes responses
Group B		
1. Loose plaster	61	76
Group C		
2. Damp spots in plaster	57	71
3. Rough plaster	56	70
4. Bulging plaster	56	70
Group D		
5. Cracked plaster	55	69

TABLE XVIII

INSIDE WALL BOARD REPAIR INSTRUCTION
RECOMMENDED BY EIGHTY PARENTS
AND FARMERS

Repairs	Number of yes responses	Per cent of yes responses
Group A		
1. Holes in wall	65	81
Group B		
2. Rough over nails	62	78
3. Nail heads showing	62	78
Group C		
4. Cracked in corners	59	74
Group D		
5. Rough along joints	58	73
6. Cracked along joints	57	71

In comparing the repairs recommended for instruction and the reported needs in Table VII, it will be noted that they are ranked relatively the same as to importance. An exception to this is item number one, holes in wall, rated number one in recommendations and number six in needs.

As shown in Table XIX, recommendations for instruction of the three bathroom wall repairs listed are from 73 per cent to 76 per cent. The repairs listed were recommended for instruction in the same order of importance as they were listed under needs for repair in Table VIII. Two of the repairs are classified in group B, and one in group C.

The low percentage of needs reported and the high percentage of desired instruction may be due to the parents and farmers indicating desire for training in the installation of ceramic tile.

Outside repair instruction, as indicated in Table XX, is considered important instruction by 71 to 81 per cent of the parents and farmers surveyed. Three of the repairs listed are classified in group A, eight in group B, and five in group C. The ten repairs recommended highest for instruction in Table XX are also the ten repairs needed most as shown in Table IX. An exception to this is broken shingles and storm sash not tight. These two repairs are listed as numbers three and nine in instruction desired and as numbers fourteen and thirteen respectively in repairs needed.

As indicated in Table XXI, of the fifteen repairs listed, two are classified in group A, seven in group B, and six in group C. The repair of paint peeling off was recommended for instruction by the highest

TABLE XIX

BATHROOM WALL REPAIR INSTRUCTION RECOMMENDED
BY EIGHTY PARENTS AND FARMERS

Repairs	Number of yes responses	Per cent of yes responses
Group B		
1. Cracked joints between ceramic tile and tub	61	76
2. Loose or chipped tile	60	75
Group C		
3. Cracked joints between ceramic tile	58	73

TABLE XX
OUTSIDE REPAIR INSTRUCTION RECOMMENDED
BY EIGHTY PARENTS AND FARMERS

Repairs	Number of yes responses	Per cent of yes responses
Group A		
1. Leak around chimney or flue	65	81
2. Leak in shingle roof	64	80
3. Broken shingles	64	80
Group B		
4. Decayed framing	63	79
5. Leaks or rains through cracks	62	78
6. Weather stripping off doors and windows	61	76
7. Wood porch floor needs repair	61	76
8. Doors and windows need caulking	61	76
9. Storm sash not tight	60	75
10. Gutter leaking	60	75
11. Porch post rotten	60	75
Group C		
12. Leak around plumbing vent	59	74
13. Gutter and downspout rusted	59	74
14. Leak in valley	58	73
15. Downspout broken	58	73
16. Broken window screens	57	71

TABLE XXI
 PAINTING AND DECORATING REPAIR INSTRUCTION
 RECOMMENDED BY EIGHTY PARENTS
 AND FARMERS

Repairs	Number of yes responses	Per cent of yes responses
Group A		
1. Paint peeling off	67	84
2. Combine paints to get new colors	65	81
Group B		
3. Furniture needs repair and refinishing	63	79
4. Remove varnish and paint	63	79
5. Reupholster furniture	62	78
6. Preparing surface for paint	62	78
7. Stain wood	61	76
8. Paint masonry walls	60	75
9. Varnish wood	60	75
Group C		
10. Paint composition walls	58	73
11. Paint a sash	58	73
12. Tint paint	58	73
13. Paint old plaster	57	71
14. Paint old wallpaper	57	71
15. Paint screens	56	70

percentage of those reporting. This is also the repair reported as being needed most in Table X. Noticeable is the fact that with the exception of one repair, paint screens, all the repairs listed as desired training in Table XXI, did not vary more than six places in order of importance as shown in Table X. Most repairs varied only one and two places of importance.

Electrical wiring and appliance repair instruction as indicated in Table XXII, is considered important training for vocational agriculture students by 74 to 86 per cent of the parents and farmers surveyed. Five repairs recommended for instruction are classified in group A, nine in group B, and one in group C. None was classified in group D. Instruction of the repair of broken wall switch is recommended by 86 per cent of the parents and farmers.

In comparing the recommended instruction shown in Table XXII and the needed repairs as reported in Table XI, it is found that they are closely related in order of importance. The average variation in order of importance is three places.

Summary

The recommended instruction by parents and farmers in the nine different areas presented in this chapter ranged from 60 per cent to 86 per cent. Fifteen per cent of the recommendations for repair instruction are classified in group A, 38 per cent in group B, 38 per cent in group C, and 9 per cent in group D.

TABLE XXII

ELECTRICAL WIRING AND APPLIANCES REPAIR
INSTRUCTION RECOMMENDED BY EIGHTY
PARENTS AND FARMERS

Repairs	Number of yes responses	Per cent of yes responses
Group A		
1. Broken wall switch	69	86
2. Broken plug	67	84
3. Electric washing machine doesn't operate properly	66	83
4. Broken wire	65	81
5. Electric motor doesn't operate properly	64	80
Group B		
6. Electric heater doesn't operate properly	63	79
7. Electric refrigerator doesn't operate properly	63	79
8. Iron won't work	62	78
9. Electric stove doesn't operate properly	62	78
10. Electric fan doesn't operate properly	62	78
11. Electric freezer doesn't operate properly	61	76
12. Blown fuse	60	75
13. Electric food mixer doesn't operate properly	60	75
14. Electric sweeper doesn't operate properly	60	75
Group C		
15. Electric disposal unit doesn't operate properly	59	74

The highest recommendations for repair instruction appear in the areas of electrical wiring and appliance repair. In this area five of the repairs are classified in group A and nine in group B. The areas of masonry and outside repairs each has eleven recommendations for repair instruction classified in groups A and B.

CHAPTER IV

SUMMARY AND RECOMMENDATIONS

Summary

Need for Farm Home Repair Mechanics as Reported by Eighty Parents and Farmers

In addition to the summary that follows, short summaries are found at the end of Chapters II and III.

Forty of the 139 farm home repairs included in the check list had been made in the homes of over 20 per cent of the eighty parents and farmers reporting. Forty-five of the repairs listed had been made in the homes of from 10 to 20 per cent of the eighty parents and farmers reporting. The ten repairs which are the most common in the homes of the parents and farmers surveyed were:

1. Putty cracked on window sash
2. Leaking valve or faucet
3. Frozen water pipes
4. House needs insulating
5. Paint peeling off
6. Screen door needs new screen
7. Unbalanced heat
8. Sticking window sash
9. Preparing surface for paint
10. Hardwood floors finished

Recommendations for Instruction in Farm Home Repair Mechanics as Recommended by Eighty Parents and Farmers

Seventy-three of the 139 repairs listed were checked by 75 per cent or more of the parents and farmers as desired training for vocational agriculture students. The lowest per cent of parents and farmers checking any repair was 60. The highest per cent of parents and farmers checking

any repair was 86. Eighty per cent or more of the eighty parents and farmers reported desired training for vocational agriculture students in the repair of eighteen different items. The ten repairs that parents and farmers selected as most important in order of importance for training in vocational agriculture were:

1. Damp concrete floors
2. Broken wall switch
3. Frozen water pipes
4. Foundation wall cracked
5. Paint peeling off
6. Broken electric wall plug
7. Electric coils burning out
8. Mortar joints coming out of brick
9. Electric washing machine doesn't operate properly
10. House needs insulating.

Recommendations

It would seem that since 60 to 86 per cent of the parents and farmers desire training in all 139 farm home repairs, that the vocational agriculture department should face the challenge and provide instruction to meet their needs.

A comparison of the ten most common farm home repair jobs needed with the ten most common jobs now being taught to vocational agriculture students shows that the ten most common farm home repair jobs needed are common to 33 to 65 per cent of the parents and farmers surveyed. In comparison, the ten most common jobs now being taught to vocational agriculture students are common to 10 to 48 per cent of the students receiving such instruction.

Some typical comments made by the parents were:

I think students should be taught more of the things that they can use.

This is something that the boys can do. It certainly will help me around the house.

The home repairs here just don't get done unless we do them ourselves. This training would save us some money.

I doubt if the agriculture department could teach all the repairs listed. Any that could be taught would be a great help.

I think the plan is fine; my son likes to show us what he has learned in school.

This may get my son more interested in our home.

Over a period of years our community would look different as a result of farm home training.

If you can get a boy or man interested in a home, they can get so much more done.

Since very little farm home repair education is being offered in vocational agriculture at Porter, the writer has concluded that a definite program of instruction should be offered to those enrolled.

The writer wishes to make the following recommendations for instruction in Farm Home Repair Mechanics at Porter High School:

1. Farm Home Repair Mechanics instruction be included in the vocational agriculture curriculum.

2. Since Farm Home Repair Mechanics covers such a wide area of instruction, it should be taught on the small group basis.

Each group should consist of not more than four students. The sophomore, junior, and senior classes should be divided into six groups. The freshman class should be divided into five groups. Each group should spend a total of one week in each

instructional area. The sophomore, junior, and senior classes would have six weeks of farm home instruction, and the freshman class would have five weeks. Following is the suggested areas of instruction for each group and the suggested repairs included within that group. The repairs are listed in order of importance as recommended by the parents and farmers.

Seniors

Plumbing

1. Frozen water pipes
2. Leak in water pipes
3. Clogged water pipes
4. Leaking valve or faucet
5. Leaking cast iron pipe
6. Sweating pipe
7. Clogged kitchen sink

Heating

1. Electric coils burning out
2. House needs insulating
3. Unbalanced heat
4. Smoke coming out of hopper in stoker
5. Thermostat not working
6. Sheared feed pin in stoker
7. Down draft in chimney
8. Fireplace smoking

Floors

1. Rotten floor joist or girders
2. Tile floors broken or coming loose
3. Subflooring weak
4. Hardwood floors finish
5. Tile floors uneven

Outside Repairs

1. Leak around chimney or flue
2. Leak in shingle roof
3. Broken shingles
4. Decayed framing

Painting and Decorating

1. Paint peeling off
2. Combine paints to get new colors
3. Furniture needs repair and refinishing
4. Remove varnish and paint

Electrical Wiring and Appliances

1. Broken wall switch
2. Broken plug
3. Electric washing machine doesn't operate properly
4. Broken wire
5. Electric motor doesn't operate properly
6. Electric heater doesn't operate properly
7. Electric refrigerator doesn't operate properly
8. Iron won't work

JuniorsPlumbing

1. Leaking flush box
2. Overheated water
3. Clogged toilet bowl
4. Rusty water in pipes
5. Hammering in pipes
6. Warm water in cold water pipes
7. Not enough hot water

Heating

1. Coal gas coming into room
2. Dust coming from register
3. Air vent valve not working
4. Fireplace damper won't work
5. Noise in radiator
6. Hammering in pipes
7. Lack of heat in radiator

Floors

1. Creaky floors
2. Pine floors finish
3. Broken composition block in floor
4. Spongy flooring
5. Hole in linoleum

Outside Repairs

1. Leaks or rains through cracks
2. Weather stripping off doors and windows
3. Wood porch floor needs repair
4. Doors and windows need caulking

Painting and Decorating

1. Reupholster furniture
2. Preparing surface for paint
3. Stain wood
4. Paint masonry walls

Electrical Wiring and Appliances

1. Electric stove doesn't operate properly
2. Electric fan doesn't operate properly
3. Electric freezer doesn't operate properly
4. Blown fuse
5. Electric food mixer doesn't operate properly
6. Electric sweeper doesn't operate properly
7. Electric disposal unit doesn't operate properly

Sophomore

Plumbing

1. Hammering in pipes
2. Clogged field line
3. Discolored hot water
4. Clogged vent pipe
5. Clogged soil line

Masonry

1. Damp concrete floors
2. Foundation wall cracked
3. Mortar joints coming out of brick
4. Crack in concrete wall
5. Flashing pulled loose from chimney
6. Brick walls leaking
7. Broken concrete walks
8. Joints in flue lining cracked

Doors, Windows, and Stairs

1. Door sticking (doesn't fit in frame)
2. Door lock not working
3. Screen door doesn't fit in frame
4. Door rattling
5. Screen door needs new screen
6. Leaking around windows
7. Door hinge broken
8. Glass panel broken in wood door
9. Sticking window sash
10. Screen door rotten

Inside Walls

A. Paster

1. Loose plaster
2. Damp spots in plaster
3. Rough plaster
4. Bulging plaster
5. Cracked plaster

B. Bathroom

1. Cracked joints between ceramic tile and tub
2. Loose or chipped tile
3. Cracked joints between ceramic tile

Outside Repairs

1. Storm sash not tight
2. Gutter leaking
3. Porch post rotten
4. Leak around plumbing vents

Painting and Decorating

1. Varnish wood
2. Paint composition walls
3. Paint a sash
4. Tint paint

Freshman

Masonry

1. Mortar joints coming out of blocks
2. Uneven concrete floors

3. Crack in concrete walks
4. Concrete block walls leaking
5. Broken concrete steps
6. Stucco walls leaking
7. Stone walls leaking

Doors, Windows, and Stairs

1. Broken window sash
2. Loose joints in wood trim
3. Putty cracked on windows
4. Broken windows
5. Creaky stairs
6. Worn stair treads
7. Broken sash cord on windows
8. Rotten window sills
9. Loose door knob
10. Door hinge loose

Inside Walls (Wall Board)

1. Holes in wall
2. Rough over nails
3. Nail heads showing
4. Cracked in corners
5. Rough along joints
6. Cracked along joints

Outside Repairs

1. Gutter and downspout rusted
2. Leak in valley
3. Downspout broken
4. Broken window screens

Painting and Decorating

1. Paint old plaster
2. Paint old wallpaper
3. Paint screens

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APPENDIX

HOUSEHOLD MECHANICS INFORMATION BLANK

Please check Yes or No for each of the following questions.

	Yes	No
1. Do you own your own home? -----		
2. Do you rent a home? -----		
3. Do you rent an apartment? -----		
4. Do you have a son in vocational agriculture? ----- If you answer is <u>Yes</u> , what year is he enrolled in now? (Please circle year) 9, 10, 11, or 12		
5. Do you heat your house by		
Electricity -----		
Furnace -----		
Stove -----		
Other -----		
6. Is your water supplied by		
Utility -----		
Well -----		
Spring -----		
Other -----		

Directions: Please read each item carefully. Check Yes for those items needing repair, adjustment and correction in your home. If there is no need check No. Next, check Yes if you think a student of vocational agriculture should be given instruction to do the job. You may check that a student needs instruction even though there is no need to do the job at home at this time. Check No if you think he should not be given instruction in vocational agriculture.

Item	Repair, adjustment and correction need to be made		Should vo-ag student be given instruction and practice to do job	
	Yes	No	Yes	No
PLUMBING				
1. Clogged water pipe				
2. Rusty water in pipes				
3. Hammering in pipes				
4. Humming in pipes				

Item	Repair, adjustment and correction need to be made		Should vo-ag student be given instruction and practice to do job	
	Yes	No	Yes	No
PLUMBING (con't)				
5. Warm water in cold water pipes				
6. Leak in water pipes				
7. Frozen water pipes				
8. Clogged vent pipe				
9. Clogged soil line				
10. Clogged field line				
11. Clogged kitchen sink				
12. Not enough hot water				
13. Overheated water				
14. Discolored hot water				
15. Leaking valve or faucet				
16. Clogged toilet bowl				
17. Leaking flush box				
18. Leaking cast iron pipes				
19. Sweating pipe				
20. Other _____				
HEATING				
1. Fireplace smoking				
2. Coal gas coming into room				

Item	Repair, adjustment and correction need to be made		Should vo-ag student be given instruction and practice to do job	
	Yes	No	Yes	No
HEATING (con't)				
3. Dust coming from register				
4. Unbalanced heat				
5. Noise in radiator				
6. Lack of heat in radiator				
7. Air vent valve not working				
8. Hammering in pipes				
9. Sheared feed pin in stoker				
10. Smoke coming out of hopper in stoker				
11. Down draft in chimney				
12. Thermostat not working				
13. Electric coils burning out				
14. House needs insulating				
15. Fireplace damper won't work				
16. Others _____				
MASONRY				
1. Foundation wall cracked				
2. Brick walls leaking				

Item	Repair, adjustment and correction need to be made		Should vo-ag student be given instruction and practice to do job	
	Yes	No	Yes	No
MASONRY (con't)				
3. Concrete block walls leaking				
4. Stucco walls leaking				
5. Stone walls leaking				
6. Broken concrete steps				
7. Broken concrete walks				
8. Crack in concrete walks				
9. Crack in concrete wall				
10. Damp concrete floors				
11. Mortar joints coming out of brick				
12. Mortar joints coming out of blocks				
13. Uneven concrete floors				
14. Flashing pulled loose from chimney				
15. Joints in flue lining cracked				
FLOORS				
1. Creaky floors				
2. Subflooring weak				
3. Hole in linoleum				
4. Hardwood floors finish				

Item	Repair, adjustment and correction need to be made		Should vo-ag student be given instruction and practice to do job	
	Yes	No	Yes	No
FLOORS (con't)				
5. Pine floors finish				
6. Spongy flooring				
7. Rotten floor joist or girders				
8. Tile floors uneven				
9. Tile floors broken or coming loose				
10. Broken composition block in floor				
DOORS, WINDOWS, AND STAIRS				
1. Creaky stairs				
2. Worn stair treads				
3. Door lock not working				
4. Door hinge broken				
5. Door hinge loose				
6. Door rattling				
7. Door sticking (doesn't fit in frame)				
8. Glass panel broken in wood door				
9. Loose door knob				
10. Putty cracked on windows				
11. Broken sash cord on windows				

Item	Repair, adjustment and correction need to be made		Should vo-ag student be given instruction and practice to do job	
	Yes	No	Yes	No
DOORS, WINDOWS, AND STAIRS (con't)				
12. Sticking window sash				
13. Broken window sash				
14. Rotted window sills				
15. Screen door rotted				
16. Screen door doesn't fit in frame				
17. Screen door needs new screen				
18. Leaking around windows				
19. Broken windows				
20. Loose joints in wood trim				
INSIDE WALLS				
A. Plaster				
1. Damp spots in plaster				
2. Loose plaster				
3. Rough plaster				
4. Cracked plaster				
5. Bulging plaster				
B. Wall Board ("dry wall construction")				
1. Cracked along joints				
2. Cracked in corners				

Item	Repair, adjustment and correction need to be made		Should vo-ag student be given instruction and practice to do job	
	Yes	No	Yes	No
INSIDE WALLS (con't)				
B. 3. Rough along joints				
4. Rough over nails				
5. Nail heads showing				
6. Holes in wall				
C. Bathroom				
1. Cracked joints between ceramic tile				
2. Cracked joints between ceramic tile and tub				
3. Loose or chipped tile				
OUTSIDE REPAIRS				
1. Storm sash not tight				
2. Weather stripping off doors and windows				
3. Leak around chimney or flue				
4. Leak around plumbing vents				
5. Leak in valley				
6. Leak in shingle roof				
7. Gutter leaking				
8. Downspout broken				
9. Gutter and downspout rusted				

Item	Repair, adjustment and correction need to be made		Should vo-ag student be given instruction and practice to do job	
	Yes	No	Yes	No
OUTSIDE REPAIRS (con't)				
10. Wood porch floor needs repair				
11. Porch posts rotted off				
12. Broken window screen				
13. Doors and windows need caulking				
14. Broken shingles				
15. Decayed framing				
16. Leaks or rains through cracks				
PAINTING AND DECORATING				
1. Paint old plaster				
2. Paint composition walls				
3. Paint old wallpaper				
4. Paint masonry walls				
5. Paint screens				
6. Paint a sash				
7. Furniture needs repair and refinishing				
8. Reupholster furniture				
9. Tint paint				
10. Combine paints to get new colors				

Item	Repair, adjustment and correction need to be made		Should vo-ag student be given instruction and practice to do job	
	Yes	No	Yes	No
PAINTING AND DECORATING (con't)				
11. Stain wood				
12. Varnish wood				
13. Remove varnish and paint				
14. Preparing surface for paint				
15. Paint peeling off				
ELECTRICAL WIRING AND APPLIANCES				
1. Blown fuse				
2. Broken wall switch				
3. Broken plug				
4. Broken wire				
5. Iron won't work				
6. Electric heater doesn't operate properly				
7. Electric stove doesn't operate properly				
8. Electric food mixer doesn't operate properly				
9. Electric sweeper doesn't operate properly				
10. Electric washing machine doesn't operate properly				

Item	Repair, adjustment and correction need to be made		Should vo-ag student be given instruction and practice to do job	
	Yes	No	Yes	No
ELECTRICAL WIRING AND APPLIANCES				
11. Electric refrigerator doesn't operate properly				
12. Electric fan doesn't operate properly				
13. Electric motor doesn't operate properly				
14. Electric freezer doesn't operate properly				
15. Electric disposal unit doesn't operate properly				