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ABSTRACT

This leader's guide is part of a multi-media curriculum package aimed at informing students in grades 6 through 9 about women's work prospects and problems and new opportunities for women in nontraditional occupations: it is also designed to help students engage in school activities to explore skilled trade and technical fields. The first section of the guide provides background information about women and work (female labor force participation, common sex stereotypes, the importance of technical and trade skills, and new job opportunities for women) and general suggestions for program implementation. Detailed instructions on how to use the materials provided in the fifteen-module gamebook (available separately through ERIC--see note) and the text of the gamebook itself constitute the bulk of the guide. The information prefacing each activity includes statements of the activity's purpose and what students will do to complete the activity, a list of supplies needed, necessary leader preparation, time needed, steps for introducing the activity, and suggested follow-up activities and questions. The third section of the guide contains the script of a sound filmstrip presentation designed to be used in conjunction with the gamebook. (MN)

Leader's Guide

CONNECTIONS

A Program
for Middle School Students
about

Women and Work and Skills for Good Jobs

Developed by:

The Boston YWCA
140 Clarendon Street
Boston, Massachusetts 02116

Women's Educational Equity Act Program
U.S. EDUCATION DEPARTMENT

Shirley M. Hufstedler, Secretary

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A Message for Program Leaders

CONNECTIONS, a multi-media curriculum package for middle school students, was developed in 1978-79 by the Boston YWCA to:

- inform girls and boys in grades six through nine about women's work prospects and problems and new opportunities for women in nontraditional occupations;
- interest girls in considering a broader range of occupational alternatives which include nontraditional options;
- help students engage in school activities to explore skilled trade and technical fields;
- interest boys in supporting and assisting girls in their efforts.

The program consists of:

- a Gamebook of activity-oriented student materials in flexible, modular units covering 15-20 hours of instruction in classroom or small-group settings;
- a slide/sound presentation which presents female role models, their families, and co-workers, who speak for themselves about the realities and experiences of women in nontraditional jobs;
- a Leader's Guide which provides background information about women and work, general implementation suggestions, and detailed instructions on how to use the materials.

As you will see, each of the 15 modules in the program centers on a particular theme, such as the future, stereotypes, skilled and technical occupations, hands-on exploration, school training opportunities, etc. Most modules contain several activities. Each activity is preceded by a page (or pages) in the Leader's Guide identifying its purpose, what students will do, what you'll need to carry it out, how much time it requires, how you can get it started, and how you can sum up the essential ideas. *Up Front: An Introduction* (Leader's Guide, pages 1-8) will set the factual scene for you and help you begin the program.

The Gamebook contains all the pages students will need to participate in the program. Leaders may wish to store the Gamebooks and hand them out each time the class meets. When the program has been completed, students should keep their Gamebooks for reference in making further school plans.

Contents

Up Front: An Introduction

Facts about Women and Work

Cinderella revisited

Recent bulletins from Washington say that it's time to pack up the Cinderella legend. Government research confirms that maidens are no longer carried off by handsome princes to live happily ever after in castles far from the world of work. One out of every two adult women in the U.S. is either employed or looking for a job. By 1990 more than 70% will be in the labor market. Such figures reflect new realities for women . . . and men.

As Cinderella fades out, other myths are gaining popularity. TV ads now show glamorous young females phoning their boyfriends to come over for a drink of expensive sherry, or chic professional wives dropping the kids off at school on the way to the office. In well-equipped kitchens, daddies are seen stirring soup for the family supper as mommies come home from work. Attractive media images promote personal independence and affluent lifestyles, but caution is recommended lest we allow new fantasies to mislead us.

This program addresses the "facts of work and life" as they really are. *CONNECTIONS* is designed to help students of both sexes share in an exploratory experience — to see for themselves, try things out, support and reinforce each other in the discovery of new career interests and aptitudes. The program activities deal with ideas, attitudes, and occupational skills that are useful for everybody; they introduce a range of jobs — appliance repairperson, carpenter, machinist, maintenance mechanic, to name a few — that are appropriate today for girls and boys alike. The intent of *CONNECTIONS* is to enlarge the awareness of *all* students about the assets of these jobs, the wide applicability of basic trade and technical skills, the existence of school opportunities to learn skills, and the social framework in which men and women must begin to live and work together.

Shedding stereotypes

Much lore about women and work that has been taken for granted is now obsolete. The facts are:

Most women work, but only in a few occupations . With few or no marketable skills, most women don't qualify for jobs that pay well and offer opportunities for advancement. Too many girls prepare in school only for low-wage, low-level employment in traditional female fields. Of the more than 40 million women who work outside the home, 32 million (80%) are in light industry, clerical, or service jobs that lead essentially to a career dead end.

Women go to work because they need the money, but they don't earn it . The modern Cinderella is at a desk or behind a counter or on a plant assembly line, but the salary she brings home doesn't buy much. She's probably left the hearth for a job that won't even enable her to support herself, much less any dependents she may have. Women average 60 cents for every dollar earned by their male counterparts. Although women are 42% of the nation's job-holders, they receive only 25% of the total wages earned by all U.S. workers. As the 1980's begin, two out of every three poor persons over the age of 16 in this country are female.

Family portraits are changing . There are now about 57 million families in the U.S. Only about 4 million of them (7%) are "average" families (father employed, mother not employed, two children). An even more striking statistic is that nearly 8 million families (14%) are now headed by women. The sharp rise in divorce (currently one out of three marriages) and in the number of children born to unmarried women has produced a new convention for our times — the single-parent family with a female as sole or primary support. One-third of these families have incomes below the poverty level.

It takes two to bring home the bacon . The old assumption that in families where husbands are present, wives work "just for pocket money" is invalid today. Nearly half of all wives now have jobs outside the home; their earnings contribute crucial dollars to the family budget. One income is not enough to keep most families afloat and will be even less adequate in the years ahead if the inflation rate maintains its upward spiral.

Like men, women work a long time . As people worry more and more about financial security, major changes are occurring in the way they feel about careers for women. Full-time homemakers are, of necessity, becoming vanishing Americans and public and private attitudes about where women "belong" are shifting accordingly. Unlike her mother in the 1950's who typically quit her post-high school job to walk down the aisle, today's female graduate is under strong pressure to stay in the labor force. She is wise if she prepares for a working life of at least 25 years which, as recent trends show, will be interrupted only briefly for child-care responsibilities.

Equal opportunity gives women new options . . . . While a generation ago custom restricted women who worked to a very small range of job possibilities, today *all* occupational doors are legally open to girls, offering wage and mobility advantages their

mothers never dreamed of. Both in school and at the worksite, women are beginning to learn technical and trade skills that can help them move into the economic mainstream along with men.

However, except for a surge of interest in top professions such as medicine or law, most females don't choose the rewarding career paths now available and continue to cluster in routine white or pink collar jobs. Barriers are down in well-paying occupations previously dominated by males, but the pervasive effects of stereotyping operate to keep young women from investigating opportunities to train for nontraditional fields. In 1979, seven years after the passage of legislation forbidding sex bias in education, girls composed only 11% of students in "male" vocational education programs.

Why the focus on technical and trade skills? Greater employment potential.

The job outlook in technical and trade occupations is good. In the decades ahead there will be more overall opportunities in these fields as well as a greater diversity of jobs. In the future, as now, there will also be a larger number of skilled technical and trade jobs available than middle- or high-level professional or managerial jobs.

Moreover, the earning power of skilled workers in technical and trade occupations is high. An illustration: Studies by the Bureau of Labor Statistics show that craftspersons — 95% of whom are men — earn an average of $9.39 an hour. Dressmakers — 98% of whom are women — earn an average of $3.62 an hour.

Shop courses, drafting, math, and sciences are good preparation for skilled crafts jobs. This is the message schools deliver to boys from kindergarten on because society expects boys to be breadwinners. Now girls are breadwinners too. They need to hear the message loud and clear — and they need more. Girls must develop confidence in their ability to handle the training that skilled jobs require and the problems that arise in nontraditional work arenas. They need encouragement to step out of roles shaped by yesterday's culture and economy and into new classroom and worksite relationships.

Frontiers for women: Look around, look backward, look ahead.

Trade and technical fields may seem like inhospitable territory for females, but a significant number of women have already ventured into machine shops, mines, automotive plants and the like. (In fact, many jobs that women take as a matter of course — as waitresses, packers, factory operatives, etc. — are carried out in dirty, noisy or industrial environments where conditions are often similar to those in nontraditional settings.) Current figures show

that 5% of all women are now in the skilled crafts. In a real sense they are pioneers, wearing hard hats instead of bonnets, who have figured out that working women should go where opportunity beckons...even if the workplace takes a bit of getting used to.

Here is where we might rewrite the Cinderella story. Instead of summoning a fairy godmother who relies on magic to create a coach out of a pumpkin, Cinderella should call upon her spiritual grandmother, Rosie the Riveter. In the 1940's, during World War II, Rosie learned how to build ships, planes, tanks, roads; someone had to do these things while men were off at war. Rosie climbed scaffolds, shouldered bulky tools, pocketed an impressive paycheck each week, and showed that females can and do perform successfully in male occupations.

Rosie's roots, after all, go back to early frontier days when American women first worked side by side with men at hard tasks. Historically, women have played leading roles in helping to form unions and improve working conditions throughout U.S. industry. Rosie's record adds to the long saga of this country's womanpower. At the very least, her example can awaken today's girls to new career choices and can demonstrate to boys that women have a place in the nontraditional work world.

Program Implementation

Project history

Curriculum materials for *CONNECTIONS* were developed by the Boston YWCA under a one-year grant which began in September 1978. From January to June 1979, the program was pilot tested in 14 Boston, Massachusetts, middle school classes, with students from a wide range of educational, ethnic, and economic backgrounds, including some handicapped by deafness or other learning disabilities. Leaders who implemented the materials were teachers of reading, math, health, career education, and industrial arts, as well as guidance counselors.

This edition of *CONNECTIONS* incorporates formative evaluation responses and feedback obtained from students, leaders, and school administrators who participated in the program, in addition to revisions based on classroom observation by project staff. A detailed report documenting all findings and recommendations is available from the Women's Educational Equity Act Program, U.S. Education Department, Washington D.C. 20202.

Making the program work

CONNECTIONS is designed to stir up feelings and ideas and to provide reliable information about career preparation. Pilot tests indicated that students in general enjoyed the give and take stimulated by the program activities. While some adamantly defended the status quo (traditional male and female work roles), others challenged it vehemently. Facts that made a universal impression concerned the inequity between men's and women's earnings and the inelasticity of family income after basic expenses are met. Both boys and girls learned to identify occupational and social stereotypes and, over the course of the program, developed more realistic concepts about the future.

You will be able to implement the materials most effectively if you have carefully looked over the entire program in advance to get a sense of its scope and diversity. Consider it a treasury of activities organized in modules around 15 related themes. Below are several suggestions that highlight procedural approaches for leaders. These recommendations reflect actual user experience; they can help you handle typical classroom situations and may contribute to more positive program outcomes for your students.

Be prepared. In pilot-test classes, leaders who had read each module thoroughly before class, organized supplies, drawn chalkboard charts, etc. were by far the most successful. A reasonable amount of thinking things through ahead of time will cut down the "busy work" required to get the activities going and will increase the fun and surprises for students.

Time flies; schedule accordingly . . . . Plan how much material you think your class can cover in a session and select a sequence of activities that is manageable within the time you have. If you follow the minimum timing suggestions ("At least 20 minutes," etc.), you can complete a whole module in one class period of about 45 minutes. Most leaders, however, have spent more than one class period to complete most modules.

Build bridges . . . . Take a minute as each class begins to tie ideas together from previous sessions, especially when there are weekly (or longer) intervals between classes. As class ends, you might want to forecast what's coming up next, to provoke interest.

Put the accent on individuality. In pilot tests, differences among individuals were more noticeable than differences between sexes. Your students of both sexes will probably vary widely in their attitudes about suitable "male" and "female" jobs, knowledge about trade and technical occupations, and ability to perform hands-on tasks.

It's possible, however, that initially girls as a group may not do as well as boys in the hands-on activities. If this happens, use it as

a springboard for discussion. Talk about why girls usually don't have opportunities to work with tools or electrical equipment; point up the value of school opportunities to gain this kind of experience. Acquiring nontraditional skills takes time and practice, as does learning to swim, ride a bike, or drive a car. Few persons (of either sex) can master these feats the first time they try, but it's worthwhile to keep on trying. Always suggest ways for students as individuals to capitalize on their personal strengths to improve their career potentials.

Pry positives out of negatives . If there are expressions of peer pressure, make an effort to turn them into peer problem-solving exchanges. For example: If boys say "OK, so girls can do it. Let's go on to something else," help them understand that their support makes a difference in helping girls to overcome obstacles. Ask boys to think of female classmates who have shown special talent in math, science, or industrial arts. What can boys say or do to encourage them to make the most of that talent? Suppose the tables were turned. Wouldn't boys want similar support if they were undertaking a new career route for males?

Emphasize the benefits of exploration . The point of *CONNECTIONS* is that everyone can profit by investigating trade and technical occupations while in school. The skills that boys and girls learn by working together in shops and labs are practical and broadly applicable. A strong background in math and science can pave the way into a vast number of good jobs, regardless of sex.

Familiarity with tools and technical materials can be useful in working around the house as well as in many job areas. Trying out nontraditional courses will give students a basis for comparing these fields with other occupations. It's better to have a clear picture of all there is to choose from than just to drift into post high-school employment that is unsatisfying or unremunerative.

Be flexible; adapt when necessary . Since you know the likes and dislikes, strengths and weaknesses of your own class, you can make estimates about portions of program activities that will fly or flop. Take these into account as you plan your sessions. Try, however, to preserve the game spirit even if you have to simplify or adapt the game rules for an individual activity.

Use outside resources. Your school may have people (industrial arts or gym teachers) or equipment (electricity kits, more sophisticated games) that can make it easier for you to carry out some of the program activities. Don't hesitate to ask for assistance or to borrow supplies.

The program is alive; keep nourishing it! Allow time for free-wheeling commentary and debate. Many pilot leaders found that they could enhance the materials by adding personal anecdotes or relating program topics to current events. You too will probably want to draw on your own experience — and to invite your students to do likewise — in order to help the class make logical connections between school opportunities and desirable career goals.

Take readings as the program progresses. Knowing how things stand can help you sharpen your leadership skills. You may wish to use the Evaluation Form in the Appendix (or another appropriate device) to keep track of what your students think about the curriculum and to measure what they are learning. (The Appendix includes a sample that has been filled in, as well as a blank form that can be photocopied for your class.)

Enough said, now for the action . . . .

- Make sure you're all set with the materials for Module 1.
- Begin the first session by asking students to fill in the information requested on page 3 of their Gamebooks.
- Then, ask them to turn to the cartoon on Gamebook page 5. (It's in your Leader's Guide, page 8.)
- Now, you're ready to launch . . . have fun!


ARE YOU READY TO START MAKING CONNECTIONS ?
LET'S GO !
YOUR CLASS LEADER WILL TELL YOU WHEN TO TURN THIS PAGE TO BEGIN...

Module 1

What's Ahead?

Predictions

Purpose

To help students compare expectations and attitudes about:

- how much they will work as adults
- why men work
- why women work

What students will do

Students will fill in a checklist of their own expectations and will compare them with those of other students in the class.

Supplies needed

- Gamebook and pencil for each student
- two sheets of standard 8½" x 11" paper
- one felt-tipped marker

} to make game signs

Leader preparation

Read the activity carefully. Plan how to make it work in your class.

Make one sign labeled "YES" and another labeled "NO."

Put the signs up in opposite corners of the room so that a group can gather under each one.

On a chalkboard, draw the *Predictions Chart* (Leader's Guide, page 13).

Time needed

At least 25 minutes.

To launch

Ask students to turn to page 7 of their Gamebooks, *Predictions* (Leader's Guide, page 13). Go over the game rules with the entire class.

Using the chalkboard chart to demonstrate, read aloud the first "I'll probably . . ." statement and show students how to check their own expectations under the column headed "Me." While students continue checking the remaining statements, circulate among them to help where needed.

When students have completed their individual checklists, begin the group game.

Read aloud the first statement and ask all students who checked "YES" to stand under the YES sign and all who checked "NO" to stand under the NO sign.

To launch (continued)

Count the totals of girls and boys in the YES group and write them on the chalkboard chart in the appropriate columns. Count the girls and boys in the NO group and write the totals on the chart.

Ask one student in each group to answer the questions on page 14 of the Leader's Guide or similar questions. After the student has answered, ask all students to return to their seats.

Repeat this procedure for the remaining statements, allowing enough time between each one for students to gather under signs, be counted, answer questions, and return to their seats.

After the last statement, ask students to copy down the totals from the chalkboard in their Gamebooks. They will then have a record of their own expectations and those of their classmates at the start of the program.

To sum up

The chalkboard chart will show what class expectations and attitudes are in general and by sex. It may reveal some surprising information.

Ask students if the totals show differences between girls and boys about:

- working after high school or college/after marriage/after having kids
- getting married
- reasons for working

Do all girls (or all boys) answer the same way?

Ask students:

- what jobs should girls prepare for so they can support themselves and a family if they don't have husbands?
- what jobs should boys prepare for to support themselves and a family?
- have the same jobs been suggested for both girls and boys who expect to support themselves and their families? if not, what is the explanation?

Ask if students feel that some jobs are suitable only for women and some only for men. In this program they will find out how stereotyped views can limit career choices and opportunities to earn a good living.

Predictions

Game Rules

To predict your own future, check YES or NO under Column 1 (Me). When the girls and boys in each group have been counted, fill in the totals under Column 2 (Girls) and Column 3 (Boys).

Predictions Chart

	Column 1 Me		Column 2 Girls		Column 3 Boys	
	YES	NO	YES	NO	YES	NO
I'll probably . . .						
1. Work when I graduate from high school or college						
2. Get married						
3. Quit working if I get married						
4. Quit working if I have kids						
I'll probably work to . . .						
5. Support myself--pay for basics like food, rent, and clothes						
6. Earn only enough to pay for extras like a stereo or a new car						
7. Do something that interests me						

	Students responding YES	Students responding NO
I'll probably . . .		
1. Work when I graduate from high school or college	• At what kind of job? • What do you know about that kind of job?	• Why wouldn't you work?
2. Get married	• Are there more girls or boys in your group? • What does that tell you?	• Are there more girls or boys in your group? • What does that tell you?
3. Quit working if I get married	• Why would you quit working after marriage? • What would be good/bad about quitting? • Would your spouse probably want you to quit? Why?	• Why would you keep working? • What would be good/bad about continuing to work? • Would your spouse probably want you to go on working? Why?
4. Quit working if I have kids	• Why would you quit work after having kids? • What would be good/bad about quitting?	• Why would you keep working after having kids? • What would be good/bad about continuing to work?
I'll probably work to . . .		
5. Support myself—pay for basics like food, rent, and clothes	• In what jobs could you earn enough to pay for these things?	• Who is going to pay for your rent, food, clothes, etc.?
6. Earn only enough to pay for extras like a stereo or a new car	• Who is going to pay for rent, food, clothes, etc.?	• Then what are your reasons for working?
7. Do something that interests me	• What things interest you? • What jobs match your interests? • What talents or skills do you have for these jobs?	• Then what are your reasons for working?

Real-Life Slices

Purpose

To help students recognize that:

- most women work
- most women work a long time, regardless of marriage or children
- most women work for the same reasons that men work – to support themselves and their families

What students will do

Students will complete simple statistics to reveal factual information about women and work.

Supplies needed

- Gamebook and pencil for each student

Leader preparation

Read the activity carefully. Plan how to make it work in your class.

Reread the introduction to the program to have more background facts at hand for class discussion.

Time needed

At least 15 minutes

To launch

Ask students to turn to page 8 of their Gamebooks, *Real-Life Slices* (Leader's Guide, page 17). Go over the game rules with the entire class.

Begin by reading aloud one of the questions in the pie and ask a few students to guess the right answer. (Answers are written on your copy.) Tell students to write the correct answer in their Gamebooks.

Then, ask a student to read what the correct answer means.

Continue until all of the questions have been answered.

To sum up

Ask students which facts surprised them most. Ask how facts compare with the expectations expressed in the previous activity. For example:

- most married women with children work; how many girls in the class said they expected to work after marriage and children?
- like men, women work to support themselves and their families; how many girls said they expected to work to pay for basics like food, rent, etc.?; how many said they expected to work only to pay for extras?

Ask a few students to comment on the fact that young women today will spend about 25 years working. Knowing this, what school plans should girls make?

Ask students if they know how many years most men will spend working. (About 40 years.) Even though boys may be unaware of the exact number of years, how does this fact affect what courses they pick in school?

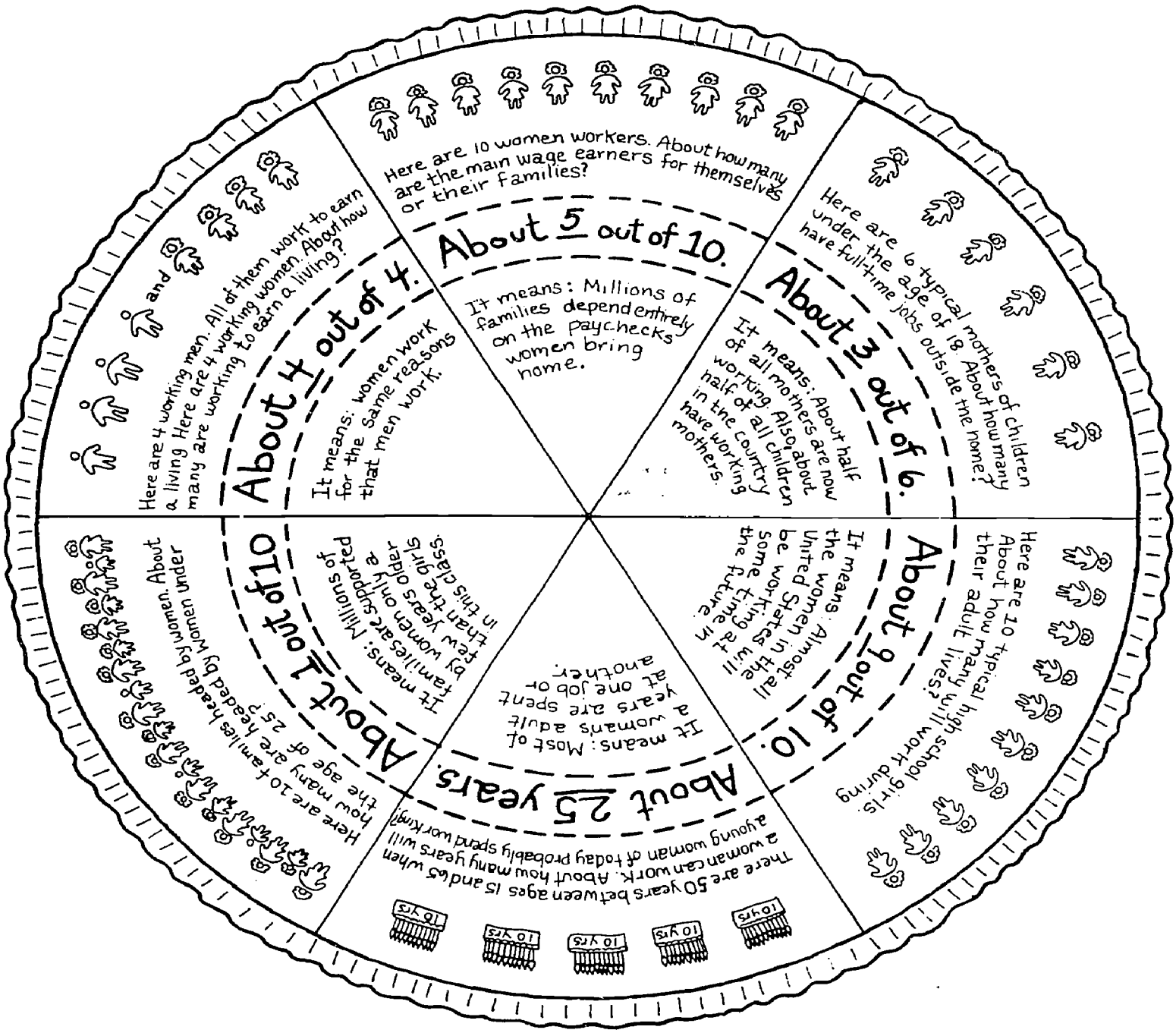
Point out that most boys grow up expecting that someday they will become breadwinners; they will need job skills in order to earn a living. Today girls are beginning to realize that they too must take responsibility for their own futures. It's never too soon to start thinking about these ideas.

Use the Cinderella analogy and other ideas from the introduction to the program to stimulate further class discussion.

Real-Life Slices

Game Rules

In art and literature, the phrase "a slice of life" describes how things really are. Each slice of the pie below shows part of a true fact about women and work. Guess the answers to fill in the blanks and see how the true facts all add up.



Lorraine and Larry

Purpose

To help students understand some issues relating to working mothers.

What students will do

Students will complete a comic-strip conversation. The situation depicts a family discussion about a wife going back to work.

Supplies needed

- Gamebook and pencil for each student

Leader preparation

Read the activity carefully. Plan how to make it work in your class.

Time needed

At least 5 minutes

To launch

Ask students to turn to pages 9–11 of their Gamebooks, *Lorraine and Larry* (Leader's Guide, pages 19–21), to read the comic strip and fill in the faces and the balloons in the last frame.

To sum up

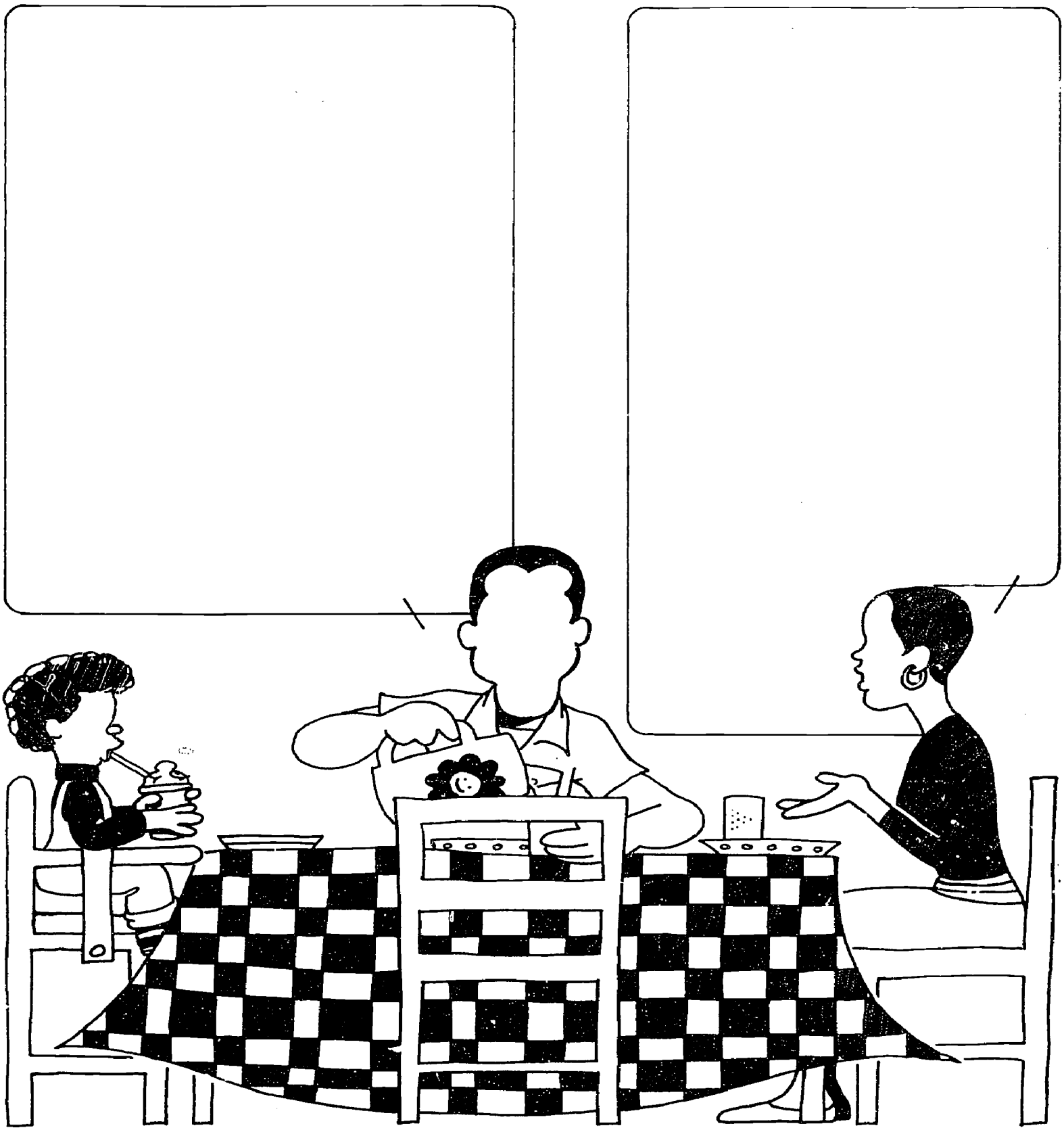
When students have finished:

- ask a few boys to read what they wrote in each balloon
- ask a few girls to read what they wrote in each balloon

Ask students to describe any families they know who are in the same situation as Lorraine, Larry, and Billy. How did they work things out?

Lorraine and Larry


I KNOW WHAT YOU MEAN, LARRY. BUT, WE'VE **GOT** TO FIND A WAY TO KEEP UP WITH OUR BILLS. LOOK HOW MUCH BETTER OFF VAL AND KEN ARE NOW SINCE SHE STARTED HER BANK JOB.
COOL IT, BILLY, YOUR DINNER'S COMING... LISTEN, LORRAINE, KEN SAYS LIFE IS PRETTY CRAZY THERE WITH VAL GONE ALL DAY.
AND SHE DOESN'T EVEN EARN **THAT MUCH** BY THE TIME THE BANK TAKES OUT FOR **TAXES** ...
I KNOW, BUT WHY COULDN'T I WORK AT A JOB THAT PAYS MORE? BOY, IF I COULD EARN AS MUCH AS YOU DO REPAIRING T.V.'S, WE'D BE ALL SET!



Module 2

Recognizing Stereotypes

Candid Camera Comics

Purpose

To help students:

- become aware of their own attitudes about work for women
- judge whether or not their attitudes are stereotyped

What students will do

Students will complete comic-strip conversations. The situations depict women in (or eager to train for) occupations considered nontraditional for women. Students will then rate the degree to which their responses are stereotyped.

Supplies needed

- Gamebook and pencil for each student

Leader preparation

Read the activity carefully. Plan how to make it work in your class.

On a chalkboard, draw the *Attitude Chart* (Leader's Guide, page 27), omitting the sample responses and ratings.

Time needed

At least 25 minutes

To launch

Divide the class into small groups (about five students). Be sure each group includes both girls and boys.

Ask students to turn to pages 12-14 of their Gamebooks, *Candid Camera Comics* (Leader's Guide, pages 28-30) and to read all three comic strips. Each group's job is to fill in the faces and decide together on a response to put in the final balloon of each strip. If students in the group disagree, the group may put in more than one response. Circulate among groups to help where needed.

To sum up

Ask students if they know what the term "sex-role stereotype" means. For those who do not know, explain the following:

- it describes an oversimplified attitude which assumes that *all* men have in common one set of abilities, interests, and goals and *all* women have in common another set of abilities, interests, and goals
- it completely ignores differences between individuals (Example: the belief that *all* boys are good football players and *no* girls are good football players is a sex-role stereotype.)

To sum up (continued)

Beginning with the first comic strip, ask each group to read the response(s) it has agreed on. Write them on the chalkboard chart and ask the class to judge how stereotyped each response is. Rate the responses on a scale of 10 to 1 (10 is most stereotyped; 1 is least). (Examples of possible responses and ratings are on your copy of the *Attitude Chart*, Leader's Guide, page 27.)

After all responses have been judged, ask students these or similar questions:

- are the attitudes of the class as a whole stereotyped or non-stereotyped?
- when groups were making decisions about responses for the comic-strip balloons, were boys' suggestions different from girls'? In what ways?

Attitude Chart

Candid Camera Comic	Responses *(Examples)*	Attitude Ratings *(Examples)*
1.		very stereotyped
	"Hey, wait a minute. I don't know if I want my girlfriend monkeying around with that stuff."	10
	"Gee, aren't you letting yourself in for a lot of hassles? Guys there are going to give you a hard time."	7
	"You sure you want to go through with it? How come you don't want to be a secretary or something?"	4
	"Great deal! I knew you'd make it!"	1
		not at all stereotyped
2.		
	"Hey, baby, this is men's work. You're gonna get all dirty."	10
	"Can you really handle one of these monsters? You don't look big enough to climb aboard."	8
	"Holy Smoke! Women never used to do things like this. But I guess it won't hurt to give you a try . . ."	2
	"Join the club, Marty. You're going to be part of an A-1 crew."	1
3.		
	"You've got to be kidding! Women can't fix washing machines."	10
	"Are you sure you know what you're supposed to do here?"	9
	"Good heavens! I've never seen a lady repairman before, but I'll try anything at this point."	5
	"Well, hello there. It's about time women got into this kind of work."	1

Candid Camera Comics


HEY, FELLAS, I'D LIKE YOU TO MEET MARTY. SHE'S GONNA WORK WITH US.
HI, MARTY!
HOW YA DOING ?
GREAT TO HAVE YOU HERE.
SHE'S CUTE !
YOU MUST BE THE NEW OFFICE GIRL!
YEAH!
NOPE ! I'M THE NEW BULLDOZER OPERATOR
VENABLE


OH NO! ANOTHER LEAK! I GIVE UP!
PLEASE SEND SOMEONE OVER FAST! MY WASHING MACHINE'S IN BIG TROUBLE!
1/2 HOUR LATER
RING!
AT LAST! THE REPAIRMAN!
RING!
I'M HERE TO FIX YOUR MACHINE. I'M BRENDA.
NEW SUDS NEW

Picking Up Signals

Purpose

To help students recognize that:

- many things in our environment shape the way we think about work
- from what we see, hear, and do as we grow up, we pick up signals that tell us men do one kind of work and women another

What students will do

Students will identify environmental "signals" suggesting that men's and women's work roles are different.

Supplies needed

- Gamebook and pencil for each student

Leader preparation

Read the activity carefully. Plan how to make it work in your class.

Time needed

At least 20 minutes

To launch

Ask students to turn to pages 15-16 of their Gamebooks, *Picking Up Signals* (Leader's Guide, pages 33-34). Go over the game rules with the entire class.

Ask several students to identify items that boys or girls play with and what jobs they suggest. (Examples: Toys for boys such as tool kits and erector sets suggest jobs as builders or engineers; fire hats suggest firefighting; baseball bats and barbells suggest jobs requiring strength such as sports or heavy equipment work. Toys for girls such as tea sets and dolls suggest waitress or child-care jobs; nurse caps suggest health care; paper dolls suggest fashion or retail sales jobs.)

Ask other students to describe the signals transmitted by the TV and by parental images.

Then ask a few students to read some of the statements on the next page (Gamebook, page 16) and to comment on them. What assumptions do they suggest about work roles for girls and boys in general?

To sum up

Ask students to think of and share with the class other "signals" they remember from childhood or are aware of now.

Can students identify "signals" in the community or at home that show how our ideas about men's and women's jobs are changing? (Examples: women bus drivers, women police officers, and TV programs like "Wonder Woman.")

Point out that growing up means deciding for yourself. Today young people are free to make work decisions on the basis of what they *want* to do, not on the basis of what men and women have "always" done.

Ask a few students (girls and boys):

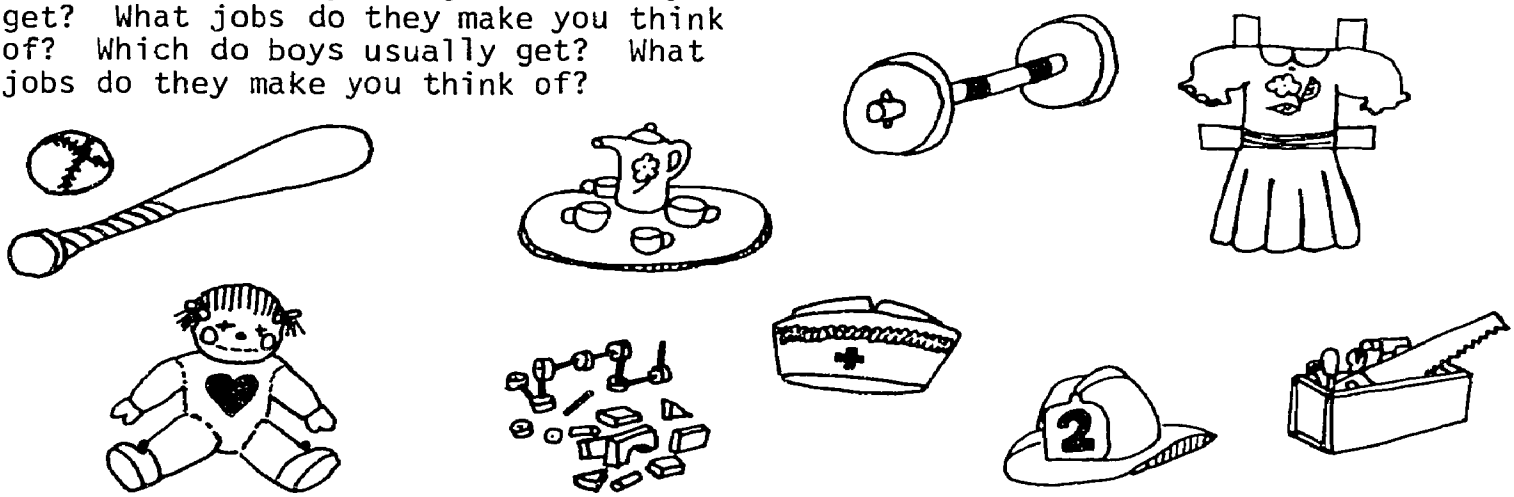
- how do you think you will choose a job?

Picking Up Signals

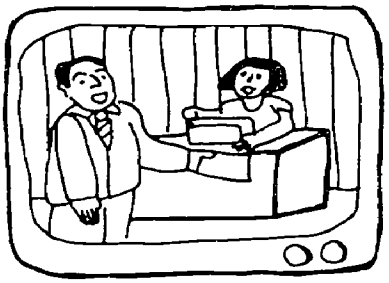
Game Rules

Children pick up signals about work for women and work for men from toys, TV, and what they see their parents do. On this page are some things children play with or see around the house. Look at them and answer the questions below.

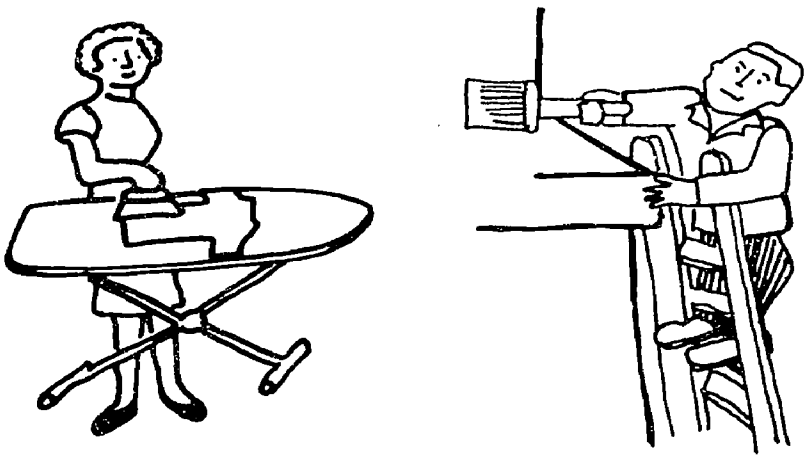
Which of these toys do girls usually get? What jobs do they make you think of? Which do boys usually get? What jobs do they make you think of?



What does this TV picture tell you about jobs for women and jobs for men?



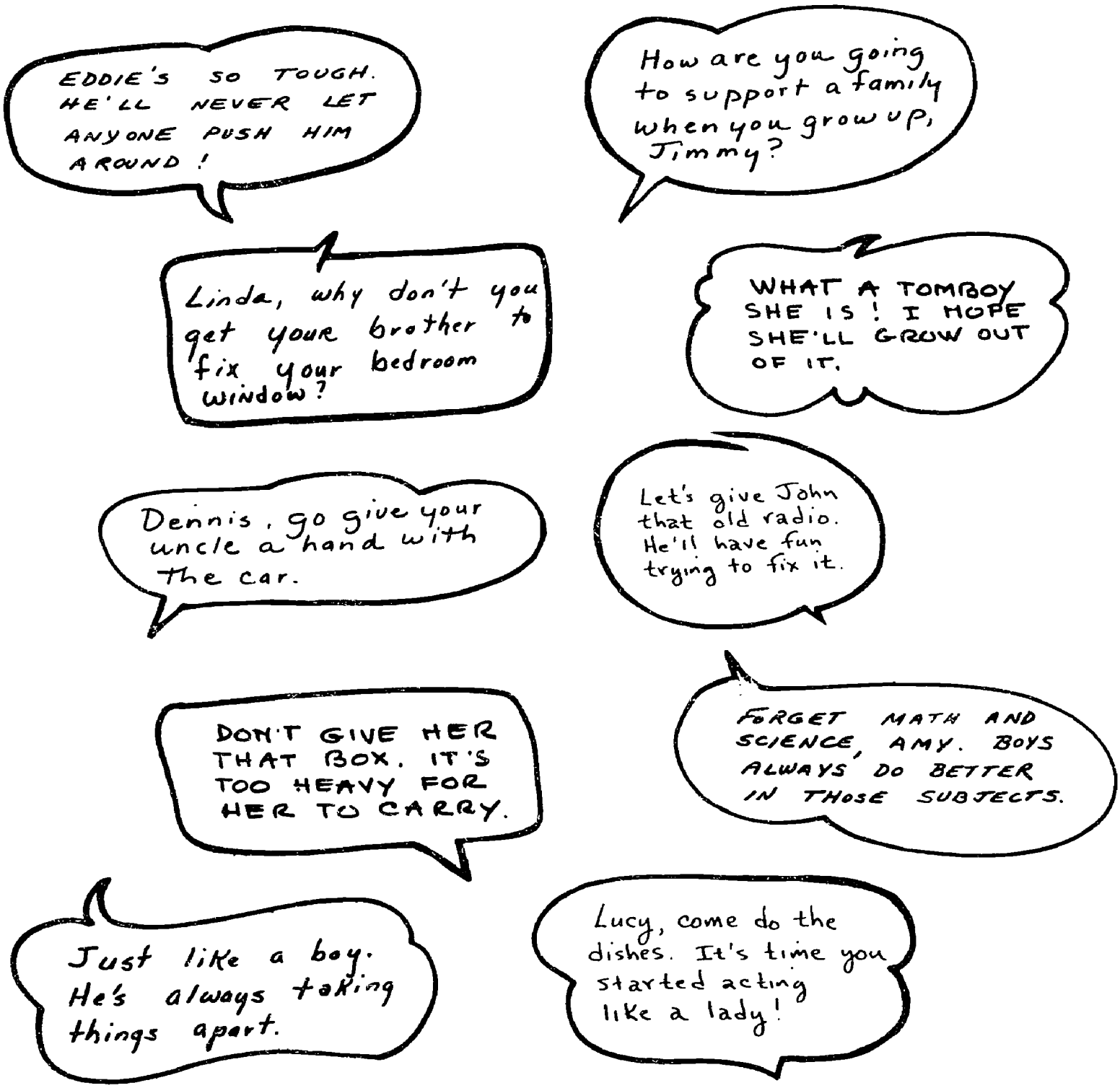
What signals do children pick up from what mothers and fathers do?



Picking Up Signals

Game Rules

On this page are some things children hear. What signals come through from statements or questions like these?



NTO2 and Friend

Purpose

To help students recognize:

- the influence of stereotypes
- that uncertainty about the future is natural

What students will do

Students will read a brief comic strip.

Supplies needed

- Gamebook and pencil for each student

Leader preparation

Read the activity carefully. Plan how to make it work in your class.

Time needed

At least 5 minutes

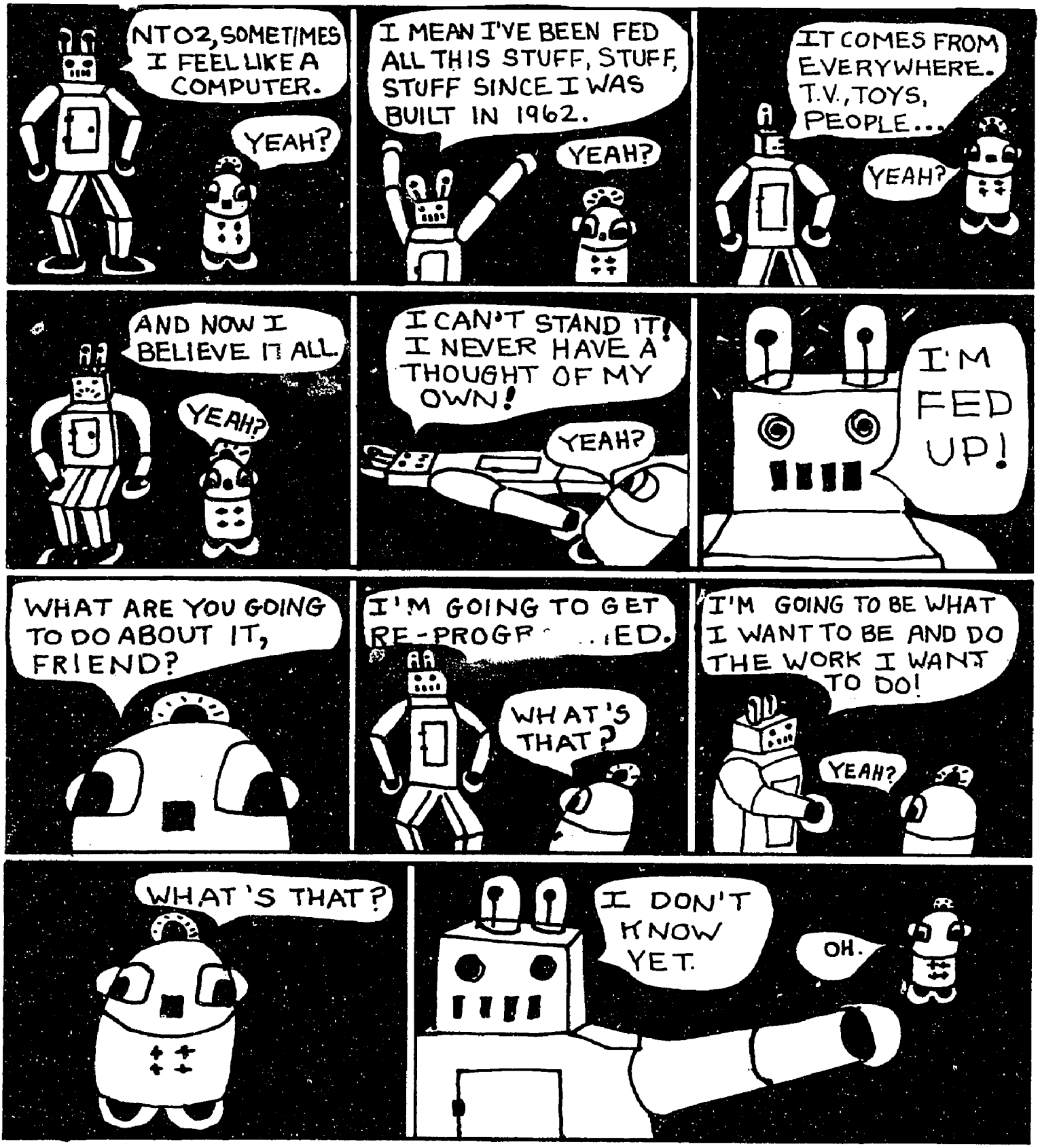
To launch

Ask students to turn to page 17 of their Gamebooks, *NTO2 and Friend* (Leader's Guide, page 36). Choose two students to play the parts of NTO2 and Friend and act out the comic strip for the class.

To sum up

Point out that young people need information and experience to help them make career decisions. Now is the time to begin to explore a variety of possibilities.

NTO2 and Friend



Module 3

Occupationally Speaking

Job Relay

Purpose

To help students recognize:

- jobs that men typically hold
- jobs that women typically hold
- that most women workers are concentrated in relatively few jobs

What students will do

Student teams will participate in a relay "race" to identify typical men's and women's jobs.

Supplies needed

- Gamebook and pencil for each student
- timer with a bell
- about nine double sheets of newspaper
- one stapler
- one felt-tipped marker

to make hats

Leader preparation

Read the activity carefully. Plan how to make it work in your class.

Make three funny hats by rolling several sheets of newspaper into cone shapes and stapling them together. Write "Expert" on the front of each hat in large letters.

On a chalkboard, draw the *Job Relay Scoreboard* (Leader's Guide, page 41), omitting the list of women's jobs.

Time needed

At least 20 minutes.

To launch

Ask students to turn to page 18 of their Gamebooks, *Job Relay* (Leader's Guide, page 42). Go over the game rules with the entire class.

Choose two teams (A and B) of six students each. Be sure teams include both girls and boys. Assign numbers 1 through 6 to the students on each team. Ask them to sit in seats behind each other in their numbered order.

Appoint a panel of three Experts who will wear the funny hats, sit in the front of the room, and provide "educated guesses" to team Players who ask for help. Be sure the panel includes both girls and boys. Assure the panel that experts don't always know all the answers.

To launch (continued)

Set the timer for 10 minutes. Begin play.

During the game, circulate among students to help Experts and Players as needed. (A list of 20 occupations in which women workers are concentrated is written on your copy of the *Job Relay Scoreboard*, Leader's Guide, page 41.)

To sum up

At the end of the game, look at the jobs that have been listed. Ask these or similar questions:

- was it harder to think of men's or women's jobs? why?
- which list shows more variety, men's jobs or women's jobs? why?
- what, if anything, makes women's jobs different from men's jobs?

Point out that regardless of how the game came out, women work in far fewer jobs than men.

Job Relay Scoreboard

Jobs Men Usually Have	Jobs Women Usually Have
	secretaries
	salesclerks (retail trades)
	bookkeepers
	waitresses
	cashiers
	private household workers
	elementary school teachers
	registered nurses
	typists
	nursing aides, orderlies, attendants
	sewers and stitchers
	cooks
	secondary school teachers
	assemblers
	receptionists
	hairdressers, cosmetologists
	building interior cleaners
	food counter and fountain workers
	packers and wrappers (except meat and produce)
	checkers, examiners, and inspectors (manufacturing)

Job Relay

Game Rules

The Game Plan

- Within a time limit of 10 minutes, Team A must list on the chalkboard Scoreboard names of jobs that men usually hold.
- Within the same time limit, Team B must list names of jobs that women usually hold.
- Players must observe *all* the rules of the game or their team will be disqualified.

To Play the Game

Step 1. Player 1 from Team A goes to the front of the room, shakes hands with all three Experts, and writes a job name on the board under the column headed "Jobs Men Usually Have." Player 1 from Team B does the same thing, using the column headed "Jobs Women Usually Have."

Step 2. Player 1 then returns to his/her seat, shakes hands with Player 2, and sits down.

Step 3. Player 2 goes to the board (*without* shaking hands with the Experts), writes a job name, returns, and shakes hands with Player 3 who then goes to the board, etc. At the end of his/her turn, Player 6 shakes hands with Player 1 to keep the team going.

Step 4. Play continues in this fashion until the timer bell signals that the time limit is up.

Step 5. A Player who cannot think of a job name during his/her turn may ask one of the Experts. The Player then shakes hands with the Expert who provided the name, returns to his/her seat, and shakes hands with the next Player. If the Expert cannot provide a name, the Player loses his/her turn and the next Player goes to the board.

Step 6. The team that has listed the most names when the time limit is up wins the game.

Stump the Experts

Purpose

To help students understand:

- the range of occupations that men work in
- the range of occupations that women work in
- the gap between men's and women's earnings
- women's lack of skills for jobs that pay well

What students will do

With help from the class, student "Experts" will guess answers to questions about occupations, male and female workers, and what they earn.

Supplies needed

- Gamebook and pencil for each student
- three hats for Experts (use hats made for previous game)

Leader preparation

Read the activity carefully. Plan how to make it work in your class.

Time needed

At least 10 minutes

To launch

Ask students to turn to page 19 of their Gamebooks, *Stump the Experts* (Leader's Guide, page 45). Go over the rules with the entire class.

Appoint three new Experts to bring their Gamebooks and sit in front of the room wearing funny hats. Be sure the Experts include both girls and boys.

Ask the Experts to play the part of a television panel. You will play the part of the MC and will try to stump them with difficult questions. The Experts will pick one of three possible answers you will give them for each question.

Ask the other students in the class to follow along on their copies of the questions and to circle the answer to each question as it comes up. They will also play the part of the studio audience. If the Experts are stumped, the audience may help them by calling out answers.

Begin with the first question. After it has been answered by the Experts and/or the studio audience, read the correct answer. (The correct answers have been starred on your copy of the questions.)

To launch (continued)

Ask students to underline the correct answers as you read them. Repeat this procedure with the remaining questions.

Ask students to turn now to page 20 of their Gamebooks, *Government Facts That Are Eye-Openers* (Leader's Guide, page 46). Read the information aloud together.

To sum up

Ask students these or similar questions:

- Eye-Opener #1: can you name some examples of clerical, service, retail, or factory jobs? (Answers: *file clerk, cashier, salesperson, assembly line worker.)* Do you think these are interesting, well-paying jobs?
- Eye-Opener #2: which jobs on this list require money and/or time for some kind of post-high school training? (Answer: *At least the first five, and maybe some others.*) Do you think it's a good investment to train for jobs like these? Why/why not?
- Eye-Opener #3: did you know that the gap between men's and women's salaries is wider now than it was 20 years ago? (Answer: *In 1955 a working woman earned about 64¢ for every dollar earned by a working man. Now she earns only about 58¢.*)
- how can this information help girls make career decisions?
- why is this information important for boys?

Point out that both girls and boys can find out about occupations that pay well and take school courses to prepare for jobs in these fields.

Boys who are aware of the problems women face in the job world are likely to be more understanding and supportive when they become boyfriends, husbands, co-workers, and eventually the fathers of working women. They are also likely to be more helpful to girls who are classmates in courses that used to be considered "for boys only."

Stump the Experts

Game Rules

Answer these questions by circling one of the answers listed below each one.

1. People in the United States work in more than 20,000 different types of jobs. The government groups these jobs into 441 separate occupations. In how many of the 441 occupations do women work?

   a) about 65 b) about 185 c) about 20 ★

2. The government also publishes information describing workers and wages in different occupations. In the ten *lowest* paying occupations, the workers are:

   a) almost all men b) almost all women ★ c) about half and half

3. Men who work full time generally earn:

   a) about the same as women who work full time b) a little more than women who work full time c) almost twice as much as women who work full time ★

4. A head of household is the person who supports the family. Government figures for 1976 showed that male heads of household earned about $245 a week. What did female heads of household earn?

   a) about $156 a week ★ b) about $200 a week c) about $245 a week

5. A woman with a high school degree earns:

   a) much more than a man with only an 8th grade education b) less than a man with only an 8th grade education ★ c) the same as a man with only an 8th grade education

6. Most women have low-paying jobs because:

   a) women don't have job skills for occupations that pay well ★ b) women don't work hard enough c) women don't really care about earning money

7. Most women don't have job skills for occupations that pay well. Most often, it's because:

   a) women are not capable of learning these skills b) women are not allowed to learn these skills c) women are not encouraged to learn these skills in school ★

Government Facts that are Eye-Openers

Eye-Opener 1

In the U.S. there are:	Women work in:	80% of all women work in:
About 441 occupations	About 20 occupations	Only about 4 job fields: • clerical work • service industries • retail sales • factories and plants

Eye-Opener 2

Ten lowest paid U.S. occupations	Percent of workers who are women
Practical nurses	about 96%
Hairdressers and cosmetologists	about 90%
Cooks	about 63%
Health aides, except nursing	about 84%
Nurse aides	about 85%
Sewers and stitchers	about 94%
Farm laborers	about 13%
Dressmakers and seamsters	about 96%
School monitors	about 91%
Child-care workers	about 93%

Eye-Opener 3

- Men who work full time earn about $14,600 a year
- Women who work full time earn about $8,600 a year
- Most working women earn about $6,000 less than most working men

The Case of the Missing Young Woman

Purpose

To help students recognize:

- real examples of differences in men's and women's earnings
- value of skills in occupations that pay well

What students will do

Students will match female figures with appropriate case histories and answer questions.

Supplies needed

- Gamebook and pencil for each student

Leader preparation

Read the activity carefully. Plan how to make it work in your class.

Time needed

At least 15 minutes

To launch

Ask students to turn to page 21 of their Gamebooks, *The Case of the Missing Young Woman* (Leader's Guide, page 48). Go over the game rules with the entire class.

Ask students to begin their games and raise their hands when they are finished. During the game, circulate among students to help where needed.

To sum up

Beginning with the first question, ask several students to read aloud their answers to it. Then read the correct answer. (These have been written in on your copy.) Repeat this procedure with the remaining questions.

Ask a few students if they know anyone among their families, neighbors, or friends whose experiences are similar to those of the characters in the "case histories." Ask for further details.

The Case of the Missing Young Woman

Game Rules

Below are some real-life "case histories." The young woman who belongs in each story is missing from the picture next to it.

From Column 2, choose a picture that illustrates each missing young woman. Draw a line from the young woman to the picture she belongs in in Column 1. Then answer the questions at the end of each case history.

Column 1 Column 2

1. Doris works as a clerk in a supermarket. Don drives a truck that delivers breads and cakes to Doris' store. Who earns more? *Don*. Why? *Men's occupations pay almost double what women's occupations pay. Doris earns less than 60% of what Don earns. She has to work about nine days to equal what he earns in five days.*

2. Roxanne, a clerk-typist, has worked at a television station for five years. Roy, an assistant electrician, started at the station three months ago. It is his first job. Who earns more? *Roy earns more, even though he hasn't been working as long. His starting salary in a "man's" job is higher than Roxanne's salary after several years.*

3. Janice and Sam earn the same salary. Janice is a licensed practical nurse. Sam is a parking lot attendant. Who spent more time on training? *Janice*. More money on training? *Janice. To get her certificate as a licensed practical nurse, she had to spend a year and anywhere from $200 to $1000 for post-high school training. Sam's job required no special training--only a driver's license.*

4. Ben and Diana were good students in high school. In addition to regular courses, Ben took Auto Mechanics. Diana took Home Economics. They got married and decided that both would work for a while to save for a family. But one of them had a lot of trouble finding a job. Which one? *Diana*. Why? *Despite her good grades in school, Diana couldn't find work. Her homemaking skills didn't help her much in the job world.*

Module 4

Personpower

Super Challenge

Purpose

To help students recognize that both girls and boys can accomplish a "technical" task.

What students will do

Individual girls and boys will perform a neutral task (neither "male" nor "female") while Reporters record their abilities to complete the task and their reactions to it. From these "data," students will draw conclusions about girls' and boys' performances.

Supplies needed

- Gamebook and pencil for each student
- five foam-core or plywood boards, about 9" x 12" — to make tackboard
- about 100 nails, strong tacks, or push pins (not thumb tacks) — to make tackboard
- hammer — to make tackboard
- five balls of colored yarn or string — to thread tackboard
- five pairs of scissors — to thread tackboard
- five timers (or use watches or classroom clock) — to thread tackboard

Leader preparation

Read the activity carefully. Plan how to make it work in your class. Make five tackboards, as follows:

- paste or tape *Super Challenge* diagrams (Leader's Guide, pages 53-61) to five boards.
- hammer in nails, tacks, or pins at lettered dots on diagram

Your school Industrial Arts Department or Art Department may be of help in obtaining or assembling materials.

Try the threading activity yourself to see how it works.

Draw the *Reporter's Record Chart* (Leader's Guide, page 63) on the chalkboard.

Time needed

At least 25 minutes

To launch

Divide students into five approximately equal groups. Be sure each group includes at least two boys and two girls. Number each group, 1–5.

Each group should choose one boy and one girl to try the *Super Challenge* task. They will get their instructions shortly.

To launch (continued)

Next, each group should choose another boy and girl to be Reporters. Ask the Reporters to turn to page 22 of their Gamebooks, *Reporter's Record Chart* (Leader's Guide, page 63). Go over the game rules for the Reporters.

Distribute one tackboard, one pair of scissors, and a roll of yarn or string to each group for the two students who will try the *Super Challenge* task. Go over the game rules to prepare for play. Students who are neither trying the task nor reporting should be observers who will be called upon later to answer questions.

Begin play with the Reporters telling the students trying the task when to start. Circulate among students to help where needed.

To sum up

When the time limits are up and two students in each group have tried the task, ask the Reporters for information about the results, so you can write it on the chalkboard chart.

Ask students, particularly those who were observers, these or similar questions:

- how many girls were able to complete the task? how many boys?
- how many girls found it easy? how many boys? how many of each found it hard?
- how many girls felt that they'd like a job with tasks like this? how many boys?
- what differences were there, if any, between girls as a group and boys as a group in the way they did the task? in the way they felt about the task?
- were all girls alike? were all boys alike?

Super Challenge

Game Rules

Each group should choose one girl and one boy to do this task. It doesn't matter who goes first. The task has to be done in five minutes. The Reporter will tell you when to start and stop.

Begin here

A

Step 1.

Tie end of yarn to this tack. Follow the alphabet around the tacks with your piece of yarn.

B

C

D

Finish here

Q

Step 6.

Tie yarn to this tack and cut off end.

E

F

P

K

Step 2.

Tie yarn here and cut off end.

O

Step 5.

Tie yarn to this tack and follow alphabet.

G

J

I

H

L

Step 3.

Tie yarn here and follow alphabet.

M

N

Step 4.

Tie yarn to this tack and cut off end.

Super Challenge

Game Rules

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Tie yarn here and follow alphabet.

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N

Step 4.

Tie yarn to this tack and cut off end.

Super Challenge

Game Rules

Each group should choose one girl and one boy to do this task. It doesn't matter who goes first. The task has to be done in five minutes. The Reporter will tell you when to start and stop.

Begin here

A

Step 1.

Tie end of yarn to this tack. Follow the alphabet around the tacks with your piece of yarn.

B

C

D

Finish here

Q

Step 6.

Tie yarn to this tack and cut off end.

E

F

P

K

Step 2.

Tie yarn here and cut off end.

O

Step 5.

Tie yarn to this tack and follow alphabet.

G

J

I

H

L

Step 3.

Tie yarn here and follow alphabet.

M

N

Step 4.

Tie yarn to this tack and cut off end.

Super Challenge

Reporter's Record Chart

Game Rules

Each group will choose two Reporters, one girl and one boy.

The Reporters' jobs are to:

Step 1. Set the timer for five minutes or use a watch or the classroom clock to time the person doing the task. Tell the person when to start and stop.

Step 2. When the five minutes are up, decide whether the person did or did not complete the task and check the answer in Column 1 of the chart below.

Step 3. Ask if the person thought the task was hard or easy and check the answer in Column 2.

Step 4. Ask if the person would like or would not like a job with tasks like this. Check the answer in Column 3.

The Reporters, as a team, will make a report on the students in their group who tried the *Super Challenge* task.

	Girls Who Tried the Task						Boys Who Tried the Task					
	Column 1		Column 2		Column 3		Column 1		Column 2		Column 3	
Group	completed task	did not complete task	thought it was hard	thought it was easy	would like a job with tasks like this	would not like a job with tasks like this	completed task	did not complete task	thought it was hard	thought it was easy	would like a job with tasks like this	would not like a job with tasks like this
1												
2												
3												
4												
5												

Changing Can't to Can

Purpose

To help students recognize that:

- neither males nor females have a built-in superiority in performing technical tasks such as threading a tackboard
- a basic technical skill can be used in a variety of jobs

What students will do

Students will answer questions and will re-trace the tackboard "circuit" to reveal a message.

Supplies needed

- Gamebook and pencil for each student

Leader preparation

Read the activity carefully. Plan how to make it work in your class.

Time needed

At least 10 minutes

To launch

Ask students to turn to page 23 of their Gamebooks, *Changing Can't to Can* (Leader's Guide, page 65). Go over the game rules.

Tell students they have about five minutes to complete the game. Circulate among students to help where needed.

To sum up

Beginning with the first question, ask several students to read their answers aloud. (Correct answers have been marked on your copy.)

Point out that students of both sexes performed the tackboard activity successfully. If interested, both girls and boys can learn many technical skills in school which can lead to good future jobs.

Changing Can't to Can

Game Rules

Have you ever said to yourself, "I *CAN'T* do that?" Sometimes people say they *CAN'T* before they even *TRY*.

Answer the questions and do the activities below. You'll see how simple it is to change from *CAN'T* to *CAN*.

1. Put a check mark in front of the statement or statements below that you think are true.

   a) Girls can thread a tackboard *much better* than boys.

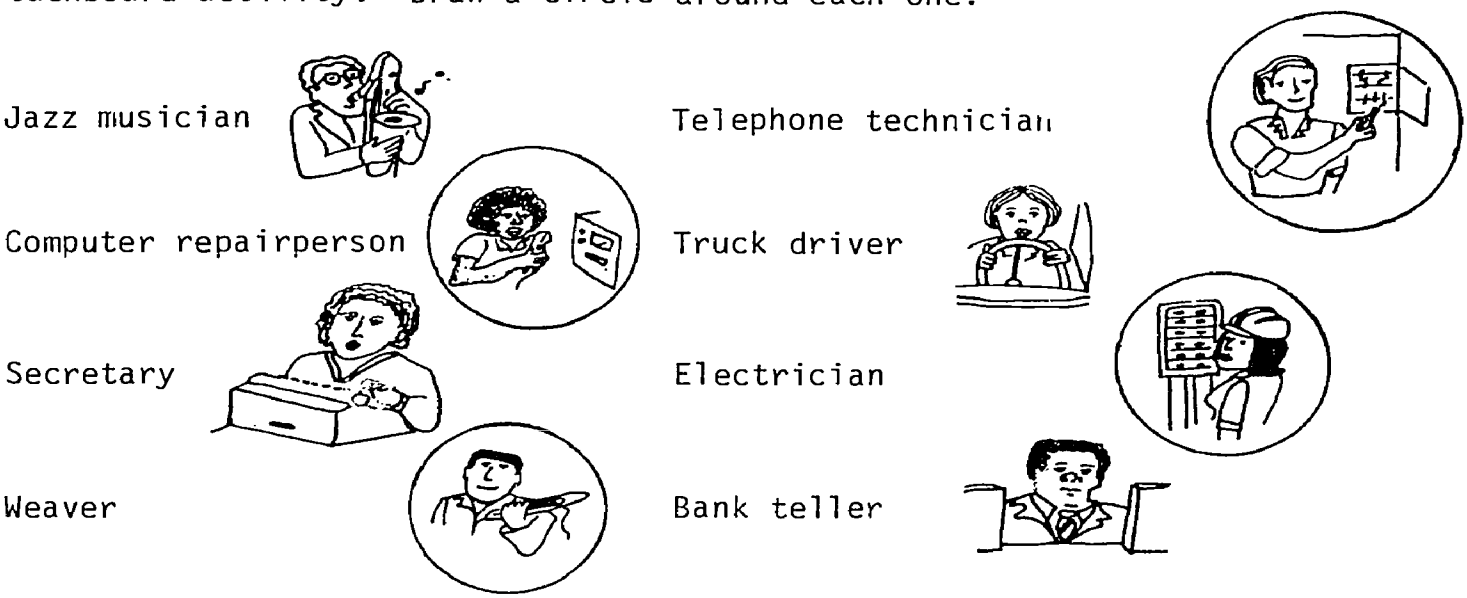
   ✓ b) Girls and boys can thread a tackboard *about the same.*

   c) Boys can thread a tackboard *much better* than girls.

2. Write the name of something that is like the tackboard activity that almost everyone over the age of three can do.

   Almost everyone can *lace up shoes, boots, ice skates, etc.*

3. Four of the workers below perform tasks in their jobs that are similar to the tackboard activity. Draw a circle around each one.



4. Turn to the next page of your Gamebook. Can you detect the secret message?

   The message is: *I CAN*

Super Duper Challenge

Game Rules

Does this diagram look familiar to you? This time, connect the dots with a pencil line. When you're done, turn the page sideways. Can you make out the secret message?

Begin here **A**

Step 1.

Start pencil line here. Follow alphabet around dots.

B

C

D

Finish here **Q**

Step 6.

Stop pencil line here.

E

F

P

K

Step 2.

Stop pencil line here.

O

Step 5.

Start pencil line here and follow alphabet.

G

J

I

H

L

Step 3.

Start pencil line here and follow alphabet.

M

N

Step 4.

Stop pencil line here.

Think of It This Way

Purpose

To help students recognize that many women have skills that are used in "men's" work.

What students will do

Students will identify familiar "female" activities, related to both household and work, that involve "male" skills.

Supplies needed

- Gamebook and pencil for each student

Leader preparation

Read the activity carefully. Plan how to make it work in your class.

Time needed

At least 10 minutes

To launch

Ask students to turn to page 25 of their Gamebooks, *Think of It This Way* (Leader's Guide, page 68). Go over the game rules with the entire class.

Beginning with the first question, ask a student to read it aloud and to supply another example after "what else?" Then ask other students to suggest additional examples. (Some examples have been written on your copy.)

Continue this procedure with different students reading each of the remaining questions.

To sum up

Ask students if they can think of other skills that men use in jobs and women use in their daily activities at home or at work.

Then, as a bridge to later sessions, tell students to try the word puzzle on page 26 of their Gamebooks (Leader's Guide, page 69). (The missing word is written on your copy.)

Reminder

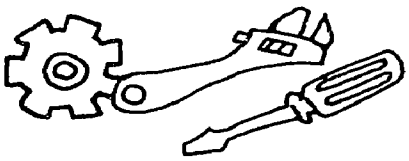
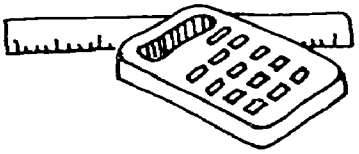
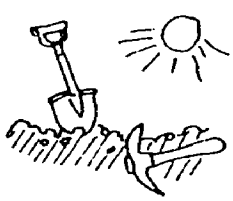
The class will need some special supplies for the activities in Module 7 (Leader's Guide, pages 113-119) and Module 8 (Leader's Guide, pages 121-128).

For the next session, sign the *Letter to Parents* (Leader's Guide, page 117), make copies and ask students to take them home. Begin collecting the items you will need.

Think of It This Way

Game Rules

People used to say that women can't handle men's work or can't feel comfortable working with men. But if you really think about this . . .

"Men's" work requires	Many women
1. Physical strength 	• lift heavy furniture • carry children • carry loaded shopping bags • what else? *carry luggage*
2. Getting dirty, grubby or greasy 	• clean ovens, stove tops, floors • cut up and prepare oily foods • cultivate house plants and gardens • what else? *re-finish furniture, apply wallpaper, etc.*
3. Mechanical skills 	• drive cars • follow road maps • operate sewing machines • follow pattern instructions • what else? *operate blenders, mixers, etc.*
4. Mathematical skills 	• follow cooking recipes • keep family or office acounts • find bargain prices • what else? *keep card game scores, baseball statistics, etc.*
5. Getting along with men 	• take coed classes • enjoy football, baseball, and other sporting events • work with men in restaurants, factories, hospitals • what else? *enjoy mixed parties, etc.*
6. Working outside 	• spend hours outdoors in playgrounds with children • enjoy hiking, tennis, and other fresh air activities • work as school or traffic guards • what else? *play golf, outdoor volleyball, basketball, etc.*

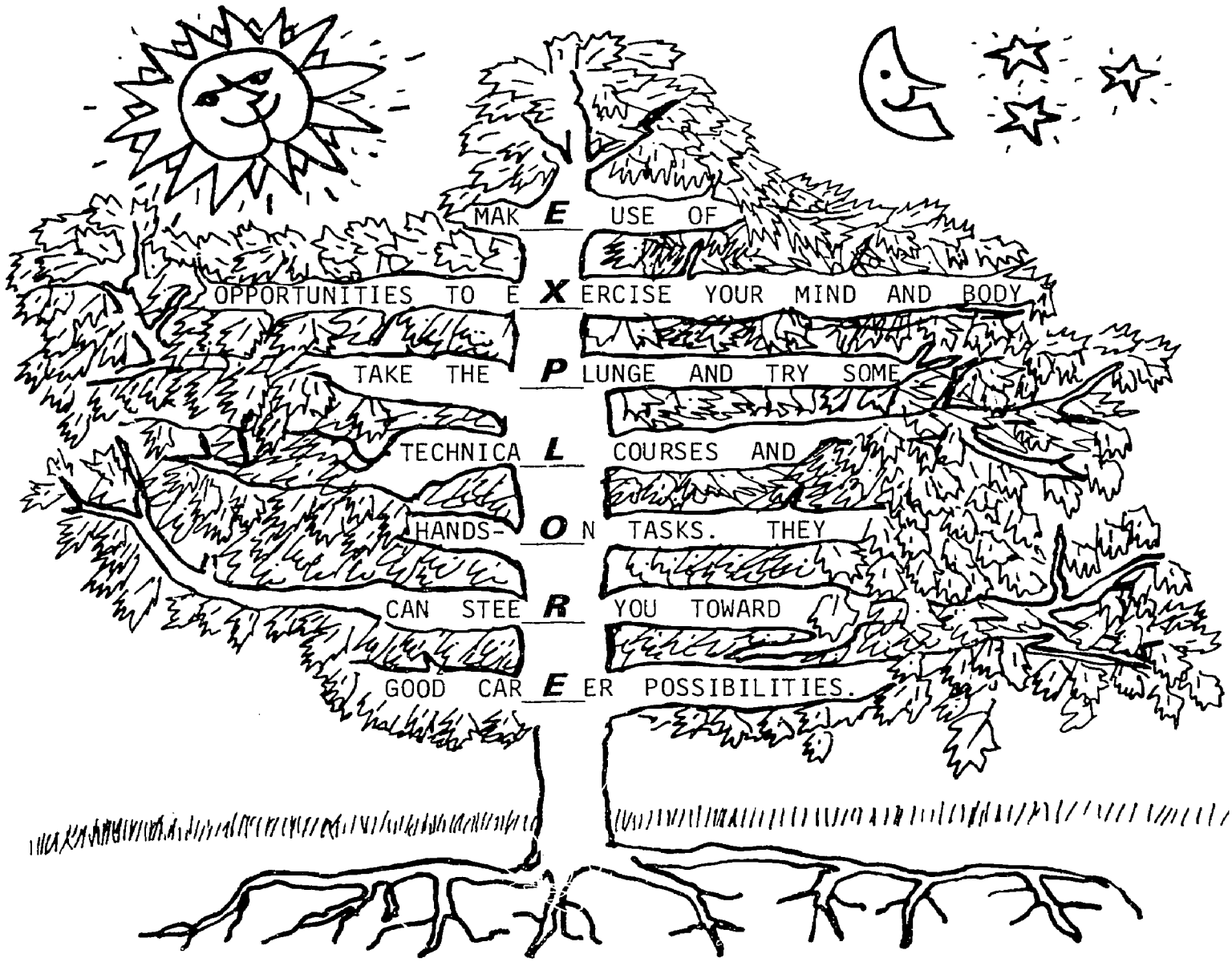
Reach Out

Game Rules

Start building career skills early. You'll be like a tree with strong roots, able to reach for the sun, the moon, and the stars.

Don't miss out on chances in school to improve your math, science, and physical fitness, and to learn to use different kinds of tools. These skills will give you more freedom to branch out when you're ready to choose an occupation for your own future.

Fill in the missing letters below. They'll spell out a word that's important for both girls and boys in preparing for the work world. You'll be doing it soon in *CONNECTIONS*.



Module 5

Let Work Work for You

Lucky Knocko

Purpose

To introduce examples of skilled and technical occupations and some tools used in these fields.

What students will do

Students will play a lottery game which presents an array of occupations with good job outlooks for the future. These occupations are considered traditional for men and nontraditional for women.

Supplies needed

- Gamebook and pencil for each student
- a large supply of small "industrial" objects (washers, screws, nuts, nails, etc.), about 25 for each student
- scissors] to cut out game numbers

Leader preparation

Read the activity carefully. Plan how to make it work in your class.

Cut out the numbers to be drawn and called (Leader's Guide, page 75). Pile them randomly in a box or container.

Time needed

At least 20 minutes

To launch

Explain to students that they are going to play a familiar game with a new twist. The game uses names of occupations that offer good job possibilities. Traditionally, jobs in these fields have been held by men, but now more and more women are entering them. They are known as nontraditional occupations for women.

Ask students to turn to page 27 in their Gamebooks, *Lucky Knocko* (Leader's Guide, page 76). Go over the game rules with the entire class. (Most students are likely to know how to play.)

Starting with a student in one corner of the room, ask students to count off in alphabetical order, A, B, C, D, E, and F, until each student is identifed with one of these letters. The same letter will also identify the Game Board he/she will use: all the A's will use *Game Board A*, all the B's will use *Game Board B*, etc.

Ask students to look through pages 29-39 of their Gamebooks to find a page showing a Game Board marked with their letter (Leader's Guide, pages 77-87).

Pass out handfuls of "markers," at least 25 to each student.

To launch (continued)

Appoint one student to be the Caller who draws and calls out the numbers. Keep the record of numbers called (Leader's Guide, page 75) or appoint a student to do it.

Begin play with students covering their *Lucky Knocko* spaces in the center of their boards before the Caller calls out the first number.

To sum up

Ask the winning students to make a check mark on each of the spaces in their winning row. Then ask them to turn their Game Boards over and check the same spaces on the back of the board (Leader's Guide, page 78, etc.).

Ask several winning students to tell the names of the tools shown in the checked spaces and what they are used for in these occupational fields. Ask if they can pick out another occupational field on the Game Board in which the same tool is used.

Repeat this procedure with other students who were "winners," asking them to identify tools and their uses in various occupations shown on the Game Board.

Lucky Knocko

Record of Numbers Drawn and Called

Cross off these numbers as they are drawn and called. You can use these lists for several games.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

Numbers to be Drawn and Called

Cut out these squares to make a pile from which the Caller draws numbers at random and calls them out.

1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24

Lucky Knocko

Game Rules

The Game Plan

- *Lucky Knocko* is played like Bingo.
- On the next few pages you will find several different *Lucky Knocko* boards, labeled *Game Board A*, *Game Board B*, *Game Board C*, etc. The class leader will tell you which one you will play the game on.
- The class leader will also give you a handful of small objects to use as markers.

To Play the Game

Step 1. Start by covering the *Lucky Knocko* space in the center of your board with one of the markers.

Step 2. The Caller draws numbers at random from the pile and calls them out, keeping a record of those that have been called.

Step 3. As each number is called, cover the space on your board that has the same number.

Step 4. If you cover five spaces in a row (up, down, across, or diagonally), knock on wood (desk or floor) to show that you have won!

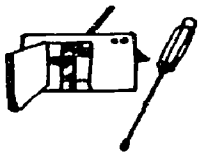
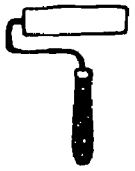
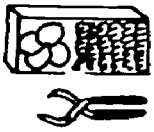
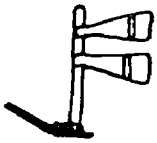
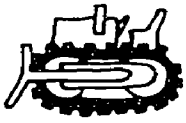
Game Board A

Game Rules

Knock on wood when you are a lucky winner! You'll know the names of some occupational fields that offer good opportunities for working men and women.

To push your luck further, turn your *Lucky Knocko* board over to see some of the tools workers use in the fields shown in your winning row. In the next few years, you'll have opportunities in school to learn to use many of these tools.

3 Machine Tool Trades	**6** Transportation	**13** Drafting Occupations	**20** Small Engine Repair	**16** Copy & Business Machine Repair
15 Environmental Sciences Occupations	**4** Electrical Occupations	**8** Instrument Repair	**22** Radio-TV Repair	**19** Painting & Paperhanging
18 Air Conditioning, Heating & Refrigeration	**9** Railroad Occupations	Lucky Knocko ★★★★	**7** Metalworking Trades	**24** Firefighting & Law Enforcement
1 Computer Assembly & Repair	**12** Large & Small Appliance Repair	**5** Electronics Occupations	**17** Plumbing & Piping	**11** Automotive Occupations
21 Telephone Craft Occupations	**23** Heavy Equipment Occupations	**2** Commissioned Sales Occupations	**10** Building Maintenance Occupations	**14** Carpentry & Cabinet Making

 Machine Tool Trades	 Transportation	 Drafting Occupations	 Small Engine Repair	 Copy & Business Machine Repair
 Environmental Sciences Occupations	 Electrical Occupations	 Instrument Repair	 Radio-TV Repair	 Painting & Paperhanging
 Air Conditioning, Heating & Refrigeration	 Railroad Occupations		 Metalworking Trades	 Firefighting & Law Enforcement
 Computer Assembly & Repair	 Large & Small Appliance Repair	 Electronics Occupations	 Plumbing & Piping	 Automotive Occupations
 Telephone Craft Occupations	 Heavy Equipment Occupations	 Commissioned Sales Occupations	 Building Maintenance Occupations	 Carpentry & Cabinet Making

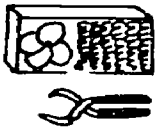
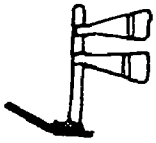
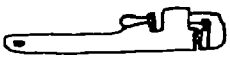
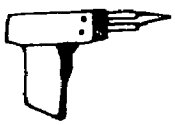
Game Board B

Game Rules

Knock on wood when you are a lucky winner! You'll know the names of some occupational fields that offer good opportunities for working men and women.

To push your luck further, turn your *Lucky Knocko* board over to see some of the tools workers use in the fields shown in your winning row. In the next few years, you'll have opportunities in school to learn to use many of these tools.

8 Machine Tool Trades	**15** Transportation	**23** Drafting Occupations	**10** Small Engine Repair	**4** Copy & Business Machine Repair
21 Environmental Sciences Occupations	**24** Electrical Occupations	**11** Instrument Repair	**14** Radio-TV Repair	**20** Painting & Paperhanging
17 Air Conditioning, Heating & Refrigeration	**19** Railroad Occupations	Lucky Knocko ★★★	**7** Metalworking Trades	**16** Firefighting & Law Enforcement
5 Computer Assembly & Repair	**13** Large & Small Appliance Repair	**18** Electronics Occupations	**3** Plumbing & Piping	**9** Automotive Occupations
12 Telephone Craft Occupations	**6** Heavy Equipment Occupations	**1** Commissioned Sales Occupations	**22** Building Maintenance Occupations	**2** Carpentry & Cabinet Making

 Machine Tool Trades	 Transportation	 Drafting Occupations	 Small Engine Repair	 Copy & Business Machine Repair
 Environmental Sciences Occupations	 Electrical Occupations	 Instrument Repair	 Radio-TV Repair	 Painting & Paperhanging
 Air Conditioning, Heating & Refrigeration	 Railroad Occupations		 Metalworking Trades	 Firefighting & Law Enforcement
 Computer Assembly & Repair	 Large & Small Appliance Repair	 Electronics Occupations	 Plumbing & Piping	 Automotive Occupations
 Telephone Craft Occupations	 Heavy Equipment Occupations	 Commissioned Sales Occupations	 Building Maintenance Occupations	 Carpentry & Cabinet Making

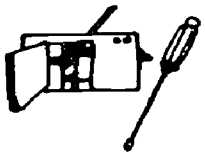
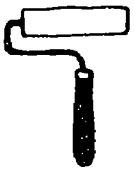
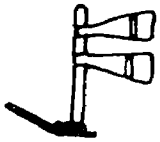
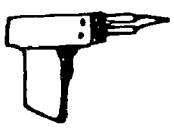
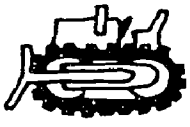
Game Board C

Game Rules

Knock on wood when you are a lucky winner! You'll know the names of some occupational fields that offer good opportunities for working men and women.

To push your luck further, turn your *Lucky Knocko* board over to see some of the tools workers use in the fields shown in your winning row. In the next few years, you'll have opportunities in school to learn to use many of these tools.

1 Machine Tool Trades	**14** Transportation	**3** Drafting Occupations	**23** Small Engine Repair	**21** Copy & Business Machine Repair
11 Environmental Sciences Occupations	**24** Electrical Occupations	**18** Instrument Repair	**4** Radio-TV Repair	**8** Painting & Paperhanging
5 Air Conditioning, Heating & Refrigeration	**15** Railroad Occupations	Lucky Knocko ★★★★	**6** Metalworking Trades	**2** Firefighting & Law Enforcement
16 Computer Assembly & Repair	**10** Large & Small Appliance Repair	**20** Electronics Occupations	**19** Plumbing & Piping	**17** Automotive Occupations
7 Telephone Craft Occupations	**13** Heavy Equipment Occupations	**9** Commissioned Sales Occupations	**12** Building Maintenance Occupations	**22** Carpentry & Cabinet Making

 Machine Tool Trades	 Transportation	 Drafting Occupations	 Small Engine Repair	 Copy & Business Machine Repair
 Environmental Sciences Occupations	 Electrical Occupations	 Instrument Repair	 Radio-TV Repair	 Painting & Paperhanging
 Air Conditioning, Heating & Refrigeration	 Railroad Occupations		 Metalworking Trades	 Firefighting & Law Enforcement
 Computer Assembly & Repair	 Large & Small Appliance Repair	 Electronics Occupations	 Plumbing & Piping	 Automotive Occupations
 Telephone Craft Occupations	 Heavy Equipment Occupations	 Commissioned Sales Occupations	 Building Maintenance Occupations	 Carpentry & Cabinet Making

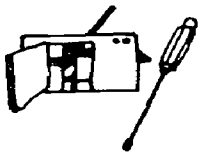
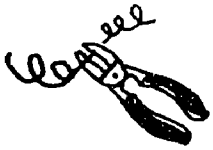
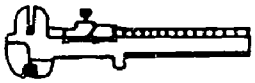
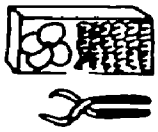
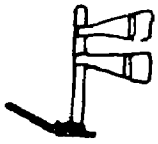
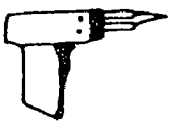
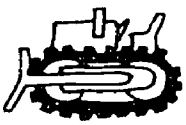
Game Board D

Game Rules

Knock on wood when you are a lucky winner! You'll know the names of some occupational fields that offer good opportunities for working men and women.

To push your luck further, turn your *Lucky Knocko* board over to see some of the tools workers use in the fields shown in your winning row. In the next few years, you'll have opportunities in school to learn to use many of these tools.

10 Machine Tool Trades	**18** Transportation	**24** Drafting Occupations	**11** Small Engine Repair	**19** Copy & Business Machine Repair
2 Environmental Sciences Occupations	**23** Electrical Occupations	**21** Instrument Repair	**16** Radio-TV Repair	**3** Painting & Paperhanging
14 Air Conditioning, Heating & Refrigeration	**20** Railroad Occupations	Lucky Knocko ★★★★	**5** Metalworking Trades	**9** Firefighting & Law Enforcement
13 Computer Assembly & Repair	**1** Large & Small Appliance Repair	**7** Electronics Occupations	**22** Plumbing & Piping	**4** Automotive Occupations
8 Telephone Craft Occupations	**12** Heavy Equipment Occupations	**17** Commissioned Sales Occupations	**15** Building Maintenance Occupations	**6** Carpentry & Cabinet Making

 Machine Tool Trades	 Transportation	 Drafting Occupations	 Small Engine Repair	 Copy & Business Machine Repair
 Environmental Sciences Occupations	 Electrical Occupations	 Instrument Repair	 Radio-TV Repair	 Painting & Paperhanging
 Air Conditioning, Heating & Refrigeration	 Railroad Occupations		 Metalworking Trades	 Firefighting & Law Enforcement
 Computer Assembly & Repair	 Large & Small Appliance Repair	 Electronics Occupations	 Plumbing & Piping	 Automotive Occupations
 Telephone Craft Occupations	 Heavy Equipment Occupations	 Commissioned Sales Occupations	 Building Maintenance Occupations	 Carpentry & Cabinet Making

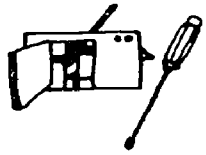
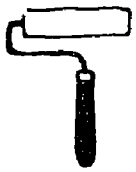
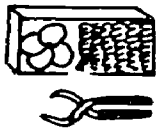
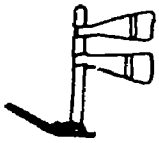
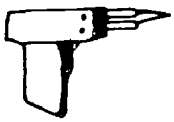
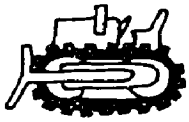
Game Board E

Game Rules

Knock on wood when you are a lucky winner! You'll know the names of some occupational fields that offer good opportunities for working men and women.

To push your luck further, turn your *Lucky Knocko* board over to see some of the tools workers use in the fields shown in your winning row. In the next few years, you'll have opportunities in school to learn to use many of these tools.

15 Machine Tool Trades	**4** Transportation	**6** Drafting Occupations	**20** Small Engine Repair	**9** Copy & Business Machine Repair
14 Environmental Sciences Occupations	**3** Electrical Occupations	**11** Instrument Repair	**24** Radio-TV Repair	**13** Painting & Paperhanging
12 Air Conditioning, Heating & Refrigeration	**2** Railroad Occupations	Lucky Knocko ★★★★	**16** Metalworking Trades	**19** Firefighting & Law Enforcement
23 Computer Assembly & Repair	**7** Large & Small Appliance Repair	**10** Electronics Occupations	**18** Plumbing & Piping	**1** Automotive Occupations
8 Telephone Craft Occupations	**17** Heavy Equipment Occupations	**5** Commissioned Sales Occupations	**21** Building Maintenance Occupations	**22** Carpentry & Cabinet Making

 Machine Tool Trades	 Transportation	 Drafting Occupations	 Small Engine Repair	 Copy & Business Machine Repair
 Environmental Sciences Occupations	 Electrical Occupations	 Instrument Repair	 Radio-TV Repair	 Painting & Paperhanging
 Air Conditioning, Heating & Refrigeration	 Railroad Occupations		 Metalworking Trades	 Firefighting & Law Enforcement
 Computer Assembly & Repair	 Large & Small Appliance Repair	 Electronics Occupations	 Plumbing & Piping	 Automotive Occupations
 Telephone Craft Occupations	 Heavy Equipment Occupations	 Commissioned Sales Occupations	 Building Maintenance Occupations	 Carpentry & Cabinet Making

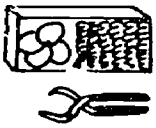
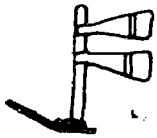
Game Board F

Game Rules

Knock on wood when you are a lucky winner! You'll know the names of some occupational fields that offer good opportunities for working men and women.

To push your luck further, turn your *Lucky Knocko* board over to see some of the tools workers use in the fields shown in your winning row. In the next few years, you'll have opportunities in school to learn to use many of these tools.

6 Machine Tool Trades	**20** Transportation	**8** Drafting Occupations	**15** Small Engine Repair	**18** Copy & Business Machine Repair
4 Environmental Sciences Occupations	**1** Electrical Occupations	**19** Instrument Repair	**2** Radio-TV Repair	**5** Painting & Paperhanging
12 Air Conditioning, Heating & Refrigeration	**13** Railroad Occupations	Lucky Knocko ★★★★	**10** Metalworking Trades	**3** Firefighting & Law Enforcement
23 Computer Assembly & Repair	**9** Large & Small Appliance Repair	**7** Electronics Occupations	**22** Plumbing & Piping	**16** Automotive Occupations
14 Telephone Craft Occupations	**24** Heavy Equipment Occupations	**17** Commissioned Sales Occupations	**11** Building Maintenance Occupations	**21** Carpentry & Cabinet Making

 Machine Tool Trades	 Transportation	 Drafting Occupations	 Small Engine Repair	 Copy & Business Machine Repair
 Environmental Sciences Occupations	 Electrical Occupations	 Instrument Repair	 Radio-TV Repair	 Painting & Paperhanging
 Air Conditioning, Heating & Refrigeration	 Railroad Occupations		 Metalworking Trades	 Firefighting & Law Enforcement
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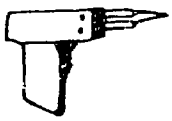
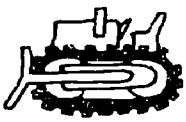
 Telephone Craft Occupations	 Heavy Equipment Occupations	 Commissioned Sales Occupations	 Building Maintenance Occupations	 Carpentry & Cabinet Making

Job Market

Purpose

To introduce students to the employment scene.

What students will do

Students will circle newspaper ads identifying actual nontraditional job opportunities.

Supplies needed

- Gamebook and pencil for each student
- timer with a bell

Leader preparation

Read the activity carefully. Plan how to make it work in your class.

Look over the ads to familiarize yourself with nontraditional job descriptions. Note terms such as "draftsperson" instead of "draftsman" and phrases such as "equal opportunity employer" and "affirmative action employer." These are indications that qualified women applicants are entitled by law to these jobs.

Time needed

At least 10 minutes

To launch

Tell students to turn to pages 41-44 of their Gamebooks, *Job Mark* (Leader's Guide, pages 90-93). Go over the game rules with the entire class.

Set the timer for three minutes and begin play.

To sum up

Ask a few students how many job ads they circled. Which ads?

Identify nontraditional job ads that students have overlooked. (These are circled on your copy.)

Ask students to look for "evidence" that these jobs are open to women as well as men. Call attention to the terms and phrases that indicate this.

Reminder

Have you collected the appliances you will need for Module 7 (Leader's Guide, pages 113-119) and the other items you will need for Module 8 (Leader's Guide, pages 121-128)?

Job Market

Game Rules

On this and the next three pages are employment ads from a Boston newspaper. In three minutes, circle all the ads you can find for jobs that are nontraditional for women. (Example: Maintenance Mechanic.) There are at least 18 ads for nontraditional jobs.

MASONEILAN, a leader in the manufacture of Process Control equipment, has the following positions available.

DESIGN DRAFTSPERSON

The individual we seek will make design layouts from oral or written instructions or from data originating from engineers or product specialists. May make subsequent detail or assembly drawings and bills of material for new equipment and will interface with other departments to ensure completion of projects. A minimum of 3-5 years of applicable experience required.

DETAIL DRAFTSPERSON

Will prepare detailed drawings of a complicated nature from sketches, scale layouts or from specified dimensions and will make assembly drawings and certified dimensional drawings from details. Will make simple layouts and new detailed drawings of parts. A good knowledge of drafting techniques is necessary as well as some background in engineering procedures.

To learn more of these challenging positions offering excellent salaries and full fringe benefits, please send a detailed resume and salary history in complete confidence to:

Barbara Gold

Masoneilan

Masoneilan International, Inc.
63 Nahatan Street
Norwood, MA 02062

an affirmative action employer m f

"FASHION SALON"

$190 fee pd Assist the owner & also model Exciting spot good skills nec 425-4427 COMMONWEALTH PERSONNEL AGENCY 77 Summer St Boston

SECRETARY

Our General Engineering Department has a position available for an experienced secretary to work with one of our Project Managers. We require 3 to 4 years secretarial experience, typing of 65 wpm and shorthand of 90 wpm. Secretarial school and/or engineering experience a plus.

CLERK TYPIST

Our Computer Applications Department has a position available for an experienced clerk typist. Two to 3 years experience required. Experience in a computer department desirable.

Both positions offer excellent starting salary and a competitive benefits package.

call 338-6000, ext. 2224
to arrange for an interview

united engineers
& constructors inc.
A Raytheon Company

100 Summer St., Boston, MA 02110

An equal opportunity employer m/f

INDUSTRIAL SALES

The local distributor for the Caterpillar Tractor Company (Towmotor) and Barrett electric trucks handling sales and service for their complete line of fork-lift equipment has an opening for the North Shore sales territory for an aggressive individual who can close a sale and has had previous experience calling on industrial accounts.

This position offers unlimited potential for growth commensurate with ability.

If you are qualified, please call Walter Winston at 435-6321 for an appointment.

WITT-ARMSTRONG EQUIPMENT CO.
80 South St.
Hopkinton, Mass.
An equal opportunity employer

PAYROLL CLERK

Looking for an individual with 2 years payroll experience and the ability to learn quickly. Proficiency with an adding machine a must.

Please call Bev Cohen, 956-5673, between 10 a.m. and 12 noon. Personnel Office: 37 Bennet St., (off 171 Harrison Ave.), Boston.

An equal oppty employer M/F

tufts new england medical center hospital

tufts new england medical center hospital

MAINTENANCE MECHANIC

Must have electrical and mechanical knowledge, some welding, 2nd class stationary firemans license preferred but not necessary. Apply

MORGAN SERVICES, INC.
941 MASS. AVENUE
BOSTON, MA. 02118
interviews 8-11 AM & 1-3 PM

OFFSET

FEEDERS for Harris and Heidelberg 2nd shift Excellent fringe benefits Profit sharing Apply RON COMEAU at

DANIELS PRINTING CO.
40 COMMERCIAL ST.
EVERETT, MA
389-7900

FIGURE CLERKS

Ability to analyze differences between agency premium records and company premium records to assemble, calculate and check various statistical data in the preparation of reports and exhibits. Good communicative skills required.

TYPISTS —Conventional and Statistical

Good typing skills required as well as basic mathematical ability.

Excellent fringe benefit program, company cafeteria, convenient to Mass Transit. Apply Personnel Department, One Beacon St., 8th floor, Boston, MA 02110.

Commercial Union Assurance Companies

An equal oppty employer M/F

Clinical Laboratory Assistant

Full time day position available in a Department of Laboratory Medicine performing a variety of phlebotomy, technical and clerical duties. C.L.A. certified or equivalent. Minimum of 3 months phlebotomy experience is required. Salary and benefits are both fine.

Please call or send resume to Mary Carrigan, Employee Relations, University Hospital, 75 E. Newton Street, Boston, MA 02118.

University Hospital, in Boston.

75 East Newton Street Boston, MA 02118

A member of the Boston University Medical Center.

An equal opportunity employer, of course

DENTAL ASSISTANT

20 hours. General dentistry in community health center. Chairside Assistant in modern office.
Contact Dr. Feldbau or Dr. C. at 522-4700

BROOKSIDE PARK FAMILY LIFE CENTER
3297 Washington St., Jamaica Plain, MA 02130.

(Affiliated with Peter Bent Brigham Hospital)
An Affirmative Action Employer

WIRERS SOLDERERS ASSEMBLERS

(ELECTRONIC)

We are a rapidly expanding firm seeking good Wirers, Solderers and Electronic Assemblers who want to be part of our growth. Experience in chassis wiring, P.C. assembly and harnessing is desirable.
In addition to ground floor advancement potential, we offer a most competitive salary, excellent benefits program and ideal working conditions.
Please call 449-4872 for an appointment.

SPEARS ASSOCIATES, INC.
33 Fourth Avenue
Needham, MA 02194

An equal opportunity employer

TEACHER OPENING SMALL GAS & MARINE ENGINES

Requirements: 6 years trade experience & must be certifiable by the Mass. Division of Occupational Education. Call or write for application to:

NORTHSHORE REGIONAL VOCATIONAL SCHOOL DISTRICT
20 Balch St.
Beverly, Mass. 01915

927-6178

An equal opportunity employer

PERMANENT & TEMPORARY

(SOME NO. SH. NO EXP.)

LEGAL SECYS.
TYPISTS-ENTRY
WORD PROCESS
CALL THE EXPERTS
. . 227-3500 . .

Boston's leading legal secretarial placement agency, known and respected throughout New England.

NO FEES

Permanent positions to $25K +. Some 4 wks. vac. +. All levels. Temporary assignments to $6/hr. Best firms.

Mass Legal Bureau
44 School St., Boston

AUTOMOTIVE MECHANIC

Light Shop Work

Immediate opening for a class A mechanic with own tools. Must have minimum 3-5 years of experience and be familiar with late model cars. Ability to do tune-ups, brake jobs, air-conditioning and ignition work. Position at Logan Airport. Good salary and benefits.

Call for appointment
(617) 569-7272
THE HERTZ CORP.
An equal oppty employer M/F

ROUTE SALES

NORTH SHORE

Immediate opening available for salesperson with route sales exp. Guar. salary while training. Call for interview 288-8552 from 9 a.m.-4 p.m.

DISC JOCKEY

LOOKING for creative, well-balanced, imaginative Disc Jockey willing to relocate in Denver area, new club, great opportunity. Salary negotiable. Call 1-603-465-7616, eves.

TYPISTS

Salary: $135 - $141

Interesting typing positions using underwriting source documents. No experience required. 45-50 wpm.

Call Personnel:
357-7294
357-7293

Aetna
LIFE & CASUALTY
An equal opportunity employer M F

KEYPUNCH

Data entry operator needed for full time evening position. 3-11 p.m. shift. 1-2 years' experience preferred.
Excellent fringe benefits and shift differential
Please call
Jill S. Cohen, 890-6161

SmithKline Clinical Laboratories, inc.
343 Winter Street
Waltham, Mass. 02154
An equal opportunity employer

EXPERIENCED KITCHEN PERSON

Good working conditions. Night hours

WAITERS-WAITRESSES
Days

Apply in person
HAROLD'S RESTAURANT
Chestnut Hill Mall
199 Boylston St., Newton

CABINET MAKER
Experienced only. Salary open. Apply in person ALPERSON MCQUAID, 170 Fawcett St., Cambridge (Fresh Pond area)

TECHNICIANS

ELECTRONIC AND MECHANICAL

Several are needed for a growing new technology company in the Lexington area. Will be concerned with both process and product development in electro-mechanical systems

TECHNICIAN OR TECHNICIAN TRAINEE

Have good mechanical aptitude, willing to work from instruction manuals on non-routine projects, some mechanical assembly equipment maintenance.

ELECTRONIC TECHNICIANS (5)

Will test and evaluate breadboard circuits in product development (LSI/MSI experience useful) have ability to maintain or and debug new equipment repair and revise circuitry could move later into field service

TECHNICIAN/WIRER (2)

Should know test equipment, have ability to build and test analog and digital circuitry with little supervision
Salaries are competitive, benefits are excellent and working conditions are super
If you qualify please call for an immediate appointment or send resume to MARGOT M. BROWN

LOUIS RUDZINSKY ASSOCIATES
Executive Search Consultants
1656 Mass. Ave. Lexington, Mass. 02173
862-6727

RN'S-LPN'S

PARKWELL Nursing home is a 120 bed skilled Nursing Facility accredited by The Joint Commission on Accreditation of Hospitals. We currently have the following positions available:

PART-TIME 3-11 AND 11-7 SHIFT

Our working conditions are excellent. Full time benefits include paid BC/BS, Master Medical, paid 13-week extended sick leave program, paid life insurance, paid vacations and immediate paid holidays. Please make application between the hours of 9 a.m. and 4 p.m. Mon.-Fri. to Mrs. Lorraine A. Carney, R.N., Director of Nursing, PARKWELL NURSING HOME, 745 Truman Highway, Hyde Park, Mass. 361-8300.

AG AMERICAN GERIATRIC FACILITIES
THE FLATLEY COMPANY
An equal opportunity employer

MACHINIST

Duties to include the fabrication and repair of assembly tooling and fixtures. Some design or layout required. Must be totally familiar with lathe, Bridgeport miller, surface grinder, etc. Minimum 5 years experience required.

PUNCH PRESS SETUP PERSON

Punch Press die setter with supervisory experience preferred but not necessary on its first shift. Must have experience in operating and setup punch presses. Will be responsible for supervising punch press department as well as setting up and adjusting dies and presses. Starting salary commensurate with background and experience, excellent fringe benefits. If you feel qualified apply in person to

PEERLESS AUDIO MFG. CORP.
40 Jytek Drive
Leominster, MA. 01453
An equal opportunity employer

CRAFTS COMPANY, a leading manufacturer of precision diamond and carbide cutting tools and components HAS FULL-TIME, PART-TIME AND TEMPORARY OPENINGS ON THE 1ST & 2ND SHIFTS.

TOOLMAKERS

Experienced in laying out, machining and assembling a wide variety of products including tools, fixtures, jigs, gages and other close tolerance parts.

O. D. GRINDERS

Able to plan grinding sequence, set-up and run O. D. grinders from blueprints to close tolerances.

I. D. GRINDERS

Able to set-up, make fixtures for and run I. D. grinders working from blueprints to close tolerances on steel, carbide and other material.

SURFACE GRINDERS

Knowledgeable in set-up and running of surface grinders to close tolerances on both steel and carbide parts

E. D. M. OPERATORS

Set-up and operate E. D. M. equipment for a wide variety of tools and parts.

TOOL AND CUTTER GRINDERS

Set-up and operate a number of grinders to produce a wide variety of special cutting tools and precision components

We offer an excellent starting rate with shift premium and benefits package.

For an interview call
Jane Salas at 890-7550

CRAFTS COMPANY
80 FOURTH AVE. WALTHAM, MASS. 02154
An equal opportunity employer

PERSONNEL RECEPTIONIST

Here's your chance to grow with a growing company. Our Boston office is in need of a receptionist who will also assist our personnel counselor. Must enjoy people contact. Typing required (50 wpm). Please call us for an appointment. ADIA TASK FORCE, Temporary Personnel, 426-5753

APPLIANCE TECHNICIAN
Kitchen Aide, Maytag products. Experience preferred but will train a qualifying person. Wellesley area. 235-5112

HELP LECHMERE PLAY SANTA!

Put a holiday jingle in your pocket! Lechmere is currently hiring for Christmas openings in the following areas:

Sales
Cashiers
Stock

Positions are available for many shifts such as 9-6, 10-6, 10-2, 11-3, 2-6, 3-6, 12-6, 6-9:30. Starting rate of pay ranges from $2.65 to $3.25 per hour depending on position, experience, and qualifications. Interviews will be conducted Monday through Friday between the hours of 9:30 AM and 3:30 PM at the Division of Employment Security Job Center, adjacent to Lechmere Sales at 51 Commercial Street, Cambridge.

LECHMERE

AN EQUAL OPPORTUNITY EMPLOYER M/F

MEDICAL TECHNOLOGISTS

Career opportunities

- **Blood Bank** Second and combination shifts, call.
- **Hematology** First shift.
- **Chemistry** First shift. Manual and automated.
- **General Lab** Combination second and third shifts. Manual and automated chem, hematology, urinalysis.

MT (ASCP) preferred; will consider MLT's or registry eligible
Please send resume or call 389-6270, Ext. 319

Whidden Memorial Hospital

100 Freemont Avenue,
Everett, MA 02149
An Equal Opportunity Employer M/F

PLASTICS MOLD DESIGN DRAFTPERSON

We are expanding our design team and want experienced plastic mold designers who have the ability to design complete molds from part prints, together with motivation and communications skills necessary to solve problems. If interested please contact Claude Bourque

PIXLEY-RICHARDS, INC.
Plymouth Industrial Park, Plymouth, Ma.
746-6082
644-2478 after 6 p.m.
are an equal opportunity employer

COSMETICIAN

Immediate opening on one of the prestigious lines, experience required. This position is full time, including Saturdays, day off during the week.
We offer competitive salary, excellent benefits including a generous store discount.
Please apply Personnel Manager, 2nd floor, Burlington Mall, Burlington, Monday thru Saturday 9:30 a.m. to 5:30 p.m.

jordan marsh

An Equal Opportunity Employer

ELECTRONIC TEST TECHNICIAN

Your duties will involve testing, troubleshooting, and repairing a variety of analog and digital electronic equipment using test procedures, schematics, and verbal instructions. If you have at least two years experience plus formal technical training, this may be the position for you. If interested in a career in a challenging field, please stop in for an immediate interview.

Varian/Lexington
Vacuum Division
121 Hartwell Ave.
Lexington, MA 02173

An Equal Opportunity Employer

varian
Lexington

WOODWORKING INSTRUCTOR

Grades 9 thru 12, certification and some exp required. For immediate interview, call MR. WILLIAM DeSTEFANO, PRINC. MANSFIELD HIGH SCHOOL, Mansfield, Ma. 617-339-8911

SALES

"Are You Interested in Selling, Welding, And Making Money?"

If your answer is yes, you may qualify for our $25,000 potential North and South Boston territory. With Certanium Alloys and Research Co., your practical knowledge of welding can be coupled with your sales ability to establish a professional high-income sales career. You'll sell the leading line of maintenance welding and brazing alloy products to industrial, governmental and institutional users.

- Excellent Training
- Repeat Business
- Draw and travel expenses (while training)
- High Commissions
- Family Assistance Programs
- Growth Potential

Call for a personal interview

(609) 662-4044
Mon. & Tues.
10 AM-5 PM
Collect Calls Accepted

If unable to call, write to 5090 Central Highway, Suite #8, Pennsauken, NJ 08109

CERTANIUM ALLOYS & RESEARCH CO.

Equal Opportunity Employer M/F

BILLING CLERK

We are a Dorchester based health center seeking an individual who has had a minimum of one year experience billing in the areas of BC/BS, Medicare, Medex and other parties. Experience in a hospital would be beneficial.
Monday through Friday. Weekends and holidays off.

Please apply to:
BOWDOIN STREET HEALTH CENTER
222 Bowdoin Street
Dorchester, MA 02122
282-1100
An equal opportunity employer

PEOPLE GREETER

Plush Chestnut Hill retailer looking for outgoing receptionist for their busy PBX board. Mature attitude desired for interaction with sophisticated clientele. If the convenience of the Mall at Chestnut Hill is what you're looking for and salary $175 + wkly., call Claudia Browning, 235-8950. Fee paid. POSITIONS, INC., 20 William St., Wellesley, Ma. 02181. Personnel Consultants.

OFFICE POSITIONS

Scrambled Legs and Cashing In

Purpose

To help students recognize:

- some nontraditional jobs that students can begin to prepare for in school
- wage differences between typical nontraditional and traditional women's jobs

What students will do

Students can choose either (or both) of two activities. One is a scrambled letters game, identifying nontraditional job names. The other is a paper-folding game, revealing a comparative display of entry-level wages and wages over time in typical nontraditional and traditional women's jobs.

Supplies needed

- Gamebook and pencil for each student

Leader preparation

Read both activities carefully. Plan how to make them work in your class. Try them yourself.

Time needed

At least 10 minutes

To launch

Tell students to turn to page 45 of their Gamebooks, *Scrambled Legs* (Leader's Guide, page 95). Go over the game rules. Then, ask students to turn to page 46 of their Gamebooks, *Cashing In* (Leader's Guide, page 96). Go over the game rules.

Let students choose which game they'll play. Begin the activities. Circulate to help where needed.

To sum up

Ask individual students who played *Scrambled Legs* to read aloud to the class the unscrambled job names. (Answers have been written on your copy. Use these to provide correct names when necessary.)

Ask a few students who chose *Cashing In* to share with the class one fact discovered by playing the game.

Scrambled Legs

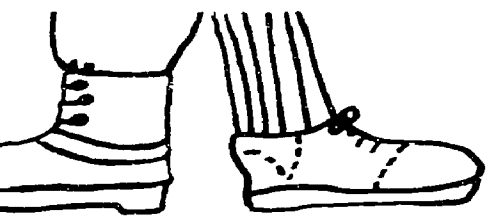
Game Rules

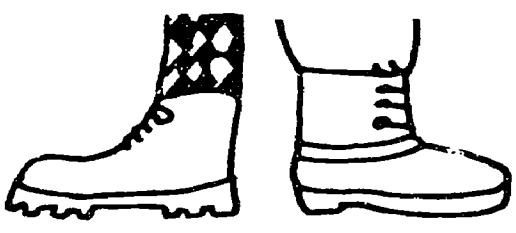
Both men and women work in occupations where the tasks are to build, install, rivet, wire, repair, weld, operate machines, read blueprints, drive. They work indoors and outdoors, wearing clothes suitable for the work they do.

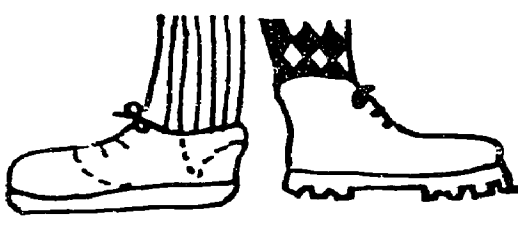
When workers are on the job, it's sometimes hard to tell who's who, just by looking at their feet!

Column 1 below lists some good nontraditional jobs that girls, along with boys, can begin to prepare for in school. Unscramble the letters to find out what the jobs are and write them in Column 2. To help you unscramble, some of the letters are already filled in.

Column 1	Column 2
1. U O T A I M C A C N E h	1. **A** U T **O** **M** E C **H** A N I **C**
2. D R E W L W	2. **W** E **L** D E **R**
3. N I L C A R T E C I E	3. **E** L E **C** T R I **C** I A **N**
4. V T E P I R R A R E	4. **T** V **R** E P **A** I R E **R**
5. R E T P A C R E N	5. **C** A R **P** E **N** T E **R**
6. L E P M U R B	6. **P** L U M **B** E **R**
7. P N O R D S T A S F E R	7. **D** R A **F** T S **P** E **R** S O **N**
8. T I C A M S H I N	8. **M** A **C** H I **N** I S **T**







Cashing In

Game Rules

With nontraditional skills, workers carry home more $$$ in their weekly paychecks--especially over the years, as they improve and gain experience.

Turn your Gamebook sideways. First, fold the page so the two dotted line A's meet each other and the pictures match up. Then, fold it again so the two dotted line B's meet each other. Can you see the DIFFERENCE$?

Module 6

Dollars and Sense

Money MatterS

Purpose

To help students understand why families need the money that working women earn.

What students will do

Groups of students, acting as families, will choose typical family expenses and pay "Bill Collectors." The game will show the comparative incomes and "purchasing power" of three family types: one supported by two wage earners, one supported solely by a working man, and another supported solely by a working woman. (Figures used are based on national averages for urban metropolitan areas.)

Supplies needed

- Gamebook and pencil for each student
- a supply of scissors for students to share
- one pocket calculator (optional)
- one pair of scissors
- one stapler
- six elastic bands or six feet of string

to make Bill Collector moustaches*

Leader preparation

Read the activity carefully. Plan how to make it work in your class.

Make three moustaches by cutting out the shapes provided (Leader's Guide, page 101).

On a chalkboard draw the *Money MatterS Chart* (Leader's Guide, page 103).

Time needed

At least 40 minutes

To launch

Appoint three students (girls and boys) to be Bill Collectors. Each should put on a moustache (or carry a briefcase) and go to the front of the room, taking their Gamebooks with them.

Divide remaining students into three approximately equal groups, A, B, and C, each to represent a different make-believe family. Be sure each group includes both girls and boys. Ask students in each group to sit together so they can make decisions as a family. Give each group a pair of scissors. (If groups are too large, divide them in half and let two groups represent each of the families.)

* This classic "male" image is intended to be funny. Leaders who find it too stereotypical may, instead, make "briefcases" by stapling together the sides of three manila folders and labeling each "Bill Collector."

To launch (continued)

Ask students to turn to page 47 of their Gamebooks, *Money MatterS* (Leader's Guide, page 104). Go over the *Game Plan.*

Ask students to read their Family Descriptions (Leader's Guide, page 105) and choose their family names. Then, assign a Bill Collector to sit with each family and help work on the math. Next, go over each step of the game and help students carry out the activities.

In Step 2, encourage students to use the blank forms (Gamebooks, page 49) in choosing expenses (Leader's Guide, page 106). Suggest that they think of things their own families might pick.

Circulate among students during the game. In Steps 4 and 8, you may wish to use a pocket calculator to help each family check its *Balance Sheet* calculations on pages 50-52 of the Gamebook (Leader's Guide, pages 107-109).

To sum up

Ask the "parent" in each family to give you the figure for Column 4 of the chalkboard chart, *Money Left.* This will show how much family income remains after yearly expenses are paid.

The completed chalkboard chart will show the extent to which typical expenditures use up family income. Ask students these or similar questions:

- which family will have the fewest problems making ends meet? why? the most problems? why?
- what did you notice about the earnings of the male and female breadwinners?
- how might a female breadwinner improve her ability to support her family?

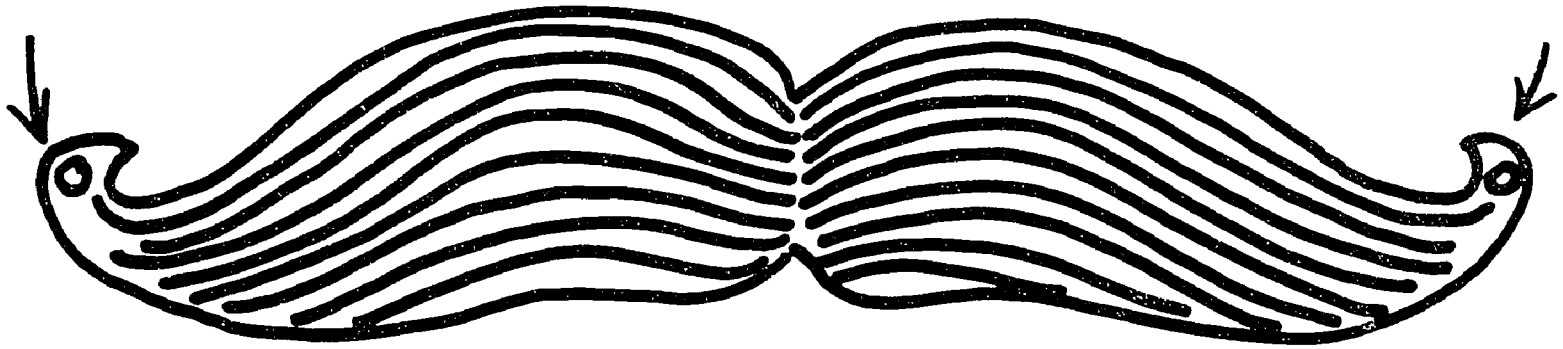
Ask the "parent" in each family to read from the *Family Expenses* page some of the items the family chose. Compare the choices.

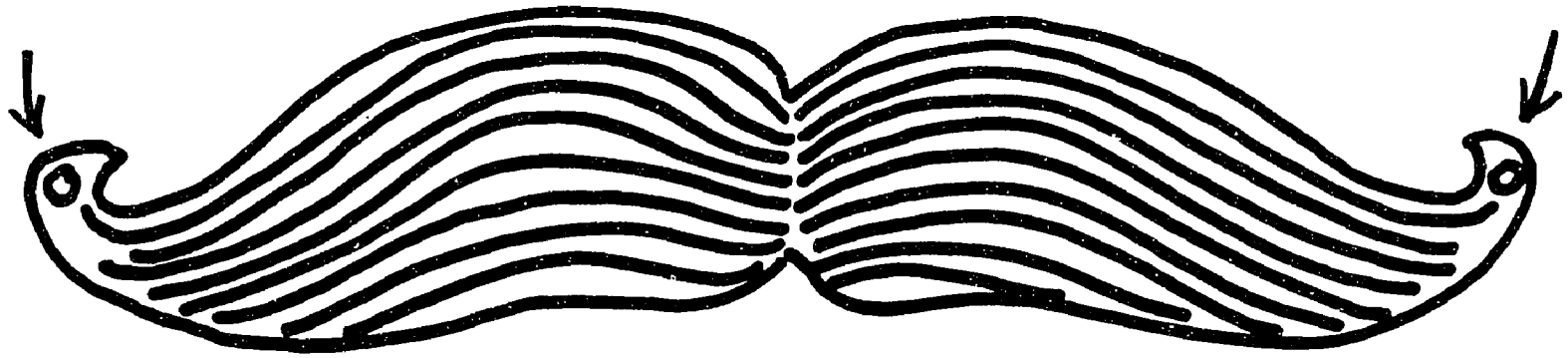
Did any of the families forget to cover expenses for food, rent, etc.? If so, would their *Money Left* figure be realistic?

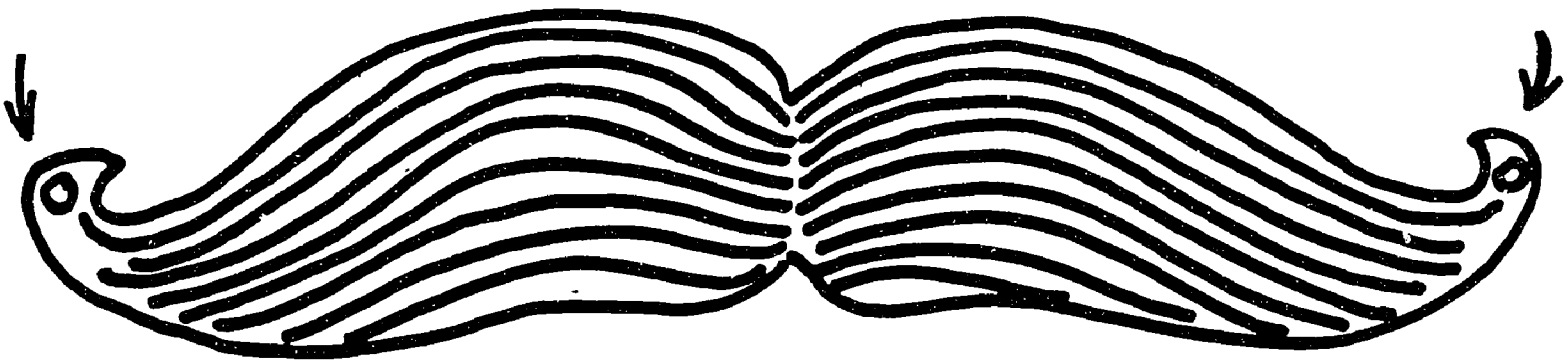
Money Matter$

Game Rules

Cut these out. At dots indicated by arrows, staple strings or loose elastics to fit around wearer's ears or to tie around the head.







Money Matters

Money Matters Chart

Column 1 Family Name	Column 2 Yearly Income	Column 3 Total Family Expenses	Column 4 Money Left
Family A	$15,000		
Family B	$24,000		
Family C	$9,000		

Money Matters

Game Rules

Families have to work out ways to make their earnings cover their expenses. Let's see what happens when these families try to do it.

The Game Plan

- Each group will be a family: Family A, Family B, and Family C.
- Each family will find its description on the next page of the Gamebook and will read it carefully. Then the family will choose a name.
- Each family will have its own Bill Collector.

To Play the Game

Step 1. In your group, choose a "parent" to be the family spokesperson. Then, turn to page 49 of your Gamebook, *Family Expenses*, and write your family name at the top. Ask your family's Bill Collector to join you.

Step 2. Decide together on nine expenses your family will have. Your group can choose expenses from the list or make up its own, using the blank forms. Put an "X" on each expense payment your family chooses.

Step 3. Turn to pages 50-52 to find your family's *Balance Sheet*. In Column 1 list all the expenses your group chose and their costs.

Step 4. Next, add up all your family's expenses. Don't forget to add in your family's yearly taxes (printed on the last line of Column 1). Write the total in the circle at the bottom. Bill Collectors can check all the math.

Step 5. Then, follow the arrows and write the same total next to Total Family Expenses in Column 2 and on the Payment "check."

Step 6. The "parent" should then sign the family name on the Payment "check," cut it out, and give it to the family's Bill Collector.

Step 7. The Bill Collector should then write your family's name in Column 1 of the chalkboard chart and your Total Family Expenses (the Payment you just made) in Column 3.

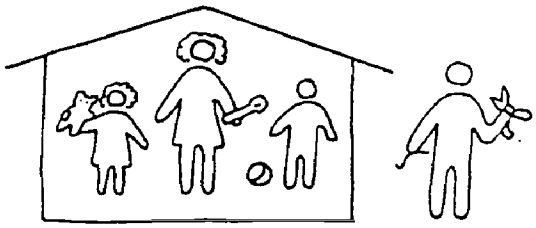
Step 8. Meanwhile, family members can subtract Total Family Expenses from Total Family Income in Column 2 of their *Balance Sheets*. The remainder will be Money Left--the amount your family has left after paying expenses. The class leader will ask each "parent" for this figure.

Money Matter$

Family Descriptions

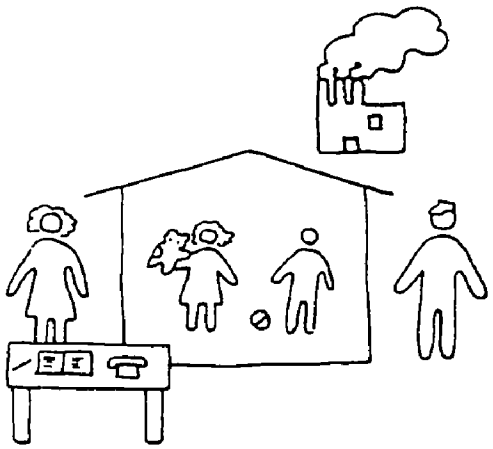
Family A

Family A is a two-parent family with two school-age children. The father, an electrician, is the only breadwinner. The mother doesn't work outside the home. Total yearly family income is $15,000, what the father earns.



Family B

Family B is a two-parent family with two school-age children. Both the father and mother are breadwinners. The father, a maintenance supervisor at a large industrial plant, earns $15,000. The mother, a bookkeeper in an insurance office, earns $9,000. Total yearly family income is $24,000, the combined earnings of both parents.



Family C

Family C is a one-parent family with two school-age children. The divorced mother is the only breadwinner. She is a secretary in an advertising agency. Total yearly family income is $9,000, what the mother earns.

Family Expen$e$

Family name

_____

Game Rules

Below is a list of payments for typical yearly expenses for a family of four living in a big city. There are also some blank forms on which you can write other expenses a family might have . . . for things they might need or want.

Choose 9 expenses in all--from those listed here or from those your group makes up and writes in the blank forms. Mark each expense your group chooses with an "X." Be sure you put in the costs for any expenses your group makes up.

Payments

Amount: about $2,000 To pay for: yearly housing (including rent, heat, gas, electricity)	Amount: about $125 To pay for: one movie per month for each family member (including popcorn) for one year	Blank Form Amount: $_____ To pay for:_____
Amount: about $3,000 To pay for: yearly food expenses	Amount: about $350 To pay for: new washing machine	Blank Form Amount: $_____ To pay for:_____
Amount: about $900 To pay for: yearly medical and dental expenses	Amount: about $150 To pay for: new bicycle for 14-year-old's birthday	Blank Form Amount: $_____ To pay for: _____
Amount: about $1,600 To pay for: yearly operating expenses for a 1974 car (gas, insurance, minor repairs)	Amount: about $500 To pay for: a trip for the whole family to DISNEY WORLD in Florida	Blank Form Amount: $_____ To pay for: _____
Amount: about $800 To pay for: clothing for entire family	Amount: about $120 To pay for: four new tires for the car to pass inspection	Blank Form Amount: $_____ To pay for: _____
Amount: about $900 To pay for: after-school child care for two children (in families with working mothers)	Amount: about $450 To pay for: new color TV set	Blank Form Amount: $_____ To pay for: _____

BALANCE SHEET: Family A

The First $mational Bank of Froston

	COLUMN 1	
	FAMILY NAME	
	EXPENSES	COSTS
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
ADD IN	YEARLY TAXES ON WAGES OF $15,000	ABOUT $3,100
	TOTAL FAMILY INCOME	

COLUMN 2	
DO EARNINGS COVER EXPENSES?	
TOTAL FAMILY INCOME	$15,000
TOTAL FAMILY EXPENSES (SUBTRACT)	
MONEY LEFT?	

Payment

FIRST $MATIONAL BANK
OF FROSTON

Pay to the order of Bill Collector

Check Amount $ _____

Family A Name _____

BALANCE SHEET: Family B

The First $mational Bank of Froston

	COLUMN 1	
	FAMILY NAME	
	EXPENSES	COSTS
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
ADD IN	YEARLY TAXES ON WAGES OF $24,000	ABOUT $6,400
	TOTAL FAMILY INCOME	

COLUMN 2	
DO EARNINGS COVER EXPENSES?	
TOTAL FAMILY INCOME	$24,000
TOTAL FAMILY EXPENSES (SUBTRACT)	
MONEY LEFT?	

Payment

FIRST $MATIONAL BANK OF FROSTON

Pay to the order of Bill Collector

Check Amount $ _____

FamilyB Name _____

BALANCE SHEET: Family C

The First $mational Bank of Froston

	COLUMN 1		COLUMN 2	
	FAMILY NAME		DO EARNINGS COVER EXPENSES?	
	EXPENSES	COSTS		
1.			TOTAL FAMILY INCOME	$9,000
2.				
3.				
4.				
5.			TOTAL FAMILY EXPENSES (SUBTRACT)	
6.				
7.				
8.				
9.				
ADD IN	YEARLY TAXES ON WAGES OF $9,000	ABOUT $1,700	MONEY LEFT?	
	TOTAL FAMILY INCOME			

Payment

FIRST $MATIONAL BANK OF FROSTON

Pay to the order of Bill Collector

Check Amount $ _____

Family C Name _____

Razzle Dazzle Riddle Fiddle Faddle

Purpose

To help students understand that most families today find it harder and harder to make ends meet.

What students will do

Students will choose answers to riddles about money and living costs.

Supplies needed

- Gamebook and pencil for each student

Leader preparation

Read the activity carefully. Plan how to make it work in your class.

Time needed

At least 5 minutes

To launch

Ask students to turn to page 53 of their Gamebooks, *Razzle Dazzle Riddle Fiddle Faddle* (Leader's Guide, page 111). Go over the game rules with the entire class.)

Ask a different student to read each of the first five riddles aloud while the others underline their answers.

To sum up

Ask students to make up and share with the class their own riddles about money. A suggestion for a start is given in Number 6.

Point out that according to government experts, the average American family had to earn almost twice as much in 1979 as in 1970 to maintain the same standard of living. A family earning $13,200 in 1970 required $25,000 in 1979 to have the same amount of money available after taxes.

Leader's Guide, page 111
(Gamebook, page 53)

Razzle Dazzle Riddle Fiddle Faddle

Game Rules

Money matters, as even these riddles show. Underline the answers below that make the most sense.

1. What's green and doesn't go very far?

   a) a frog with a sprained ankle
   b) the dollars in a weekly paycheck
   c) a baby inchworm

2. What goes up and doesn't come down?

   a) a paper airplane with a broken landing gear
   b) smoke
   c) the cost of living

3. What bounces that is not a ball?

   a) a check when your bank account's empty
   b) a Mexican jumping bean
   c) a little boy on his father's knee

4. What shrinks without washing?

   a) doctors who treat mental illness
   b) family income as prices go up
   c) shoes that fit you last year

5. What can you count on for sure?

   a) the Yankees winning the pennant
   b) broken cookies in the bottom of the package
   c) tax increases over the coming years

6. Make up a riddle of your own!
   What goes out faster than it comes in?

   a)
   b)
   c)

Module 7

Let's Try It: Exploring with Tools

The Take-Apart Caper

Purpose

To demystify "technology" by giving students first-hand experience in exploring the inside of an electrical appliance.

What students will do

In small groups, students will partially take apart an appliance, then label by number and try to name the parts they have removed.

Supplies needed

- Gamebook and pencil for each student
- a supply of discarded appliances, one for each group of about four students*
  - examples: broken hair dryers, radios, toasters, irons, bells, fans, switches, telephones, etc.
  - sources: students' homes, teachers' homes, school industrial arts or maintenance departments, appliance repair shops, appliance distributors, hospitals
- a supply of hand tools in various sizes for each group
  - examples: screwdrivers (Phillips head, standard); wrenches (socket, Allen); pliers (needle nose, standard adjustable)
  - sources: school industrial arts or maintenance departments etc.
- a supply of transparent tape and sheets of 8½" x 11" paper for each group to label appliance parts
- a supply of newspapers to protect desk or table tops

Leader preparation

Read the activity carefully. Plan how to make it work in your class.

Be sure you have enough appliances and tools on hand.

Try out the activity yourself and, if necessary, get help from the industrial arts department in identifying and using appropriate tools for various types of screws, nuts, bolts, etc.

Time needed

At least 45 minutes

---

* Some brands of appliances cannot be taken apart for safety reasons. Appliances with covers or casings that are fused or cemented together are unsuitable for this activity. If screws are visible anywhere on the surface of the appliance, the cover is probably designed to come off and students will be able to work with it.

To launch

Divide class into small groups (about four students). To encourag girls and boys to work independently as well as together, some groups should be all girls, some all boys, and some mixed. Ask eac group to sit around a desk or table so they can work together. As students to turn to page 54 of their Gamebooks, *The Take-Apart Caper* (Leader's Guide, page 118). Go over the game rules with th entire class.

Give each group newspapers to protect desk, an appliance and a set of tools to share, as well as transparent tape and paper for numbering and labeling parts as they are removed.

Begin the activity and circulate among students to help whe needed.

To sum up

After 30 minutes, ask students these or similar questions:

- how many different parts did your group take off or out of the appliance?
- which parts were the hardest to remove? why? the easiest? why?
- could you identify any parts that remained inside and figure out what they do? which ones?
- was your group able to put the appliance back together? had anyone in your group ever taken an appliance apart before? if yes, who?

Option

Students may have questions about the appliance parts and how they work. Suggest that they take their appliance parts (re-assem or not) to the industrial arts department during a study period to ask for help in identifying parts they did not recognize.

Letter to Parents

Dear Parent,

For one of the most important class activities in *CONNECTIONS*, our occupational exploration program, we will need some discarded household appliances for students to take apart. Items such as broken hair dryers, radios, toasters, irons, bells, fans, switches, lawn mower motors, or telephones would be useful.

For safety reasons, we want only appliances with covers or casings that are designed to come off – not those that are fused or cemented closed. If screws are visible anywhere on the surface of the appliance, the cover can probably be removed and it can be used for our purposes.

If you have a suitable appliance at home (or at your place of work) for your child to bring to school, we would appreciate it very much.

Thank you for helping us.

Sincerely,

_____

Teacher

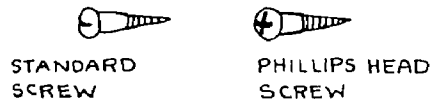
The Take-Apart Caper

Game Rules

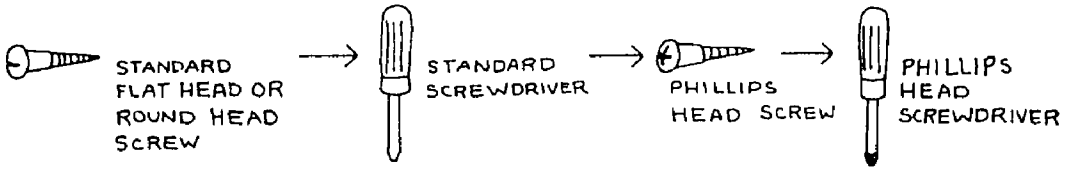
In 30 minutes, each group's job is to go as far as possible in taking the appliance apart. If you want to, you can also try to put it back together.

Choose a player to go first and follow the steps below. You can take turns or several students can work on each step together.

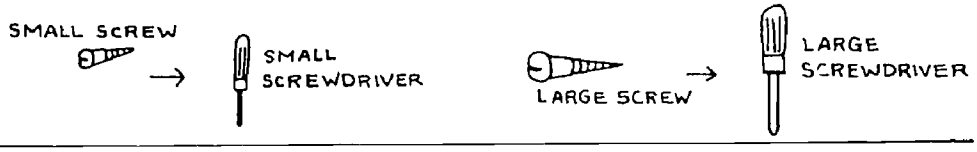
Step 1. Look for screws on the outside of the appliance.



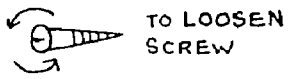
Step 2. Decide what kind of screwdriver you need.



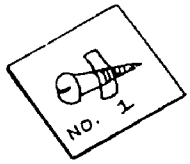
Step 3. Pick a screwdriver that will fit the screw. Try it out for size.



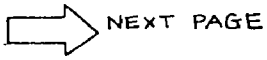
Step 4. Loosen the screw by turning it counter-clockwise.



Step 5. Remove the screw(s). Take out the part of the appliance that is now free. Tape it to a sheet of paper and label it Number 1.

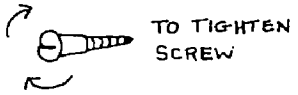


Step 6. Try to figure out what the part is and what it does. Look at the clues on the next page. Does your part match any of the pictures? If so, write its name on the label sheet next to where you taped it.



Step 7. Continue to take apart as many things as you can. Number them as they come out (2, 3, 4, etc.) and try to figure out what they are.

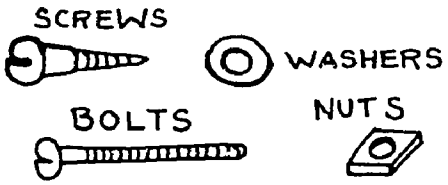
Step 8. Now for the biggest step! Try to put your appliance together again. Start with the last thing you took out and work backwards. The part labeled Number 1 will be the last thing you put back in. Tighten the screws by turning them clockwise.



Leader's Guide, page 119
(Gamebook, page 55)

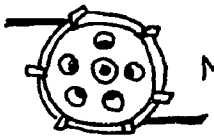
The Take-Apart Caper

Some Basic Appliance Parts and What They Do



→ are used to fasten pieces or parts together firmly

→ creates heat



→ makes appliance run or propels parts such as fans

→ squeezes wire together to make an electrical contact and covers the bare ends so they don't short circuit

→ reduces flow of electrical current

→ starts and stops the flow of electricity

→ a switch that opens up or shuts off when temperature gets to a pre-set level

Module 8

Let's Try It: Current Events

Making Connections

Purpose

To help students make simple electrical connections.

What students will do

In groups of three, students will figure out how to make a flashlight bulb light, using a battery, a piece of wire, and some clues.

Supplies needed

- Gamebook and pencil for each student
- one set of these items for each group of three students
  - items: small flashlight bulb (size 2.5v); flashlight battery (size D); 8-inch piece of insulated bell wire
  - source: school industrial arts department or hardware store*

Leader preparation

Read the activity carefully. Plan how to make it work in your class.

Be sure you have enough supplies on hand.

On a chalkboard, write these three clues:

1. Bulb – I need electricity to "light my fire."
2. Wire – I am a road. Electricity travels on me.
3. Battery – I'll send out electricity from my cap (+) as long as it comes back to my base (–).

Time needed

At least 15 minutes.

To launch

Divide class into groups of three, mixing boys and girls at work tables. Gamebooks should remain closed.

Give each group a bulb, a battery, and a piece of wire. Tell students that they have five minutes to put these three things together so that the bulb lights up. The clues on the chalkboard will help them figure out how to do it.

Explain that the first step is to peel off about 1½ inches of coating from both ends of the wire. Fingernails will do the job. Demonstrate this.

---

* Total cost if purchased, approximately $10 (50 ft. spool bell wire/$1.40; 10 batteries/$4; 10 bulbs/$5). All items are reusable.

To sum up

Ask any group that succeeds in lighting the bulb to show the rest of the class how they did it. Don't be surprised if none succeed.

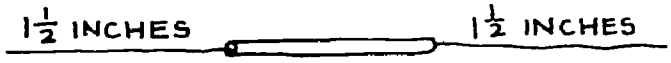
Ask students to turn to page 56 of their Gamebooks, *Making Connections* (Leader's Guide, page 125). Go over the steps for lighting the bulb so that all students can try it and succeed.

Ask students to think of words that relate to "circuit." (Some are written on your copy.)

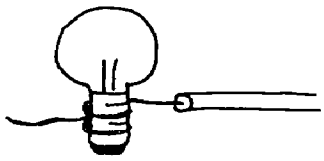
Making Connections

How to Make the Bulb Light

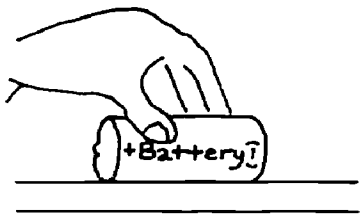
Step 1. Strip off about 1½ inches of coating from each end of the wire.



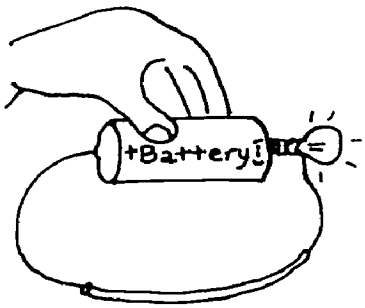
Step 2. Wrap one end of the wire tightly once or twice around the grooves of the bulb.



Step 3. Have one person hold the battery steady on its side on a desk or table.



Step 4. Then, touch one end of the wire to one end of the battery and the base of the bulb to the other.



If you were able to make the bulb light, you have seen a basic fact about electricity in action!

You made a complete circuit -- that means the electrical current started from the cap of the battery, traveled around through the wire and the light, and returned to the base of the battery.

What other words like "circuit" can you think of that describe things that are round or things that go around? Write them here.

circle, cirus, circular, circulate, circulation, circuitry, circumference,

circumnavigate, etc.

Bzzzzzzzzzz

Purpose

To help students make an electrical connection that produces an audible result.

What students will do

In groups of three, students will hook a buzzer to two batteries and make it buzz.

Supplies needed

- Gamebook and pencil for each student
- one set of these items for each group of three students
  - items: a standard 3-6 volt buzzer (Edwards Dixie Buzzer or similar type); two batteries (size D); two 8-inch pieces of insulated bell wire; one small screwdriver
  - sources: school Industrial Arts Department or hardware store

Leader preparation

Read the activity carefully. Plan how to make it work in your class. Be sure you have enough supplies on hand.

It may be difficult for students to take the buzzer covers off. If necessary, ask for help from the industrial arts department in removing covers before the session begins.

Time needed

At least 25 minutes.

To launch

Divide class into new groups of three, mixing girls and boys at work tables. Give each group one buzzer (with cover loosened or removed), two batteries, two 8-inch pieces of wire, and a screwdriver.

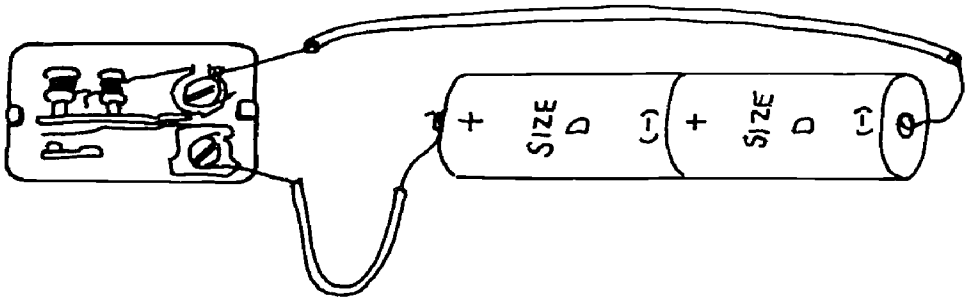
Ask students to turn to page 57 of their Gamebooks, *Bzzzzzzzzzz* (Leader's Guide, page 128). Go over the game rules with the entire class.

Begin activity. Circulate among students to help where needed.

To sum up

Ask any group that succeeds in activating the buzzer to show the rest of the class how they did it. If none succeed, show students how it's done, as shown on page 127.

To sum up (continued)



Ask if anyone knows why two batteries are needed to make the buzzer buzz. (One battery alone does not send out enough current.)

Point out that through the activities in the last two sessions, students have been exploring some real occupational tasks. What conclusions can they draw from these experiences? Ask these or similar questions:

- can both girls and boys learn to use tools like screwdrivers, pliers, etc.?
- can both girls and boys begin to understand how an appliance is put together?
- can both girls and boys make two different kinds of electrical connections?
- can both girls and boys understand some basic facts about electricity?
- could both girls and boys become appliance repairpersons? electricians?

Reminder	The next session will involve physical fitness exercises. Students should wear low-heeled shoes and loose-fitting clothes; slacks would be appropriate.

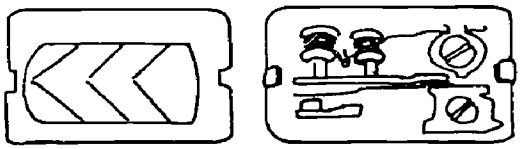
Bzzzzzzzzzz

Game Rules

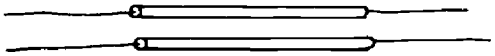
Each group's job is to make the buzzer buzz. You've got the skills because you've already worked with screwdrivers, wires, and batteries. Here's a chance to build up your skills further!

Choose a player to go first and follow the steps below. You can take turns or several students can work on each step together.

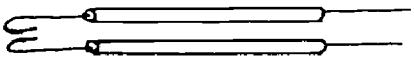
Step 1. Take the cover off the buzzer.



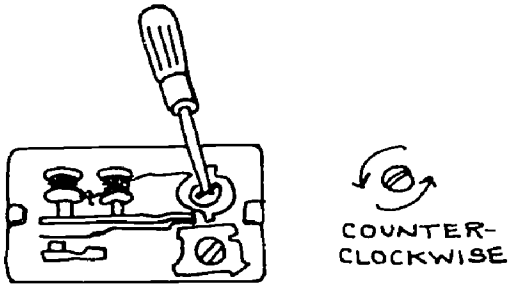
Step 2. Strip off about 1½ inches of coating from both ends of the two wires.



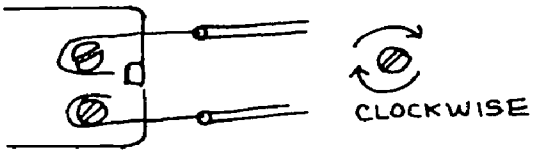
Step 3. Bend one end of each wire into a half loop.



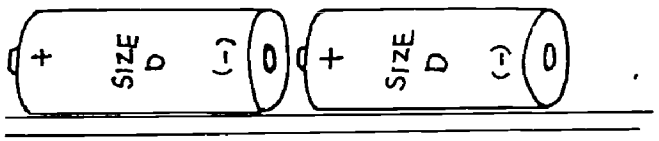
Step 4. Using a screwdriver, loosen both screws on the buzzer, about three turns counter-clockwise.



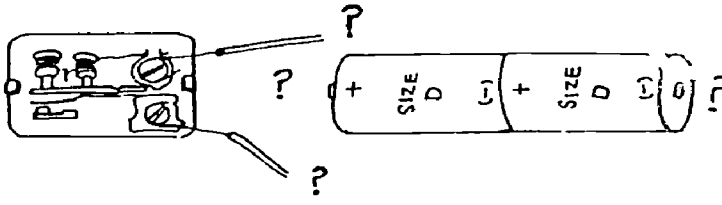
Step 5. Put the looped ends of the two wires around the two screws. Pull them so that they fit underneath the screw heads. Then tighten the screws, about three turns clockwise.



Step 6. Find the plus (+) and minus (-) signs on the batteries. The (+) is the cap end; the (-) is the base end. Hold the two batteries together on a desk top so that a cap end touches a base end.



Step 7. Figure this one out for yourself. What do you have to do now to make the buzzer buzz?



Module 9

Let's Try It: Shaping Up

May the Force Be With You

Purpose

To help students learn to use their bodies effectively.

What students will do

Students will engage in several exercises to demonstrate the proper way to lift, push, pull, breathe.

Supplies needed

- Gamebook and pencil for each student

Leader preparation

Read the activity carefully. Plan how to make it work in your class.

Try the exercises yourself. Check with a gym teacher to learn how to demonstrate them.

Time needed

At least 15 minutes

To launch

Give students this command: "Hold a pencil in your hand. Drop it on the floor. Pick it up." When students are touching pencils, say, "Freeze!"

Ask students if they feel their bodies are working "for" them or "against" them in this position. Most will probably have bent over sideways from their seats and extended an arm to retrieve the pencil. This is the wrong way to pick something up — whether it's a pencil or a 50-lb. sack of mortar.

The right way is to get off the chair, bend the knees, and stoop down to pick up the pencil. Use feet, knees, and thighs to rise, instead of straining spine and shoulders. Demonstrate this movement and ask students to try it with you.

Now give this command: "Stand up straight. Put your left hand on your diaphragm just above the stomach. Take a good deep breath." When students are inhaling, say, "Freeze!"

Ask students to look at their shoulders. Most will probably have expanded their chests and lifted their shoulders high. This is the wrong way to use the lungs effectively.

The right way is to push out the diaphragm (not the chest) when breathing in, keeping the shoulders level. When breath is released, the diaphragm goes in. Demonstrate this technique and ask students to try it with you.

To launch (continued)

Now ask students to turn to page 58 of their Gamebooks, *May the Force Be With You* (Leader's Guide, page 133). Go over the game rules with the entire class. Begin play.

To sum up

When students have finished, point out the correct body movements. (These have been starred on your copy.)

Ask students to pair up (boy and girl) and practice these techniques, keeping knees bent, with one foot slightly in front of the other:

- one student stands with back to wall, palm to palm with facing partner; both push against each other; both should feel the force in legs and thighs
- two students stand on opposite sides of the desk, both pulling; both should feel the force in legs and thighs

Leader's Guide, page 133
(Gamebook, page 58)

May the Force Be With You

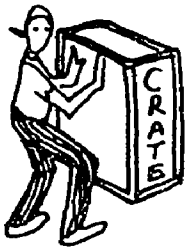
Game Rules

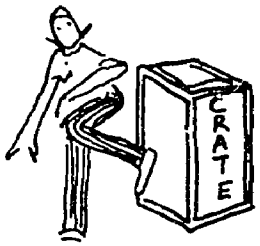
Your own joints and muscles contain a "force" that's ready to work for you and make any job easier. Put this helpful force to work by learning to use your body correctly.

Circle the pictures below that show the right way to use your body. Then, answer the crucial question.

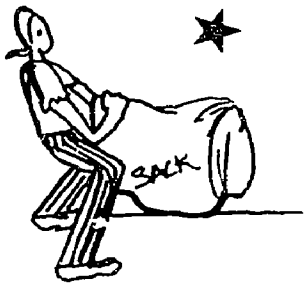
1. To lift an object

2. To push an object





3. To pull an object



4. Where is the force?

a) in the ears
b) in the fingertips
c) in the legs and thighs ★

Fit for a Job

Purpose

To help students understand three key elements of good occupational fitness and relate them to occupational and other tasks.

What students will do

Students will try out ways to develop muscle tone, flexibility, and endurance.

Supplies needed

- Gamebook and pencil for each student
- a supply of blank sheets of paper
- a watch with a second hand | to time pulses

Leader preparation

Read the activity carefully. Plan how to make it work in your class.

Try out the exercises yourself. Check with a gym teacher to learn how to demonstrate them.

Time needed

At least 30 minutes

To launch

Ask students to stand in a clear spot near their desks. Give directions for each of the exercises and demonstrate how to do it (Leader's Guide, pages 135-136). After each set of exercises, ask the related questions. (Answers are written on your copy.)

To sum up

Ask students to turn to page 59 of their Gamebooks, *Heads Up* (Leader's Guide page 137). Go over the game rules. Ask several students to choose endings for each of the stories or to make up their own.

Reminder

For Module 12 you will need a synchronized slide/sound projector (Leader's Guide, page 233).

Make early arrangements with your school audio-visual department so the equipment will be available. Learn how to operate it before the session.

Fit for a Job

Exercises and Questions

1. **Wake up your whole body**

- With both hands, reach for the sky.
- With both hands, reach for the people on either side of you.
- Without turning around, reach for the person behind you.
- Standing straight, push up the sky with one hand and push down the earth with the other.
- With hands on hips, legs straight and slightly apart, rotate waist to right and left five times.
- With hands on hips, backs straight, do five deep knee bends.
- With hands on hips, backs straight, swing one leg out in any direction, then the other.
- Return to your seat.

Questions:

- What jobs might require you to stretch your muscles like this? (*Painting, paperhanging, construction carpentry, telephone line work, firefighting, plumbing and piping, etc.*)
- What household tasks require similar stretching or bending? (*Hanging curtains, storing or removing things from hard-to-reach shelves, painting or paperhanging, moving furniture, etc.*)

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2. **Develop your wrists** (Give students blank sheets of paper.)

- With a pencil, make a dot in the center of the paper.
- With elbow on desk, touch dot alternately with point of pencil, then with eraser end; repeat ten times.
- With elbow on desk, draw ten continuous circles around dot clockwise, then ten continuous circles counter-clockwise.
- Pick up Gamebooks with one hand. Keeping elbow on desk, fan your face with your Gamebook ten times.
- Grip side edges of chair seat with hands. Lift yourself up from the seat, count to five, lower yourself.

Questions:

- What jobs might require a flexible wrist? (*Electrical work, electronics, copy and business machine repair, appliance repair, automotive work, etc.*)
- What home tasks require similar wrist movements? (*Household and car repairs, sewing, stirring while cooking, etc.*)

3. Increase your endurance

- Find your pulse and count the number of beats. (Use pulse in wrist or neck, on either side of Adam's apple. Give signal to start counting, allow about fifteen seconds, then tell students to write down the number of beats they counted.)
- Stand up. Pull in stomach. Run in place (toe down, heel down, toe down, etc.) twenty times.
- Stand in place, feet together. Jump, moving feet apart. Jump, moving feet back together. Repeat ten times.
- Hop on one foot ten times, the other foot ten times.
- Sit down. Take your pulse again and write down the number of beats. (Give signal to start, etc.)

Questions:

- Did your pulse rate go up after the exercises? (*Yes. That's good. It shows you are exercising your heart, which is a muscle and needs good tone like all your other muscles. Exercising your heart helps to develop endurance for any work you choose.*)

Heads Up

Game Rules

Physical fitness pays off in everything you do. So does using your head. For some occupational tasks, your head and your body must work together to get the best out of both.

Use your head to complete the stories below.

1. Your employer asks you to move a 200-lb. piece of machinery to the other side of the shop. You should . . .

   a) tell him to go fly a kite
   b) get five co-workers to stop their work and help you move it
   c) load the machine on a mechanical helper like a dolly
   d) (make up your own ending)

2. You're working on a roofing job and have to change the position of your 20-foo ladder. You should . . .

   a) lean out over the roof and try to drag the ground-end of the ladder over t where you want it
   b) climb down, ease the ladder down to the ground, pick it up at a point where it balances, then carry it to where it is needed
   c) climb down, grab the ladder firmly at its base, lift it and, holding it upright, walk it to the new spot
   d) (make up your own ending)

3. You're repairing a large copy machine which is located in a narrow hallway. You've managed to inch it out a little from the wall. You should . . .

   a) call a moving company to bring it back to your shop
   b) try to position your body by kneeling, stooping, lying on the floor so you can use your wrists and hands in the workspace
   c) go on a crash diet so you can slide your entire body behind the machine
   d) (make up your own ending)

4. On a construction site, your foreman asks you to go find a skyhook to hoist yourself up to the second floor. You've never heard of a skyhook before, but you're not sure if he's kidding. You should . . .

   a) look around the entire site until you find something that has a big hook o the end
   b) ask the foreman what it is and where it's kept
   c) tell him there's no such thing, but if there were, he should use one himself to pull his own leg
   d) (make up your own ending)

   P.S. There is no such thing!

Module 10

Let's Try It: Math Is the Key

page 141 Activity 1 Building a Dynamite Disco

Building a Dynamite Disco

Purpose

To help students understand the importance of math in skilled/technical occupations.

What students will do

Students will plan to transform their classroom into a Disco. In small groups (companies), they will calculate materials and costs for new furniture, equipment, and renovations.

Supplies needed

- Gamebook and pencil for each student
- five folding carpenter's rules or tape measures (6 ft. or longer)
- large roll of masking tape

Leader preparation

Read the activity carefully. Plan how to make it work in your class. You may wish to use only part of your room or only some of the companies.

Borrow the measuring tools from the school industrial arts department.

In addition to basic math skills, students will need to know how to calculate area (square feet) and percentages, and how to understand simple floor plans. Younger students may need help with some unfamiliar functions.

On a chalkboard, draw both the *Floor Plan* and *Cost Estimate Chart* (Leader's Guide, page 143).

Time needed

At least 45 minutes. (You may wish to use two sessions.)

To launch

Tell students you haven't consulted school authorities yet, but wouldn't it be fun to turn this room into a Dynamite Disco? The class is going to make some actual plans – in case some day this imaginary project becomes real.

Using the *Floor Plan* on the chalkboard, explain that the Disco will be divided into three parts: a Lounge Area, an Eating Area, and a Music and Dance Area. Explain that five companies have been hired to work on the project. They are:

- Strongwood Carpentry to plan furniture in the Lounge Area
- Tummy-Tickling Fast Foods to plan the Eating Area
- Eerie Music Systems to plan the Music and Dance Area
- Muffle Soundproofing to plan how to cut down the noise
- Outasight Decorators to plan painting and curtains

To launch (continued)

Divide class into five mixed groups (companies). Ask groups to move to the part of the room they'll be working on. Give each company a measuring tool.

Ask students to turn to pages 61-72 of their Gamebooks to find the pages describing the *Work Plan* for each company (Leader's Guide, pages 145-156).

Go over the basic format of the *Work Plan* with the entire class. Point out that some companies will have to share information with others to get their job done. Then, circulate among the groups to help each company carry out the steps of its *Work Plan*.

To sum up

Ask company presidents to give Cost Estimate Reports; write them on the chalkboard chart. Then ask each president to draw on the chalkboard *Floor Plan* the items the company made estimates for.

Ask students in each company these or similar questions:

- what would you have had to leave out of your plan if you, as the company staff, could not add? subtract? multiply? divide?
- if the items just mentioned had been left out, do you think the school would hire your company to build the Disco?

Ask students to calculate the total estimated costs for building the Disco.

Option

Do this as a class rather than small-group activity. Ask different students to take measurements, etc., and have everyone work on the math.

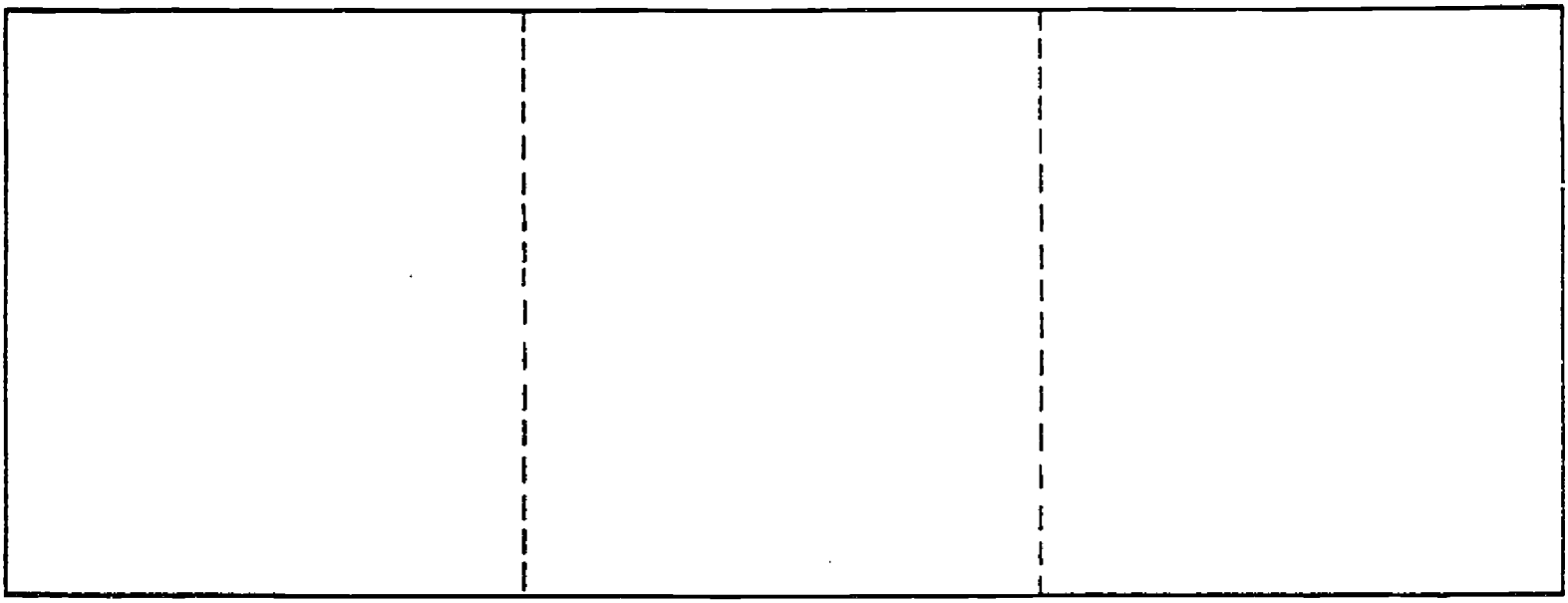
Reminder

Module 13 will involve a visit to the class by a high school or vocational-technical school spokesperson to answer questions about school opportunities to learn trade or technical skills (Leader's Guide, pages 243-244).

Make early arrangements for this visit so it can be scheduled on the visitor's calendar.

Building a Dynamite Disco

Floor Plan



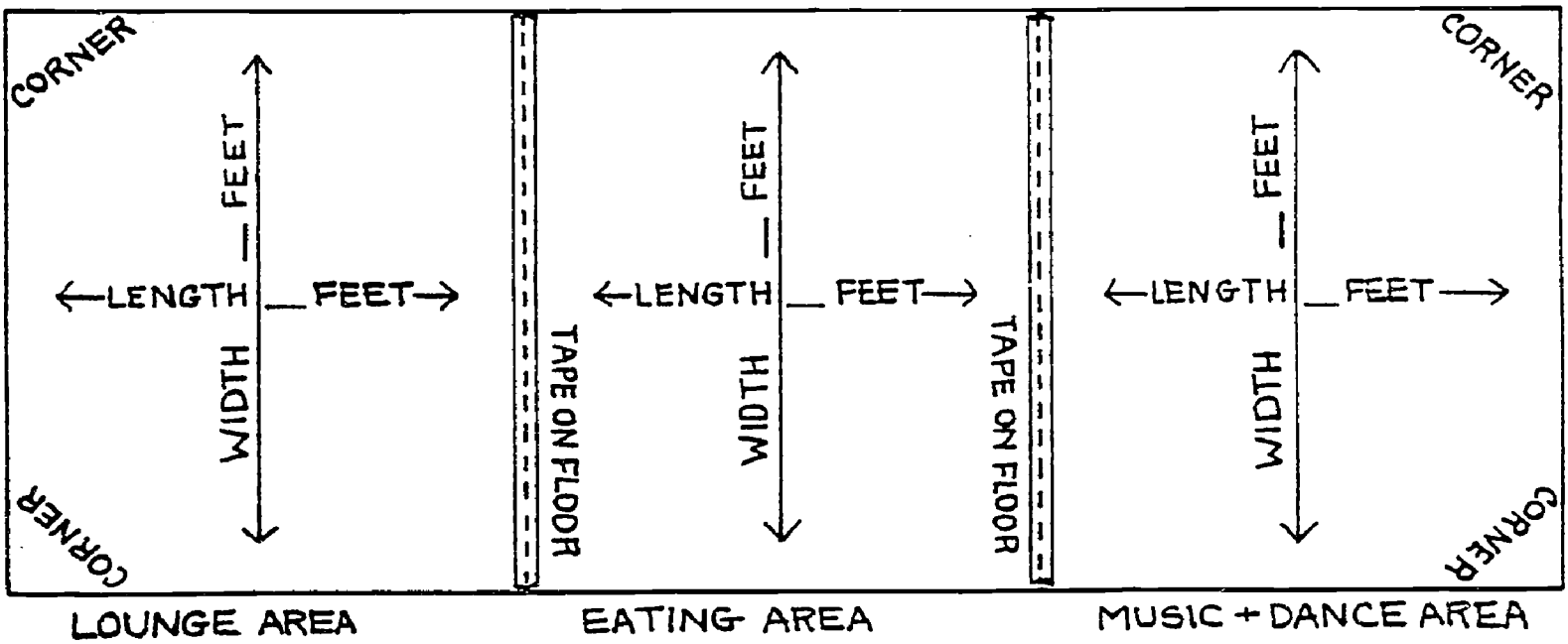
Cost Estimate Chart

Strongwood Carpentry	$ _____
Tummy-Tickling Fast Food	$ _____
Eerie Music Systems	$ _____
Muffle Soundproofing	$ _____
Outasight Decorators	$ _____
Total	$ _____

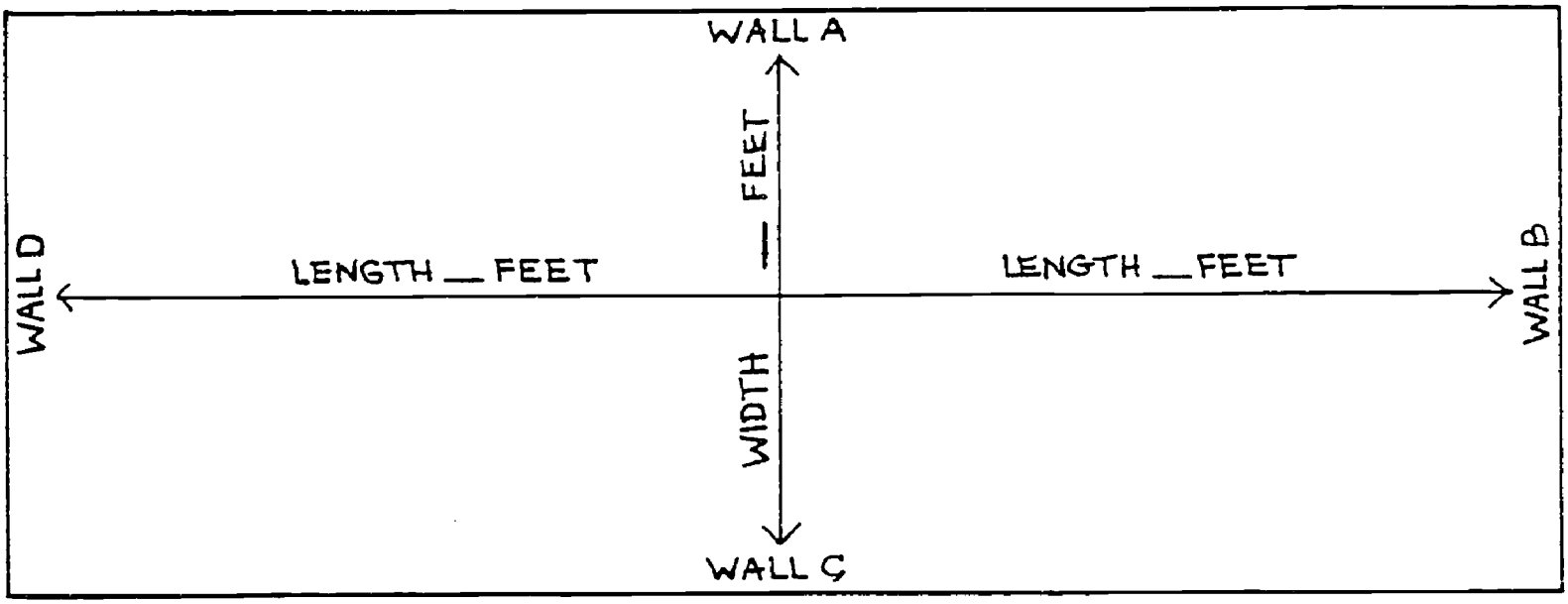
Leader's Guide, page 145
(Gamebook, page 61)

Building a Dynamite Disco

Floor plan for: Strongwood Carpentry
Tummy-Tickling Fast Foods
Eerie Music Systems



Floor plan for: Muffle Soundproofing
Outasight Decorators



Use this page for math calculations

Strongwood Carpentry: Work Plan

Choose a company president who will make a Cost Estimate Report to the class.

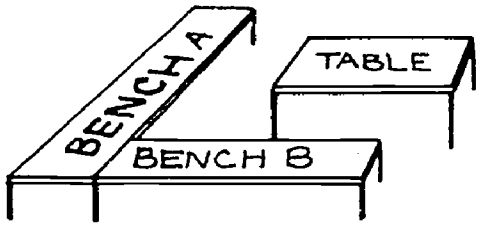
Your company's job is to plan the furniture in the Dynamite Disco Lounge Area. Follow the steps below. Use page 62 of your Gamebook for math calculations.

Step 1. You will build two benches and a coffee table that look like this. They will fit nicely in a corner, up against the walls.

To decide on the size of the furniture, you'll need to know the size of the Lounge Area. It should be about one-third of the whole room. Look at your company's Floor Plan (Gamebook, page 61). Mark off the space with masking tape on the floor of the room.

You'll also need to know the measurements of the two walls that form the corner of the Lounge Area where you'd like to place the benches.

Measure these two walls and write the measurements on the Floor Plan.



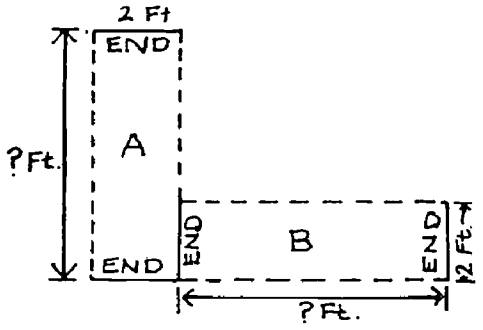
Step 2. The benches are actually two rectangles (A and B), put together to form an L-shape. The ends of the benches are 2 ft. wide.

Decide how long to make each bench and write the measurements here:

Bench A is a rectangle that measures 2 ft. x ___ft.

Bench B is a rectangle that measures 2 ft. x ___ft.

Draw the benches on the Floor Plan. Do they fit?



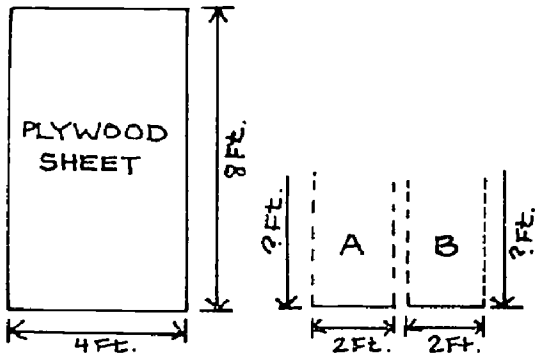
Step 3. The benches will be made of plywood which comes in rectangles (sheets) measuring 4 ft. x 8 ft.

For Bench A, you'll need one rectangle 2 ft. x ___ ft.

For Bench B, you'll need another, 2 ft. x ___ft.

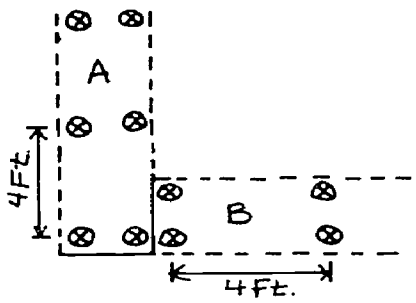
Altogether, you'll need ____ sheets of plywood.

Each sheet of plywood costs $10. All the plywood you'll need for the benches will cost $_____.



Step 4. You will need metal legs to support the benches at points marked ⊗, spaced about 4 ft. apart. If the benches you are planning are more than 8 ft. long, you will need more legs than shown on this diagram.

You will need ____ legs altogether. Legs cost $1.25 apiece. Total cost of legs for both benches will be $_____.

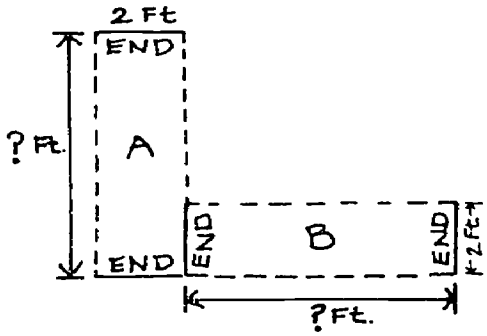


Step 5. You will need two foam cushions to make the benches comfortable for sitting. Foam cushions come 2 ft. wide (the same width as the benches) and can be cut to any length.

You will need a cushion for Bench A that measures 2 ft. x ____ ft. and a cushion for Bench B that measures 2 ft. x ____ ft. (See Step 2.)

Altogether, you'll need foam cushion material that measures ____ ft. in length.

Foam cushion material costs $2.00 per foot of length. Total cost of foam cushion material for both benches will be $_____.



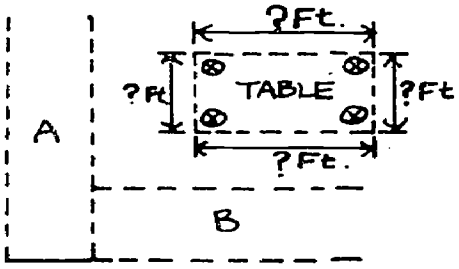
Step 6. Now, decide on the size of the coffee table. It will also be made of plywood.

The coffee table will be ____ ft. wide and ____ ft. long.

You will need ____ sheets of 4 ft. x 8 ft. plywood. At $10 a sheet, the plywood for the coffee table will cost $_____.

The table needs 4 metal legs; they cost $1.25 apiece. Total cost of legs will be $_____.

Total cost of the coffee table will be $_____.



Step 7. Work out your Cost Estimate Report:

Plywood for benches (see Step 3)	$_____
Legs for benches (see Step 4)	$_____
Foam cushion material (see Step 5)	$_____
Coffee table (see Step 6)	$_____
Total	$_____

Tummy-Tickling Fast Foods: Work Plan

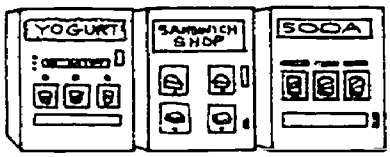
Choose a company president who will make a Cost Estimate Report to the class.

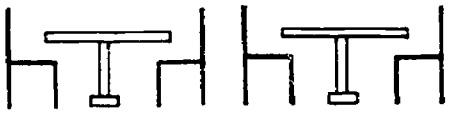
Your company's job is to plan the Dynamite Disco Eating Area. Follow the steps below. Use page 62 of your Gamebook for math calculations.

Step 1. You will install three vending machines, some tables, and some chairs.

To decide where they will go, you'll need to know the size of the Eating Area. It should be about one-third of the whole room. Look at your company's Floor Plan (Gamebook, page 61). Mark off the space with masking tape on the floor of the room.

Measure the length and width of the Eating Area and write the measurements on the Floor Plan.

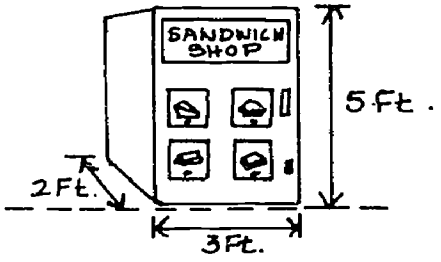




Step 2. The three vending machines will stand up against a wall. They are all about the same size. Their depth is ____ ft. (That's how much they will stick out from the wall.)

When lined up together, the three machines will measure ____ ft. across (width) and ____ ft. high (height).

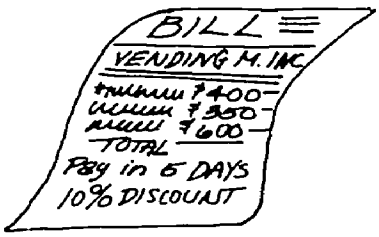
Figure out on which wall they will fit best and draw them in on the Floor Plan. Then draw a dotted line in front of them, as on this diagram.



Step 3. Your company will have to buy the vending machines from a supplier. The yogurt machine costs $400, the soda machine costs $350, and the sandwich machine costs $600. Total cost of the machines will be $_____.

If you pay within five days, you get a 10% discount. 10% of the total cost is $_____.

By paying within five days, you can buy the machines for $_____.



Step 4. The vending machines need electricity to keep foods fresh. Check to see if there are electrical outlets (receptacles) on the wall near where you want to put the machines. If not, you will have to have them installed.

An electrician earns about $9.00 an hour. It will probably take about 8 hours (a full day) to do the wiring and install the outlets. The cost will be $_____.

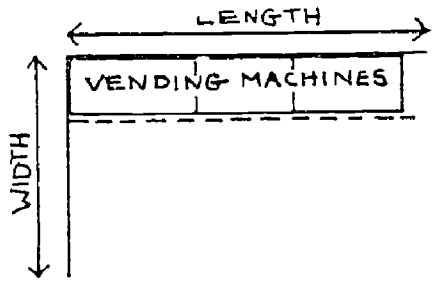
Step 5. To figure out how many tables and chairs will fit in the Eating Area, you'll need to know how many square feet of empty space you have after the vending machines are in place and how many square feet each set of table and chairs will take up.

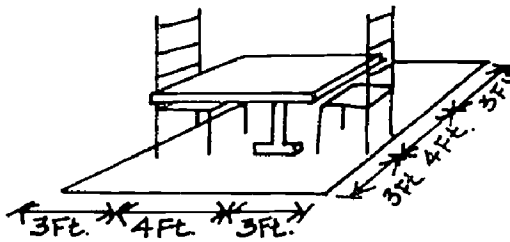
Look at the Floor Plan. Subtract the depth of the vending machines (the space behind the dotted line you drew) from the width of the Eating Area.

The measurements of the empty space are now _____ ft. (length) and _____ ft. (width). The area of the space is _____ square feet.

The diameter of each table is 4 ft. Each chair needs about 3 ft. to pull out from the edge of the table. So, each set (a table with two chairs that can be pulled out in any direction) will need a total space of _____ square feet.

You can fit _____ sets of a table and two chairs in the Eating Area. Draw them in on the Floor Plan.

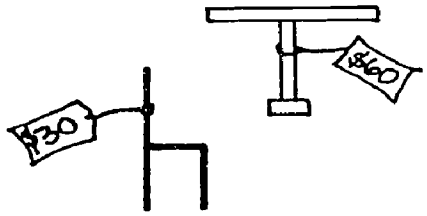




Step 6. Each table costs $60. Each chair costs $30.

You will have _____ tables @ $60. Total cost of tables is $_____.

You will have _____ chairs @ $30. Total cost of chairs is $_____.



Step 7. Work our your Cost Estimate Report:

Vending Machines (see Step 3)	$_____
Electrician (see Step 4)	$_____
Tables (see Step 6)	$_____
Chairs (see Step 6)	$_____
Total	$_____

Eerie Music Systems: Work Plan

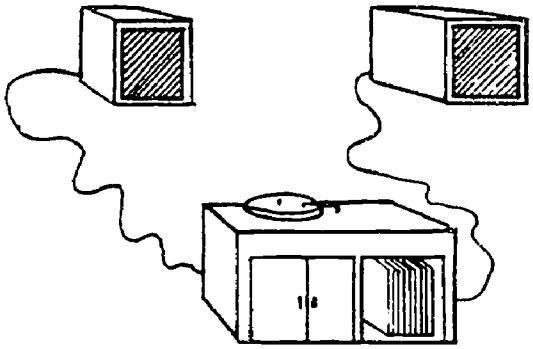
Choose a company president who will make a Cost Estimate Report to the class.

Your company's job is to plan the Dynamite Disco Music and Dance Area. Follow the steps below. Use page 62 of your Gamebook for math calculations.

Step 1. You will install a cabinet for the stereo turntable and records, two speakers, and a dance floor.

To decide where they will go, you'll need to know the size of the Music and Dance Area. It should be about one-third of the whole room. Look at your company's Floor Plan (Gamebook, page 61). Mark off the space with masking tape on the floor of the room.

Measure the length and width of the Music and Dance Area and write the measurements on the Floor Plan.



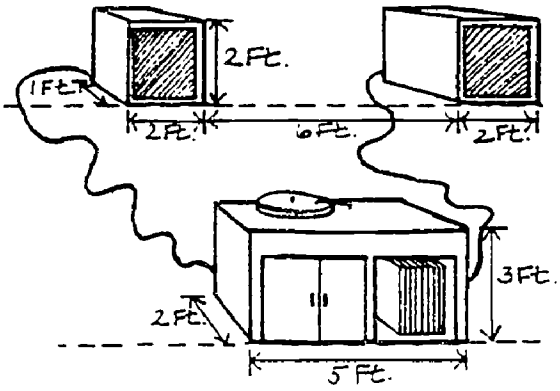
Step 2. The turntable/record cabinet and the speakers will stand up against a wall. The cabinet is larger than the speakers. Its depth is ____ ft. (That's how much it will stick out from the wall.) Its width is ____ ft.; its height is ____ ft.

The depth of each speaker is ____ ft. Its width is ____ ft.; its height is ____ ft.

The speakers must be placed at least 6 ft. apart. Altogether, you will need at least ____ ft. of space for the two speakers and the space between them.

Figure out where to place the cabinet and the speakers. They can be on the same or different walls. Keep in mind that the speakers should not be too close to the dance floor and that wires will connect them to the cabinet.

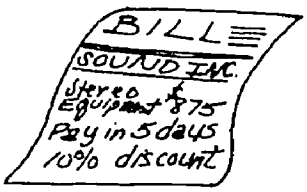
Draw the cabinet and speakers in on the Floor Plan, and draw a dotted line in front of them, as on these diagrams.



Step 3. Your company will have to buy the stereo equipment from a dealer. The three pieces you're installing cost $875 altogether.

If you pay within five days, you get a 10% discount. 10% of $875 is $_____.

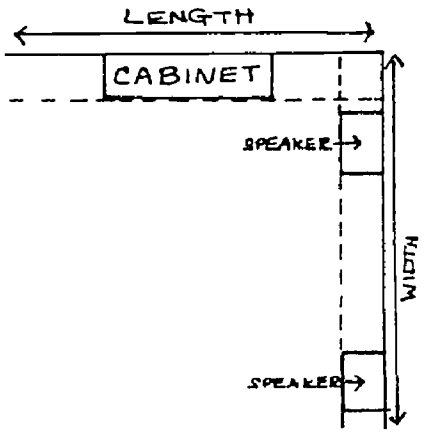
By paying within five days, you can buy the stereo equipment for $_____.



Step 4. Now that the stereo equipment is in place, you can decide what size dance floor will fit in the remaining space.

Look at the Floor Plan. Subtract the depth of the turntable/record cabinet (the space behind the dotted line you draw) from either the length or the width of the Music and Dance Area, depending on where you put the cabinet. Do the same thing with the depth of the speakers.

The measurements of the remaining space are now ____ ft. (length) and ____ ft. (width). The area of the space is ____ square feet.



Step 5. Pick the size of the dance floor you want to put in the space you just measured. It will be ____ ft. x ____ ft. It's area will be ____ square feet.

(The Muffle Soundproofing Company will want to know these measurements. They will contact you soon.)

The dance floor will be made of wooden squares. Each measures 1 ft. x 1 ft. You will need ____ wooden squares.

Step 6. Wooden squares cost $3.00 apiece. If you want them with a special waxed finish, they cost $4.00 apiece.

Total cost of unwaxed squares is $_____.

Total cost of waxed squares is $_____.

Decide whether you will buy them waxed or unwaxed.

Step 7. Work out your Cost Estimate Report:

Stereo equipment (see Step 3)	$_____
Dance Floor squares (see Step 6)	$_____
Total	$_____

Muffle Soundproofing: Work Plan

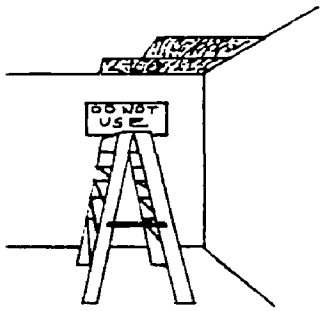
Choose a company president who will make a Cost Estimate Report to the class.

Your company's job is to cut down on the noise in the Dynamite Disco. Follow the steps below. Use page 62 of your Gamebook for math calculations.

Step 1. You will install soundproofing tiles on the ceiling of the entire room. (Figure out a way to measure the ceiling without using a ladder!)

The length of the ceiling is ____ ft.; its width is ____ ft. Write the measurements on your company's Floor Plan (Gamebook, page 61).

(The Outasight Decorators will want to know these measurements. They will contact you soon.)



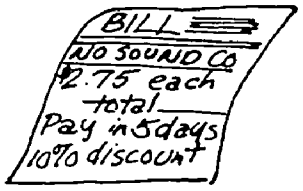
Step 2. To know how many soundproofing tiles to order, you'll need to know the area of the ceiling. It is ____ square feet.

Soundproofing tiles come in 1 ft. x 1 ft. squares. You'll need ____ tiles to cover the whole ceiling.

Step 3. Your company can buy soundproofing tiles from a supplier for $2.75 apiece. Total cost of ceiling tiles will be $_____.

If you pay within five days you get a 10% discount. 10% of the total cost is $_____.

By paying within five days, you can buy the ceiling tiles for $_____.



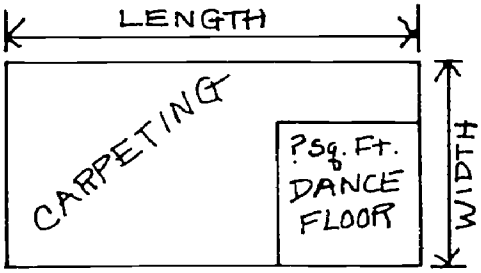
Step 4. Next you will install carpeting everywhere in the Disco, except where the dance floor will be. It will go under all the furniture, vending machines and stereo equipment in the Lounge, Eating and Music Areas.

Send a messenger to Eerie Music Systems to find out the area of the dance floor. It is ____ square feet.

Draw the dance floor on the Floor Plan and shade it in. Write its area, as on this diagram.

To find out how much carpeting to order, you'll need to subtract the area of the dance floor from the area of the whole floor and convert to square yards.

The area of the whole floor is ____ square feet.



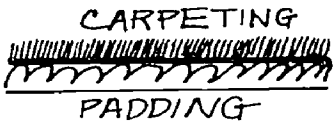
(If you figured out a way to measure the ceiling, you know this already.) Now subtract the area of the dance floor.

You'll need ____ square feet of carpeting, which is the same as ____ square yards.

Step 5. You can buy carpeting for $16 per square yard. Total cost of padding is $_____.

To keep the noise level down as low as possible, your company recommends putting padding under the carpet. Padding costs $2.00 per square yard. Total cost of padding is $_____.

Altogether, carpeting and padding will cost $_____.



Step 6. You will also install sound-absorbing curtains for the windows of the room. To order the curtains, you'll need to know the area of the windows.

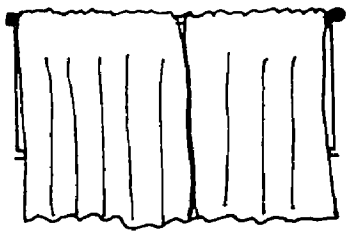
Measure the width and height of each window and find its area. (If all the windows in the room are the same size, you can measure just one and multiply its area by the total number of windows. Or, if the windows are all in a row right next to each other, you can measure and find the area of the whole row at once.)

Each window is ____ ft. x ____ ft. Its area is ____ square feet. The total number of windows in the room is ____. The total window area is ____ square feet.

Or: The row of windows is ____ ft. x ____ ft. Its total area is____ square feet.

(The Outasight Decorators will also be contacting you soon for the window measurements.)

Sound-absorbing curtains cost $6.00 per square foot, all sewn and ready to hang up. Total cost of curtains for the Disco windows will be $_____.



Step 7. Work out your Cost Estimate Report:

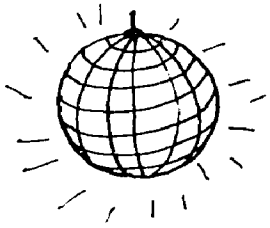
Soundproofing ceiling tiles (see Step 3)	$_____
Carpeting and padding (see Step 5)	$_____
Sound-absorbing curtains (see Step 6)	$_____
Total	$_____

Outasight Decorators: Work Plan

Choose a company president who will make a Cost Estimate Report to the class.

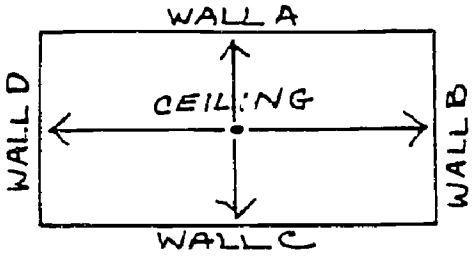
Your company's job is to give the room "atmosphere" and make the whole Disco look fantastic. Follow the steps below. Use page 62 of your Gamebook for math calculations.

Step 1. You will install a revolving mirrored globe to throw exciting light patterns on all the surfaces in the Disco. It will be placed in the center of the ceiling so that rays of light are reflected in all directions.



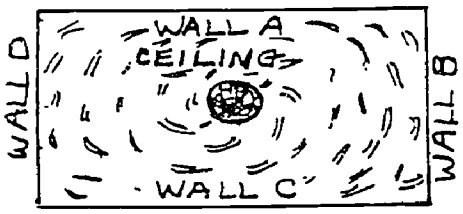
To find the center point of the ceiling, you'll need to know its measurements. Send a messenger to Muffle Soundproofing to get this information.

Figure out where the center of the ceiling is and mark the spot on your company's Floor Plan (Gamebook, page 61).



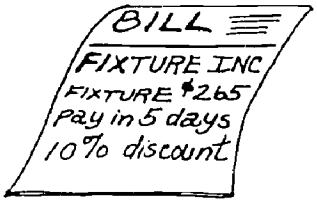
On the Floor Plan, the walls of the room are marked A, B, C, and D. The point on the ceiling where the light will be placed is ____ ft. from Wall A, ____ ft. from Wall B, ____ ft. from Wall C, and ____ ft. from Wall D.

Step 2. You'll want the light rays to cover the whole ceiling and reach the four corners of the room.



To decide how big a globe to install, you'll need to know the area of the ceiling. It is ____ square feet.

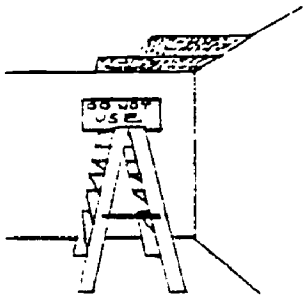
Step 3. Your electrical supplier carries mirrored globes only in one standard size. It costs $_____.



If you pay within five days, you get a 10% discount. 10% of $265 is $_____.

By paying within five days, you can buy the globe for $_____.

Step 4. You will paint the Disco walls a shiny color to brighten up the room. You'll need to know the wall measurements to figure out how many square feet of wall area you have to paint.

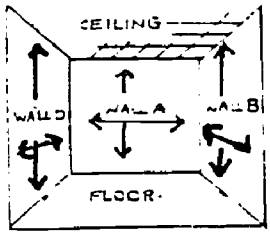


Measure the length and height of each wall. (Figure out a way to measure wall height without using a ladder.)

Write the wall measurements on the following page.

	Height		Width	
Wall A is	____ ft. x	____ ft.	Its area is	____ sq. ft.
Wall B is	____ ft. x	____ ft.	Its area is	____ sq. ft.
Wall C is	____ ft. x	____ ft.	Its area is	____ sq. ft.
Wall D is	____ ft. x	____ ft.	Its area is	____ sq. ft.

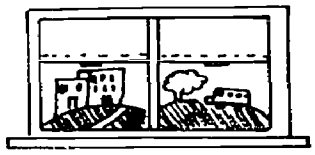
Total amount of wall area in the room is ____ sq. ft.



Step 5. On some walls there may be windows or a chalkboard which can't be painted. If so, you'll need to know the area of all the wall space that can't be painted so you can subtract it from the total wall area.

Send another messenger to Muffle Soundproofing to get the total area of the windows in the room. It is ____ square feet.

Now, measure each chalkboard in the room and write its area here. The chalkboard is:



____ ft. x ____ ft. Its area is ____ sq. ft.

____ ft. x ____ ft. Its area is ____ sq. ft.

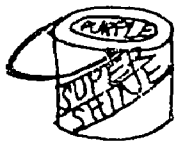
____ ft. x ____ ft. Its area is ____ sq. ft.

Total chalkboard area is ____ square feet. Add this to the total window area. You now know the room has ____ square feet of wall space that can't be painted.

Step 6. After subtracting the area that can't be painted from the total wall area in the room, you have ____ square feet left. This is the wall area you will paint.

One gallon of shiny paint covers about 400 square feet. You will need about ____ gallons to paint the Disco walls. (Round off parts of a gallon to the next highest number.)

Each gallon costs $7.C . The total cost of paint for the Disco will be $_____.



Step 7. Work out your Cost Estimate Report:

Mirrored globe (see Step 3)	$_____
Wall paint (see Step 6)	$_____
Total	$_____

Module 11

One Skill, Many Options

page 159 Activity 1 Think Skills

Think Skills

Purpose

To help students recognize that workers with technical skills have good job prospects in many occupational fields.

What students will do

Students will play an "auction" game in which players representing SKILLS respond to job offers made by players representing OCCUPATIONS.

Supplies needed

- Gamebook and pencil for each student

Leader preparation

Read the activity carefully. Plan how to make it work in your class.

Time needed

At least 40 minutes

To launch

Ask students if they know what an auction is. For those who do not know, explain the general elements of an auction, stressing the excitement of lots of people making competing bids for something they need or want.

First, choose 8 students. Assign a SKILL to each one. Ask them to find their skill descriptions and read them (Gamebook, pages 75-90; Leader's Guide, pages 163-178). Note that each SKILL has a number that will be used during and after the game.

Then, divide the 24 OCCUPATIONS among the remaining students. Ask them to find their descriptions (Gamebook, pages 91-138; Leader's Guide, pages 181-228). Note that OCCUPATIONS are also numbered; if you assign several to an individual student, be sure they are sequential.

Now, ask all students to turn to page 73 of their Gamebooks, *Think Skills* (Leader's Guide, page 161). Go over the game rules with the entire class.

As the auctioneer in this activity, you'll have to keep the bids and responses moving at a lively pace. During play, be sure the OCCUPATIONS are using the information on their Gamebook pages to promote the jobs they are offering. Be sure the SKILLS ask valid questions that will help them choose jobs.

Ask students to take their SKILL and OCCUPATIONS pages out of their Gamebooks. Begin play with SKILL #1 going to the front of the room and dramatizing his/her skill (Step 1). In the

To launch (continued)

remaining steps, help to stimulate "irresistible" offers from students who are OCCUPATIONS.

To sum up

Ask the SKILLS to explain:

- what "sold" you on the occupation you chose? the wages? job tasks? other related jobs? why?
- do you know anyone who works in this occupational field?
- where could you learn the skill that got you this job offer?

Tell students that this game has covered a lot of ground. Now you've got a trick to help them sort it all out. It's something you learned watching half-time events at football games.

Ask all the SKILLS to stand again in the front of the room in their numbered order, 1 through 8. At your signal, they should turn over their SKILL pages and hold them up, with the back of the page facing the class. When students are lined up in order, the backs of their pages will read: GET SKILLS IN SCHOO . . .
You will have to join the line, holding up your Leader's Guide page 180 to make the message read: GET SKILLS IN SCHOOL!

Then, ask all the OCCUPATIONS to line up along the side of the room in their numbered order, 1 through 24. At your signal, they should turn over their pages, go to the blackboard, and write, in sequence, the letters on the backs of their pages. The message will read: GET MORE TRAINING ON THE JOB!

After students have returned to their seats, ask them to turn to page 139 of their Gamebooks, *Step Up With Skills.* (Leader's Guide, page 229). The picture shows something students should realize in preparing for the work world. What is it?

Good jobs are available for high school graduates with basic skills. But it's important for students to understand that the further they go up the educational ladder, the more they will qualify for top-drawer jobs. Salaries and supervisory responsibilities usually are matched to the amount of training and experience workers have.

Sample nontraditional jobs at various educational levels are shown in the drawing. Point out that students can learn more about occupational fields, jobs, educational requirements, and employment outlooks in the school guidance office. They can ask for help in looking up information in the *Occupational Outlook Handbook* and other useful U.S. Department of Labor publications.

Reminder Arrange for a slide/sound projector for the next session.

Think Skills

Game Rules

When you see a bumper sticker that says THINK SNOW, what comes to mind? How about THINK SPRING? In this game the rule is to THINK SKILLS. It may bring to mind some ideas for your working future!

The Game Plan

THINK SKILLS is an auction game to get workers and employers together. Workers with SKILLS want good jobs. Their talents are "up for bid." Employers in OCCUPATIONS need skilled workers. They'll make job offers to attract new employees to their companies.

To decide what job to take, players who are SKILLS should ask about:

- what they'll do on the job--job tasks
- how much they can earn--job wages
- if this job falls through, what related jobs are possible--job mobility

To attract good workers, players who are OCCUPATIONS should "sell" the job by describing:

- how the worker's skill matches the job tasks
- how much money the job pays
- how the job experience can help the worker in other related jobs

To Play the Game

Step 1. If you are SKILL #1, step forward and read your skill page aloud with lots of feeling. Your skill is now "up for bid."

Step 2. If you are an OCCUPATION, look at your page to see if your occupation needs this skill.

Step 3. If your occupation needs this skill, try to convince the SKILL to take your job. "Sell" it by enthusiastically describing its advantages. Answer any questions the SKILL asks.

Step 4. Before making a decision, a SKILL should be sure to find out everything possible from the OCCUPATIONS making the bids. Ask questions like: "What's good about your job?"; "What else can I do with my skill in your field?"; "What is it I've got that you want?"

Step 5. Now, SKILL #1, choose the occupation you wish to enter and go stand next to the player whose bid attracted you.

Step 6. SKILL #2 steps forward next and play continues until all the SKILLS have gone "up for bid" and have chosen offers from OCCUPATIONS.

1. MY SKILL

I CAN . . . MAKE MOTORS AND ENGINES RUN

I CAN WORK ON . . .

- GAS ENGINES
- ELECTRIC MOTORS
- DIESEL ENGINES
- GENERATORS
- TRANSMISSIONS
- SPARK PLUGS
- VALVES
- MOTOR ANALYZERS
- IGNITION SYSTEMS
- RADIATORS
- GEAR TRAINS
- CARBURETORS
- OIL CHANGES

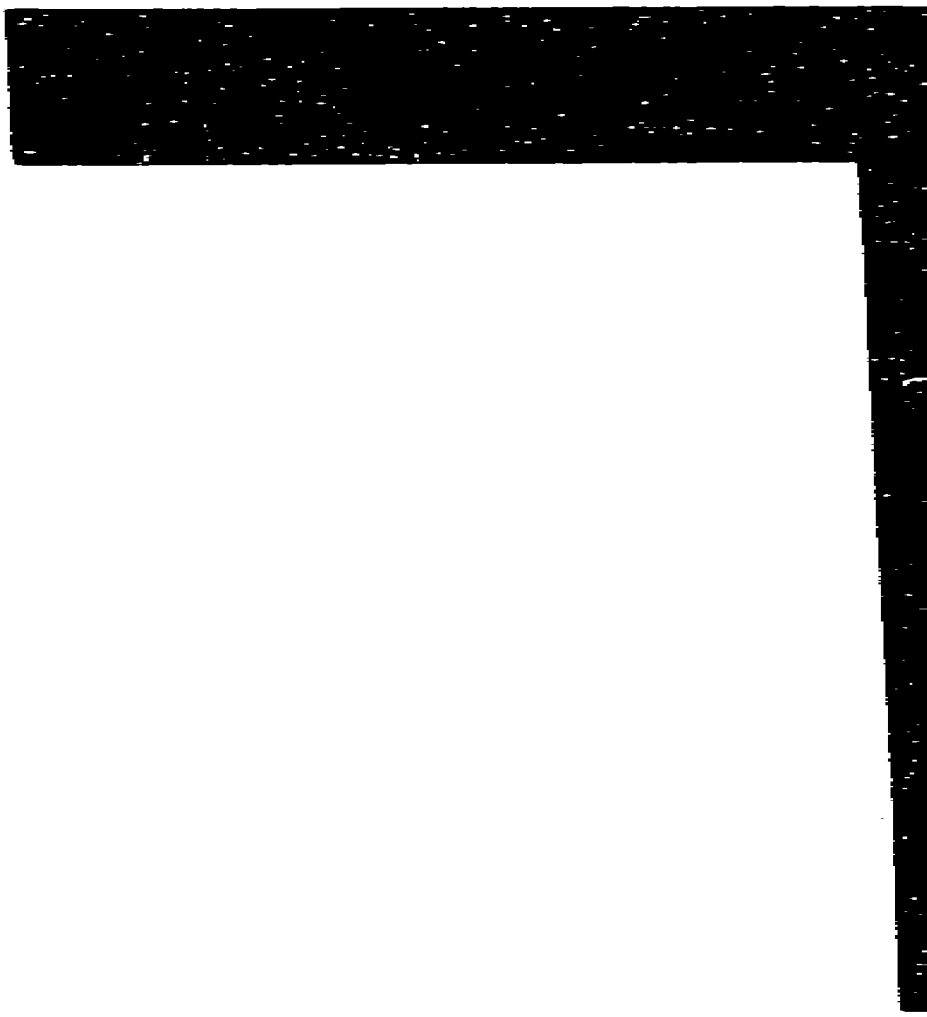
2.

MY SKILL

I CAN . . . USE MACHINE AND POWER TOOLS

I CAN OPERATE . . .

- TABLE SAWS
- ELECTRIC DRILLS
- HYDRAULIC JACKS
- JACK HAMMERS
- SPRAY GUNS
- RIVET GUNS
- HYDRAULIC PIPE BENDERS
- DRILL PRESSES
- AIR COMPRESSORS
- WELDING RODS
- ACETYLENE TORCHES
- GAS TORCHES
- GRINDERS
- SANDBLASTERS
- PNEUMATIC CHISELS



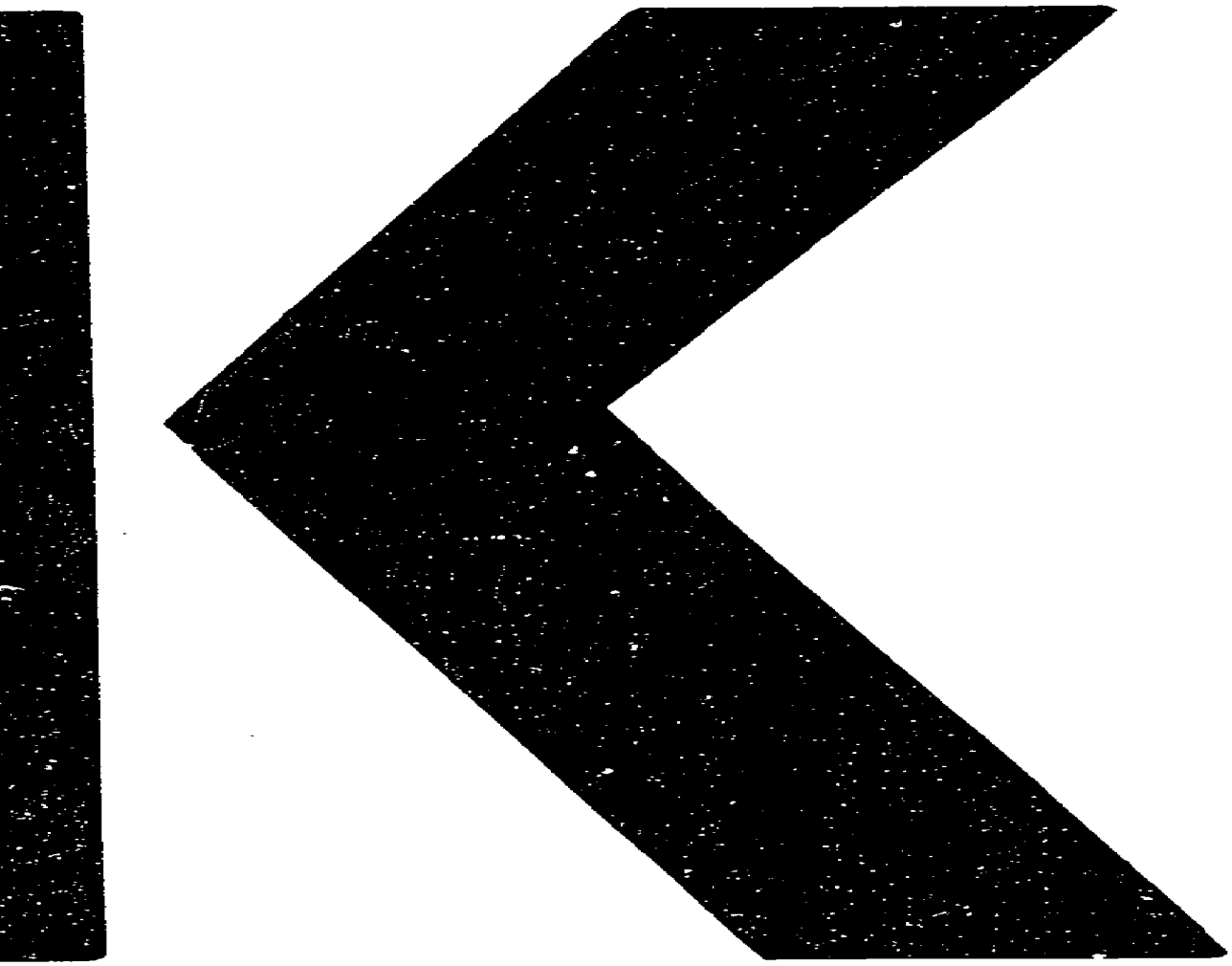
Leader's Guide, page 166
(Gamebook, page 78)

3. MY SKILL

I CAN . . . MAKE ELECTRICAL CONNECTIONS

I KNOW HOW TO . . .

- SPLICE CABLES
- STRIP WIRES
- SOLDER CIRCUITS
- CONNECT PLUGS
- INSTALL RECEPTACLES
- REPAIR SWITCHES
- INSTALL FIXTURES
- REPLACE FUSES
- TRACE CIRCUITRY
- INSTALL BELL AND ALARM SYSTEMS



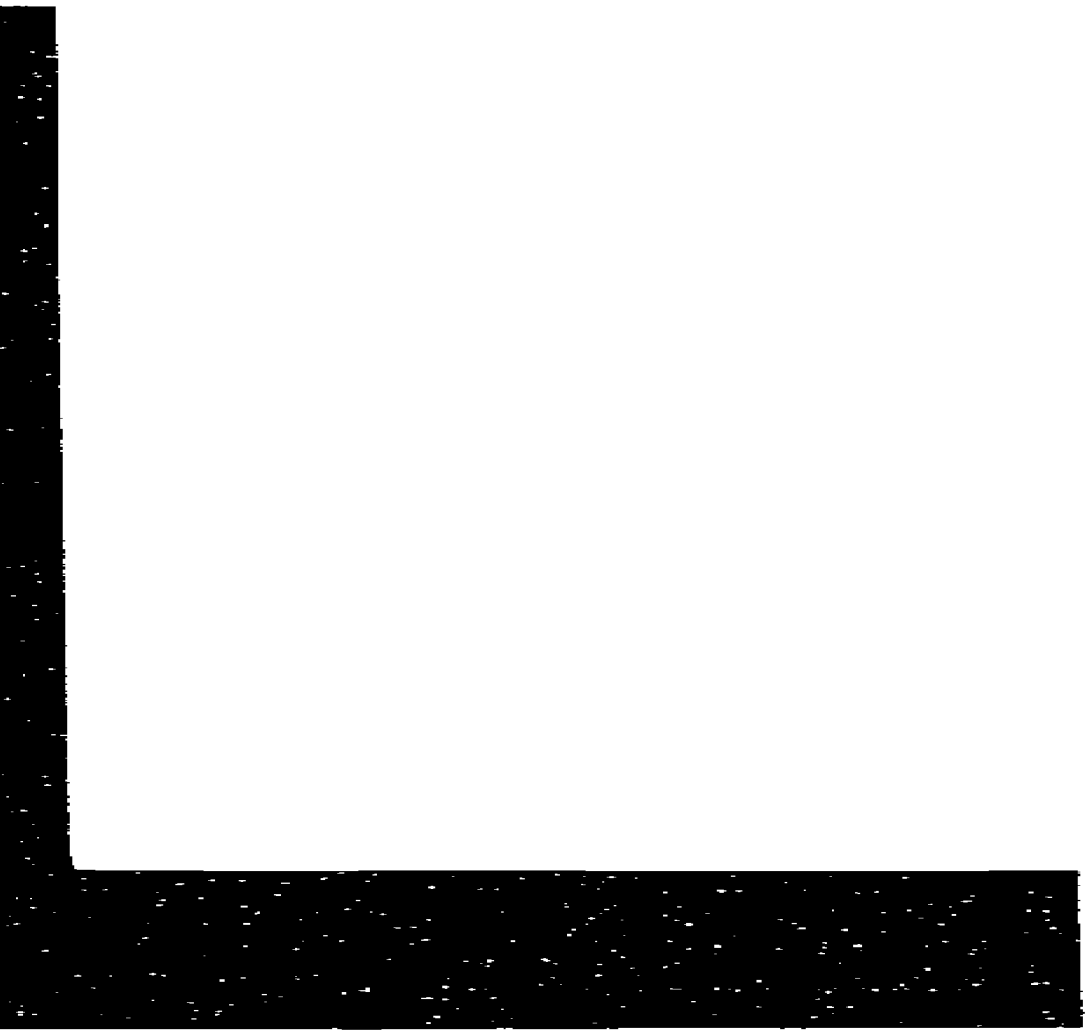
Guide, page 168
ok, page 80)

4. MY SKILL

I CAN . . . USE HAND TOOLS

I CAN USE . . .	HAMMERS	WRENCHES
	MALLETS	LEVELS
	SAWS	CHISELS
	SCREWDRIVERS	PLANES
	DRILLS	FILES
	KNIVES	BITS
	BRUSHES	PLIERS
	TROWELS	RODS
	SNAKES	PICKS
	SOLDERING IRONS	SHOVELS
	PIPE THREADERS	WIRECUTTERS
	PLASTERING HAWKS	STAPLE GUNS
	SHEARS	STRAIGHT EDGES

Leader's Guide, page 170
(Gamebook, page 82)



5.

MY SKILL

I CAN . . . USE MY BODY EFFICIENTLY

I KNOW HOW TO . . .

CARRY TOOL KITS

PUSH WHEELBARROWS

LIFT AND BALANCE LADDERS

SQUEEZE PLIERS

PULL CABLES

CLIMB SCAFFOLDING

WALK UP AND DOWN RAMPS

CRAWL UNDER BUILDINGS

STRETCH TO REACH HIGH PLACES

MOVE CRATES

ENDURE HARD WORK

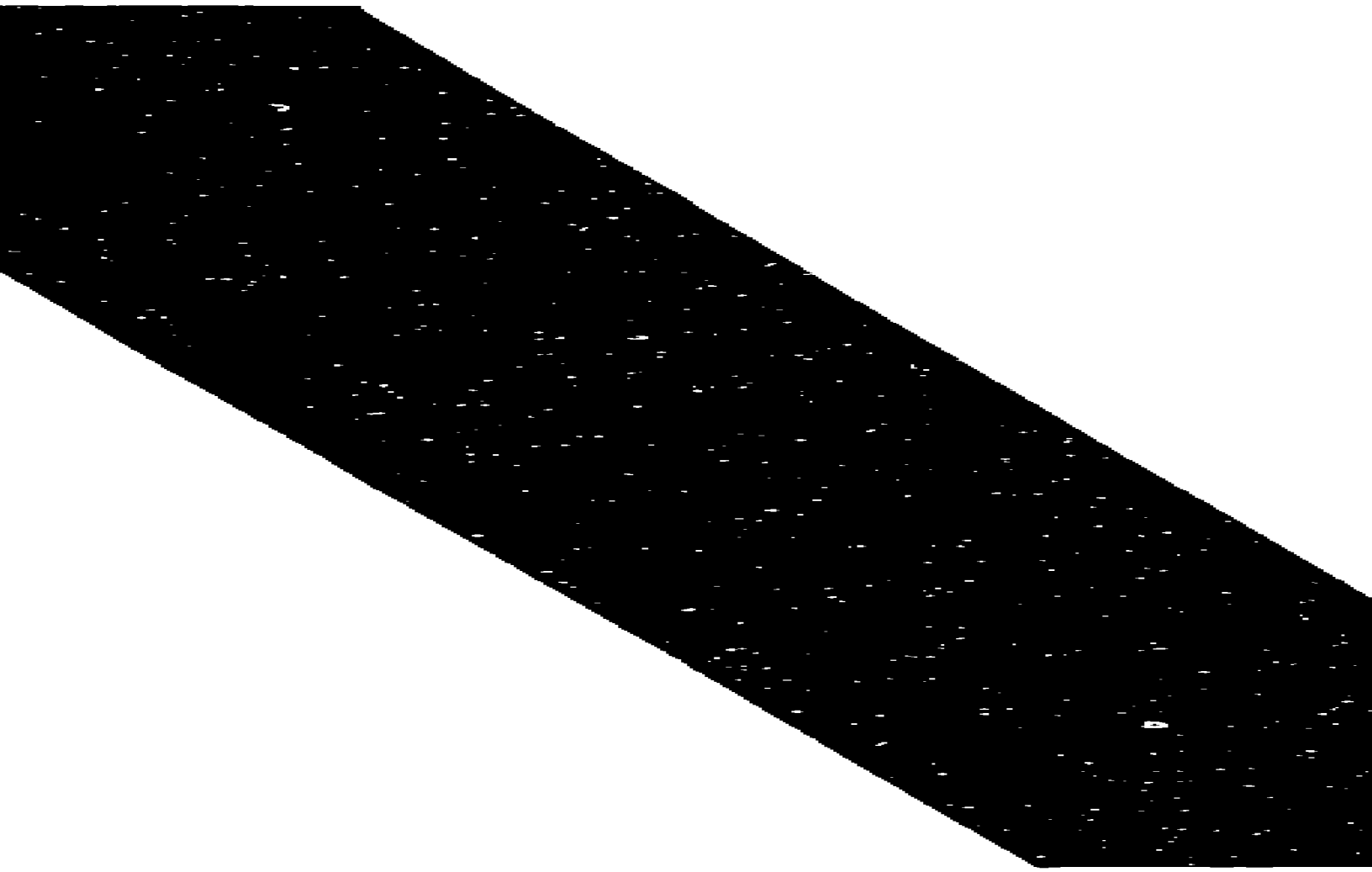
Guide, page 173
ok, page 84)

6. MY SKILL

I CAN . . . READ AND FOLLOW DIAGRAMS

I CAN WORK ON . . .

- BLUEPRINTS
- MECHANICAL DRAWINGS
- SCHEMATICS
- ARCHITECTURAL PLANS AND SYMBOLS
- ELECTRICAL CIRCUITRY
- ELECTRONIC CIRCUITRY
- BAR CHARTS
- GRAPHS
- WIRING DIAGRAMS



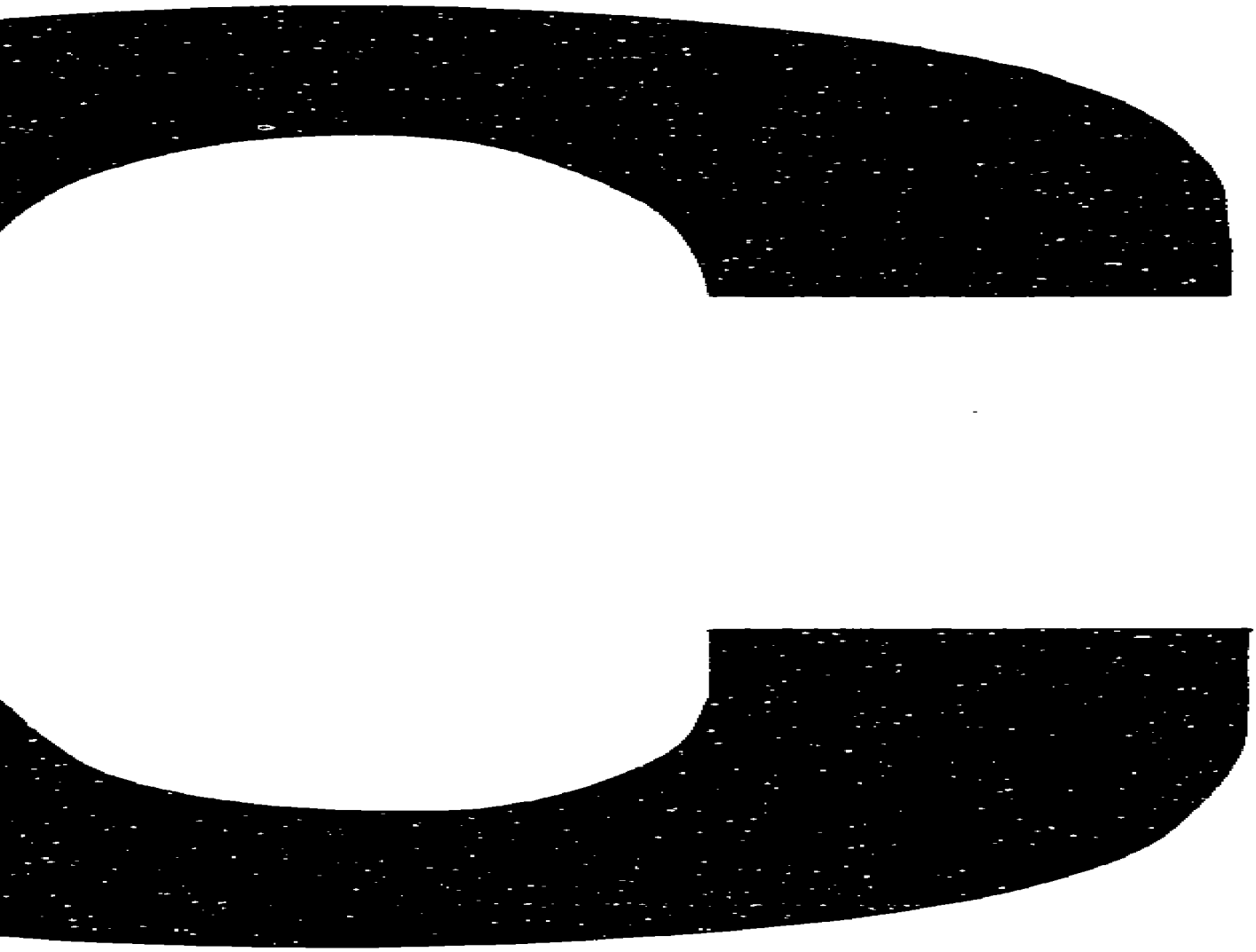
Leader's Guide, page 174
(Gamebook, page 86)

7. MY SKILL

I CAN . . . USE MATH

I KNOW HOW TO . . .

- ADD
- SUBTRACT
- MULTIPLY
- DIVIDE
- USE FRACTIONS
- USE DECIMALS
- ANALYZE STATISTICS
- READ RULERS
- READ GAUGES
- READ METERS
- ESTIMATE DISTANCE AND HEIGHT
- ESTIMATE COSTS

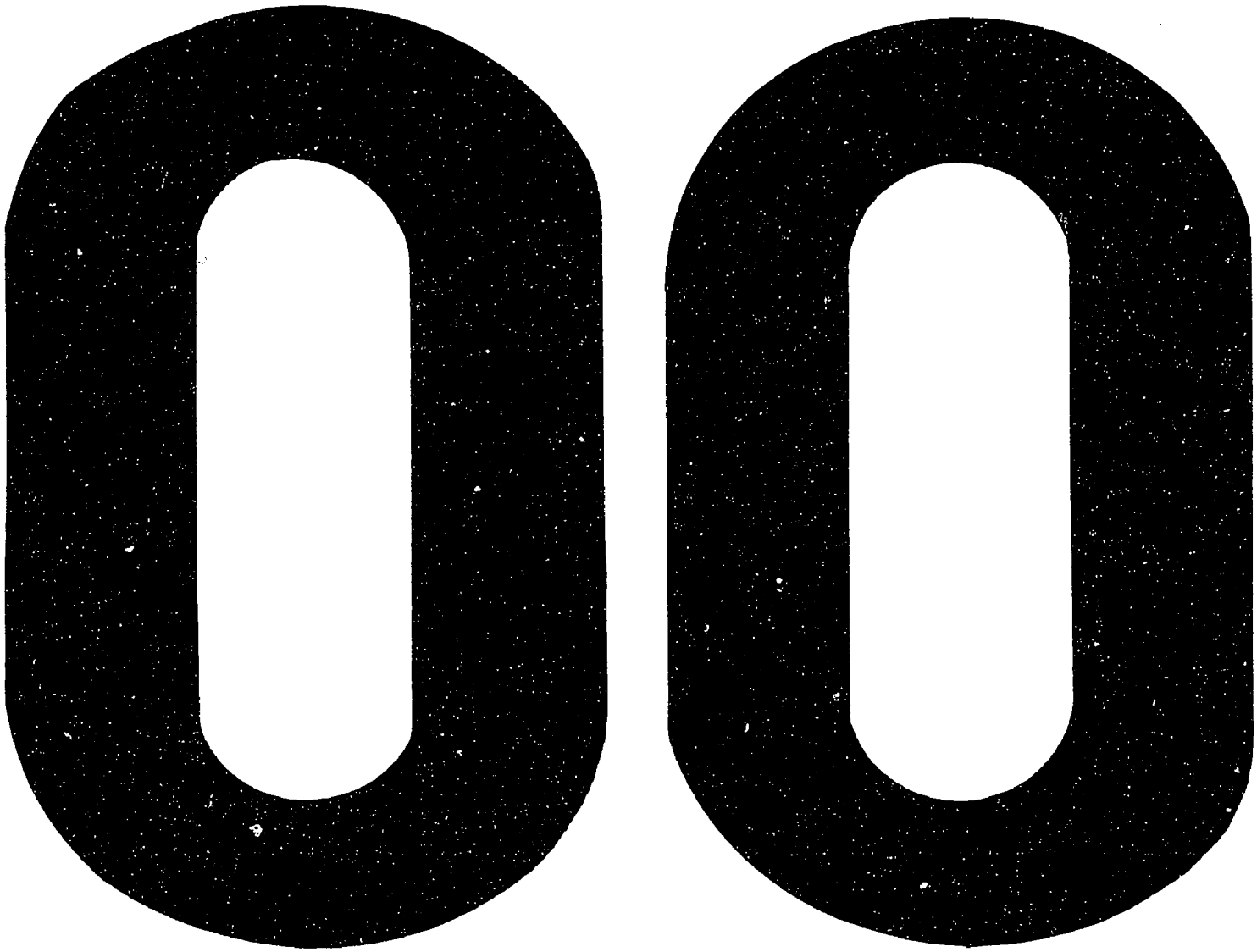


8. MY SKILL

I CAN . . . USE MECHANICAL HELPERS

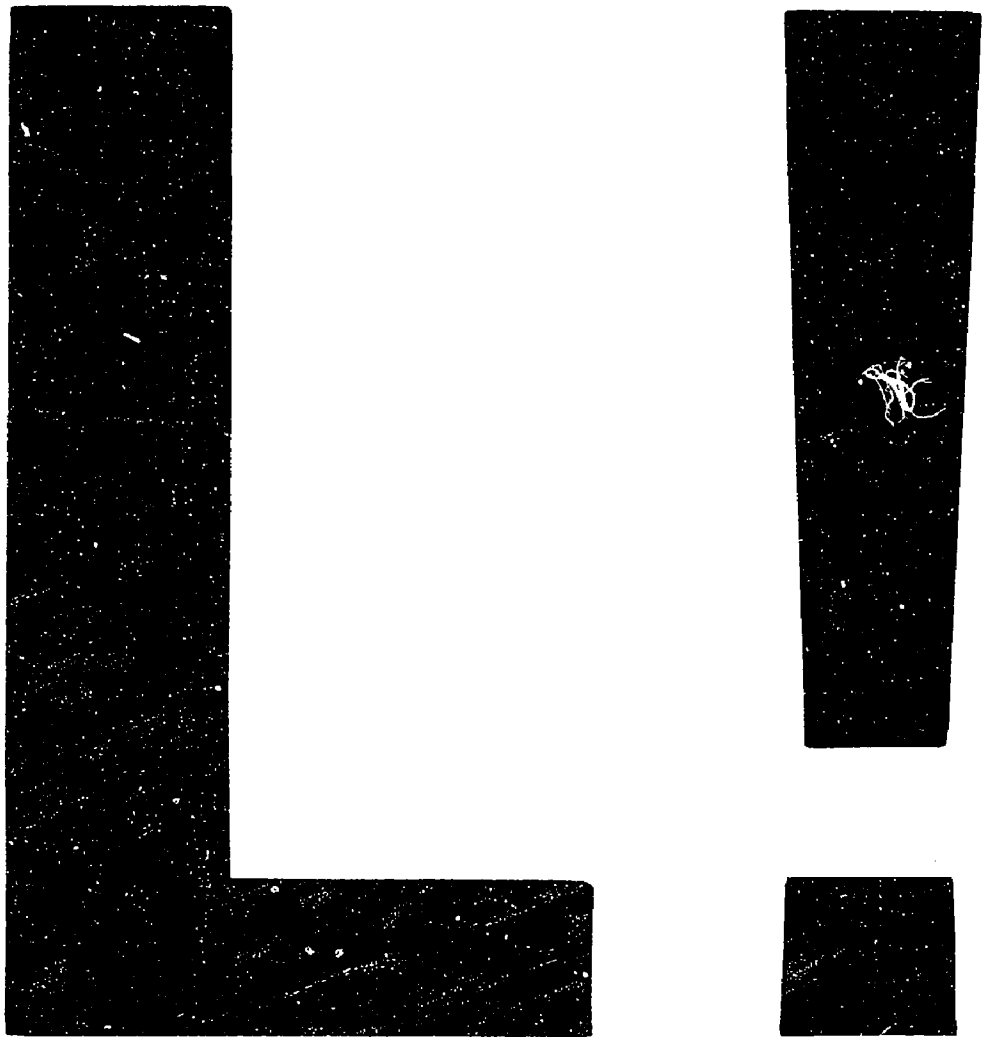
I CAN USE . . .

- LEVERS
- PULLEYS
- DOLLIES
- JACKS
- VICES
- CLAMPS
- CROWBARS
- HOISTS
- WINCHES
- HYDRAULIC LIFTS
- DONKEYS
- CRANES
- FORKLIFTS
- BACKHOES
- BULLDOZERS
- GRAPPLING HOOKS
- SLINGS
- DERRICKS
- LOADERS
- GRADERS
- HANDTRUCKS



9. MY SKILL

I CAN . . . TURN THIS PAGE OVER AND ADD WHAT'S NEEDED TO FINISH THE MESSAGE



My occupational field is . . .	1
	CARPENTRY AND CABINET MAKING
I need people who can . . .	USE MACHINE AND POWER TOOLS
I'll hire and train you as . . .	A CARPENTER
Your tasks will be to . . .	• USE POWER SAWS TO CUT WOOD AND ERECT FRAMES FOR BUILDINGS • INSTALL DOORS, BUILD STAIRS, AND LAY HARDWOOD FLOORS • USE POWER DRILLS AND RIVET GUNS FOR "FINISH" WORK
The job pays up to . . .	ABOUT $20,000 A YEAR
With your skill you also can . . .	• BUILD AND REPAIR FURNITURE, CABINETS, ETC. • INSTALL DRYWALLS • BUILD CONCRETE FORMS, SCAFFOLDING, AND TEMPORARY SHELTERS ON CONSTRUCTION SITES

My occupational field is . . .

MACHINE TOOL TRADES

I need people who can . . . USE MECHANICAL HELPERS

I'll hire and train you as . . . A MILLING MACHINE OPERATOR

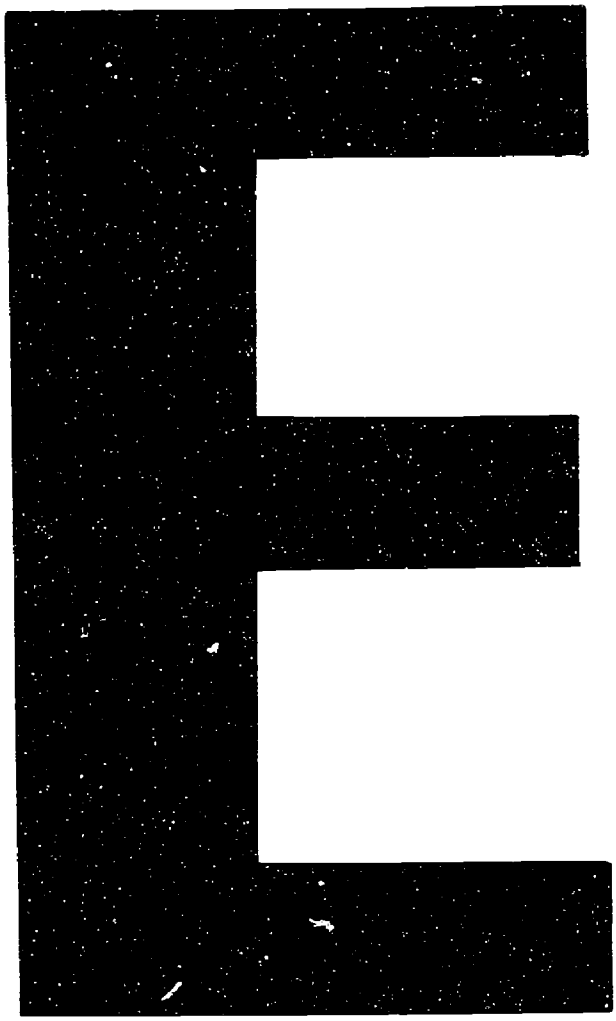
Your tasks will be to . . .

- SET UP AND DISMANTLE MACHINES USING CROWBARS, CLAMPS, WRENCHES, VICES
- MOVE MACHINERY AND EQUIPMENT USING HOISTS, DOLLIES, ROLLERS, AND TRUCKS
- TURN HANDWHEELS TO FEED WORK INTO MACHINES

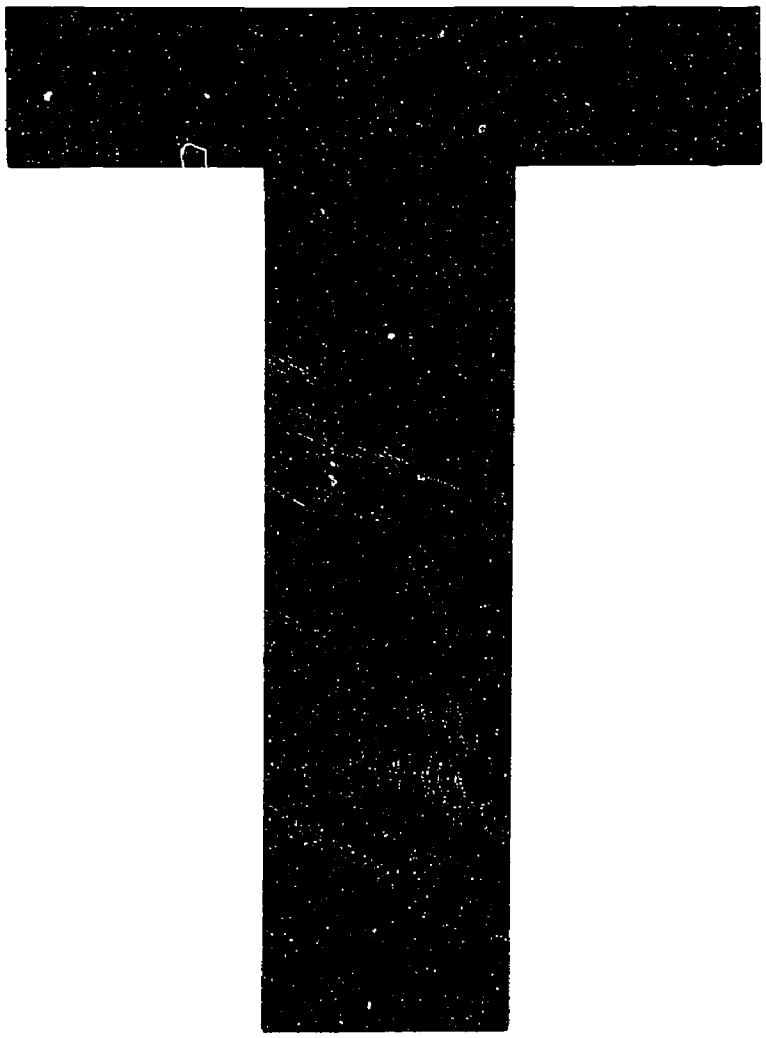
The job pays up to . . . ABOUT $15,000 A YEAR

With your skill you also can . . .

- WORK AS A TOOL AND DIE OPERATOR
- WORK AS AN ASSEMBLER IN THE AUTOMOBILE INDUSTRY
- WORK AS A MAINTENANCE MECHANIC



My occupational field is . . .	3
	TELEPHONE CRAFTS
I need people who can . . .	MAKE ELECTRICAL CONNECTIONS
I'll hire and train you as . . .	A TELEPHONE INSTALLER
Your tasks will be to . . .	• CONNECT TELEPHONES TO OUTSIDE SERVICE WIRES • SERVICE TELEPHONE CABLE TERMINALS • INSTALL AND SERVICE SWITCHBOARDS
The job pays up to . . .	ABOUT $15,000 A YEAR
With your skill you also can . . .	• INSTALL MOBILE TELEPHONES IN CARS, BOATS, ETC. • INSTALL INTERCOM SYSTEMS • WORK ON DATA PROCESSING SYSTEMS THAT INVOLVE TELEPHONE SERVICE



My occupational field is . . .

4

TRANSPORTATION

I need people who can . . . USE MATH

I'll hire and train you as . . . A ROUTE TRUCK DRIVER

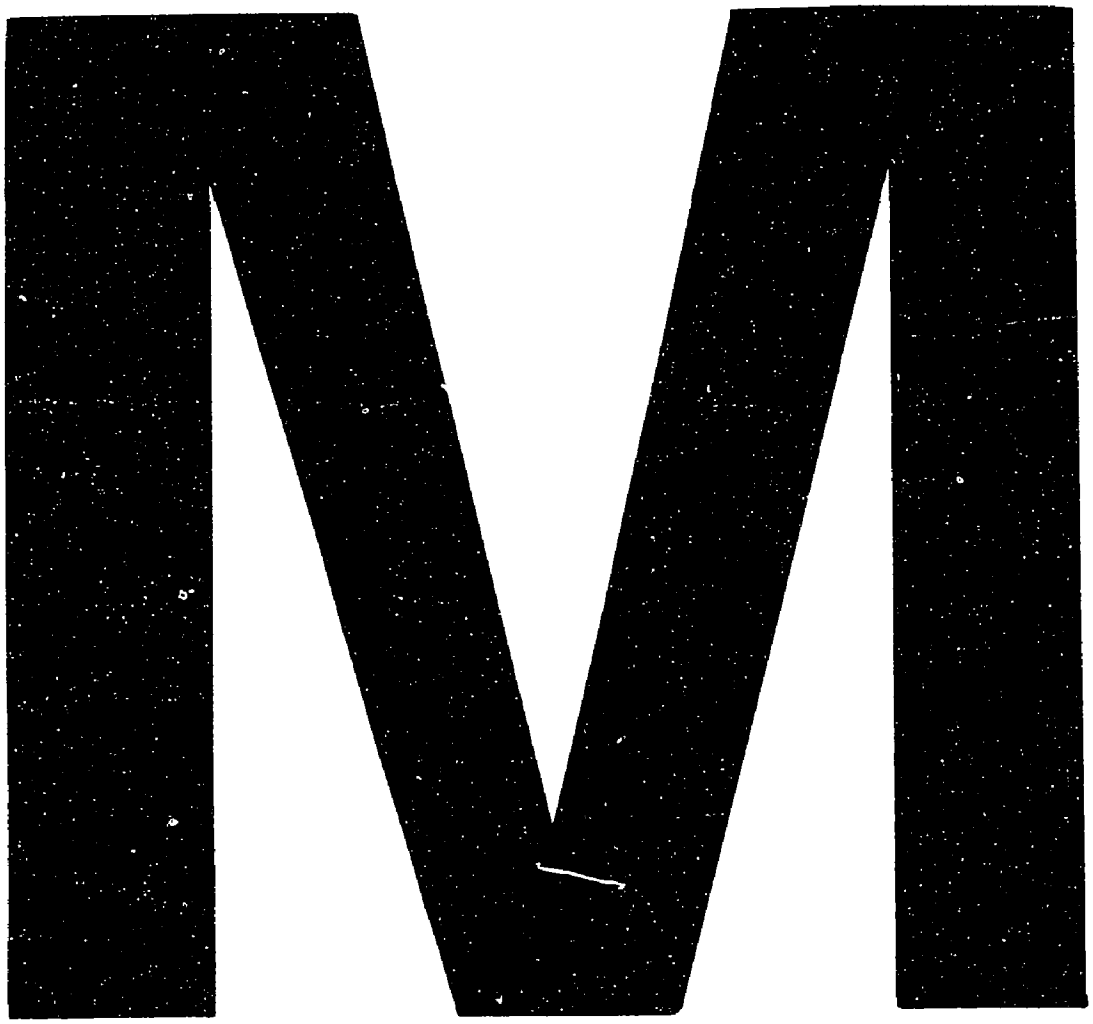
Your tasks will be to . . .

- MAKE OUT BILLS AND KEEP TRACK OF PAYMENTS
- MAKE DELIVERIES TO CUSTOMERS AND TAKE ORDERS
- RE-STOCK AND ORGANIZE SUPPLIES

The job pays up to . . . ABOUT $16,000 A YEAR

With your skill you also can . . .

- DO NAVIGATION WORK FOR AIRLINES, SHIPS, TRAINS
- DRIVE TAXIS, BUSES, OR OTHER PUBLIC TRANSIT VEHICLES
- DRIVE LONG-DISTANCE TRUCK ROUTES
- DO SURVEY WORK FOR ROAD, BRIDGE, AND TUNNEL PROJECTS



My occupational field is . . .

5

FIREFIGHTING AND LAW ENFORCEMENT

I need people who can . . .

USE THEIR BODIES EFFICIENTLY

I'll hire and train you as . . .

A FIREFIGHTER

Your tasks will be to . . .

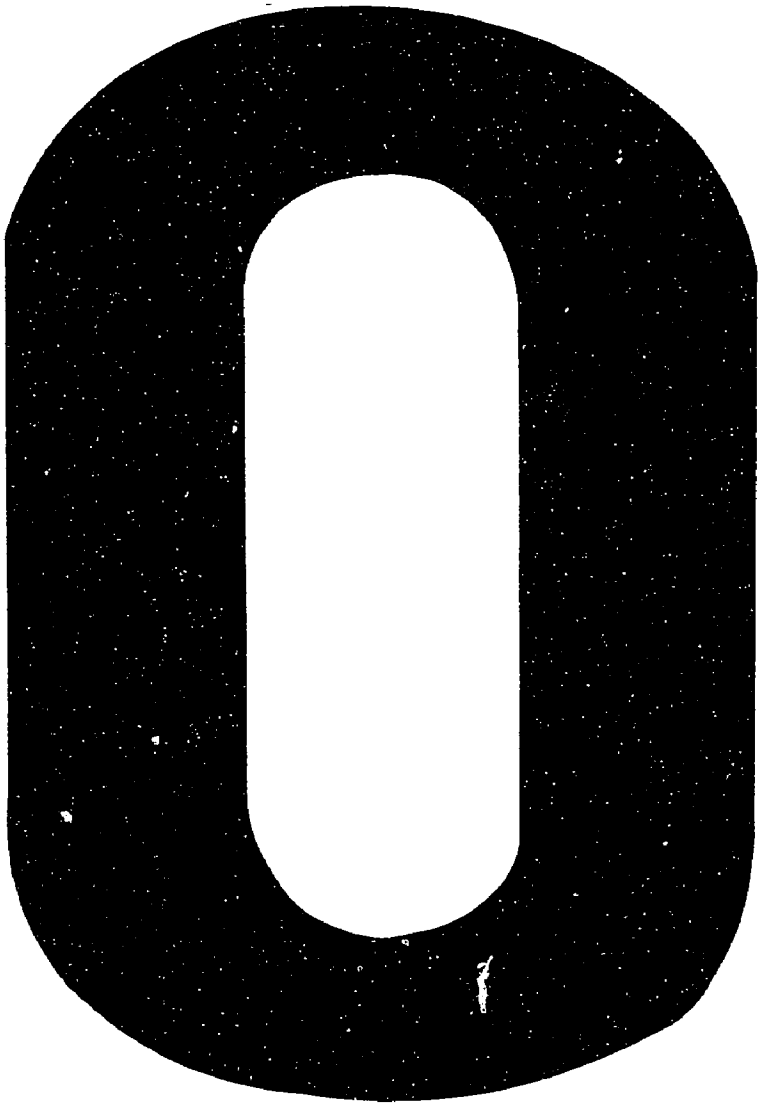
- DIRECT A STEADY STREAM OF WATER OR CHEMICALS ONTO A FIRE
- HANDLE HEAVY LADDERS AND HOSES
- USE A FIREFIGHTER'S LIFT TO RESCUE PEOPLE AND ADMINISTER FIRST AID

The job pays up to . . .

ABOUT $15,000 A YEAR

With your skill you also can . . .

- TRAIN CREWS TO USE FIREFIGHTING EQUIPMENT
- BE A FIRE INSPECTOR
- WORK FOR A BUILDING CODE INSPECTION AND ENFORCEMENT AGENCY



My occupational field is . . .

6

COMPUTER ASSEMBLY AND REPAIR

I need people who can . . .

USE HAND TOOLS

I'll hire and train you as . . .

A COMPUTER SERVICE TECHNICIAN

Your tasks will be to . . .

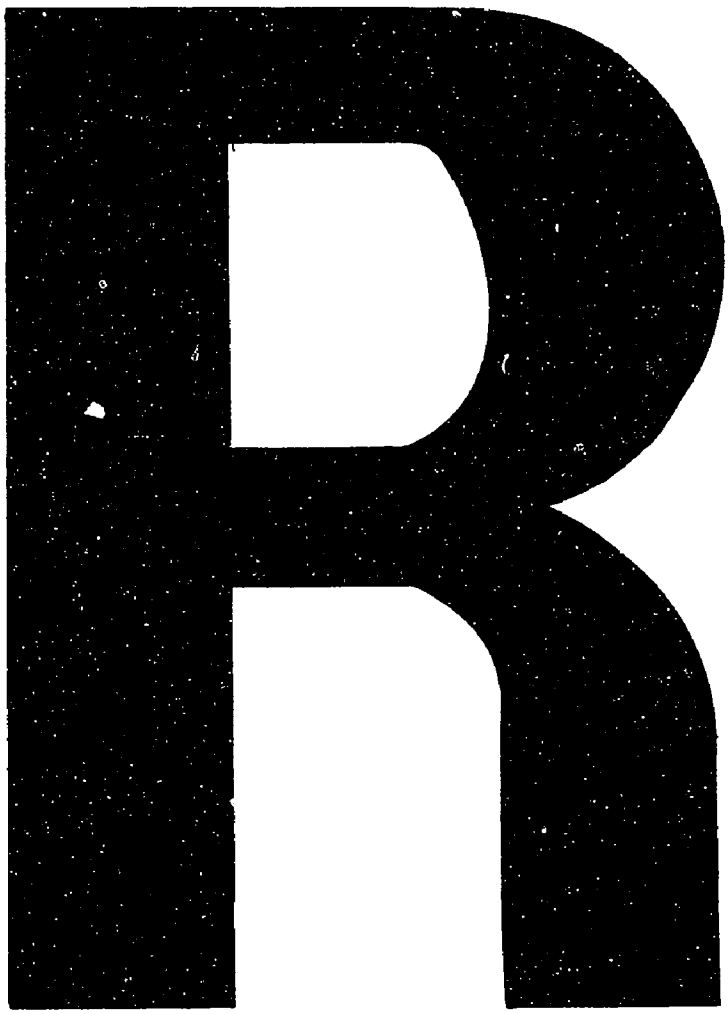
- ADJUST, OIL, AND CLEAN MECHANICAL AND ELECTROMECHANICAL PARTS
- USE TESTING EQUIPMENT TO CHECK FOR LOOSE CONNECTIONS AND CIRCUITS
- SOLDER, WIRE, DRILL, AND RIVET PARTS TO REPAIR MACHINES

The job pays up to . . .

ABOUT $16,000 A YEAR

With your skill you also can . . .

- INSTALL NEW COMPUTER EQUIPMENT
- ASSIST ENGINEERS IN BUILDING EXPERIMENTAL COMPUTER SYSTEMS
- WORK AS A TECHNICAL SUPERVISOR OR "TROUBLE-SHOOTER" TO FIGURE OUT WHAT'S WRONG WITH COMPUTER SYSTEMS



My occupational field is . . .

7

HEAVY EQUIPMENT OPERATION

I need people who can . . . USE MECHANICAL HELPERS

I'll hire and train you as . . . A CRANE OPERATOR

Your tasks will be to . . .

- USE HOISTS, GRAPPLE HOOKS, AND SLINGS TO PICK UP AND POSITION LOADS
- USE A DEMOLITION BALL TO KNOCK DOWN BUILDINGS
- OPERATE CONTROLS TO ROTATE A CRANE AND RAISE AND LOWER A BOOM

The job pays up to . . . ABOUT $20,000 A YEAR

With your skill you also can. . . .

- OPERATE A BULLDOZER
- BE A CRANE-CREW SUPERVISOR IN A SHIPYARD OR RAILROAD
- BE A PANEL TRUCK OPERATOR

Leader's Guide, page 194
(Gamebook, page 104)

[redacted]

[redacted]

[redacted]

My occupational field is . . .

8

INSTRUMENT REPAIR

I need people who can . . .

MAKE MOTORS AND ENGINES RUN

I'll hire and train you as . . .

AN INSTRUMENT REPAIR TECHNICIAN

Your tasks will be to . . .

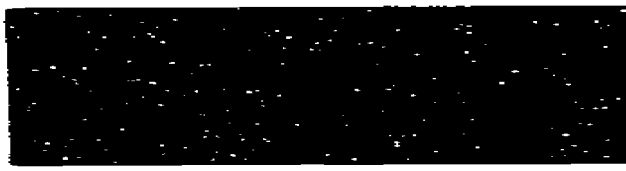
- REPLACE WORN OR DAMAGED MOVING PARTS LIKE TIMING OR BALANCING DEVICES
- CLEAN, OIL, ADJUST AND TEST EQUIPMENT LIKE KIDNEY MACHINES, HEART MONITORS
- TAKE APART AND REBUILD MOTOR-DRIVEN INSTRUMENTS

The job pays up to . . .

ABOUT $20,000 A YEAR

With your skill you also can . . .

- REPAIR CLOCKS, BAROMETERS, AND OTHER PRECISION INSTRUMENTS
- BUILD OR SERVICE AIRCRAFT INSTRUMENTS
- WORK ON EQUIPMENT TO MAKE OR REPAIR EYE-GLASSES, CAMERAS, ETC.



Leader's Guide, page 196
(Gamebook, page 106)

My occupational field is . . .

BUSINESS AND COPY MACHINE REPAIR

I need people who can . . .

USE THEIR BODIES EFFICIENTLY

I'll hire and train you as . . .

A REPAIR TECHNICIAN

Your tasks will be to . . .

- MOVE OR LIFT MACHINES TO CLEAN, OIL AND ADJUST PARTS
- CARRY EQUIPMENT AND TOOLS FROM JOB TO JOB
- REACH AND BEND TO MAKE REPAIRS INSIDE MACHINES

The job pays up to . . .

ABOUT $15,000 A YEAR

With your skill you also can . . .

- FIX VENDING MACHINES, JUKE BOXES, ETC.
- FIX SPECIAL EQUIPMENT IN HOSPITALS
- FIX TYPEWRITERS, DUPLICATORS, POSTAGE METER MACHINES, ETC.

Mod

Leader's Guide, page 198
(Gamebook, page 108)

My occupational field is . . .

10

BUILDING MAINTENANCE

I need people who can . . . USE HAND TOOLS

I'll hire and train you as . . . A MAINTENANCE SUPERVISOR

Your tasks will be to . . .

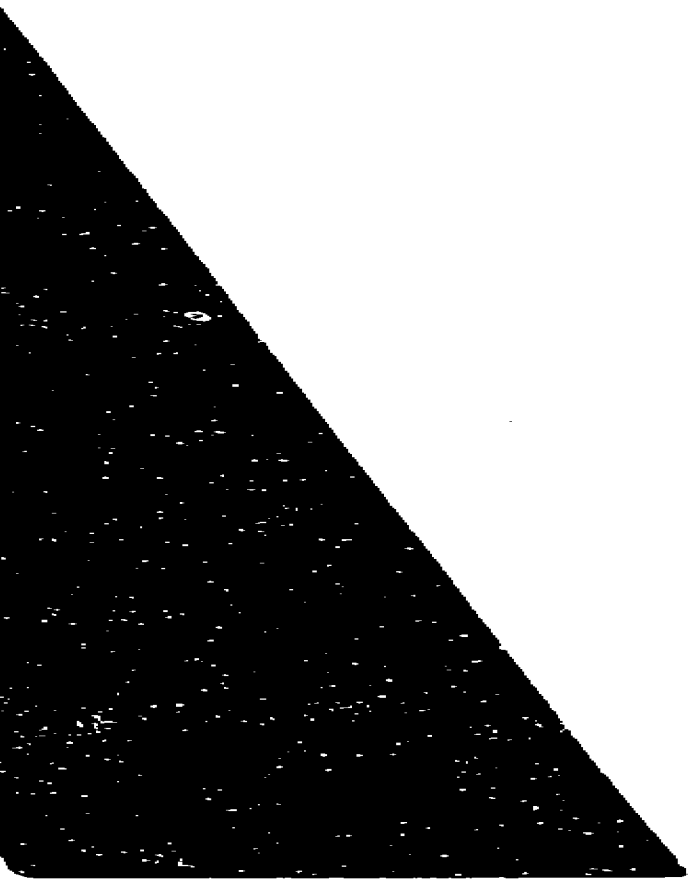
- SUPERVISE WORKERS, ORDER SUPPLIES, KEEP EQUIPMENT OPERATING
- REPAIR LIGHT SWITCHES, DOORS, LOCKS, WOODWORK, WALLS, CONCRETE WALKS, ETC.
- REPAIR BOILERS, FANS, HEATERS, PLUMBING FIXTURES, ETC.

The job pays up to . . . ABOUT $15,000 A YEAR

With your skill you also can . . .

- WORK AS A MAINTENANCE ELECTRICIAN
- WORK AS A CARPENTER ON CONSTRUCTION JOBS
- DO MAINTENANCE WORK IN SCHOOLS, AIRPORTS AND HOSPITALS

Leader's Guide, page 200
(Gamebook, page 110)



My occupational field is . . .

11

PLUMBING AND PIPING

I need people who can . . . USE MECHANICAL HELPERS

I'll hire and train you as . . . AN APPRENTICE PLUMBER

Your tasks will be to . . .

- CUT, THREAD, BEND AND CONNECT PIPES
- INSTALL WATER, GAS AND WASTE DISPOSAL SYSTEMS
- REPAIR PIPES AND PLUMBING FIXTURES LIKE FAUCETS, VALVES

The job pays up to . . . ABOUT $20,000 A YEAR

With your skill you also can . . .

- WORK AS A PIPEFITTER FOR THE GAS AND ELECTRIC COMPANY
- WORK FOR A CONSTRUCTION CONTRACTOR INSTALLING AND ADJUSTING PLUMBING, AIR CONDITIONING AND HEATING SYSTEMS
- WORK ON PIPING SYSTEMS IN CHEMICAL PLANTS OR OIL REFINERIES

Leader's Guide, page 202
(Gamebook, page 112)

My occupational field is . . .

PAINTING AND PAPERHANGING

I need people who can . . . USE HAND TOOLS

I'll hire and train you as . . . A PAINTER

Your tasks will be to . . .

- APPLY PAINTS AND VARNISH USING BRUSHES, ROLLERS, SPRAYGUNS
- SMOOTH SURFACES USING SANDPAPER, STEEL WOOL
- MEASURE AND CUT STRIPS FROM WALLPAPER ROLLS, USING PAPER KNIVES, SHEARS

The job pays up to . . . ABOUT $19,000 A YEAR

With your skill you also can . . .

- WORK AS A PAINT-SPRAY INSPECTOR
- OPERATE A PAINT-STRIPING MACHINE FOR THE HIGHWAY DEPARTMENT
- DO TOUCH-UP WORK IN THE AUTOMOBILE INDUSTRY

My occupational field is . . .

ELECTRICITY

I need people who can . . . MAKE ELECTRICAL CONNECTIONS

I'll hire and train you as . . . A MAINTENANCE ELECTRICIAN

Your tasks will be to . . .

- INSTALL NEW LIGHTING FIXTURES AND ELECTRICAL EQUIPMENT
- REPAIR FUSES AND CHECK ELECTRICAL CODE REQUIREMENTS
- REPLACE WIRES, SWITCHES, WALL RECEPTACLES

The job pays up to . . . ABOUT $17,000 A YEAR

With your skill you also can . . .

- REPAIR TRAFFIC LIGHTS
- INSTALL ALARM SYSTEMS IN HOMES
- WORK FOR ELECTRIC POWER COMPANIES

Leader's Guide, page 206
(Gamebook, page 116)

My occupational field is . . .

SMALL ENGINE REPAIR

I need people who can . . . MAKE MOTORS AND ENGINES RUN

I'll hire and train you as . . . A MOTORCYCLE MECHANIC

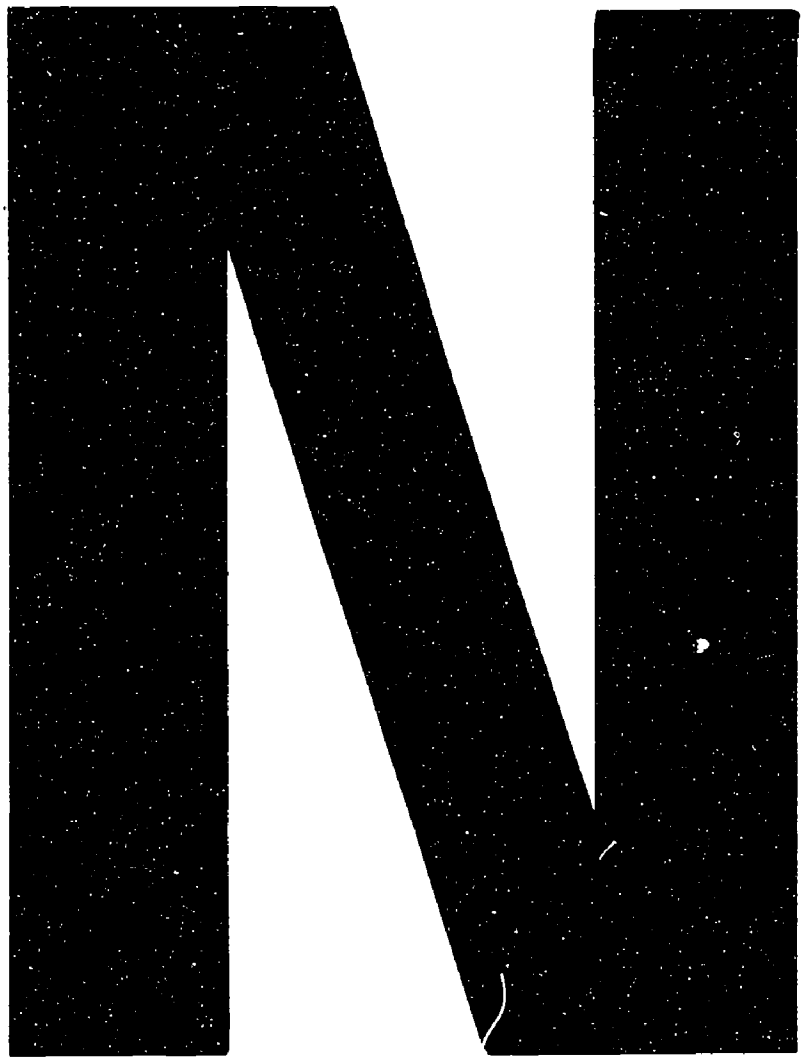
Your tasks will be to . . .

- TEST AND DIAGNOSE ENGINE PROBLEMS
- MAKE ADJUSTMENTS AND REPAIRS AND REPLACE WORN PARTS
- TAKE APART AND REASSEMBLE ENGINES

The job pays up to . . . ABOUT $20,000 A YEAR

With your skill you also can . . .

- SERVICE SNOWMOBILES, MINIBIKES, LAWN-MOWERS, OUTBOARD MOTORS AND OTHER SMALL GASOLINE ENGINES
- WORK AS A BOWLING PIN MACHINE REPAIRPERSON
- SPECIALIZE IN OVERHAULING AND REBUILDING ENGINES AND TRANSMISSIONS



My occupational field is . . .

15

COMMISSIONED SALES WORK

I need people who can . . . USE MATH

I'll hire and train you as . . . A DEPARTMENT STORE HOME APPLIANCE SALES-PERSON

Your tasks will be to . . .

- MAKE OUT SALES SLIPS AND RECORDS
- CALCULATE COMMISSIONS
- KEEP TRACK OF STOCK AND ORDER NEW SUPPLIES

The job pays up to . . . ABOUT $20,000 A YEAR (DEPENDING ON YOUR COMMISSIONS)

With your skill you also can . . .

- SELL MEDICAL EQUIPMENT TO HOSPITALS
- BE A SALES REPRESENTATIVE FOR BUSINESS MACHINE OR COMPUTER FIRMS
- SELL BUILDING SUPPLIES TO RETAIL HARDWARE STORES

My occupational field is . . .

16

ENVIRONMENTAL SCIENCES

I need people who can . . . USE MATH

I'll hire and train you as . . . A WASTEWATER TREATMENT PLANT OPERATOR

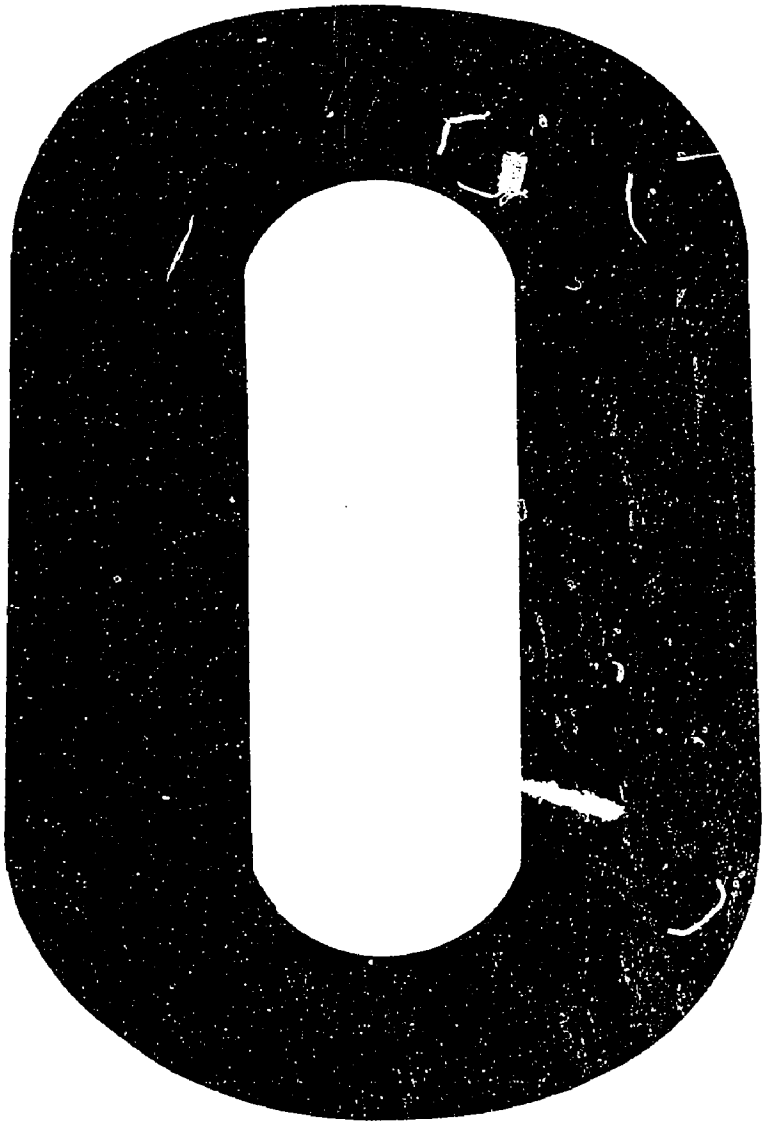
Your tasks will be to . . .

- READ METERS AND GAUGES
- TEST WATER SAMPLES
- KEEP PLANT RECORDS

The job pays up to . . . ABOUT $20,000 A YEAR

With your skill you also can . . .

- WORK FOR THE WATER COMPANY
- WORK FOR A GOVERNMENT WATER POLLUTION CONTROL AGENCY
- BE A FIREFIGHTER FIRST CLASS WHO CONTROLS BOILER OPERATIONS



17

My occupational field is . . .

ELECTRONICS

I need people who can . . . READ AND FOLLOW DIAGRAMS

I'll hire and train you as . . . AN ELECTRONICS TECHNICIAN

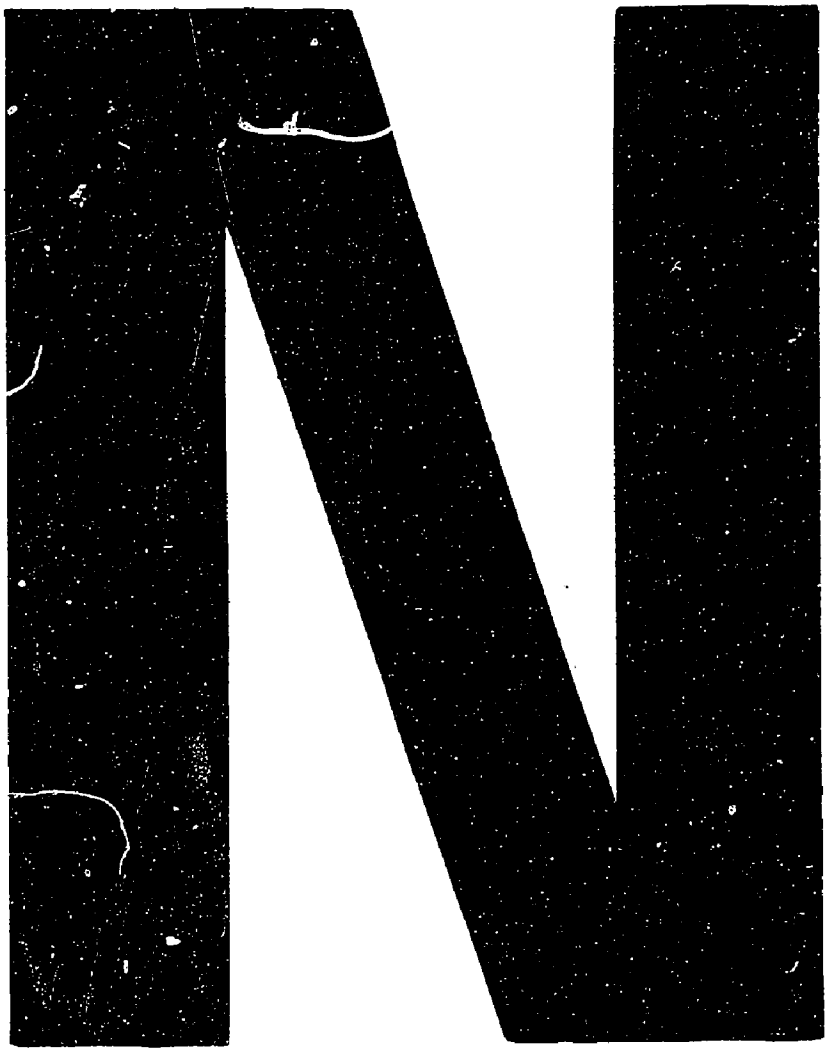
Your tasks will be to . . .

- ASSEMBLE AND REPAIR ELECTRONIC CIRCUITRY COMPONENTS AND SYSTEMS
- INSPECT, TEST, AND REPLACE ELECTRONIC PARTS
- WORK WITH SLIDES, BLUEPRINTS, AND ELECTRONIC SYSTEMS

The job pays up to . . . ABOUT $13,000 A YEAR

With your skill you also can . . .

- INSTALL AND REPAIR WEATHER FORECASTING EQUIPMENT
- ASSEMBLE AND INSTALL ELECTRONIC GUIDANCE SYSTEMS FOR AIRPLANES, MILITARY EQUIPMENT, AIRCRAFT
- TEST AND REPAIR ELECTRONIC HOUSEHOLD APPLIANCES



My occupational field is . . .

18

APPLIANCE REPAIR

I need people who can . . .

MAKE ELECTRICAL CONNECTIONS

I'll hire and train you as . . .

A HOUSEHOLD APPLIANCE REPAIRPERSON

Your tasks will be to . . .

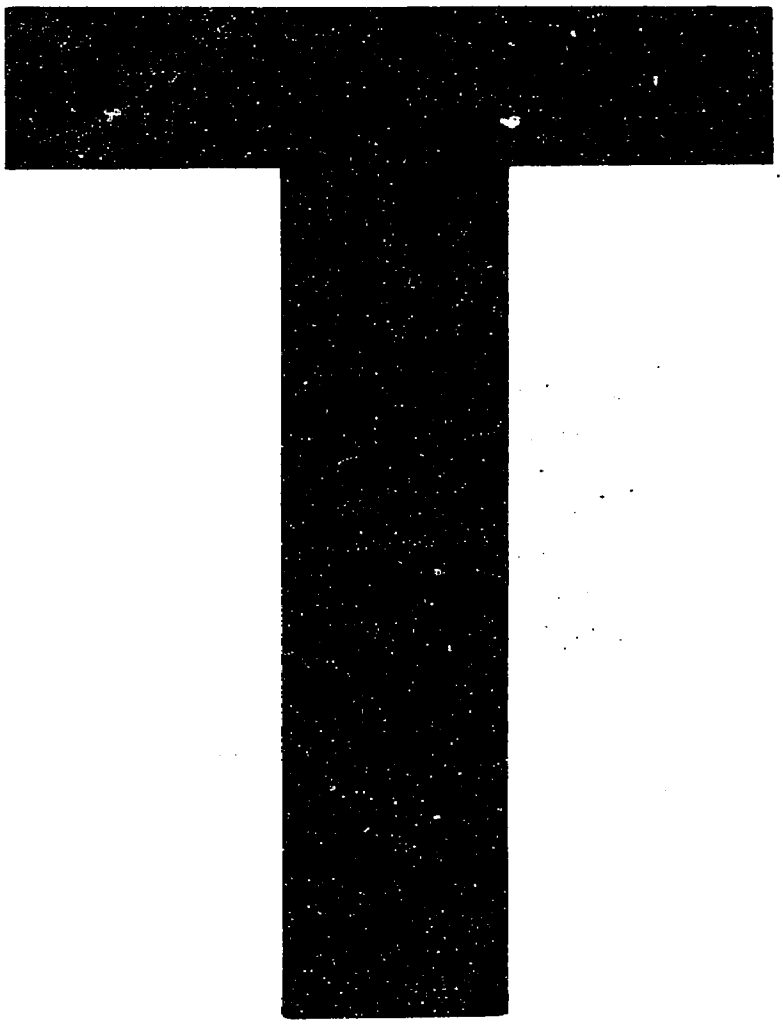
- TEST EQUIPMENT TO LOCATE ELECTRICAL PROBLEMS
- REPLACE WIRING, HEATING ELEMENTS, AND THERMOSTATS
- REBUILD USED APPLIANCES

The job pays up to . . .

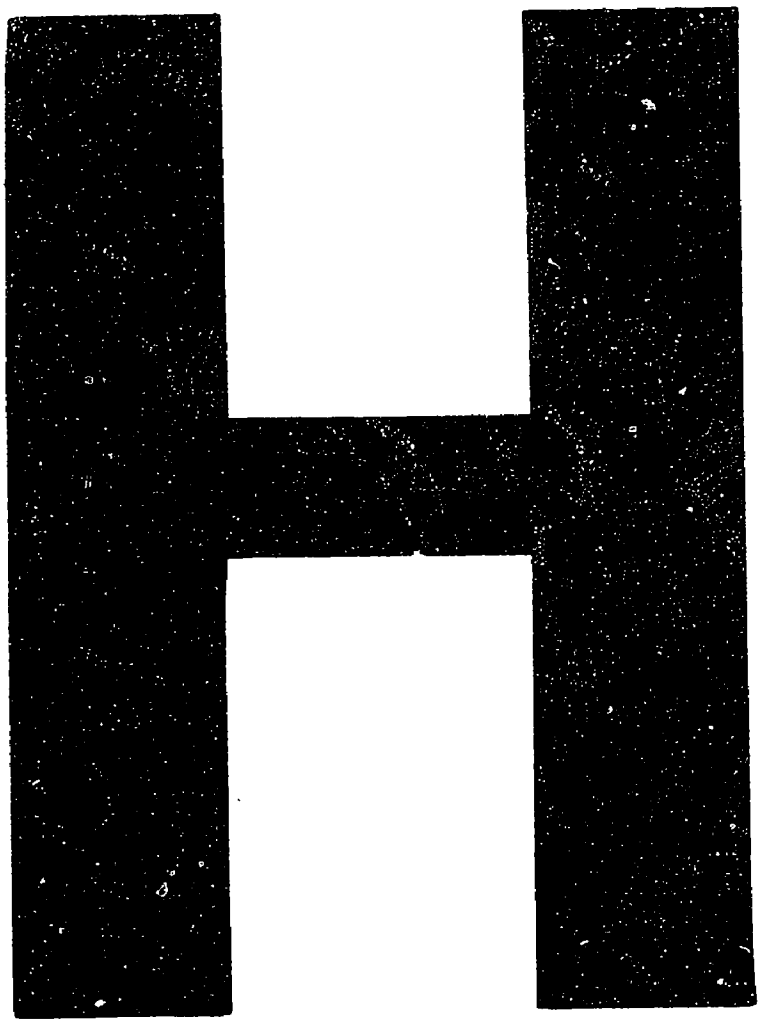
ABOUT $15,000 A YEAR

With your skill you also can . . .

- DO ASSEMBLY WORK FOR AN APPLIANCE MANUFACTURER
- OPEN YOUR OWN REPAIR SHOP
- SERVICE CUSTOMERS' APPLIANCES FOR GAS OR ELECTRIC COMPANY



My occupational field is . . .	19 DRAFTING
I need people who can . . .	READ AND FOLLOW DIAGRAMS
I'll hire and train you as . . .	A DRAFTSPERSON
Your tasks will be to . . .	• PREPARE DRAWINGS USING COMPASSES, TRIANGLES T-SQUARES AND SLIDE RULES • CALCULATE STRENGTH, QUANTITY AND COSTS OF MATERIALS • DESIGN CHARTS TO SHOW FACTS AND FIGURES
The job pays up to . . .	ABOUT $15,000 A YEAR
With your skill you also can . . .	• DRAW ARCHITECTURAL PLANS • DRAW DIAGRAMS FOR AUTOBODY DESIGN • PREPARE WIRING DIAGRAMS FOR ELECTRICAL INSTALLATIONS



My occupational field is . . .

METALWORKING TRADES

I need people who can . . . USE MACHINE AND POWER TOOLS

I'll hire and train you as . . . A SHEET METAL FABRICATOR

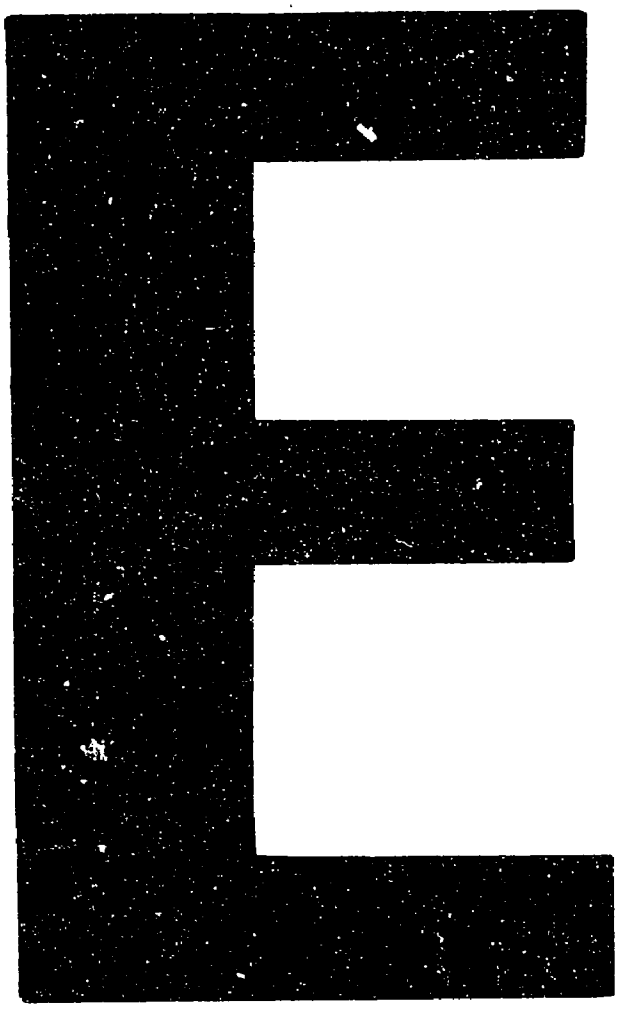
Your tasks will be to . . .

- USE POWER SAWS AND STEEL PRESSES TO CUT AND SHAPE METAL
- USE A TORCH TO WELD SEAMS AND JOINTS TOGETHER
- OPERATE A FLAME CUTTER

The job pays up to . . . ABOUT $20,000 A YEAR

With your skill you also can . . .

- DO ASSEMBLY WORK IN AUTOBODY PLANTS OR REPAIR SHOPS
- WORK FOR HEATING, REFRIGERATION, AND AIR CONDITIONING CONTRACTORS
- DO PRODUCTION WORK FOR PRE-FAB METAL HOUSING



My occupational field is . . .

RAILROAD OPERATIONS

I need people who can . . . USE THEIR BODIES EFFICIENTLY

I'll hire and train you as . . . A LOCOMOTIVE ENGINEER

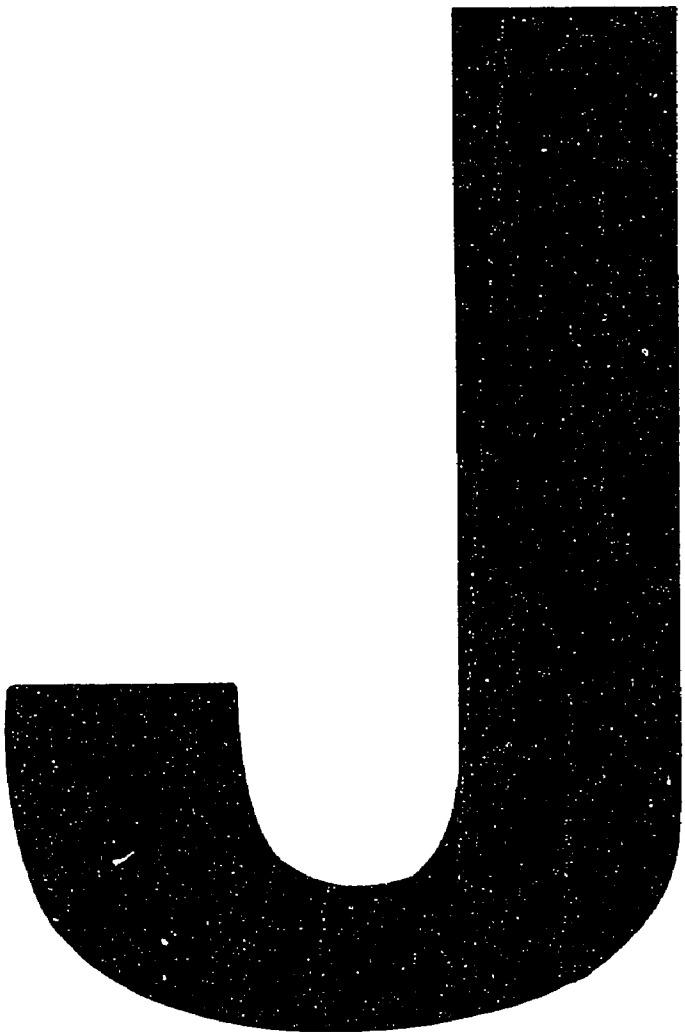
Your tasks will be to . . .

- DRIVE TRAINS, USING YOUR EYES AND HANDS TOGETHER TO FOLLOW RAILROAD SIGNALS
- JUMP UP AND DOWN THE LADDER TO LOCOMOTIVE CAB
- SQUEEZE OR PULL THROTTLE, AIR BRAKES AND OTHER CONTROLS

The job pays up to . . . ABOUT $24,000 A YEAR

With your skill you also can . . .

- WORK AS A RAILROAD BRAKE OPERATOR
- DO RAILROAD TRACK MAINTENANCE WORK
- BE A DRIVER FOR THE LOCAL TRANSIT AUTHORITY



My occupational field is . . .

22

RADIO AND TV REPAIR

I need people who can . . . READ AND FOLLOW DIAGRAMS

I'll hire and train you as . . . A SERVICE TECHNICIAN

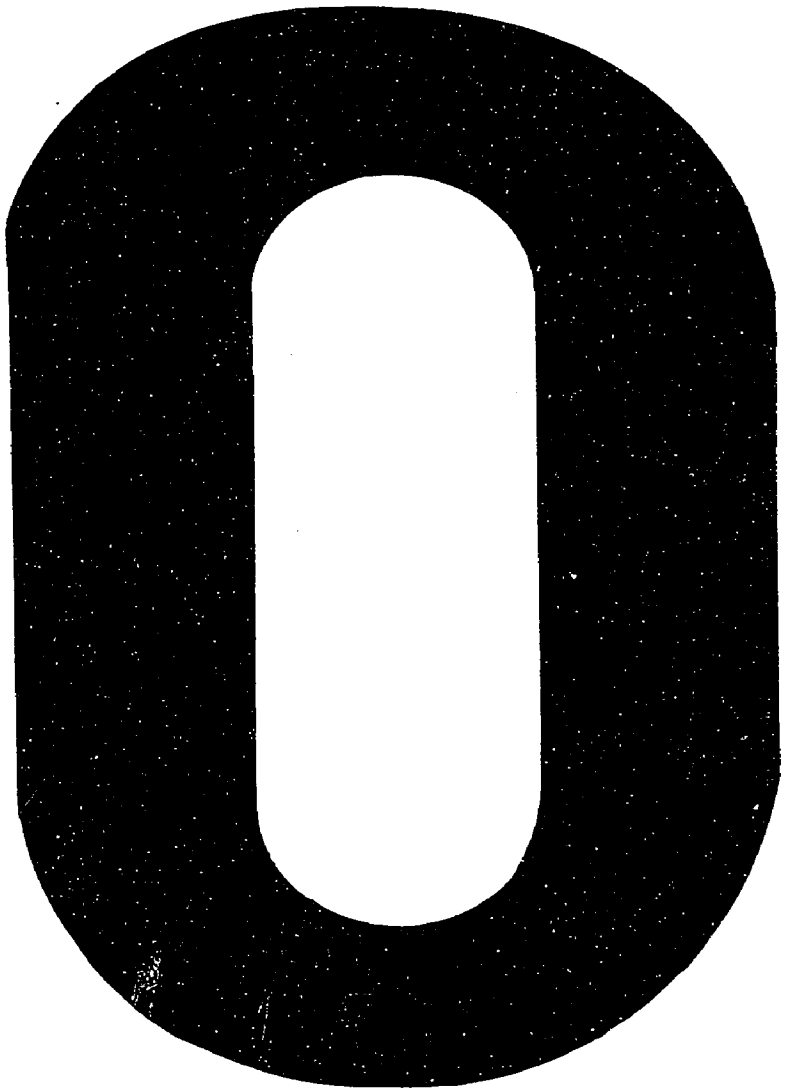
Your tasks will be to . . .

- TEST CIRCUITRY SYSTEMS
- FIND AND REPLACE BROKEN PARTS
- FIND AND SOLDER LOOSE CONNECTIONS

The job pays up to . . . ABOUT $16,000 A YEAR

With your skill you also can . . .

- INSTALL AND REPAIR CAR RADIOS
- INSTALL AND REPAIR RADIO AND TV STATION BROADCASTING AND RECORDING EQUIPMENT
- INSTALL AND REPAIR PUBLIC ADDRESS SYSTEMS IN HOTELS, HOSPITALS, ETC.



My occupational field is . . .

AUTOMOTIVE WORK

I need people who can . . .

MAKE MOTORS AND ENGINES RUN

I'll hire and train you as . . .

AN AUTO MECHANIC

Your tasks will be to . . .

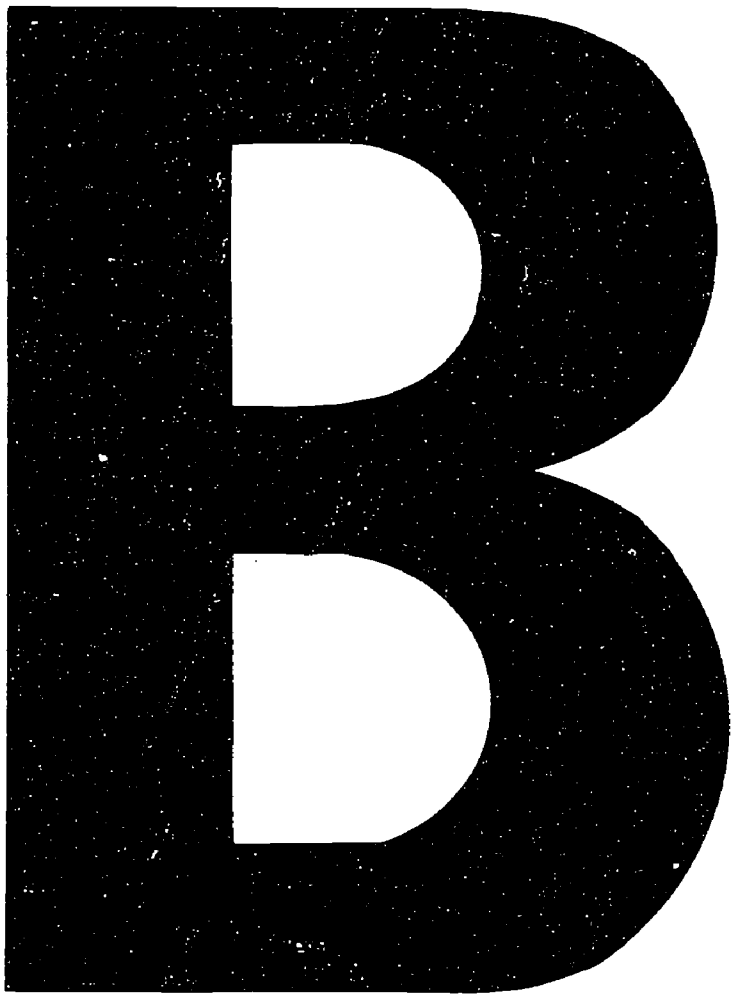
- REPLACE AND ADJUST PARTS SUCH AS DISTRIBUTOR, BRAKES, POINTS, GENERATORS
- TEST FUEL AND IGNITION SYSTEMS
- DO TUNE-UPS

The job pays up to . . .

ABOUT $17,000 A YEAR

With your skill you also can . . .

- BE A BOAT ENGINE MECHANIC
- MAKE FINAL ADJUSTMENTS IN CAR ASSEMBLY PLANTS
- TEST ENGINES FOR POLLUTION CONTROL AGENCIES



24

My occupational field is . . .

AIR CONDITIONING, HEATING AND REFRIGERATION

I need people who can . . .

USE MACHINE AND POWER TOOLS

I'll hire and train you as . . .

A HEATING SYSTEM MECHANIC

Your tasks will be to . . .

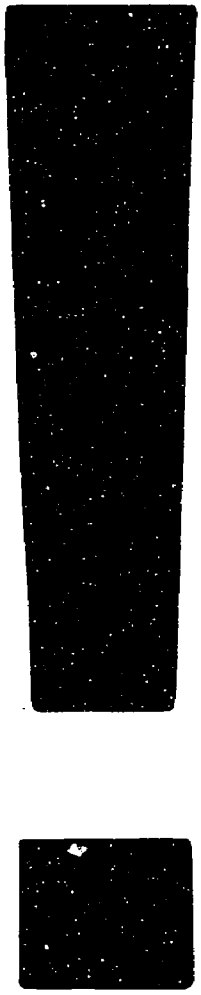
- USE POWER TOOLS TO ASSEMBLE OIL, GAS, AND ELECTRICAL HEATING UNITS
- USE WELDING EQUIPMENT TO INSTALL FUEL SUPPLY LINES
- USE MACHINE EQUIPMENT TO TEST AND REPAIR THERMOSTATS AND OTHER CONTROLS

The job pays up to . . .

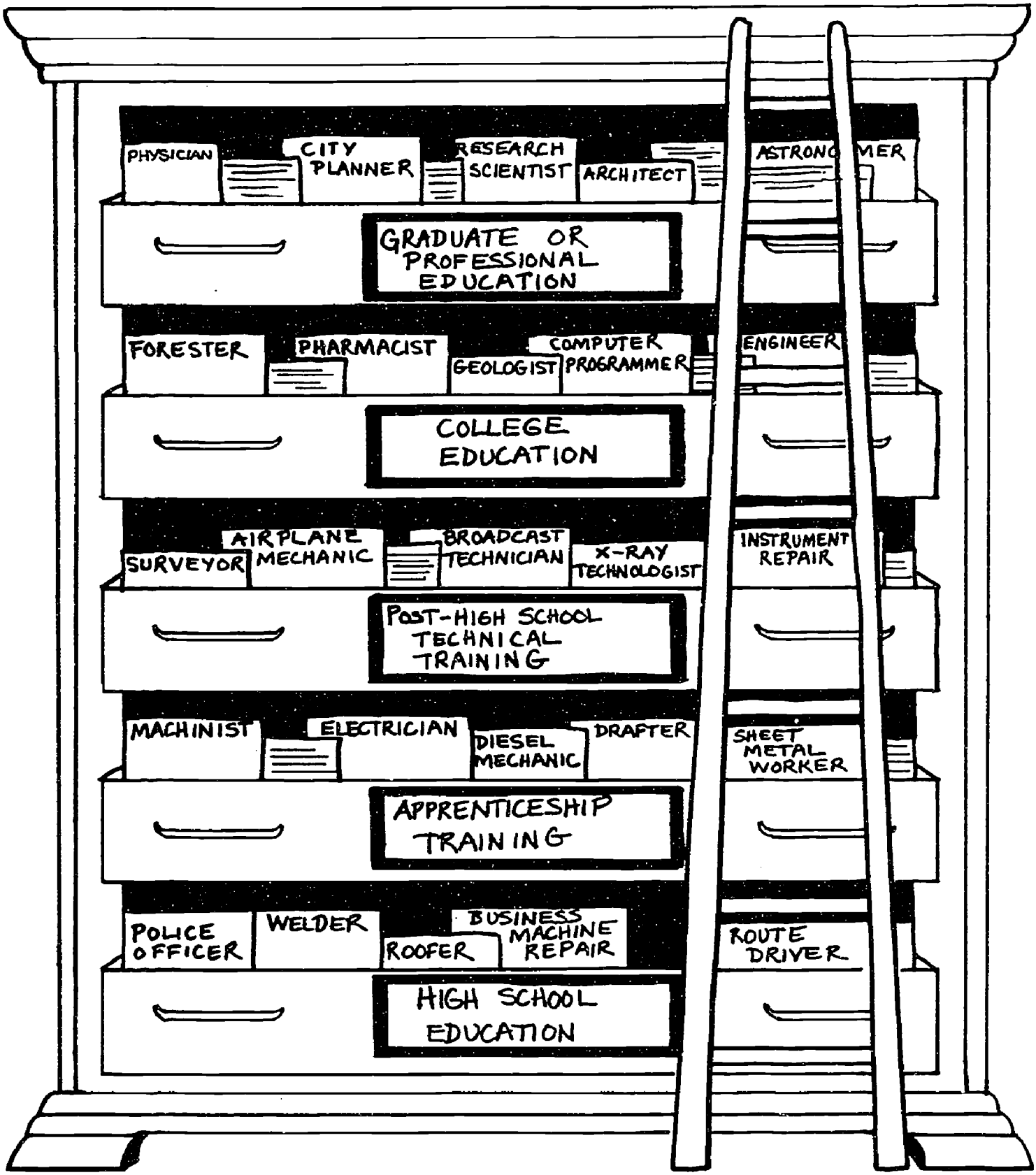
ABOUT $20,000

With your skill you also can . . .

- INSTALL AND REPAIR AIR CONDITIONING, REFRIGERATION AND COOLING SYSTEMS FOR THE FOOD STORAGE INDUSTRY
- WORK AS A SOLAR HEAT TECHNICIAN IN PLANT AND HOME CONSTRUCTION
- INSTALL, INSPECT AND REPAIR BOILERS AND FURNACES ON RAILROADS, SHIPS AND IN CHEMICAL PLANTS



Step Up with Skills



Module 12

Seeing Is Believing

Women at Work

Purpose

To help students identify some of the issues that arise when women work in nontraditional jobs.

What students will do

Students will view a sound filmstrip presentation showing three working women on the job and at home.

Supplies needed

- Gamebook and pencil for each student
- filmstrip projector and audio casette player

Leader preparation

Read the activity carefully. Plan how to make it work in your class.

Play the sound filmstrip program in advance to familiarize yourself with its content. Review the questions in *Let's Talk* (Leader's Guide, page 238) and develop others that may help stimulate class discussion.

Time needed

At least 40 minutes

To launch

Ask students to turn to pages 140-142 of their Gamebooks, *Women at Work* (Leader's Guide, pages 235-237). Through photographs, they'll meet the three women who appear in the sound filmstrip program.

Ask a few students to describe what's happening in the photos: what the characters are saying, thinking, feeling, etc. It may be interesting later to compare what students say before and after seeing the program.

Then show the sound filmstrip presentation. (It takes about 20 minutes.)

To sum up

Ask students to turn to page 143 of their Gamebooks, *Let's Talk* (Leader's Guide, page 238).

Start the discussion by asking several students (boys and girls) to comment on the first set of questions about the three women and their nontraditionai jobs. Encourage students to express all shades of opinion and to explain their views. The questions focus on what the

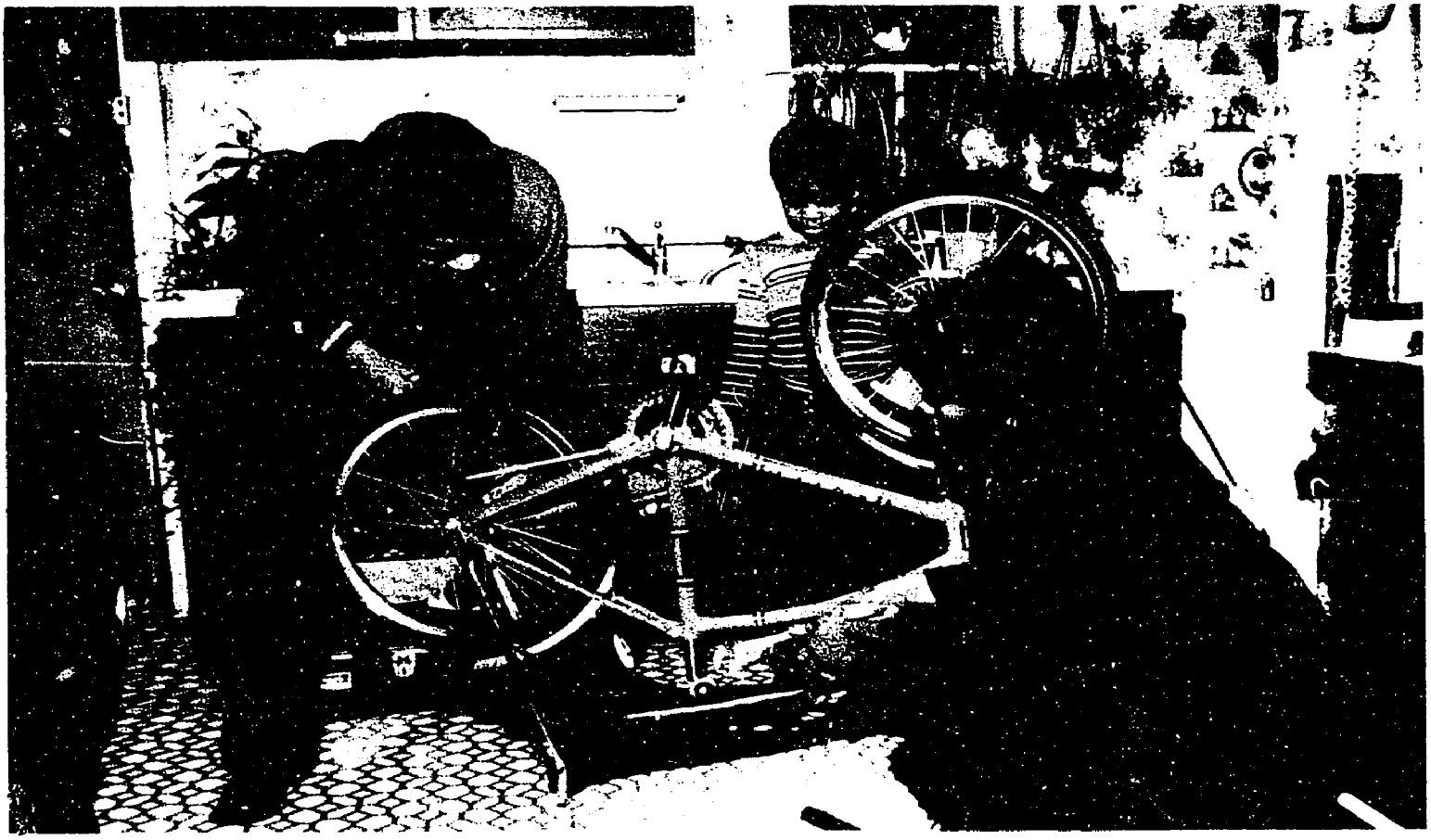
To sum up (continued)

students think rather than on the experiences of the people in the program.

Continue with the remaining questions and any that you have developed.

Women at Work

Introducing Hilda



This photo shows Hilda with her family.

Describe what you think is going on.

Introducing Sandy

This photo shows Sandy with her co-workers.

Describe what you think is going on.

Introducing Migdalia

This photo shows Migdalia one day last summer.

Describe what you think is going on.

Let's Talk

1. About each of the women in the sound filmstrip presentation . . .

- What do you think are the most positive things about her nontraditional job?
- What do you think are the biggest obstacles she has had to overcome?

2. About the men in the presentation . . .

- If you were one of the male employers, what would be your biggest concerns about hiring women?
- If you were one of the male workers, what would be your biggest concerns about working with women on the job?

3. About the jobs in the presentation . . .

- What advantages do you think they have? What disadvantages?
- Where else could you use the skills you need for these jobs?
- Do these jobs interest anyone in the class? If yes, for what reasons? If no, for what reasons?

4. About preparing for these jobs . . .

- What could you do to find out more about what these jobs are like?
- What could you do in school to start learning skills or developing physical fitness for these jobs? Now? In high school?

Module 13

School Search

Hidden Opportunities

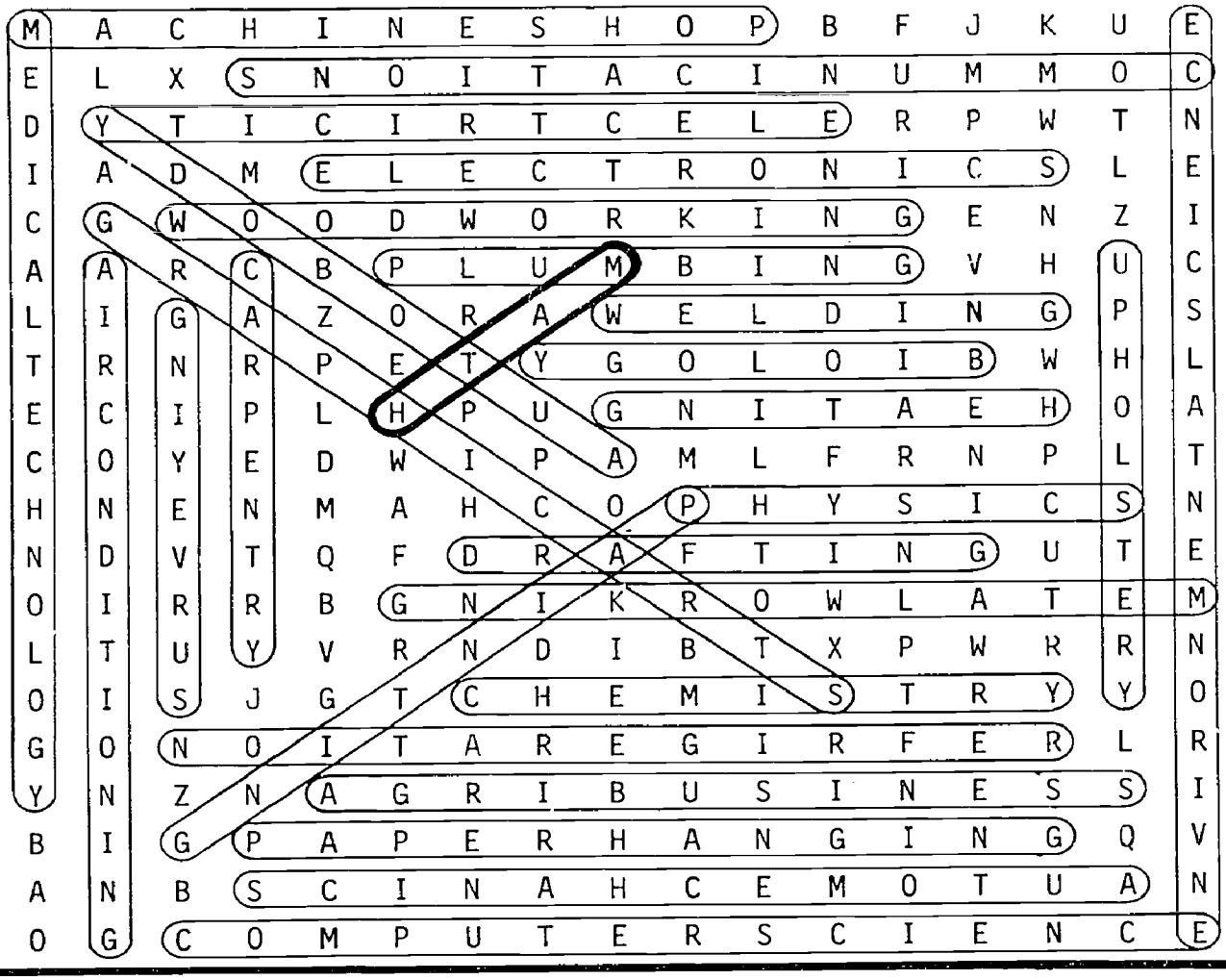
Purpose	To help students recognize typical technical, trade, and industrial arts courses available in public school systems.
What students will do	Students will identify names of courses hidden in a word puzzle.
Supplies needed	• Gamebook and pencil for each student
Leader preparation	Read the activity carefully, Plan how to make it work in your class.
Time needed	At least 5 minutes
To launch	Ask students to turn to page 144 of their Gamebooks, *Hidden Opportunities* (Leader's Guide, page 242). Go over the game rules with the entire class. (Note that on student copies, one circled course appears as an example; on your copy *all* the answers are circled.) Begin play.
To sum up	Stop after five minutes. Ask students how many courses they circled. Which ones? Point out a few that they missed.

Hidden Opportunities

Game Rules

Opportunities to learn technical job skills and explore skilled trade occupations are all around you. Some are available in your own school and many are in the high schools and vocational-technical schools that you can go to. You'll find courses that offer basic math and sciences as well as those that teach you to use different kinds of tools.

The names of some courses in your school system are buried in the puzzle below. In five minutes, see if you can dig out at least ten of them. Circle the courses you find, as in the example. The names read across or down or up or diagonally or forwards or backwards. (A list of the 28 hidden courses is at the bottom of the page.)



AGRIBUSINESS
AIR CONDITIONING
AUTO BODY
AUTO MECHANICS
BIOLOGY
CARPENTRY
CHEMISTRY
COMMUNICATIONS
COMPUTER SCIENCE
DRAFTING
ELECTRICITY
ELECTRONICS
ENVIRONMENTAL SCIENCE
GRAPHIC ARTS
HEATING
MACHINE SHOP
MATH
MEDICAL TECHNOLOGY
METALWORKING
PAINTING
PAPERHANGING
PHYSICS
PLUMBING
REFRIGERATION
SURVEYING
UPHOLSTERY
WELDING
WOODWORKING

Finders Keepers

Purpose

To help students become aware of:

- school resources they can use to learn trade and technical skills and explore related career opportunities
- ways to find out information needed to take "next steps" in their school systems

What students will do

Students will play a game using clues, codes, and questions to track down school information.

Supplies needed

- Gamebook and pencil for each student
- three large manilla envelopes
- felt-tipped marker] to address envelopes
- transparent or masking tape

Leader preparation

Read the activity carefully. Plan how to make it work in your class.

This activity depends on the availability of a knowledgeable person (or persons) to appear as the "mysterious visitor" and answer students' questions during the last part of the class session. The visitor could be a high school Industrial Arts teacher, work experience program coordinator, vocational-technical school administrator, or high school guidance counselor. Or, try to get someone from your own school who knows about high school programs. Make arrangements well in advance.

Make sure the visitor is aware of the kind of information the students will request. You can provide copies of the Gamebook pages students will use (Leader's Guide, pages 251-260) so the visitor will understand the activity format, signals, and passwords and can prepare answers to the questions.

Before class, put the appropriate Coded Messages in manilla envelopes addressed to Teams A, B, and C (Leader's Guide, pages 245-249). Then tape them to the objects or places specified in the clues (Leader's Guide, pages 252-254). If these spots prove difficult, choose other places and adapt the clues accordingly.

Time needed

At least 15 minutes for clues, de-coding, etc.; about 20 minutes for questions to the "mysterious visitor"

To launch

Divide students into three approximately equal mixed teams, A, B, and C. Ask students on each team to sit near each other.

Ask students to turn to page 145 to 147 of their Gamebooks, *Finders Keepers*, and find the page for their team (Leader's Guide, pages 252-254). Go over the game rules with the entire class and the clues with each team (making changes about where to find the envelopes, if necessary).

Once teams have opened their envelopes, circulate among them to help de-code the messages. (See Leader's Guide, page 251, for a de-coded version.)

Then help the teams find their passwords, choose their questions, and organize themselves to query the "mysterious visitor." Stress the importance of writing down the answers, which will be needed at the next session.

Make sure students are ready before the visitor arrives. Introduce the visitor by name and title. Tell students that due to the visitor's busy schedule, the class has a rare chance to get lots of information at first hand without having to wait for an appointment. Then ask for signals indicating that the teams are prepared to begin the questions.

To sum up

Highlight questions or answers which have generated particular interest. If time permits, encourage students to ask other questions on their lists or questions of their own.

Point out that at the end of the program, students will be able to keep their Gamebooks. Thus they can use these questions again and again when planning each year's high school courses.

Option

On your own, you may wish to compile information that responds to the questions students will ask or fills in gaps not covered by the visitor. Visit the guidance office in your own school or a nearby high school to gather material for a simple Fact Sheet to distribute to your class. It could include information about helpful government publications such as the *Occupational Outlook Handbook* and other current print materials, opportunities to visit local schools or worksites, etc.

If feasible, you might try to arrange a field trip for your students to observe school or work activities.

Finders Keepers

Team A Message in code for Team A's eyes only

Line 1. S55N 2 MYST3R456S V4S4T5R W4LL C5M3 T5 TH4S R55M W4TH.

Line 2. 4NF5RM2T45N TH2T C2N H3LP Y56 2 L5T.

Line 3. T5 G3T TH4S 4NF5RM2T45N, Y56R T32M M6ST G4V3 2 S4GN2L 2ND TH3.

Line 4. C5RR3CT P2SSW5RDS. TH3N Y56 C2N 2SK TH3 V4S4T5R Q63ST45NS.

Line 5. T6RN T5 P2G3 (149)★ 5F Y56R G2M3B55KS. Y56R T32M'S P2SSW5RDS 2R3.

Line 6. H4DD3N 4N TH3 P4CT6R3 2T TH3 T5P. Y56 W4LL 2LS5 F4ND.

Line 7. F6RTH3R 4NSTR6CT45NS.

Code	A = 2	E = 3	I = 4	O = 5	U = 6

★These numbers are <u>not</u> part of the code.

Finders Keepers

Team B Message in code for Team B's eyes only

Line 1. S55N 2 MYST3R456S V4S4T5R W4LL C5M3 T5 TH4S R55M W4TH.

Line 2. 4NF5RM2T45N TH2T C2N H3LP Y56 2 L5T.

Line 3. T5 G3T TH4S 4NF5RM2T45N, Y56R T32M M6ST G4V3 2 S4GN2L 2ND TH3.

Line 4. C5RR3CT P2SSW5RDS. TH3N Y56 C2N 2SK TH3 V4S4T5R Q63ST45NS.

Line 5. T6RN T5 P2G3 (151)★ 5F Y56R G2M3B55KS. Y56R T32M'S P2SSW5RDS 2R3.

Line 6. H4DD3N 4N TH3 P4CT6R3 2T TH3 T5P. Y56 W4LL 2LS5 F4ND.

Line 7. F6RTH3R 4NSTR6CT45NS.

Code	A = 2	E = 3	I = 4	O = 5	U = 6

★These numbers are <u>not</u> part of the code.

Finders Keepers

Team C Message in code for Team C's eyes only

Line 1. S55N 2 MYST3R456S V4S4T5R W4LL C5M3 T5 TH4S R55M W4TH.

Line 2. 4NF5RM2T45N TH2T C2N H3LP Y56 2 L5T.

Line 3. T5 G3T TH4S 4NF5RM2T45N, Y56R T32M M6ST G4V3 2 S4GN2L 2ND TH3.

Line 4. C5RR3CT P2SSW5RDS. TH3N Y56 C2N 2SK TH3 V4S4T5R Q63ST45NS.

Line 5. T6RN T5 P2G3 (153)★ 5F Y56R G2M3B55KS. Y56R T32M'S P2SSW5RDS 2R3.

Line 6. H4DD3N 4N TH3 P4CT6R3 2T TH3 T5P. Y56 W4LL 2LS5 F4ND.

Line 7. F6RTH3R 4NSTR6CT45NS.

Code	A = 2	E = 3	I = 4	O = 5	U = 6

★These numbers are not part of the code.

Finders Keepers

Team C Message in code for Team C's eyes only

Line 1. S55N 2 MYST3R456S V4S4T5R W4LL C5M3 T5 TH4S R55M W4TH.

Line 2. 4NF5RM2T45N TH2T C2N H3LP Y56 2 L5T.

Line 3. T5 G3T TH4S 4NF5RM2T45N, Y56R T32M M6ST G4V3 2 S4GN2L 2ND TH3.

Line 4. C5RR3CT P2SSW5RDS. TH3N Y56 C2N 2SK TH3 V4S4T5R Q63ST45NS.

Line 5. T6RN T5 P2G3 (153)★ 5F Y56R G2M3B55KS. Y56R T32M'S P2SSW5RDS 2R3.

Line 6. H4DD3N 4N TH3 P4CT6R3 2T TH3 T5P. Y56 W4LL 2LS5 F4ND.

Line 7. F6RTH3R 4NSTR6CT45NS.

Code	A = 2	E = 3	I = 4	O = 5	U = 6

★These numbers are not part of the code.

Finders Keepers

Message in Code for Team A

(Decoded version; same for all teams.)

Line 1. S55N 2 MYST3R456S V4S4T5R W4LL C5M3 T5 TH4S R55M W4TH.
SOON A MYSTERIOUS VISITOR WILL COME TO THIS ROOM WITH

Line 2. 4NF5RM2T45N TH2T C2N H3LP Y56 2 L5T.
INFORMATION THAT CAN HELP YOU A LOT.

Line 3. T5 G3T TH4S 4NF5RM2T45N, Y56R T32M M6ST G4V3 2 S4GN2L 2ND TH3.
TO GET THIS INFORMATION, YOUR TEAM MUST GIVE A SIGNAL AND THE

Line 4. C5RR3CT P2SSW5RDS. TH3N Y56 C2N 2SK TH3 V4S4T5R Q63ST45NS.
CORRECT PASSWORDS. THEN YOU CAN ASK THE VISITOR QUESTIONS.

Line 5. T6RN T5 P2G3 (149)★ 5F Y56R G2M3B55KS. Y56R T32M'S P2SSW5RDS 2R3.
TURN TO PAGE ___ OF YOUR GAMEBOOKS. YOUR TEAM'S PASSWORDS ARE

Line 6. H4DD3N 4N TH3 P4CT6R3 2T TH3 T5P. Y56 W4LL 2LS5 F4ND.
HIDDEN IN THE PICTURE AT THE TOP. YOU WILL ALSO FIND

Line 7. F6RTH3R 4NSTR6CT45NS.
FURTHER INSTRUCTIONS.

Code	A = 2	E = 3	I = 4	O = 5	U = 6

★ These numbers are not part of the code. Each team is referred to a different page: Team A to page 149, Team B to page 151, Team C to page 153.

Finders Keepers

Team A

Game Rules

Find out about opportunities in your school system to learn trade and technical skills that can help you prepare for good jobs.

Follow the clues below and see where they lead you. Then, keep the information to use in planning your high school program.

Clue 1. Send a scout to search the room for something that sits on the floor and is usually round and full of crumpled paper.

Clue 2. Taped to the inside of this object will be a large yellowish envelope addressed to your team. The scout should bring the envelope back to the team before opening it.

Clue 3. Open the envelope. Inside you will find a message in code. This means some of the letters of the words have been replaced by numbers. To de-code the message, your team will have to figure out what letters the numbers stand for.

Clue 4. Your team will be able to de-code the entire message faster if different people work on different lines. Then read it all the way through together.

Clue 5. Do what the message says.

Finders Keepers

Team B

Game Rules

Find out about opportunities in your school system to learn trade and technical skills that can help you prepare for good jobs.

Follow the clues below and see where they lead you. Then, keep the information to use in planning your high school program.

Clue 1. Send a scout to search the room for something that is hinged to a frame and opens and shuts to let people in and out.

Clue 2. Taped to the inside surface of this object will be a large yellowish envelope addressed to your team. The scout should bring the envelope back to the team before opening it.

Clue 3. Open the envelope. Inside you will find a message in code. This means some of the letters of the words have been replaced by numbers. To de-code the message, your team will have to figure out what letters the numbers stand for.

Clue 4. Your team will be able to de-code the entire message faster if different people work on different lines. Then read it all the way through together.

Clue 5. Do what the message says.

Finders Keepers

Team C

Game Rules

Find out about opportunities in your school system to learn trade and skills that can help you prepare for good jobs.

Follow the clues below and see where they lead you. Then, keep the information to use in planning your high school program.

Clue 1. Send a scout to search the room for something that stands on four legs and usually has a teacher sitting on it.

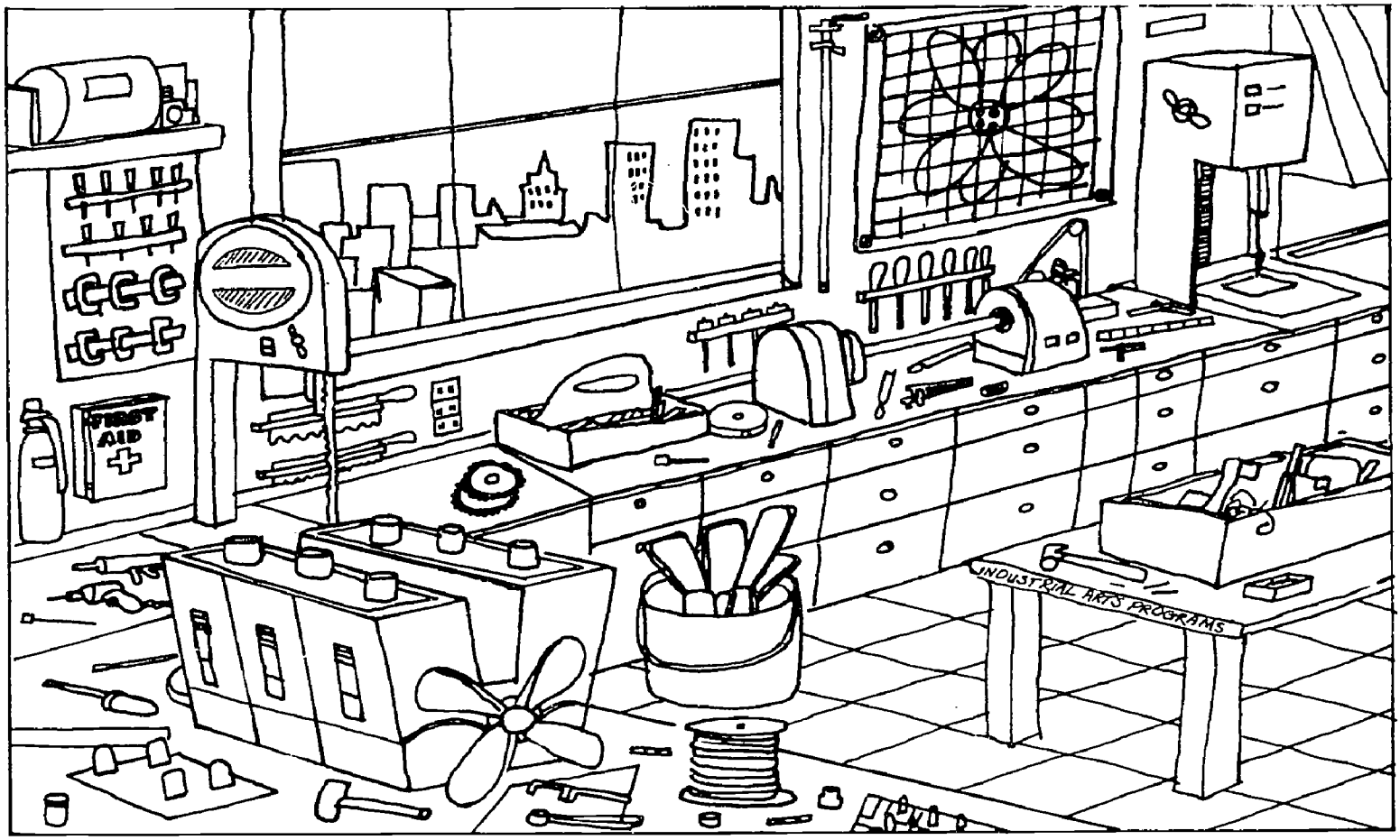
Clue 2. Taped underneath this object will be a large yellowish object addressed to your team. The scout should bring the envelope back to the team before opening it.

Clue 3. Open the envelope. Inside you will find a message in code. This means some of the letters of the words have been replaced be numbers. To de-code the message, your team will have to figure out what letters the numbers stand for.

Clue 4. Your team will be able to de-code the entire message faster if different people work on different lines. Then read it all the way through together.

Clue 5. Do what the message says.

Team A Passwords



Instructions

Find the passwords hidden in this picture.

Next, turn this page over and look at Column 1. These are the questions your team can ask the visitor. Take a vote to choose three questions your team wants to ask.

Then, choose three people to ask the questions your team has picked and three others to write the answers down in Column 2.

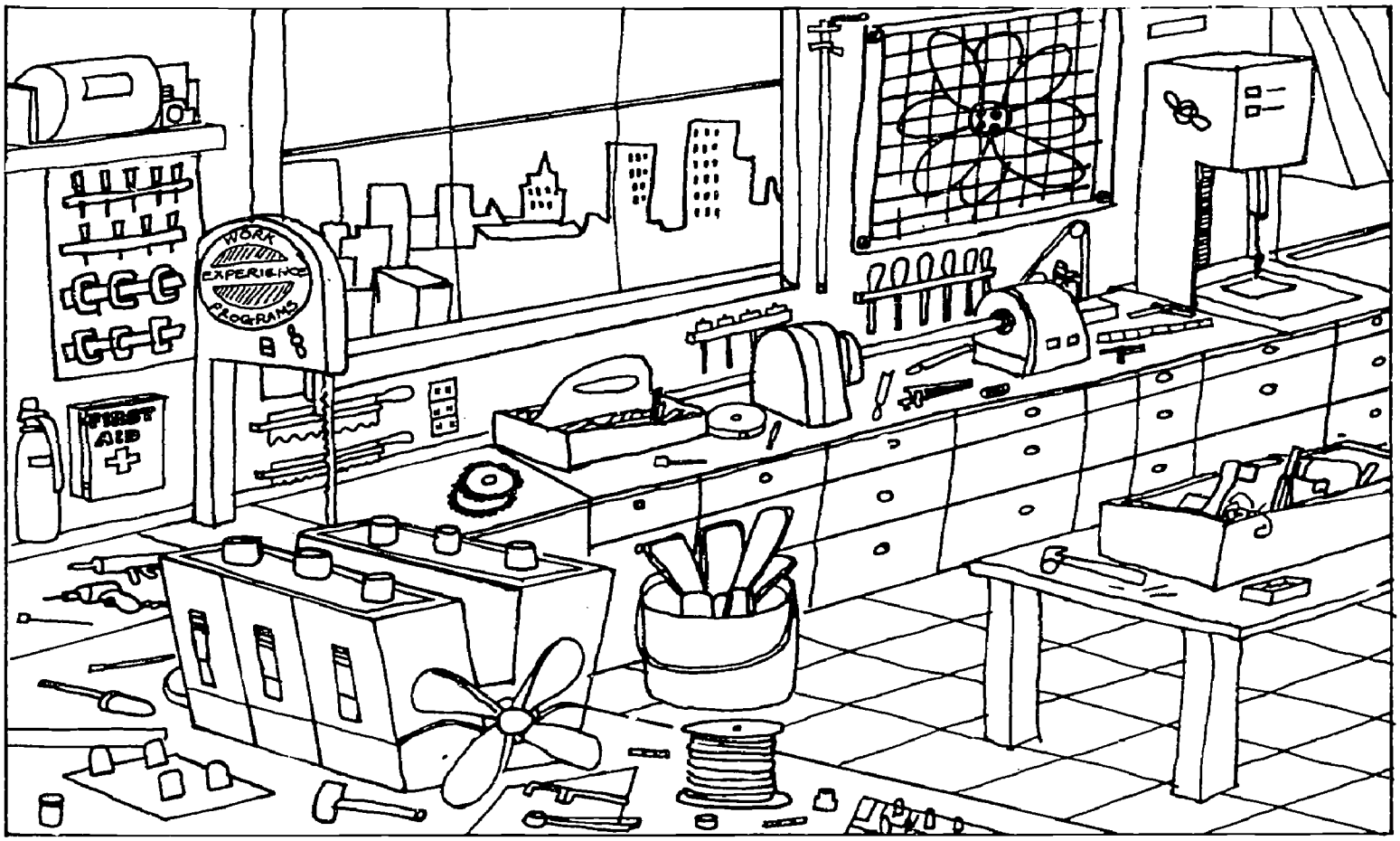
When ready, everyone on the team should give this signal: Put your left hand on top of your head and wiggle your fingers. The visitor will ask for your passwords. If they are correct, your team may begin.

Make sure you write down complete answers to the questions. The class will need them at the next session.

Team A

Column 1, Questions	Column 2, Answers
1. I want to find out what industrial arts courses are given at the high school in my district. Who in my school can give me this information?	
2. I want to find out what I need to do to enroll in industrial arts courses in my district high school. Who in my school can give me this information?	
3. I want to find out what courses are given in other high schools or vocational-technical schools that I can go to in my city. I also want to know how to apply to these schools. Who in my school can tell me?	
4. I want to look at catalogs or course lists describing industrial arts courses at different high schools. Who can help me get catalogs?	
5. I want to see what students do in high school or voc-tech school courses. What kinds of things do they work on and what tools do they use? Could I visit a class sometime? Who in my school can I ask to arrange this?	
6. Does your team want any other information about industrial arts courses? If so, ask a question of your own.	

Team B Passwords



Instructions

Find the passwords hidden in this picture.

Next, turn this page over and look at Column 1. These are the questions your team can ask the visitor. Take a vote to choose three questions your team wants to ask.

Then, choose three people to ask the questions your team has picked and three others to write the answers down in Column 2.

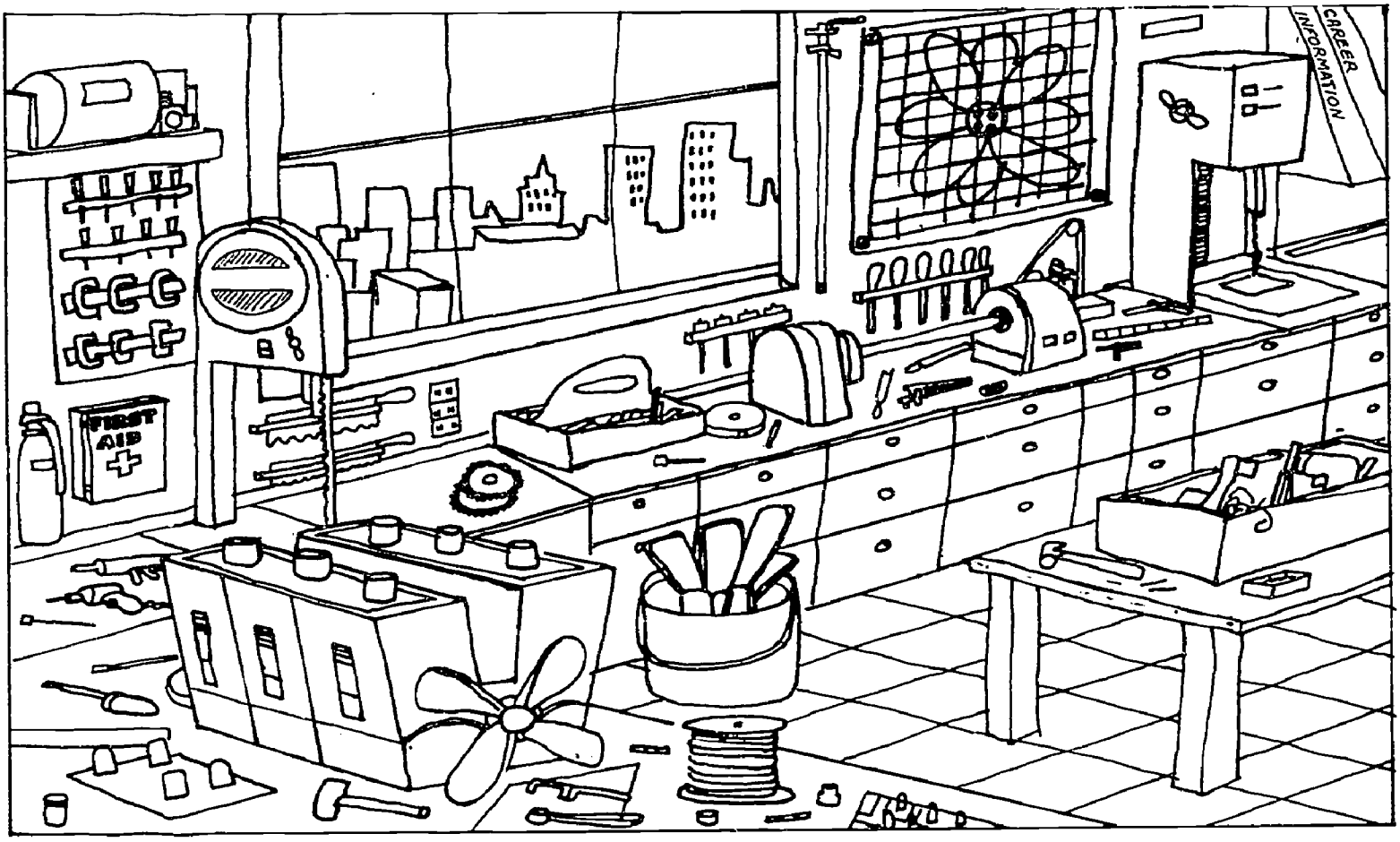
When ready, everyone on the team should give this signal: Put your right hand on your right shoulder and move your elbow up and down. The visitor will ask for your passwords. If they are correct, your team may begin.

Make sure you write down complete answers to the questions. The class will need them at the next session.

Team B

Column 1, Questions	Column 2, Answers
1. What is a work experience program? How can it help me learn technical skills?	
2. Do all high schools have work experience programs? What are they usually called? At what grade level do they start?	
3. I want to find out about work experience programs given at the high school in my district or in other schools in my city that I can go to. How can I get catalogs describing them? Who in my school could talk with me or with my parents about them?	
4. How do I enroll in a work experience program? Do I need to take certain courses or anything before I can get in? Who can tell me about this?	
5. If I try being in a work experience program and don't like it, can I get out?	
6. Does your team want any other information about work experience programs? If so, ask a question of your own.	

Team C Passwords



Instructions

Find the passwords hidden in this picture.

Next, turn this page over and look at Column 1. Th se are the questions your team can ask the visitor. Take a vote to choose three questions your team wants to ask.

Then, choose three people to ask the questions your team has picked and three others to write the answers down in Column 2.

When ready, everyone on the team should give this signal: Cross your arms in front of you and touch your left eyebrow with your right hand and your right eyebrow with your left hand. The visitor will ask for your passwords. If they are correct, your team may begin.

Make sure you write down complete answers to the questions. The class will need them at the next session.

Team C

Column 1, Questions	Column 2, Answers
1. I want to find out more about the different occupational fields we've been talking about in this program. Where in my school can I go to get information?	
2. I want to find out what courses I should take in high school that can help me get into a technical job. Suppose I wanted to work in one of the fields in this program. How can I learn about the courses that will help me most?	
3. I want to find out whether I'll need post-high school training to get a job in one of the occupational fields. Where can I get information about this?	
4. Suppose I wanted to move to a different part of the country after I finish school. How can I find out what kinds of jobs there are in different places?	
5. If I take courses to learn skills for one occupational field, how can I find out about the different kinds of jobs that use these skills?	
6. Does your team want to know anything else about getting career information? If so, make up a question of your own.	

Mission Possible

Purpose

To help students gather additional information about trade and technical occupations and related school training. Items collected will be used in the next session to make posters for school display.

What students will do

Students will conduct "outside research" by collecting interview responses from people in trade or technical occupations and older students taking vocational-technical courses. They will also fill out reports on media images of women in nontraditional jobs. These activities will be a homework assignment.

Supplies needed

- students will remove the appropriate pages from their Gamebooks and take them home to do the "research"

Leader preparation

Read the activity carefully. Plan how to make it work in your class.

Try obtaining interviews yourself with a person working in a technical job or an older student you may know. Also look for articles, ads, cartoons, photographs, radio or TV items about nontraditional women workers.

During the interval between sessions, make arrangements about displaying the class posters on a bulletin board in a school corridor, guidance office, or other public place.

Time needed

At least 5 minutes to explain the homework assignment and why it is important to bring items back for the school display

To launch

Students should remain in the teams formed for the previous activity. Ask them to turn to pages 155-159 of their Gamebooks, *Mission Possible*, to find the Outside Research assignment for their team (Leader's Guide, pages 262-264).

Ask students to read their team's pages to see what their assignment is and how to do it. Help them with any questions they may have. Make sure they remove the pages from their Gamebooks to take home.

Option

Invite a skilled worker or an older student in vocational-technical training to visit the class and talk about their experiences during the next session. Students can interview the visitor, using the homework assignment formats.

Mission Possible

Team A - Outside Research

People who work in skilled and technical occupations can give you "inside" information about their jobs.

Your assignment is to have a short "interview" with a man or woman who does technical work -- someone in your own family, or a neighbor or friend, or a person in a nearby business or store.

Take this page out of your Gamebook and use it for your interview assignment. Ask the questions below and write the answers here and on the back. Do not let the page self-destruct. Bring it back to school for the next session.

1. What do you do on the job?

   Answer: _____

   _____

2. How did you become interested in going into this occupation?

   Answer: _____

   _____

3. What skills did you learn in school that help you in your job?

   Answer: _____

   _____

4. If I wanted to do work like yours, what courses would be important for me to take in school?

   Answer: _____

   _____

Mission Possible

Team B - Outside Research

Older students who are in industrial arts courses or work experience programs in high school or who are taking post-high school technical training can give you "inside" information about what these courses are like and how they are helpful.

Your assignment is to have a short "interview" with a girl or boy taking a high school or post-high school course or program -- someone among your family or friends, or someone who lives in your neighborhood.

Take this page out of your Gamebook and use it for your interview assignment. Ask the questions below and write the answers here and on the back. Do not let the page self-destruct. Bring it back to school for the next session.

1. What do you like best about the course (or program) you are taking?

   Answer: _____

   _____

2. What don't you like about it?

   Answer: _____

   _____

3. What made you decide to take this course (or program)?

   Answer: _____

   _____

4. Has taking the course (or program) helped you make decisions about your future career? How?

   Answer: _____

   _____

Team C - Outside Research

More and more in the media -- on TV and radio and in newspapers and magazines -- we see items about women working in skilled and technical jobs along with men.

Your assignment is to collect materials for a class media "display" on women in nontraditional occupations.

Take this page out of your Gamebook and use it for your media assignment. Divide your team into three groups. Each group should pick one of the activities below and collect items for the display. Do not let the page or the items you collect self-destruct. Bring them back to school for the next session.

Group 1. Look through newspapers and magazines for articles, ads, photographs, or cartoons about women in nontraditional jobs. Cut them out carefully so they can be used for the display.

Group 2. Watch TV for a while. See if you find programs or commercials that feature women in nontraditional jobs. Write a brief report about one or two. Use the back of this page if necessary.

1.) _____ 2.) _____
(Name of program or commercial) (Name)

_____ _____
(Kind of job woman held) (Job)

_____ _____
(Will it help viewers understand more about women today? Why?)

Group 3. Listen to the radio for a while. See if you hear programs or news broadcasts about women in nontraditional jobs. Write a brief report about one or two. Use the back of this page if necessary.

1.) _____ 2.) _____
(Name of program or news broadcast) (Name)

_____ _____
(Kind of job woman held) (Job)

_____ _____
(Will it help radio audiences understand more about women today? Why?)

Module 14

Posterpower

page 267 Activity 1 Spreading the Word

Spreading the Word

Purpose

To encourage students to share information with their schoolmates about:

- ways to learn trade and technical skills in school
- different kinds of trade and technical jobs
- new nontraditional job fields for women

What students will do

Students will prepare an exhibit which displays information on large posters for school bulletin boards.

Supplies needed

- Gamebook and pencil for each student
- a supply of manilla folders (or 8½ x 11" paper boxes)
- a supply of large poster boards
- scissors
- colored felt-tipped markers
- transparent tape or glue
- a supply of blank paper

for students to share

Leader preparation

Read the activity carefully. Plan how to make it work in your class. Make arrangements for displaying posters in the school.

Make category labels for folders or boxes, using suggestions from *Putting It All Together* (Leader's Guide, page 269).

Classify and put in the appropriate folders (or boxes) the clippings and other items you have collected. Try to have an extra supply of news magazines, etc. on hand, along with some blank paper for students to draw or write on. Lay all the materials out on an accessible table. Students can use them to supplement what they have brought in. Start a sample poster yourself.

Time needed

At least 45 minutes. (If you have arranged to have outside visitors come in for class interviews, shorten the poster activity accordingly.)

To launch

Tell students that the class is going to make an exhibit for the school. It's a way to inform other students about ideas and facts they have learned through the program.

Ask students to pool all the "outside research" information they have gathered by filing their homework materials in the category folders (or boxes) on the table. The whole class will be using these files.

To launch (continued)

Ask them to turn to pages 161-163 of their Gamebooks and go over the how-to information for this activity. *Putting It All Together* (Leader's Guide, page 269; Gamebook, page 161) suggests ways to organize and display poster materials. *Definitions* (Leader's Guide, page 270; Gamebook, page 162) provides meanings of words or terms that relate to different topics the program has covered. Students may want to include on their posters some definitions or facts from previous Gamebook activities to help their schoolmates understand the issues. Questions and answers from the "mysterious visitor" at the last session (*Finders Keepers*) might be used to highlight school information. The *One Picture Is Worth 1000 Words* cartoon (Leader's Guide, page 271; Gamebook, page 163) can also be used on a poster to illustrate an idea.

Show the poster you have started and demonstrate techniques for pasting on items, writing quotes, etc.

Then, ask students to form mixed groups (about 5 students). Each group should choose a title and make one poster, taking materials from the files on the table or creating their own. Circulate among the groups to help where needed.

To sum up

Hang the posters around the room. Ask students from each group to tell why the information on their poster is important for other students in school.

If feasible, have students arrange posters on school bulletin boards.

Spreading the Word

Putting It All Together

Some information categories	• People in trade and technical occupations • Students in training courses and programs • Women in nontraditional jobs • Interesting facts or definitions we've learned • Make up your own
Some ways to use materials	• Cut out or draw pictures of people or faces. Draw a balloon from their mouths and write in what they say, using real quotes from class research. • Make a map showing roads leading from school courses to jobs in trade or technical occupations. Paste on pictures of workers or students and write their quotes at places along the roads. • Make an interesting arrangement of pictures, cartoons, descriptions of TV programs, news items, etc., highlighting with felt-tipped marker new ways that women are earning a living. • Make groupings of photos or your own drawings. Put captions under them, using facts or definitions from pages in your Gamebook. • Make up your own
Some poster title suggestions	• Let Me Tell You What I Do . . . • School Routes to Good Jobs • Fashion News: Hard Hats for Women! • Did You Realize That . . . • Make up your own
Some layout ideas	• Stick to one basic idea for each poster. Give it a catchy title. • Don't crowd on too many items. • Vary photographs, news clippings, drawings, quotes, etc. • Call attention to special facts or ideas by using different colors. • Make up your own

Definitions

School definitions

Comprehensive High Schools - Schools which offer mostly academic subjects, but include some occupational courses. Also known as regular or senior high schools.

Vocational-Technical High Schools - Schools which offer half-time occupational training and half-time academic subjects.

Work Experience Programs - Supervised out-of-school activities, paid or unpaid, to help students learn occupational skills.

Cooperative Education Programs - School programs for credit that involve out-of-school experience at a worksite.

Work Release Programs - School programs for credit that involve out-of-school, paid, part-time work.

Work Study Programs - Jobs for students that are paid, in part, by federal government funds.

Prerequisite Course - A school course that must be passed before a student can enroll in more advanced courses in related areas.

Elective Course - A course that is not required for everyone but is one of several that students can choose from to fill out their school programs.

Work definitions

Skilled Trades - Occupations which require special skills to do the work. Carpenters, electricians, mapmakers, draftspersons, etc. are skilled trade workers.

Entry Level - The beginning level of a job which usually requires only basic skills and a small amount of experience.

On-the-Job Training - A chance to learn while earning. Trainees are paid as they work and are taught new skills.

Apprenticeship - One of the oldest ways of acquiring skills. For two to four years, apprentices work, learn, and earn through on-the-job training and related classroom instruction.

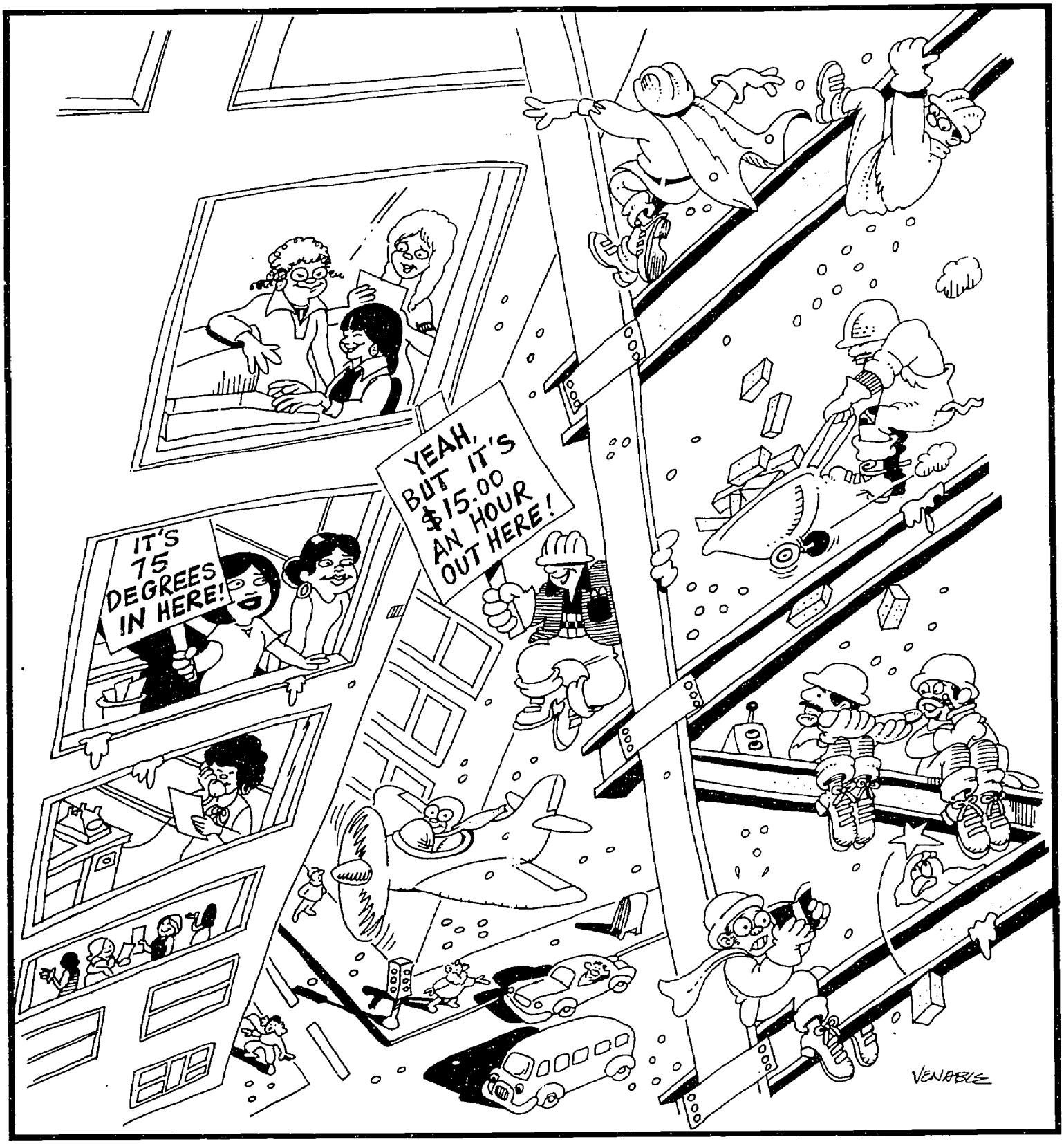
Labor Union - An organization of workers formed to protect and improve the rights, wages, and working conditions of members. Many unions offer apprenticeship training programs.

Fringe Benefits - Other rewards, in addition to regular wages, that workers in certain jobs are entitled to. Medical insurance, bonuses for extra work, paid vacations and holidays are typical fringe benefits.

Resume - A written summary of a job applicant's education and experience that is given to employers.

Leader's Guide, page 271
(Gamebook, page 163)

One Picture Is Worth 1000 Words



Module 15

Problem Solving

Hello, You're on Livewire Hotline!

Purpose

To let students solve typical problems involving girls and non-traditional training or jobs.

What students will do

Students will respond to "hotline" calls for advice.

Supplies needed

- Gamebook and pencil for each student

Leader preparation

Read the activity carefully. Plan how to make it work in your class.

Time needed

At least 45 minutes

To launch

Ask students to turn to pages 164-165 of their Gamebooks, *Hello, You're on Livewire Hotline!* (Leader's Guide, pages 276-277). Explain that Livewire Hotline is a telephone counseling service run by young people their own age.

Ask a student to start by reading aloud the request from the first caller. Then ask another student to "take the call" and give some advice. To get other viewpoints, let other students also respond to the call. Continue through the rest of the callers' requests, allowing a variety of responses each time.

For each of the questions raised by the callers, some positive and practical suggestions are offered to supplement the students' own responses. These are listed in *Points to Mention* (Leader's Guide, pages 278-280). You may wish to add these ideas to the class discussion.

To sum up

Ask a few students to make up other problems and "phone them in" to the hotline. Ask others to provide answers.

At the end of the session, point out that lots of questions come up when we think about women, work, and nontraditional occupations – and there are no easy answers. It takes time for people to become comfortable with new ideas and changes. But this program has tried to show that it's important for boys and girls to try things out for themselves and to take advantage of all opportunities that can help them in their working futures.

Leader's Guide, page 276
(Gamebook, page 164)

Hello, You're on Livewire Hotline!

Tell Us What's Bugging You...

1. Uh, well...I've got a sort of embarrassing question, but if I don't have to tell you my name, I guess I'll ask it anyway. I've been taking a Machine Shop course. I've learned how to work with all this heavy equipment...and I do mean heavy...but the funny thing is, I like it. I want to go on to more training and eventually get a machinist's job. Anyhow, my boyfriend says I'd better give it up before my biceps get too big. He always teases me about my muscles and makes jokes about me pumping iron. Is it really true that if a woman does this kind of nontraditional work, she'll...you know...split all her seams?

2. Listen, I need advice. I'm 14. My name's Tina. I don't know what I'm going to be doing 10 years from now. But one thing's for sure...I hate the idea of sitting in an office all day. I'm sort of interested in fixing cars and maybe going to voc-tech school. I've heard you get good pay in those jobs. The problem is, I live with my grandmother and she says that's not what girls should try to do. What can I say to her so she'll at least let me see what it's like for a while?

3. Hi. My name is Mike and I'm in a Metal Fabrication course in my high school. I've gotten to know this girl in the class and she's really good at doing the stuff we work on. But she's going to quit because she's always getting hassled by her girlfriends. They say the only reason she's in the class is to hang out with the guys. Myself, I think she should stick with it, but nothing I say convinces her. Got any ideas? Besides, what's wrong with girls wanting to hang out with guys?

4. Gee, sometimes I wonder about women trying to work on jobs with men. I'm the only girl on a construction site with a bunch of guys. It's part of a work experience program in my school and I've been there a month already. The men aren't mean or anything, but, boy, do they keep to themselves. I get the feeling they think I'm from another planet and that they're telling jokes behind my back. I like the work a lot and I'd really like to get to be part of the group. How can I do it?

5. Good evening. I'm hoping you can help settle a family argument. My daughter's been taking an Electricity course in her school and I'm afraid she's gotten a little carried away. Now she's talking about trying to get into apprenticeship training and joining the electrical union. I've been around the building trades myself for over 20 years and let me tell you, women aren't exactly welcome in these jobs. Will you please straighten her out? I mean, what kind of employer will hire her?

6. Is this the hotline? My girlfriend told me to call you and check something out. We're in the 9th grade and we were assigned to these typing and business courses. That's fine for lots of girls, but we'd rather take industrial arts. I want to take Wood Shop and she wants Metalworking. We've talked to the guidance office and were told that girls do better in the office courses than in the shops. And also that office training would be more helpful to us in the long run. What bugs us is this: how can someone else know how we'd do in a course before we've even tried it? What can we do about this?

7. Are you real people on this hotline or are you a tape? I'm Dan. I go to voc-tech school, you know, with mostly boys. But now there are some girls taking classes in engines and motors just like we do. And that's cool... no complaints. In fact they do better than a lot of guys. But I've been noticing something. Girls seem so unsure of themselves. They're always asking me or another guy if they're doing things right or if their work is OK. How should we know? We're just learning the stuff, too. It bugs me that girls don't understand that. What should I tell them next time?

8. Hello hotline. You've got to help me decide something fast. Here's the problem. My school's giving a summer program in Construction Carpentry and my teacher's asked me to be a sort of crew chief. It means I'll probably be supervising a pack of boys. I'm not too sure it'll work out. You know, boys don't like to take orders from girls and I'm sure they're going to give me a hard time. Should I take the job? I have to say yes or no by the end of the week, but I don't want to be signing myself up for trouble.

9. Hi there. I don't know if I should be calling you or Ann Landers. Something's really getting to me and I'm running out of ways to handle it. I take this Drafting class in my school and I'm the only girl. I'm doing it because I'm thinking about maybe being an engineer or something. That kind of work's a good deal. But the boys in my class act as if I'm kind of a Barbie-doll idiot. If they're not bugging me for dates, they're offering to do my homework for me. It's a drag to go through this all the time. Can you give me some thanks-but-no-thanks tips?

10. Hello. I'd like to talk to someone who understands a mother's point of view. My 13-year-old daughter, Tracy, goes to school where girls take the same industrial arts program that boys do. I'm worried about some of these working-with-your-hands courses. Tracy says she wants to go on to college. I admit that knowing how to use tools is useful for a woman, but I don't want her to waste valuable school time. My question is, are classes like this really going to help her get ahead? I think other parents are concerned about this too. What do you think?

Points to Mention

1.

- Strong doesn't always mean big. Sounds like your body's becoming firm and fit which is very "in" these days, for boys as well as girls.
- Learning to make your muscles work better in a nontraditional job is no different from what female dancers, divers, and gymnasts do in their work.
- Tell your boyfriend that when you get to be a full-fledged skilled machinist, you'll be one of the trimmest women in town. The only fat thing about you will be your weekly paycheck.

2.

- Tell your grandmother that many schools now require girls to take industrial arts courses so they can find out about different kinds of careers. Invite her to visit a shop class in your school so she can see what it's like.
- Help her understand that women are now interested in nontraditional work because the wages are better than in most traditional women's jobs, and that there really are good job opportunities, since employers are looking for qualified women in these fields.
- Explain that it's easier now for girls to choose training and work that they like; women are no longer limited to the occupations that people have always expected them to enter.

3.

- Peer pressure – what friends think and say – is always important. But it's equally important to be independent and even risk a little hassling to find things out for yourself.
- Tell your friend to talk with her teacher or guidance counselor to sort out her feelings and figure out what matters most to her. She may get some ideas on how to go her own way and still keep her friends.
- She could urge her girlfriends to take the class with her and meet the guys too.

4.

- It may take a while. Men aren't used to having women around on jobs like this, so they aren't going to change their daily work habits in a hurry.
- Most women in nontraditional jobs have found that it pays to put a lot of energy into doing the job well. It may not immediately help the feeling of being "left out," but eventually your male co-workers will get to respect you for being a reliable member of the crew.
- Be friendly and open yourself. Acceptance is a two-way street. There's bound to be at least one fellow who's less stand-offish. Try starting a conversation with him to break the ice.

5.

- Many employers are now hiring women. They must comply with laws requiring companies holding federal contracts to hire a percentage of minority and female workers.
- Although some companies and unions don't exactly roll out the red carpet for women job applicants, changes have taken place in occupations that used to be for men only. The want ad-pages in any newspaper will show how widespread such changes are.
- Skills are what employers are looking for today. They want young people – of both sexes – with high school courses and experience that will make them worth training further. Your daughter is smart to be interested in improving her skills.

6.

- Title IX, a federal law, forbids sex discrimination in education. Every student has an equal opportunity to enroll in almost all school courses and programs. Class assignments cannot be made on the basis of the personal opinions of school personnel as to what may be more beneficial for students of one sex or another.
- Many schools have Title IX Coordinators whose jobs are to help schools and students carry out this law properly. Try talking again with your guidance counselor, see your principal, or contact the Title IX Coordinator in your school (or your school district). You have a right to bring this problem to school authorities and have it resolved to your satisfaction.
- Most schools, all across the country, are very eager to have girls try out nontraditional courses. Yours may be just a little behind the times.

7.

- Many girls haven't had the chance, as they were growing up, to tinker with mechanical things or handle tools. Unlike boys, girls traditionally have not been encouraged to try these activities. It's no wonder that most girls feel ill-at-ease with machines and motors.
- Say to the girls in your class what you'd say to boys: We're all in the same boat, learning new things, making mistakes, trying again. A friendly comment like this can help girls gain self-confidence on their own.
- Put yourself in their shoes. You might feel just as uncertain if you were making a cake or sewing a shirt for the first time.

8.

- Your teacher has paid you a great compliment. You've obviously done good work in class and have the skills to handle this job.
- It's wise to anticipate problems that might occur this summer, but it might be better to focus on ways to solve them rather than say no to the opportunity. Figure out how to "give orders" without sounding bossy. If things get sticky, try to separate complaints about the job from complaints about you. Understanding this can help avoid hurt feelings and will earn you the respect of your crew.
- Talk to your teacher or other adults about things you think might come up and how to manage them. And by all means, talk to some boys you know and trust; their advice can be very helpful.

9.

- Be friendly and firm in telling boys that you know what you're doing and that it's important to you to make it without their help in this class. You're looking far down the road and want to get there on your own.
- As for dates, tell them with a smile that they can call your secretary for an appointment – after school, when you've finished your homework.
- Keep in mind that it's not all bad for boys to pay attention to you this way. Some may be rude, others unnecessarily protective, but some may genuinely be showing interest in you as a person doing something special. Don't knock it!

10.

- Far from wasting time, your daughter is learning skills that can help her later on in a number of technical and professional job fields such as engineering, architecture, environmental management, etc. These are considered promising careers for women today.
- The courses that offer hands-on training also help students learn how to apply and strengthen their math and science abilities for college.
- Young students like your daughter should be encouraged to explore many different types of school opportunities. At age 13, it is too early to close off any educational possibilities that may lead to a productive occupational future.

Student Reactions

Name Cheryl Gaylor

Activity	How much did you like this activity? a lot	some	very little	How much did you learn in this activity? a lot	some	very little	What did you learn?
Predictions	X			X			It made me think about what I going to do.
Real Life Slices		X			X		I learned why women work
Lorraine and Larry	X				X		I liked filling in the blanks
Candid Camera Comics		X			X		Not only boys do rough things
Picking Up Signals		X		##		X	I already knew that stuff.
NTOA and Friend	X			X			Don't have a one track mind.

Student Reactions

Name _____

Activity	How much did you like this activity? a lot	some	very little	How much did you learn in this activity? a lot	some	very little	What did you learn?

Sound Filmstrip Presentation

WOMEN AT WORK - Script

What is a girl doing in a job like this?*

(Title Frame - WOMEN AT WORK)*

Don't get me wrong, now. I'm not against women working, but how come you don't choose a woman's job? You know, like being a secretary, or nurse or something like that?*

They feel that she's taking a job away from a man who may have a family somewhere, that she could go out and find herself a husband and be supported.*

The thing is, I need the same kind of money that a man earns. I've got to take care of myself and my kids and I just can't do it on the jobs that most women have. Believe me, 'cause I've tried it!*

Well, when you talk to other men, some men say they don't want to work with women because they don't want to pull their share of the load, you know...*

I never thought I would want to, or even that I could, actually do a man's job.*

Now I know I can do it...I only wish I had learned these things when I was in school...I should have taken the same courses that boys took!*

---

*Frame changes.

They had to prove themselves, and they did in my books. She's proved herself that she can handle it just as good any, any man, can.*

That's the hard part, being treated different, 'cause you'd rather just go in there and not even be noticed. You know, just go in and do the work and forget it.*

It's been very good. I think it's...I've grown a lot as far as my feeling about, ah, women, their capabilities and actually their place in life and that every woman is an individual and different than the other.*

You have to get the training. You have to learn how to use your body as well as your mind. You know, just work it together and go to a job knowing that you can do it and feeling really confident in yourself.*

My name is Hilda Gibbs. I am 33 years old, I'm married, I'm the mother of three children and I work for Greater Boston Community Development doing building maintenance. When I was younger, I didn't think, you know, I wasn't really thinking about nontraditional work. I thought mostly about being a housewife and a mother* and just doing maybe...I wanted to be a nurse at first, and so the family came first, and then I figured maybe later nursing.* But, I didn't really, after working in a hospital for a while, I didn't want that. You know, that just wasn't what I wanted.* And I like maintenance work because you do different things every day. You do a variety of things and I like working with my hands. So, maintenance, you know, I liked this much better.* Like, the tenants call in what repair work they need to be done. Sometimes we put in a door jam and we do locks,

and we do* a little bit of plumbing, like putting in a washer in the sink or either in the bathtub. And we do lights, like putting in a small light fixture.* I have been on the job now for about a year and a half. We started out with three women. So we dropped one, she didn't like the work, and so it is just Amy and I on the team now, together.*

Amy and Hilda, they seem to like it. I learn a little from them and they learn a little from me. We all get along pretty good. But, well,* when you talk to other men, some men say they don't want to work with women because they don't want to pull their share of the load or don't understand the job. And they think they have to do most of the work.* But it is not like that since I've been working here with Hilda and Amy. Everybody pulls their share of the load and it all works out pretty good. I like it, I really do.*

The tenants, they're very amazed when they see Amy and I come in with our tool boxes. They just stare and look and they say, well, "I wonder, do these ladies know what they are doing?" you know.* And they ask all kinds of questions about how did we get the training and what did it take to go through the training, and everything. They say, like, they've been needing this job done for a year, they been waiting to have this job done and we just come right along and do it. And they say, well,* sometimes the women work out better than the men because at least they get the job done. Well,* my husband, he asked me, he say, "You really want to do this kind of work?" I said yeah and he said, "Well, it is up to you if this is what you want to do."* But after I did a few things, like, I hooked up a doorbell, he didn't think it was going to work, but it did. And then* I put up the light in the kitchen, so he became encouraged about it.

He was telling everybody what I was doing and what not. So he began to like the idea, all about it.* My children are very pleased about the work that I'm doing. They see me doing things around the house and they are excited about it, they really are. I was talking* to my daughter about it, she's thirteen, and I was asking her if she would like to do different things like that and she said if they had woodworking in the school she thinks she might be interested in something like that.* Erik, he's seven and he comes and asks me about his bicycle sometimes, you know, to help him out with his bike. So we all get down there and we work on it a little bit. So they seem to be pleased about it.* Amy, she started out really liking electricity but then I don't know what happened. She, she likes plumbing more now,* and I like electricity, like, when we have to do electrical work, mostly, I do it. I was talking to an electrician the other day and I told him, I asked him did he need an apprentice and he was saying,* "Yeah, sure I need an apprentice. Do you want to do electrical work?" I said sure, I would love to. So we were sort of like kidding but I told him, I say, "Well,* whenever you come to do a job, I want to make sure I am right there so I can watch and see exactly what you are doing." Maybe if they have a class coming up, I am thinking of enrolling in one of the electrical classes.* I think that is going to be my goal, doing electricity.*

I'm Sandy Bailey and I am 23 years old and I am an Engineer on the Railroad.* I would never have even considered being an engineer. I mean, it wasn't something that I thought of as I was growing up, that I would love to be an engineer or even to work on the railroad or anything.* But then when I went through the YWCA Training Program, it made me start thinking about all kinds of things that I never would have considered as a career. And by*

the time I finished up with their program, the B&M Railroad came along offering jobs, all kinds of jobs. I* didn't know when I applied with them if I would end up working on the track crew or being an engineer or it could have been anything, really.* But I was interested because of the variety of work available and because of how different it was going to be. A lot different from working inside.* My other jobs had been waitressing and a little clerical work and stuff like that. I really hated it but, you know, it was about the only way I had for getting a job.*

Well at first when I found out that we were getting these girls down here to work I was a little leery. I thought there was gonna be a lot of trouble.* Just that I really didn't think they were, they could handle the job. The other men, I think they had the same feeling as me. What is a girl doing on a job like this?*

When I first started here, I just...everything but everything was new, completely. This whole language on the railroad is unfamiliar to anyone from the outside and it took a while to get used to that.* And just the whole scene, the whole set-up, of all the different trades and all the men that work here and are mainly unfamiliar with having women around them, at work.* So it has taken quite a while to feel at home in their...I still don't feel at home in their scene. But I'm accepted in it now, it has just taken a while for them to get used to seeing me here every day.*

She's proven herself. She knows the yard, she knows everything and she's careful of what she does. When you are moving engines around here, I mean, you got to be careful.* She looks around, walks around the engine before she makes a move. And when she is making the move,* she's running down the tracks, she goes slow, what I like, and she just does a good, careful, nice job, and that's what I want.*

Some of the guys would come up and say, "Gee, I am really glad you're here, you know, it's a good thing," and so on and so on. And other guys would just not talk to me for quite a long time. They would be, they just wouldn't know how to act or what to do * you know. It's hard to know what to expect. You have to be willing to expect just about anything if you are going to take on a job like this.* And the physical part of the job is not what is the most difficult and that is what the guys think is the most difficult. My job, in particular, as an engineer is not especially physical.* I sit on an engine a lot of times and just move the levers and what not to make the engine move. But* every time that I do actually have to do something, they are real surprised that I can do it and they think it is too hard for me and all that. But* that is really ridiculous because I don't do that much heavy work at all. So the physical part of the job is nothing.* I've always liked to drive things--drive trucks, drive cars, drive motorcycles--* so I actually get a lot of enjoyment out of running the trains around on the track. I really like that.* I can't think of a job a woman couldn't do. I think that most anything a woman could think of that she might want to do, a young woman,* go ahead and try it, I would say, go ahead and try it because it will be an added dimension to your life. But it is worth it and it is fun and there is a lot to learn. And*

you can actually learn a lot about you--self-respect, self-esteem, who you are and what not. You may not want to do it forever. But it sure can't hurt you to try it.*

My name is Migdalia Nieves. I am 20 years old and I am a painter.* When I was going to school I didn't have no hobbies, I didn't do much of anything. Just, except after school, go out with my friends. I wasn't thinking about nothing else.* When I quit school, when I quit, I was in the eighth grade, but I couldn't find no jobs because I was young then.* But then, a year after, I went back to school and they put me in the eighth grade and I felt a little bit bad in a way because I had my age already and I was around 15, something like that.* But I still wanted to go back to school and try to finish it, because sometimes if you don't have your GED or your high school diploma, it is kind of hard for you to get a job. But, anyway,* at that time I had a son already, so I had to support him and myself. That means I was depending on myself, not depending on nobody else.* Before that I was on Welfare, but then I heard about the Training Program that a girlfriend of mine had gone to and she told me about it and I thought it was interesting.* I went and took painting, carpentry, and electricity. The other women, they liked carpentry, others liked electricity, you know, they took other courses.* But I, I stick, you know, to painting. I found it more interesting for me.* After the course was over I went to a couple of interviews, but in a way, they turn away because I was a woman. The first time* when you go in there, you fill out a form. You say you want a job for painting. They look at you, you know they say, like, "You crazy or something?"* But three weeks later, I found the job that I got now from Third World. When he told me that I had a job, I said,

well, that's good, you know, I felt good.* I was happy because I got a job and I was off Welfare. I was independent plus I was getting a lot of money.* At first they told me that I was the only woman there and I was afraid a little, but I started. I was nervous. So* the supervisor was always behind me looking at me, and since they never had a woman painter, they were surprised what I was doing.* So, a lot of them started saying like I'm not strong enough or I am too short to do this or too short to do that. And* they said I couldn't lift, like, a 5 gallon of paint, and things like that. But after a couple of months you* see them all and they all want to work with me because they know that I could do the job. At first* we started painting outside in the summer. That was really interesting. Some people are afraid going up the ladder, and things like that. I was never afraid.* As a matter of fact I felt good going up the ladder and let people seeing me, that a woman is painting. One* thing that bothered me a little is that when I used to go into the stores in my painting clothes, they used to look at me and think I was crazy or something. And* they go, you know, "What have you been doing painting your house?" And I say, "No, I'm not painting my house, I've been working for a company. You never seen a woman painter before?"* He goes, "I mean I heard of it, but I never thought you know, they could paint!" You know, I say, "Well, I could paint. I mean, I'm a professional." And after the* summer was gone, we painted all the outside houses. Then we got to the insides.* Now inside you got to do mostly a lot more work than you do on the outside.* You do a lot of high ceilings, repairing on the walls,* you've got to sand down, you've got to caulk the walls up, the holes and things like that. There is a lot of work in it.* Someday, when I have been painting for a couple of years or something like that, you never know, I could have my own company. You know, I could become big one on these days

and* say oh, a woman, she is making a lot of money. She's having men working for her and things like that. You never know what you can get up to.* I think that if you put your mind to it, a woman especially, even though...don't listen to people, what they say--"You can't do it" and* "Don't get into that because that's a man's job." Don't listen to them. You do what you want to do, and if you like it, then you stick with it.