A broad educational background is necessary to meet ever changing occupational fields, and career education is an approach incorporating career information within regular school curriculum. For the elementary level, career awareness is the main thrust in this program to integrate students and community. The format for grade five, performance objectives and criterion test rationale, and major objectives are included in the introduction. The teacher aids section provides suggestions for both group and individual activities, and the guidance component includes eight activities planned as a guidance kit directed towards self-understanding and awareness of interpersonal relations and independence. The career units cover seven occupational clusters: 10 introductory activities; 40 activities in construction occupations (architect, carpenter, electrician, plumber, bricklayer, cabinet maker, sheet metal worker); 24 activities in farming occupations (dairy farmer, rancher, farmer, butcher, and meat packer); 25 activities in health (dietitian, nurse, physician, pharmacist, and psychiatrist); 22 activities in industrial occupations (assembly line worker, machinist, welder, paper machine operator, and steel worker); seven activities for baker; five activities for fish hatchery manager; 13 activities for television, radio announcer, and television repairmen; 12 activities for airline employees; eight for soil conservationist; eight for meteorologist; and six for tire industry worker. (JB)
CAREER AWARENESS

Grade 5

BEST COPY AVAILABLE

BOISE SCHOOLS IDAHO
The project presented or reported herein was performed pursuant to a grant from the U. S. Office of Education, Department of Health, Education, and Welfare. However, the opinions expressed herein do not necessarily reflect the position or policy of the U. S. Office of Education, and no official endorsement by the U. S. Office of Education should be inferred.

Grant #261022L
The Career Awareness curriculum in this book was developed through a "Part C" grant from the U. S. Office of Education from March, 1972 through June, 1973, and administered by the Idaho State Department of Vocational Education. The units were developed and written by Boise Independent School District personnel with the exception of the introductory unit at the beginning of each grade. These six units were assembled from Career Education: An Idea Book, K-6 Resource Guide-Project Committee, Portland Public Schools, Oregon. The activities included in this book are some of the ideas relating to careers which are being used to some degree in many classrooms. It is the purpose of this program to gather many of these ideas and make them available to all teachers in an integrated format within most subject areas.

The project has been evaluated by a third party evaluation team, Educational System Planning of Eureka, California, as required by the project. The interim evaluation report in March, 1973 stated, "The major conclusion regarding this project is that it seems to be an overwhelming success and is providing a viable model for relevant education for students as well as meeting the Career Education Awareness objectives."
Phyllis Fair, Pilot teacher, for testing, suggesting materials for the project.

John Faife, for cooperation.

Helen Washburn, for cooperation.

Janet Goetz, for conducting one week of Summer Workshop.

Harry Weisenberg, Director of Vocational Education - for the curricular materials - for the curricular materials for the pilot teachers.

Pilot teachers - for testing, suggesting materials for the pilot teachers.

Dr. George - for conducting one week of Summer Workshop.

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CAREER AWARENESS: An on-going program integrated into the regular school curriculum utilizing all disciplines. The major emphasis is to take students into the community and to bring the community into the classroom. Self development and understanding is stressed. Activity and student involvement is the theme.

JUNIOR HIGH SCHOOL

CAREER EXPLORATION: Implementation of an interdisciplinary "hands-on" Career Exploration and Orientation program. Utilization of a Career Guidance Center, community exploration and major subject area involvement.

SENIOR HIGH SCHOOL

CAREER PREPARATION: Skills training, an on-going program with classes in the following cluster areas:
- Food Service
- Marketing
- Health Occupations
- Mechanical and Repair
- Service

A Career Guidance Center involving students, faculty and community in the career decision making process.
INTRODUCTION

Why Career Education?

Young people of today are leaving school and facing an ever increasingly complex industrial world. In many instances, though they have taken the prescribed curriculum, they are not adequately prepared to meet the demands of this complex industrial world. Students for the most part are unaware of the many career opportunities that are available to them. They are unaware of those areas that best fit their particular talents and personality. They are unaware of what is necessary to be successful in an occupational role. Students are also unaware of how choosing a career can affect many facets of a person’s life such as his leisure time activities, where he lives, his friends, etc. A broad educational background is necessary to meet the ever changing occupational fields; however, students often fail to see the relationships between the courses they are taking in school at the time they are taking them and the real world. Career Education can be a practical means of meeting the needs of these young people.

One of the major goals of education is to provide each student the opportunity to acquire the skills and attitudes necessary for him to make a livelihood regardless at which level of the educational system he leaves. The public school has a unique role to play in the development of these skills and to assist in the process of career decision-making for each individual.

Career Education is an integrated planned approach of incorporating career information within the regular school subjects. It will relate the school subject to the world of work in such a way the student can best see an additional need and purpose for the subject. It should help provide further incentive for that student to get the most out of every discipline in his school day. In addition, it can help focus on the need for further study in related subject areas which will prove helpful for eventual career choices, interests, and life styles.

Career education is not a program for high school seniors in their last semester before they face the world of work. Choosing a career begins with knowing what is available, studying the possibilities, and experiencing the work situation first hand.

1. CAPES State Department of Education, Olympia, Washington
Pre-school children's play revolves around work roles, they are curious and open-minded to all possibilities. Elementary school is the period to make children aware that there are more possibilities than the fireman, policeman and postman. It is the beginning step in the developmental process of career choice. Junior high school students can explore areas of work in some detail that most interest them. They should be able to look at a job first hand, try it out, decide if it is what they assumed it would be. Through looking into these areas through regular school subjects, students will be able to make more realistic choices of high school subject areas, - those that will be most beneficial to their future aspirations.

Career education, then, focuses upon the importance of introducing adequate work-related experiences for children from the time they enter school. The intent is not to force a student into an early decision, but to give him a wide base of experience so that when he does make a decision, it will be a realistic one supported by a background of many experiences.

The program involves individual and group counseling opportunities throughout the students' schooling. Since most people who lose their jobs do so through interpersonal relationship problems, the counseling component will stress self awareness and understanding, cooperation and many other aspects necessary for social and occupational fulfillment. Specific occupational guidance is only one portion of the program objective. The larger goal is the student's understanding of those attributes necessary for a successful life.

The aim of career education is not to add to an already crowded curriculum, but to provide a way in which skills that are already taught can be associated with the world of work.
CAREER AWARENESS FORMAT -- Grades 3 - 6

The purpose of career awareness is to develop an appreciation for the entire world of work throughout the United States. To insure a broad coverage of all aspects of work, the clusters developed by the United States Department of Health, Education and Welfare are employed. These are:

- Business and Office
- Consumer and Home-making Related
- Communications and Media
- Fine Arts and Humanities
- Hospitality and Recreation
- Environmental Control
- Personal Service
- Manufacturing
- Transportation
- Health
- Public Service
- Agri-Business and Natural Resources
- Marine Science
- Construction
- Marketing and Distribution

Within these clusters a range of specific jobs is covered which are representative of similar jobs in other occupational areas and can also lead to discussion of other jobs in that specific industry. The intent is to show the relationships of these occupations with the specific job being studied.

Each of these grade levels contains twenty-six or more occupational units. They are assigned to a particular grade level because it was felt they correlated best at that level considering all the subject areas. This is by no means to preclude a teacher from studying an occupation in another grade if she desires; however, the materials and trips in connection with career awareness must remain in the assigned grade level.

Because of the necessity of scheduling materials, the occupations have been grouped generally in units of four. A few, as an example, in grade five, have three units because some areas within these are particularly involved and lengthy. You should have a schedule of units for the year specifically for your building. The materials will be in constant use throughout your area of the district which means we must adhere to the schedule if all are going to become involved in the program.
You will receive materials for a group of units for approximately a five week period. At the end of that time these materials will be picked up and taken to another school by the technician. At that time you will receive another set. It is up to the teachers within the buildings to schedule these groups of units among themselves. Grades 3, 4, and 5 have an extra unit which might be used if you will contact the technician. The technician is also available for classroom help and direction.

Each unit in this curriculum has ... to 15 activities. The activities are flexible and can be worked on a one-a-day basis or however the teacher wishes to introduce them. You, as a teacher, are to choose from among the activities those that best fit your teaching style and present curriculum. It is not anticipated that you will use all activities as time will probably not allow this, but it is hoped you will consider many of them. It is emphasized that one of the main purposes of the program is to show a relationship between school subjects and careers; therefore, the activities are designed to be taught within subject areas. Creating a "career subject" is discouraged.

Some films and filmstrips are to be ordered from Boise schools IMC. These are the ones listed on the materials page with an IMC number. The teacher will do the ordering of these since we won't know the exact day you will need them. There are also films listed from Boise State College. Remember the B.S.C. films are rental. Perhaps a rented film could be used by all of one grade level for the three days you have it.

There are some field trips scheduled in your curriculum guide. The career awareness technician will schedule and make arrangements for these trips for you. Since there will be many field trips in grades 1 - 6 into the business community, we would like to schedule at their convenience so we don't overload one business. It might become necessary and desirable to have only a portion of your class take a field trip and report back to the others. An example would be if one-third of all fourth grade classes go to a pottery shop. This would mean one trip to that business rather than three. These instances would only be necessary in cases where there might be only one such business in the area. We are certainly open to suggestions of field trips not on our schedule. Also, if the trip scheduled proves to be an impossible time, contact the CA office a few days in advance so other arrangements can be made.

We would encourage many resource speakers coming to the classroom to describe their work, especially parents. At the beginning of the year you will be asked to send a prepared letter home to ask for speaker volunteers. These parents will be used within your building though not necessarily in your class. The more community involvement, the more support for the entire educational program. The technician will schedule these speakers for you, or if you desire to do the
scheduling, feel free to do so.

The career awareness curriculum is in a constant state of revision. If you have tried a successful activity that is not in this guide, let the CA office in on it. In turn, we will inform others. We are also looking for materials which enhance the educational program.

The success of the career awareness program depends on the involvement in your classroom. The purpose of our services is to help you become involved with a minimum of extra work. If we are not adequately providing this service, bring it to our attention.

The following is a statement from Joyce Swensen, fourth grade teacher in the pilot program at Garfield Elementary School. It reflects the statements submitted by all the pilot teachers.

"From the standpoint of the teacher, I would be very happy to incorporate Career Awareness into the existing curriculum. I have been pleased with the way it enhances the subject matter we ordinarily study in the fourth grade. The field trips, resource persons, and interesting projects we have carried on, have greatly added to the appeal and knowledge of the subject matter. Classroom management has been better because of interest. Discussion of behavioral expectations and evaluations have also helped.

"I am not saying extra effort is not required on the part of the teacher. It is. However the CA program has helped me to become more organized and able to meet deadlines. Flexibility is required, but I think it is good. With the CA office making arrangements for materials, resource persons and field trips, the job has been much, much easier.

"The community has become increasingly aware and involved with what is happening in the classroom. My experience has been that this program has made many friends for the school district.

"Adapting existing curriculum around careers has not decreased knowledge in the core subjects, but has added meaning to the need for it. With sharpened interest, learning is speeded up.

"Students are very much in favor of continuing in career awareness programs - as are parents. Absenteeism has been greatly reduced this year. I feel interest has much to do with it.

"Scholarship does not seem to change to a great degree. Good students will probably do well under most any type of classroom organization. Poor and average students, I feel, have done better. Vocabulary has increased greatly.
"Knowledge and awareness of jobs and careers has greatly increased. Students are aware of the world of work and the respectability and desirability of working and doing a good job in any field. I feel this has been our goal and it has been reached."
PERFORMANCE OBJECTIVES AND CRITERION TESTS RATIONALE

The rationale for this particular evaluation system is that criterion tests should not only determine performance, but also contribute to the students' ability to perform. That is, whenever possible, criterion tests should be learning activities. It will be apparent that if a child merely participates in many of the suggested activities (criterion tests) that he has met the stated objective. They are written in such a manner that participation would be impossible without using the knowledge and abilities called for in the objective.

This is an effort to move away from traditional measures of performance in order to better evaluate what conceptual knowledge the learner has acquired. Too often we not only measure his conceptual understanding of the material, but inadvertently, by the type of test we give, measure his reading, writing, and verbal skills. By providing several types of tests (activities) the teacher is free to choose which one will best allow a particular child to communicate his degree of conceptual understanding. If increased proficiency in reading, writing, and verbal skills are not one of the project objectives, then they should not figure into the evaluation. This system provides a child with a better chance of successfully demonstrating the conceptual understanding called for in the objective regardless of his reading, writing, or verbal skill.

These criterion tests, as written, reduce the likelihood of a child "feeling good" about what he is learning, and then failing because of low skill in another area such as reading and writing. He can now demonstrate in a variety of acceptable ways, that indeed he does understand.

If a teacher is in doubt about whether or not a particular student "has" met an objective during a group evaluation activity, the teacher can evaluate by exception. This could take the form of individual conferences or some written activity. This allows the teacher to save time in evaluation since only the exceptions are "spot-tested", the rest of the students are assumed to have...
"learned" if they complete the criterion test.

The hardest part of this criterion evaluation system is for the practitioner to over-come the mental set that evaluation must be of the Normative (standardized) type. In criterion evaluation the practitioner decides what is an acceptable indication of a student having "learned" and does not need worry about "item analysis, validity, reliability etc.," in the normative-evaluation sense. The normative-evaluation is being done by the use of pre-tests and post-tests. The type of criterion-evaluation used here is legitimate and is being used more and more in education.

Criterion Tests

The objectives that are being tested state what the student is expected to be able to do when he has achieved the objective. The tests are designed to measure only what is stated in the objective. In this way, the student and teacher both know what is expected and what will be tested.

Criterion tests evaluate what a student does or does not do. Students are not evaluated against national norms or the achievement of other students.

The objective is stated at a level of specificity so that the completion of an objective is determined by either yes or no. In a criterion test, it is not possible to achieve an objective at 70, 80, or 90 percent. Therefore, test results state what a student can demonstrate, not the percentage of demonstration or how he performs compared to other students.

The percentage is a determination of program success and is not a concern of the teacher on a day-to-day evaluation basis, which is either 100% achievement by an individual or "not yet achieved".
CAREER AWARENESS -- OBJECTIVES

GRADES III. -- VI.

1. To develop a positive attitude of self worth.
2. To develop positive attitudes toward the world of work.
3. To develop the attitude that all work is meaningful and contributes to society.
4. To develop the appreciation of the dignity and worth of honest work.
5. To develop the idea that cooperation, responsibility and dependability are necessary in school, in a job, and in everyday life.
6. To develop the idea that people work for numerous rewards and satisfactions.
7. To develop the idea that school is an important part of preparation for a career.
8. To develop the idea that most careers will require special training.
9. To develop an understanding that some workers produce goods, others perform services.
10. To develop technical literacy of terms used in the exploration of careers.
11. To understand that while all jobs are important, they also all have a different character.
12. To help develop an understanding of our free enterprise system of economics.
13. To understand that most people work toward careers in which they have special interests and special talents.
14. To understand that all workers are dependent on one another.
15. To develop the ability to understand that occupations are interrelated in a wide variety of ways.
16. To develop the understanding that there is constant change in job fields and that this change is healthy.
17. To develop the understanding that continual education will be necessary for any career.

18. To develop an understanding of the role all curriculum disciplines play in careers.

19. To develop the attitude students will develop realistic goals in the light of interests and abilities as they progress through life.

20. To develop the understanding that different jobs require different abilities.

21. To provide a wide and varied interest that will open up an expanded base for career choice.

22. To encourage students to express goals and aspirations.

23. To encourage students to do individual in-depth study of areas of interest.

24. To provide information, observational experiences and experimentation in the clusters of the world of work.

25. To develop a degree of skill in the use of tools, equipment, and supplies that workers use in the performance of their jobs and have practical experiences in each.
TEACHER AIDS
In the career awareness materials there are many small group activities to be carried out by the students. Because students have learned to function individually and for their own goals, learning to participate productively within a group and for group goals calls for special efforts by the teacher.

Children do not adapt naturally to small group efforts. As they have learned to compete for grades and have generally been taught that sharing answers is wrong, the new concept of cooperation and group goals calls for re-education. Many adults do not know how to work in groups, so be patient and encouraging with children in this endeavor.

Some Hints:
1. Try not to expect complete success on the first attempt.
2. Try to have several consecutive group activities increasing in complexity.
3. On the first attempt do not expect the children to share materials, i.e. globes, maps. Provide each child with his own materials, but utilize a group summary sheet.
4. Plan with the class ahead of time. Involve the students in planning and don’t merely tell them. List goals on the blackboard.
5. Encourage groups to choose a leader. In older groups involving complex activities, a recorder may also be needed.
6. After the group experience, meet back with the class. Ask them how the experience went and what they think the problems are. Recognize the groups who worked well together and site examples of cooperative group techniques. Evaluate on a group basis. If individual grades within a group are given, it will only encourage the good students to do their own work. Remember we are doing the activity to develop sharing and cooperativeness.
7. It also might be helpful to discuss the roles of leader and recorder with the class. Have the class discuss characteristics they like and dislike in a leader. Possibly this should be done at the beginning of the second activity rather than the first so that too much is not given at the beginning. Over planning can be as detrimental as underplanning!
INTERVIEWING
A BASIC TOOL OF INQUIRY

As you organize how the content of your instruction will be accessible to the children, your plans may include the use of community talent. Interviewing skills might have to be taught in order to facilitate your plans. Perhaps the most obvious skill involved in interviewing is asking appropriate questions.

The following lists of questions may help you, your talent, and your class get started with this important tool of communication.

One set of questions is designed for children who are learning to interview. It can also be presented to the talent prior to his visit.

The second group of questions is designed for conducting a group or class conference with talent in school or at the resource site.

The depth and quality of interview will depend, of course, upon the preparation each interviewer has in the area the talent represents. Motivation to find out will be an important factor. Those who are avidly curious will push the process of inquiry to its appropriate limits.

Certain questions will be appropriate to some talent areas, and not to others. However, there is a commonality to the process of interviewing and a teacher can guide students to learn many of the general communication skills necessary for effective interviewing.

The last section on evaluation has proved helpful in setting standards for learning performance and increasing the visibility of the inquiry process.

Prepared by AB: 7 4. !,-.7

Prepared by AB: 7 4. !,-.7
ROLEPLAYING

Interviewing situations within the secure learning atmosphere of your classroom is a safe, sure-fire way to get started. Children will be more free to explore if you approve their growing pains and sufferings in a "petri dish" wherein no harmful consequences may befall them. Whereas outside talent may be threatening to the development of tender thoughts and feelings, your warm support of the child as a learner will help the light to shine. Then, from trust and self-confidence, appropriate forms of behavior will develop.

Roleplaying is not only a process by which to learn the skills of interviewing; it is also protection for the learner (and the teacher) so that learning procedures may be started away from the foreboding consequences of direct encounters.

Thus, the darkness of our classrooms might first be penetrated by "artificial" light - roleplaying. When interviewing skills have been sufficiently shaped by this careful nurturing process, emergent behaviors can be brought into the "real" world for trial. Prestressed performance skills can be laced into the varied activities of the school year. If this is done on a regular basis, the teacher need not fear that the children's efforts will dissipate or dissemble when tested by adult characters in real settings.

Tapes of children interviewing each other are easy to make and allow for healthy criticism of learning performance. Dittoed sheets of questions with spaces for responses also offer tangible supports. "Friendly" school personnel can be used for practice.

A teacher can build a platform of appropriate materials for one class, then use it many times with the same group or use it to introduce new concepts to other groups. Also, prepared tapes (of actual interviewing) are available from commercial sources. At this point, however, we'd rather help you develop your own materials. As teachers ourselves, we think we understand something about this business of innovation. Usually, the greatest fears we have to encounter are our own.

Prepared by ABLE Model Program, Northern Illinois University
COMMUNICATING WITH TALENT

1. What do you do on the job? (Children are interested in how school-taught skills fit in with real work).

2. What kind of thinking prompted you to take this job? Did others agree with your thinking?

3. What tools do you use? Is there a special way of talking about your work?

4. Was this your first job choice? How many times did you change your mind about what you wanted to be before you went to work? Why?

5. What part of your job do you like best? Why? What part of it do you wish you didn't have to do? Why?

6. Who depends upon your work? Upon whom do you depend for your work?

7. What experiences and training on this job might prepare you for some other kinds of jobs should you ever want to change?

8. How does your job affect your personal life? Do you have to work nights? Are you tired when you get home? Do you have noise during the day so that you need quiet at home at night? Do you have a job where you have to be nice to people all day even people who are crabby and ill-mannered?

9. What inventions could put you out of work?

10. Are men with your kinds of skills usually needed - even when business may be bad? Is your work all seasonal? Where could you work in this occupation? Is your work limited to geographical areas?

11. What kind of education is necessary for this kind of work? Apprenticeship? Trade school? College? Advanced degrees? Is there any personal quality for this job that is really more important than diplomas?

12. About how much money can a man earn in this kind of work? (Under $5,000, $5,000 to $10,000, over $10,000 - an estimate so that the children can get an idea.) Is there a chance of getting a lot of money all at once?

13. When does your boss compliment you? (or when do you compliment your employees?) When are people fired?

Prepared by ABLE Model Program, Northern Illinois University
When a resource person is sharing information with a group of students in a conference setting, it might be helpful to send the talent a list of the questions the class is considering. Your note can explain that the purpose of the meeting is to get some information about an occupation from a person actively involved in that occupation.

Familiarize your students with the list "Questions for Group Conferences" (next page). Ask the students to mark those they would like to ask. Questions should be asked with the understanding that the resource person does not have to answer. The resource person should be informed, in the presence of the students, "If we ask any questions that you prefer not to answer, just smile and say 'next question, please!'"

Each interview will be a new opportunity for ideas to develop. Your analysis of the growing threads of the discussion and your firm, but subtle leadership toward target goals will move irrelevant talk towards fruitful discourse.

Be alert to step in and help facilitate communication if you see either the students or the resource person is not understanding what the other has said. Feel free to ask questions of your own to clarify answers whenever it is desirable to do so.

If you explain the reasons behind children's questions, talent and students will sketch more appropriate pictures in their mind's eye. As you relate their brief ideas into areas of class concern, shy talent (or students) and the academic activities of your classroom will be pulled together. The teacher has to be the bridge.

Naturally, overmanagement of social amenities can produce puppet performances and turn talent sour. Teachers, interested in effective affective as well as cognitive behavior, will enhance instruction through their managerial artistry. Vigor and sparkle is almost assured as the style of the teacher and the talent of the community are stirred into planned activities.

Young children can move curiosity into inquiry, inquiry into the academic domain, and the academic performance into healthy character and career development. The bridge to becoming has to be built upon, with and for people.

Prepared by A.B.E Model Program, Northern Illinois University
QUESTIONS FOR GROUP CONFERENCES

What schools did you attend?

What is your present job?

How did you get it?
How long have you worked there?
What time did you go to work this morning?
What was the first thing you did?
How long did it take?
What did you do next?
(Follow through the entire day.)
Did you do anything yesterday that was different from what you
did today? Does this happen often?
What else do you do on your job?
Of all these various duties, which ones take most of your time?

What changes have taken place recently? Do you foresee any in the
near future?

What things do you like most about your job? Least? Are there any
hazards?

What is the usual starting salary in jobs like yours?

What qualifications do you need to get the job?
Age? Sex? Height? Weight? Other?
Marital status? Tools? License? Aptitudes?

Approved schools? Preferred subjects?

Supply and demand for workers? Outlook for the future? Advancement?

or seasonal?

Is there anything we should have asked? What would you like to
ask us?

adapted from material in Occupational Information by Robert Hoppock,
EVALUATING INTERVIEWING SKILLS

How do you know when children have learned to interview? How can you tell they are making progress toward that accomplishment?

Local conditions shape standards. Different criteria have to be applied depending upon individual expectations so your view of children's performance will determine an assessment of their progress and achievement. To help you focus upon visible evidence, the following questions are offered:

1. Can the child roleplay the interviewing process?
   a. Does the "interviewer" question with a purpose?
   b. Does the "interviewer" follow a strategy?
   c. Does the "interviewer" show appreciation for the feelings of the person being interviewed?

2. What products show that the child is "interviewing"?
   a. How are the interviewed person's thoughts recorded?
   b. How is the interview reported to others?

3. Can the child explain interviewing skills in writing?
   a. Are the steps in interviewing set out in an orderly manner?
   b. Can the child judge his own talents against what has been set out for the class?

4. Does the child use interviewing skills in voluntary situations?
   a. Are ordinary encounters turned into learning situations?
   b. Does the child seek interviewing situations?

5. Does the child read "interviews" in newspapers and magazines or watch "interviews" on television?
   a. Does he volunteer information about media presentations that highlight interviews?
   b. Does he share what he has experienced (seen, read or heard) with others?

6. Does the interviewed person send feedback to the teacher and/or class?
   a. Are expressions directed to the content of the interview? ... the studies of the class?
   b. Are expressions directed to the interviewing process?

7. Does the child express a hope to work in an occupation which requires interviewing skills? (Sales? Receptionist? Teaching?)

Prepared by ABLE Model Program, Northern Illinois University
WHY SHOULD YOU...

To be worthwhile, need of the young, for more individuals into a unifying...

Field trips

1. see things

2. learn together

3. see possibilities.

4. correlate with areas with experience in meaning.

5. give children together outside the classroom, in relevant atmosphere, to practice and in real settings.

WHAT KINDS OF...

A field trip can

1. within the building, get acquainted with the building.

2. in the child's own environment, a simple observation of the

3. to another area, to introduce experiences or to introduce a group

4. outside area or the neighborhood to explore an area of the city or its

Field trips can lead to the kind of suggestion which leads the individual to explore an area of interest related to the classroom. A new interest may be introduced in the class.

Prepared by
The following suggestions of things to do to get ready are for your consideration. Each group will need to work out its own procedures depending upon the needs and interest of the group. However, there are some areas of definite responsibility.

The teacher and field awareness director should be responsible for:

1. guiding the choice of field trip and selecting the time at which the children will profit most by the experiences offered by the trip.

2. investigating the situation, if possible taking the trip in advance, to become familiar with the place to be visited, and the things to be seen on the way to and from the place to be visited.

3. obtaining permission for the trip from:
   (a) the principal before discussing it with the group.
   (b) the person in charge of the place to be visited.
   (c) the parents of the children.

Much of the field trip experience can be cooperatively planned together. A teacher and class can:

1. list the things they expect to see and the questions they would like to have answered. Children may decide who will be responsible for getting answers to their questions.

2. gather information before the trip using books and audiovisual materials.

3. discuss every detail of the trip
   (a) time -- date, hour of departure, time to be spent on the trip.
   (b) transportation -- how the group will travel and the safety rules to be observed.
   (c) group needs -- social responsibilities of each individual as a member of the group, the organization of the group enroute and while on the trip, the possible need for members of the School Patrol.
   (d) personal needs -- type of clothing needed, need for lunch, special equipment or tools.
HOW DO YOU USE YOUR EXPERIENCE BACK IN THE CLASSROOM?

The learning opportunities available to the group as a result of a field trip are limited only by the group's capacity to learn, the sensitivity of the teacher, and the resources available. The teacher and the group together should review the trip to:

1. see if questions were answered.
2. decide if the trip was satisfactory.
3. note progress on class assignments, and discuss any energy to be applied to future.

The group will probably want to take some of the following in order to build effective learning experiences:

1. Gather more information to answer new questions that arose as a result of the new experience.
   (a) review some of the materials used and search for new materials.
   (b) look up related articles in books at school, at home, and at the public library.

2. Use the experience to relate the classroom activities with various curriculum areas to make learning visible.
   (a) write thank you letters, letters for additional information, stories, poems, reports, booklets.
   (b) organize reports for the class, for other groups in the school, for parents.
   (c) create songs and dramatic plays.
   (d) make charts, diagrams, murals, dioramas, materials for the opaque projector, illustrations for booklets.

Most of all, the teacher will want to make use of the children's increased interests. The quality of living in the classroom can be improved if enthusiasm for life-centered activities is real.

Prepared by ABLE Project, Institute for Robins University
LETTER TO RESOURCE PARENT

Beginning of Year

Dear Parents:

The students in our school this year are participating in a program which aims to better acquaint them with the "working world" of their community.

The basic intent of this project is to make accessible the ongoing life activities of workers functioning in our community. We hope to expand our students' view and understanding of the world of work. We also hope to stimulate new interests which will lead to relevant and significant activities in the classroom.

We plan to visit some of the industries and businesses of our community to see the ongoing work activities and to talk with some workers. We will attempt to invite workers to visit our classrooms to discuss their occupations and the interrelatedness of our community. We intend to involve our students in interviews and research. We expect much learning content (subject matter) to emerge from our ideas. History, geography, technology and language are just a few of the areas we can cover naturally and realistically.

We recognize, of course, that our beginning point must be as close to our own locality as possible. As a part of our regular instructional program, we would like parents to come to our class to tell the students about their occupations. Our children will benefit by contact with an adult who is contributing to himself and his society.

We realize you are not in the business of giving presentations and, therefore, we intend to have a very relaxed question and answer session. We urge you to consider our need to find out more about your work.

Please fill out and return this form if you might be available. You will be contacted to arrange a definite time and date which will be convenient for both you and the class. The general objectives of the program and suggestions for the things we would like to know about will be available. We are interested in all occupations.

Please return to the teacher.

Name ___________________________ Phone ___________________________

Address ___________________________

Occupation ___________________________

Company or Firm ___________________________

It would be most convenient for me to be at your school on (days or times) ___________________________

Signature ___________________________

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LETTER TO SCHEDULED RESOURCE SPEAKER

Thank you very much for your willingness to participate in our program. Without your cooperation this phase of our program could not exist.

The objective of these sessions is not to get students to make career choices, but rather to help elementary students realize that everyone works, that all useful work is honorable. We hope to acquaint them with the wide variety of occupations that exist (there are many things to be besides cowboys, firemen, nurses and teachers) and make their present schooling more relevant to their future.

Your company or business may have some materials they would furnish for you to bring along, perhaps some pamphlets. You might check with your public relations office. Please bring your tools or whatever you work with. Certainly, if you wear a uniform or special clothing of any kind (welding hood?), bring or wear it if you can. Here are the kinds of things we would like to hear about:

--What is your title or description?
--Briefly describe what you do.
--What aptitudes or skills are important for your job?
--Do you have to deal with the public? If so, would you care to comment on this?
--If you are separated from people most of the time, working with things, how do you feel about that? Do you prefer not having to deal with the public or fellow workers?
--What do you consider the best points of your job? The worst?
--Is your job personally rewarding and fulfilling? Do you enjoy going to work? Do you recommend it as one of the alternatives students should consider?
--You may want to touch upon the financial aspect. Do you consider the pay to be adequate, very good, unsatisfactory?
--What is the outlook? Will this type of employment exist when these students enter the world of work?
--What changes in equipment, automation, personnel, training requirements have you experienced in the time you have been in this field?
--What training is required? (High school? Trade school? College? Apprenticeship? Graduate degrees?)
--Is the field difficult to enter? (Union membership, professional school entrance quotas, etc.)
--How does this type of career relate to what these students do now in school?
--General information on working conditions, bosses, employees; etc.

We would like for you to meet with ________________________ class at ________________________ on ________________________.

Generally these presentations are from one half to one hour in length. If you wish to change to another date or time, or just have questions, call the Career Awareness Office at 342-4543, Ext. 219. We are mostly contacting parents of our students and those people who have signed up with Boise School Volunteers.
Dear Sir:

Along with the teaching of the basic skills in our elementary schools, we feel that students should be given an opportunity to look at the real world of work.

We know that students are not aware of the adult working world. Whenever the work of the school becomes exclusively abstract, the school is in danger of becoming isolated from the real world. Therefore, field trips will fill the void of the functional relation between knowledge and ideas that are taught in school and the real everyday life of people earning a living and providing a service.

We feel that your place of business would provide our students learning experiences which our schools cannot provide. Within the classroom the students are investigating occupations in your business area. These activities are in all subject areas to help students see the relationship between school subjects and occupations.

Some of the things the students will be looking for in your business are:

1. titles of occupations at your plant
2. duties of workers
3. training or preparation needed
4. physical and social characteristics needed
5. what schoolwork was most helpful in your job
6. salaries (optional)

Also a mention of social attitudes and habits which are essential - getting along with others, accepting responsibility, punctuality, initiative - will impress upon children that these must also be developed at an early age to be successful in a job later. It would be helpful before the tour starts for the guide to talk with the children in a more quiet area and tell the group what to be looking for, safety hazards, and set up a few ground rules while visiting.

We wish to thank you for this opportunity to show students "first hand" what the "world of work" is all about.

Respectfully,

George Washburn
Career Awareness Director
GUIDANCE
The encouragement of the child helps the teacher in the development of his self-confidence. Self-confidence is built on encouragement and can contribute to the child's development. It is an important aspect of the child's growth, just as it is with all children. Failure, at the exceptional child, is not accepted. Rather, failure is worked on with the teacher, rather than at the expense of the child. Encouragement can contribute to the child's success and development, forming a positive aspect of the child's life, a vital part of his world. The exceptional child, rather than the normal, needs tolerance and encouragement with others. Positive guidance, focus on the exceptional child, and encouraging and working with others are vital aspects of the teacher's role.
The elementary counselor's work with parents consists of:
(a) encouraging parent discussion groups
(b) suggesting ways parents can become involved in the schools
(c) consulting with parents regarding their child
(d) serving as resource to parents in areas of
   1. school and community services
   2. responsibility development
   3. child development
   4. school progress
   5. changes in the home
   6. child management
(e) providing parents with books and pamphlets dealing with
    children's growth and development and behavior

The counselor's work with children falls into two categories. The first
is guidance activities within the classroom consisting of:
(a) helping teachers to lead meetings and discussions relating to
general group problems
(b) encouraging in classrooms the use of films, unfinished stories
dealing with feelings and problem solving
(c) serving as a resource person in classes relating to mental
    health
(d) role-playing activities
(e) puppet activities
(f) career awareness

The second category is counseling. This is one-to-one counseling,
limited crisis counseling if the need arises and group counseling.

The Career Awareness Guidance Units found in this guide are
suggestions which might be used at an opportune time throughout the
year. It is intended that the class will view one of the designated
filmstrips followed by an open class meeting which will include as
members the students, teacher and/or guidance counselor. In the class
meeting the subject for discussion should be the topic of the filmstrip
and whatever it may lead to. These units are not designed to replace
the current guidance activities, but to help direct some of them.
CAREER AWARENESS GUIDANCE COMPONENT

GRADE V

The Guidance activities in Grade five are centered around a number of filmstrips which are in a sequence from Grade one. By being exposed to the filmstrips and other guidance activities in grades one through six, the students will have been introduced to multiple experiences to develop self-concepts.

The filmstrips in this grade are not in sequence within this grade, but are within the entire elementary program. As a result, they might be used in any order and at any time. They are varied enough so that the class session will be different from previous ones although in the same format. All of these activities might be conducted by the teacher and/or the guidance counselor.

The guidance filmstrips are employed as part of certain career units in the total curriculum. This is done to insure their availability in all buildings and classrooms during the year.

If you feel a need for any one of these for your class at a time other than the scheduled one, contact the Career Awareness Technician.

FILMSTRIPS TO BE USED IN GRADE FIVE

Learning to Live With Others, SVE
(Filmstrip and Cassette)
1. "Learning to Be Your Best Self"
2. "Learning About Listening"
3. "Learning to Be Responsible"
4. "Learning What Giving Is All About"

Developing Good Work and Study Habits, ERS
(Filmstrip, Captioned)
5. "Oral Reports: How to Talk Out Loud"

Open-Ended Stories
(Filmstrip and Record)
6. "The New Building"

Developing Basic Values, SVE
(Filmstrip and Cassette)
7. "Respect for Property"
8. "Consideration of Others"
ACTIVITY 1

Materials: Filmstrip and Cassette
"Learning to Be Your Best Self"
--Learning to Live With Others, SVE

Topic - Uniqueness of the individual

Objective: To help students understand each person has certain capabilities and talents which can be developed.

Activity: Before showing the filmstrip you might engage the children in informal group conversation. "Have you ever wished you were someone else? Who did you want to be? Why did you want to become someone other than yourself?"

Without judging or evaluating the children's remarks, say, "We're going to see a film about a boy who tried to be someone else. Let's see what happened."

After showing the filmstrip, engage the class in informal conversation or discussion about the filmstrip. Or select 4 or 5 boys and girls to be a panel and discuss the filmstrip before the entire class. Some suggested questions follow. Use these or questions of your own. Try to relate the questions to the boys' and girls' experiences and age level.

Some questions to discuss:

1. In the filmstrip story, why do you think John really wanted to be a baseball player?

2. Can you think of a time recently when you wanted to do something just because a friend of yours was doing it? What was the result? How did it make you feel?

3. Why do you think John got so angry at his friend Randy when he didn't make Little League? Why did John say, "He thinks he's better than I am?"
4. John Fremont said that it's not easy to be yourself. What do you think he meant?

5. In the filmstrip, John's mother tells him, "Each one of us has been given different talents and abilities. Every person has something special to offer." How can a person find out what talents and abilities he has?

This session might be conducted by the teacher and/or the guidance counselor.
ACTIVITY

Materials: Filmstrip and Cassette: “Learning About Listening” -- Learning to Live With Others, SVE

Topic: Listening and Talking

Objective: To help students see the need to listen attentively.

To help students understand there is a time for talking and a time for listening.

GRADE 5

Activity: Before showing the filmstrip, you might engage the children in informal group conversation. "Would you rather talk to someone, or listen to him? Why?" "What would happen if everyone talked all the time and no one ever listened?"

Without judging or evaluating the children's remarks, say, "We're going to see a film about a boy who was really good at talking but not very good at listening. Let's see what happened."

After showing the filmstrip, engage the class in informal conversation or discussion about the filmstrip. Or select 4 or 5 boys and girls to be a panel and discuss the filmstrip before the entire class. Some suggested questions follow. Use these or questions of your own. Try to relate the questions to the boys' and girls' experiences and age level.

Some questions to discuss:

1. Why do you think Freddy Marshall talked so much?

2. Would you like to have a person for a friend who talks all the time and never listens? Why? Why not?

3. Do you feel that a person trying to be his best self would talk all the time and never listen? Why? Why not?
Activity 2 (Continued)

4. Freddy's mother and father pointed out some of the good things about listening. What were they? Can you think of others?

5. What can a person do to improve his ability to listen?

This session might be conducted by the teacher and/or the guidance counselor.
ACTIVITY 3

Materials: Filmstrip and Cassette: "Learning to be Responsible"

--Learning to Live With Others, SVE

Topic: Responsibility

Objectives: to help students see the importance of responsibility in everyday living and growing.

GRADE 5

Activities: Before showing the filmstrip, you might engage the children in informal group conversation. "Is the word 'responsibility' a familiar word to you? What do you think of when someone talks about being responsible? What does it mean to you?"

Without judging or evaluating the children's remarks, say, "We're going to see a film about a girl who learned some things about responsibility. Let's see what happened."

After showing the filmstrip, engage the class in informal conversation or discussion about the filmstrip. Or select 4 or 5 boys and girls to be a panel and discuss the filmstrip before the entire class. Some suggested questions follow. Use these or questions of your own. Try to relate the questions to the boys' and girls' experiences and age level.

Some questions to discuss:

1. What do you think Annette meant in the filmstrip when she said, "Responsibility...sounds like just another one of those big words adults use when they're upset"?

2. Who do you think should have paid for the damaged library book? Why?

3. What does "being responsible" mean to you?
4. Can you tell about a time that happened to you when you felt you were a responsible person? A time when you felt you were not a responsible person?

5. In the filmstrip, Annette said that you feel happier when you act like a responsible person. Do you agree? Why? Why not?

This session might be conducted by the teacher and/or the guidance counselor.
Activity: Before showing the filmstrip, you might engage the children in informal group conversation. "Suppose you would wake up some morning and discover that you could no longer give anything to someone else—you could only receive things from other people. How do you think it would make you feel?"

Without judging or evaluating the children's remarks, say, "We're going to see a film about a girl who learned some things about giving. Let's see what happened.

After showing the filmstrip, engage the class in informal conversation or discussion about the filmstrip. Or select 4 or 5 boys and girls to be a panel and discuss the filmstrip before the entire class. Some suggested questions follow. Use these or questions of your own. Try to relate the questions to the boys' and girls' experiences and age level.

Some questions to discuss:

1. Why do you think Barbara really got angry with Marianne? Was it about Marianne's giving? What was it?

2. Would you like to have Barbara for a friend? Would you like to have Marianne for a friend? Why? Why not?

3. What do you think Barbara meant when she said, "If you really know how to give, then you're always giving"?
ACTIVITY 4 (Continued)

4. Barbara's father said, "Giving of yourself is a very special gift." How do you feel about this?

5. What do you think about people who give things because they think they have to?

6. You have probably often heard the saying, "It is more blessed to give than to receive." What do you think this means?

This session might be conducted by the teacher and/or the guidance counselor.
GRADE 5

Synopsis: This filmstrip demonstrates that giving oral reports can be a stimulating and rewarding experience. Students are shown that by researching and organizing information carefully, they can present their ideas intelligently to the class. Outlines, index cards and a pre-class rehearsal contribute to a confident student presentation.

Activities:

1. Discuss the methods by which a speaker can create audience interest in his oral presentation.

2. Have students tell brief stories to the class. Discuss how effectively each student used volume of voice, pitch, enthusiasm and enunciation to attract and sustain the interest of his classmates.

3. Have each member of the class prepare and deliver an oral report.

4. Designate one or two students to keep track of the questions asked by members of the class. At the end of the day, discuss the merits of each question.

This session might be conducted by the teacher and/or the guidance counselor.
---

### ACTIVITY 6

**Materials:** Filmstrip and Record: "The New Building" -- Open Ended Stories, ERS

**Topic:** Listening to Advice

**Objective:** To help students understand that much of the advice they receive is for their own good and safety.

---

### GRADE 5

**Synopsis:** One Saturday Charlie is out looking for something to do when he discovers an unlocked gate to a large construction site. He is happily playing when a workman spots him and warns of the dangers of the area.

After the workman locks up and leaves, Charlie manages to squeeze back in through the gate. This time his fun is cut short when he slips off a ledge and bangs his knee.

Realizing he was lucky to have hurt himself slightly, he limps out through the gate. There he finds two friends, eager to play in the construction site. Charlie is unable to convince them of the dangers, and as the filmstrip ends, he is faced with the decision of what to do about his friends.

**Activity:** Before viewing, explain the "it can't happen to me" idea. Have the children discuss their personal experiences and feelings related to that idea.

After viewing, lead the discussion with such questions as: WHAT DO YOU THINK CHARLIE DID? What might happen if his friends went into the construction site and Charlie did nothing? Do you think Charlie should have told a grownup about the boys? Why? Whom could he have told? How do you think Charlie would feel if he did not tell and his friends got hurt?
GUIDANCE

ACTIVITY 6 (Continued)

Was it all right for Charlie to go in the first time, when he found the gate open? Why do you think Charlie went back in a second time after he had been told not to? Why didn't he believe the workman about the dangers of a construction site? Why didn't his friends believe him?

Discuss other rules which should be obeyed without testing, such as rules about traffic or playing with fire.

This session might be conducted by the teacher and/or the guidance counselor.
GUIDANCE

ACTIVITY 7

Materials: Filmstrip and Cassette: "Respect for Property" --Developing Basic Values, SVE

Topic: Responsibility for Use of Property

Objectives:
1. To help students understand and develop moral and ethical values.
2. To help students understand the meanings of the word property, and help them become aware of their responsibility for its use and treatment.

Synopsis: In this filmstrip, the author has emphasized the kinds of property that exist, how each person has the right to own property without the fear of theft or damage, and how everyone has a responsibility to prevent misuse or mistreatment of property. Through the actions of a group of boys, girls, and their classroom teacher, we discover many ways to practice respect for the different kinds of property that exist. Full-color art illustrations help the student and teacher visualize each kind of property and the many ways that respect for it can be cultivated.

Activity: Show the filmstrip to the students after a short discussion of rights of others, especially property rights.

Follow up with comments of the students.

This session might be conducted by the teacher and/or the guidance counselor.
ACTIVITY 8

Materials: Filmstrip and Cassette: "Consideration of Others" --Developing Basic Values, SVE

Topic: Consideration

Objectives: 1. To help students understand and develop moral and ethical values.
2. To offer some suggestions on ways of showing consideration for others:
   (a) by not disturbing others
   (b) by lending a helping hand
   (c) by helping others feel comfortable and happy
   (d) by being fair in thoughts and treatment of others

Synopsis: This filmstrip deals with the development of rules for showing consideration for others. Through cooperation of a school's student council, their counselor, and every classroom, suggestions are made and discussed, and four basic rules for showing consideration for others are drawn up. Full-color art helps the students and teacher to visualize the problems of consideration, suggestions for ways of showing consideration, and the four rules drawn up by the student council and their counselor.

Activity: Begin with a discussion of inconsiderate things students have seen so far today without naming students, etc. Show the filmstrip and discuss it afterwards.

This session might be conducted by the teacher and/or the guidance counselor.
**INTRODUCTION TO CAREER AWARENESS**

**GRADE 5**

**CONCEPTS:** Each person should gain a good understanding about himself.

**OBJECTIVE:** To gain more of an understanding about self.

**CRITERION TEST:** Complete the questionnaire in the activity.

**ACTIVITY 1:** Suggested Subject Area: Language Arts

Complete the following questionnaire:

**About my school work:**

What subjects have I liked best in school?

In what subjects did I get the best grades?

Did I get mainly D's, C's, B's, or A's?

Are my grades different this year than last?

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Why?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Do I complete assignments on time:

<table>
<thead>
<tr>
<th></th>
<th>Always</th>
<th>Usually</th>
<th>Seldom</th>
</tr>
</thead>
</table>

Do I study only for those subjects I like?

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>Sometimes</th>
<th>No</th>
</tr>
</thead>
</table>

Do I ask extra help in those subjects that are hard for me?

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

Have I ever volunteered to do extra assignments for something that interested me?

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>Sometimes</th>
<th>No</th>
</tr>
</thead>
</table>

Have I wasted time in school as a usual practice?

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

(Continued)
5.1  INTRODUCTION TO CAREER AWARENESS

(Act.1-Cont)

About my personal life:

Do I plan my time? (Or do I have to be reminded what to do?)

Yes  No  Sometimes

How do I spend most of my leisure time?

How much time do I waste?

How much time do I help out at home per day?

How much time do I watch T.V. per day?

Am I easy to get along with at home?

Am I popular in a large crowd?

Do I prefer to have just a few close friends?

Has anyone ever told me that he or she didn't like me?

Was it fair?

Do I hate to spend time alone?

Am I the one in the crowd who thinks of things to do, or do I tend to go along with other people's ideas?

About my career:

What are the kinds of work I've ever thought about doing in my adult life?

Is there any one thing that these have in common?

What?

Check those things that I think are important in a career:

Making money

Having interesting work

Working to help other people

Being my own boss

Being sure of my future

Knowing I've done a good job

Using all of my talents

Having a good time

TAKE ONE MORE LOOK TO SEE THAT YOU HAVE BEEN COMPLETELY HONEST. DID YOU PUT DOWN WHAT YOU REALLY THOUGHT OR OTHERS SEEM TO THINK? RE-CHECK!
5.1 INTRODUCTION TO CAREER AWARENESS

GRADE 5

CONCEPTS: Most people will eventually need to know how to fill out a job application form.

OBJECTIVE: To enable a learner to examine and fill out a basic job application as accurately as possible.

CRITERION TEST: Students will complete the job application form.

ACTIVITY 2: Suggested Subject Area: Social Science

1. Have students fill out application.
2. Conduct interviews in classroom as realistically as possible.

PLEASE PRINT

_________________________ Phone Number _______________________
Last Name First Middle

_________________________ Presently employed _______________________
Address City State Zip

Social Security No. ____________ Height ____________ Weight ____________

What type of job are you applying for? _________________________________

Do you own a car? _________ Do you have a driver's license? ________

Would you move if the new job called for this? ________________________

Where would you prefer to move? ________________________________

Do you like traveling? ______________________________

Have you ever been arrested? _________ If yes, please explain: __________

(Continued)
Check schooling completed:

K through 10  
High School  
High School and some college  
Trade or business college  
College with 4 year degree  
More than 4 years of college  
Typing  
Shorthand  
Keypunch  
Computer  
Switchboard  
Bookkeeping  
Filing  
Sales  
Plumber  
Waitress  
Cashier  
Driver  
Life Guard  
First Aid  
Mechanic  
Receptionist  
Carpenter  
Electrician  
Janitor  
Machine Operator  

List your previous jobs and what you did in them:
1. ___________________________  
2. ___________________________  
3. ___________________________  
4. ___________________________  

What are your other qualifications: ___________________________

List two references: (give name and complete address)
1. ___________________________  
2. ___________________________
CONCEPTS: Personal traits are important aspects of getting a job.

OBJECTIVE: To dramatize the importance of personal traits in acquiring a job; to make the learner aware of his good and undesirable traits; to give the learner experience in selling himself.

CRITERION TEST: Students will role-play the positions of the employer and prospective employee.

ACTIVITY 3: JOB APPLICATION DRAMATIZATION Suggested Subject Area: Language Arts

Have one learner play the part of an employer. Have another learner play the part of a job applicant. Allow the two learners to conduct a job interview with stress on traits such as punctuality, reliability, appearance, etc. Follow up with a critique session.
5.1 INTRODUCTION TO CAREER AWARENESS  GRADE 5

CONCEPTS: Within each field of work there are many specific jobs.

OBJECTIVE: To make the child aware of variety of jobs available in various field.

CRITERION TEST: Students will be able to list on paper at least three jobs in five fields of work.

ACTIVITY 4: Suggested Subject Area: Social Studies

HOW MANY JOBS DO I KNOW?

Have children name five occupations in each of four of the following fields:

1. Mechanical and repair occupations
2. Clerical
3. Sales
4. Food service
5. Construction
6. Agriculture
7. Arts
8. Health occupations
9. Banking
10. Wood products
5.1 INTRODUCTION TO CAREER AWARENESS

GRADE 5

CONCEPTS: Each person should be able to work in a position which fits their best interest.

OBJECTIVE: To make the child aware of various occupations associated with different interests.

CRITERION TEST: Students will complete the activity.

ACTIVITY 5: AN INTEREST LIST  Suggested Subject Area: Language Arts, Social Studies

1. Outdoor activities.
2. Working with machines and other mechanical devices.
3. Meeting and dealing with people and persuading them to your way of thinking.
4. Creating things with your hands.
5. Reading and writing.
6. Musical activities.
7. Helping other people.
8. Discovering new facts and solving scientific problems.
9. Working with numbers.
10. Doing things around an office that require a high degree of proficiency and accuracy.
INTRODUCTION TO CAREER AWARENESS

GRADE 5

CONCEPTS: Some lines of work rely on repairing items.

OBJECTIVE: To familiarize the children with occupations that are involved with making repairs of some kind.

CRITERION TEST: Each student will unite an original riddle similar to those shown in the activity.

ACTIVITY 6: WHO FIXES WHAT?  Suggested Subject Area: Social Studies

Discuss with the children the fact that sometimes the things we use don't work as well as we would like. Explain that you will read some things that might need to be repaired. Have the children tell who would have to be called to help the situation. Include, in the discussion, as many different children as possible. Present the following situations.

1. The refrigerator doesn't keep food cold.  
   (refrigerator man; store)

2. The furnace isn't working.  
   (furnace man; gas company)

3. The telephone makes strange noises.  
   (telephone company)

4. You've lost all your keys.  
   (key maker, locksmith)

5. The car broke down.  
   (garage, mechanic)

6. A big leak develops in the faucet.  
   (plumber)

7. You don't have enough electrical outlets.  
   (electrician)

8. You want a new wall put in a room.  
   (carpenter)

9. The television picture jumps and wiggles.
5.1 INTRODUCTION TO CAREER AWARENESS

GRADE 5

CONCEPTS:
Prices are generally fixed by container size and weight as well as the contained product.

OBJECTIVE:
The learner will become aware of capacity differences in various commercial containers and compute prices per unit.

CRITERION TEST:
Students will perform the activity.

MATERIALS:
Tin cans, boxes, baskets, jars, etc., of various sizes and shapes.

ACTIVITY 7:
MEASUREMENT APPLICATION
Suggested Subject Area: Math

Learner will compute prices per unit in a variety of containers which are priced by the teacher to find the best value. The class might also visit a grocery store and compare prices of products and containers.
CONCEPTS: A personnel manager will affect many workers in various occupations.

OBJECTIVE: The learner will become aware of the work of the personnel manager, and how people are tested and interviewed for placement in a career.

CRITERION TEST: Students will be able to list on paper or explain in individual conferences 5 duties of a personnel manager.

ACTIVITY: PERSONNEL MANAGEMENT Suggested Subject Area: Language Arts

A career in personnel work involves getting to know people's capabilities, interests, skills, dislikes, etc., and help the employer match workers to jobs they will be comfortable in.
INTRODUCTION TO CAREER AWARENESS
GRADE 5

CONCEPTS: Jobs fall within certain fields or categories which can lead to classification of all occupations.

OBJECTIVES: To familiarize learners with clusters, to aid learners build proficiency in classifying job titles into clusters.

SUGGESTED ACTIVITY: See the activity.

MATERIALS: Classification section of newspaper.

HELP WANTED Suggested Subject Area: Language Arts

Have a chart containing the job clusters. Assign a number to each cluster. Have learner go through the help wanted section of the want ads. With a pencil or pen he would write the number of the job cluster on each ad.
5.1 INTRODUCTION TO CAREER AWARENESS

GRADE 5

CONCEPTS:
Bartering was once a very common practice throughout the country.

OBJECTIVE:
To develop the concept that in the early days of our country and in many underdeveloped countries today goods are traded for other goods or services without the use of money; to understand why merchants were often called traders; to discuss the fact that even today some people bring a few dozen extra eggs to the store and trade for groceries they do not produce.

CRITERION TEST:
Class performs either of the activities listed.

MATERIALS:
Classroom desks.

ACTIVITY 10: BARTERING
Suggested Subject Area: Social Studies

1. Have a classroom trade fair. Allow children to bring items they no longer want or need to class where they will display them on their desk. They may make or accept offers to trade their goods to others for something they want. No money may be used.

2. Through role playing have children illustrate the disadvantages of bartering system through money and banking procedures, working for wages. Discussing differences between early barter economy and money economy.
CONCEPTS

Architects have helped determine constructional design throughout the history of man. Architecture is an integral part of the construction process. Architecture is a desirable and productive profession. Architecture is an artistically creative profession.

PERFORMANCE OBJECTIVES AND CRITERION TEST

1. Students will be able to demonstrate their knowledge of the architectural field by drawing a simple house plan including dimensions of rooms.

Description: Students draw simple house plans for their model house.

Teacher Directions: Refer to activity #6.
5.2 ARCHITECT

RESOURCE PEOPLE
Architect

FILMS
"Frank Lloyd Wright"
--B.S.C. Film Library

FILMSTRIPS
*Building an Apartment House"
--SVE
*Building a Community"
--SVE
*"Designer: People Who Create Art"
--G.A.

FIELD TRIPS
Field trip to architectural firm

BOOKS
*Funny Folks in Limerick Land --Garrard
*Come to Work With Us in House Construction
--Sextant
*Ed Emberley's Drawing Book: Make a World
--Little, Brown, and Co.
*How a House Happens --Adkins
*Popeye and Construction Careers (30 copies)

GRADE 5

SUPPLIES
Old magazines
Poster paper
Squares
Compass
Rulers
Drawing supplies
*Drawing instruments (5 sets)
*T-Squares (4)
*Stanley Six Toy Patterns Booklet
*Stanley Early American Design Book
*Architectural Plans
SRA Occupations Cards #2 and #36
--CA Center
*SRA Work Brief

*CA Center Furnishes
ACTIVITY

Suggested Subject Area: Language Arts

Explain to the students that we will be going through the trades dealing with construction, especially as it deals with homes.

Indicate we will study: architect, carpenter, bricklayer, sheetmetal worker, plumber, electrician, roofer, and cabinet maker.

Assign eight students the task of researching these occupations in the SRA work brief. They will be required to report on the job, outlook, pay, education and training needed, hours, etc. as we get to those units.

Have the filmstrips "Building an Apartment House" and "Building a Community" ready.

Write on the board the jobs they saw in the filmstrips, and have the students volunteer the jobs they saw in the filmstrips. Write them on the chalkboard to use as vocabulary study for the day.

Have the filmstrips throughout the room for students to read during their free time.

GRADE 5

MATERIALS 1

SRA Work Briefs

Filmstrips:
"Building an Apartment House"
"Building a Community"

Comics (30):
Popeye and Construction Careers

MATERIALS 2

Book:
Come to Work With Us in House Construction

Filmstrip:
"Designer: People Who Create Art"
ACTIVITY 1

Suggested Subject Area: Language Arts, Art

Have students write limericks for each of the construction workers mentioned. The limerick should indicate something about the work they do on the job, i.e.:

There once was a roofer named Del,
Who shingled each house mighty well,
Till he ran out of room
And fell down with a boom.
There once was a roofer named Del.

Students might choose the jobs they wish to write about. It might be good to have a limerick on the board so students understand the timing. Samples can be read from the limerick book.

Place finished products on the bulletin board for all to read.

Students might also draw a cartoon to go with their limericks. Suggestions might come from the book read and from Ed Emberley's Drawing Book: Draw a World.

GRADE 5

ACTIVITY 4

Suggested Subject Area: Social Science

Show the film "Frank Lloyd Wright" to the students. Explain the many forms of architectural design today and in the past, especially indicate the periods of architecture.

These can be found in encyclopedias and yearbooks along with many pictures.

Have many old magazines in the classroom. Students go through these and cut out pictures of buildings showing different designs. They should make a bulletin board display with their pictures, using as many different types as possible.

GRADE 5

MATERIALS 3

Books:

Ed Emberley's Drawing Book:
Make a World
--Little, Brown, and Co.

Funny Folks in Limerick Land
--Garrard

MATERIALS 4

Film:

"Frank Lloyd Wright"
--B.S.C. Film Library

Magazines:

(Many old ones to cut up.)
ACTIVITY 5

Suggested Subject Area: Social Science

Read to the class How a House Happens and show drawings. Leave it out for individual use.

ACTIVITY 6

Suggested Subject Area: Social Science

Have a resource person who is an architect or an architectural student give a demonstration to the class. He should have the tools required for the job and numerous examples. He should also give a demonstration of the work done.

or

On a field trip to an architectural firm or to the architecture department at Boise State College.

Use the appropriate forms for the activity you choose.

Another field trip suggestion is to have an architect take the class to a construction site and indicate those areas architects perform.
ACTIVITY 7
Suggested Subject Area: Language Arts, Art.

Follow up activity #4 by going over what was learned about the profession.

Have the student report on his findings in the SRA Work Brief and any related information he might have found from other sources.

Have students draw rough plans for a house from what they have learned.

Give them a set time to complete this and then ask them to look at their designs as you go over the following:

Do you have a kitchen, living room, bedrooms, bath, utility, closets, playroom, storage, garage, doorways, halls, etc.?

ACTIVITY 8
Suggested Subject Area: Math

The "Occupations" cards suggest some excellent activities which you might wish to explore in connection with math and careers. Do all or some of the activities described.
5.3 CARPENTER

The carpentry trade is historically one of our oldest professions. Carpenters are needed and are in much demand both in the country and the world. Carpentry is a skill which requires training of the professional type. Carpentry is a desirable and productive trade.

OBJECTIVES

1. Students will be able to list from memory at least 20 skills a carpenter needs.

   Description: 
   
   Teacher Directions: Refer to activity 1A. Have them to correct their own papers. This is to be used as a learning activity as well as a grade measurement. Do not assign grades.

2. Students will be able to determine how much material is needed within one board foot when given single plans of a carpentry project such as are included in this unit.

   Description: 
   
   Teacher Directions: Refer to activity 1B.
GRADE 5

MATERIALS 1

Filmstrip:
"My Dad Is a Carpenter" --ERS

Booklet:
"The Little Carpenter" --Stanley Tool (in packet)

MATERIALS 2

Resource person: Carpenter

Materials: Lumber, Tools
ACTIVITY 1
Suggested Subject Area: Math

Give each student three projects: book rack, bird feeder, or bird house.

Ask each student to choose one he wishes to do. Give each student the plans pertaining to his choice, and ask him to go to work.

We will need to work in groups of four (4) to utilize the tools.

They will measure out the material from the plans, cut it out, and put it together. It is suggested there be a number of parents or high school students in the class to help the groups.

- Three days on this project.

ACTIVITY 2
Suggested Subject Area: Art

Students decorate their project from activity #1 as they wish: turning, painting, varnishing.

ACTIVITY 3
Suggested Subject Area: Math

The filmstrip, and discuss the work of the carpenter with the class.

MATERIALS 3
Lumber (decide how much at the time)
2" hinges
Nails
Screws
1" poles
Carpentry tools
Plans of projects

MATERIALS 4
Woodburners
Varnish
Paint
Brushes

MATERIALS 5
Filmstrip:
"Building the Foundation" - SVE
CONCEPTS

Electricity is a necessary part of the construction process.

Electricians need to know much more about electricity than simply how to install wiring. 

Skills and knowledge about the trade are gained both on-the-job and in trade settings.

Electric work is a desirable and productive occupation.

APPLICATION

Refer to activity #2.
RESOURCE PEOPLE

FILMS

"Electricity: Wiring in Your Home" -- MP1299
or
"Electricity and How It Is Made" -- MP5254

FILMSTRIPS

"Our Community Utilities" -- Coronet

"A Trip to the Electrical Plant" -- ERS

"Ways of Elementary Science" -- Set of 4
-- Filmstrip House

FIELD TRIPS

BOOKS

GRADE 5

SUPPLIES

Dry cells or regular batteries
Bulbs and sockets - 18
Switches - 9
Covered wire - 45 feet
Very light wire - on rolls
Tacks
Tape
Glue
Wirecutters
Flashlight bulbs (number uncertain)

*SRA Work Briefs
*SRA Occupations Cards, etc.

*CA Center Furnishes
Activity

ACTIVITY

Suggested Subject Area: Social Science

Show the films: "Our Community Utilities" and "A Trip to the Electrical Plant"

Choose the one or more you wish to show and discuss.

Ask the student assignee to make a report on the findings in the SRA Work Briefs.

ACTIVITY

Suggested Subject Area: Science

Experiments: Two ways to connect light bulbs in a circuit.

1. In a circuit, connect two light bulbs, a dry cell, and a switch to each light bulb. Then connect the two light bulbs in series by connecting the two light bulbs, wire between, wire between, wire between, and another wire in a circuit, if you want. Look at the settings. This switch should turn both lights on and off, otherwise when you get the circuit proper and right, then you have." This is a series circuit.

2. Notice the differences in the setups, explain this. (The cell now has to be replaced by the students.)

"Now disassemble your circuit experiment with connecting the two light bulbs, a dry cell, and a switch. Let's discover a circuit where, if you touch one bulb, the other bulb will still light up. The switch should turn both lights on and off, if it is with wire.

Ask the student assignee to make a picture of what you have.

Ask the student assignee to make a picture of what the other bulb change? All bulbs never, they don't dim or
ACTIVITY 1.2

Show these materials to the children and explain in this unit if a solution of 'Whys of Elementary Science'.

1. Filmstrip: "Electricity"
2. "Electricity" from "Electricity"

MATERIALS 5 & 6

Filmstrip Set:
"Whys of Elementary Science"

MATERIALS 7

Teacher's Additional "Electricity" Materials are #42.

Electrician, Act. 5, 6, 6, 7
The Plan of the Trade is very favorable as construction increases throughout
the world. Most of these skills are learned on-the-job or in trade school settings.
A plumbing or similar productive occupation.

In this unit, diagram the sequence for getting water into the home.

Refer to activity #2.
RESOURCE MATERIALS
Plumber

GRADE 5

SUPPLIES

Plumbing tools

*SRA Work Briefs

*SRA occupational cards

A Center Furnishes
GRADE 5
MATERIALS 4
Architectural plans for house
MATERIALS 5
Occupations Card #10
SRA Math Cards
ACTIVITY

as a student can consider, break, and a house.

They can include:

how the layers had to be in the bricks or tower at regular work.

and that until after the class explaining.

MATERIALS 3

Filmstrip: "We Learn about Fuels"
--Taylor--
The dairy industry is a vital part of our national economy. The dairy industry generally affects every person. The dairy farmer has many types of jobs he must perform. The dairy farmer must keep abreast of new developments in the industry. Dairy farming is a desirable and productive profession.

**PERFORMANCE OBJECTIVES AND ACTIVITIES**

1. Upon completion of this unit, students will be able to demonstrate their knowledge of the dairy industry by preparing and presenting a short oral report on a selected topic.

   **DESCRIPTION:** Oral Reports.

   **Teacher Directions:** Refer to activity #2.
Display of dairy products cartons

*Poster - "More Milk, Please"
National Dairy Council

*CA Center Furnishes
Suggested Materials

Filmstrips:
"How We Get Milk" - Sup.
"Life on a Dairy Farm"
National Dairy Council

Encyclopedias

Materials 1

Materials 2
Activity:

Read "Dairy Cattle Production" and ask the students to bring an example of the product. They may be asked how much you will receive in a year. Figure 1.1 shows the yield of milk per cow, required to produce one pound of butter. All students are to this activity.

Materials:

Chart:
"Dairy Cattle Production"
(4.6 per student)

Materials:

Posters:
More Milk, Please guide

Materials:

Field trip
Leader: "Battle Hymn" -- Field
Leader: "Battle Hymn" (with record) -- Field
"Ballroom at Zool" -- EVE

. . .

...
GRADE 5

MATERIALS 1

Poster: "Cotton" --Field

Filmstrip: "Cotton Producing" (with record) --Field

Kit: "The Story of Cotton" --National Cotton Council

Comic books: Tommy Looks at Farming

MATERIALS 2

Dittos of U.S. maps (1 per child)
Relief map
Encyclopedias
Social Studies texts
5.11 BUTCHER, MEAT PACKER

ACTIVITY

Subject Area Suggested: Social Science

GRADE 5

MATERIALS

Filmstrips:
"How We Get Meat". The David S. Scott Press.

Exhibit: "Meat in the Kitchen". The David S. Scott Press.

Exhibit: "Meat: A Picture Book". The David S. Scott Press.

Write one of the following:

Name a meat on a white plate, a dark, or a pink.

List three ways of cooking meat.
5.11 BUTCHER, MEAT PACKER

ACTIVITY 3  Suggested Subject Area: Health

Discuss what the butcher must know about sanitation and why these things are necessary.

1. Wash hands often
2. Keep fingernails clean
3. Wear clean clothing
4. Scour and scald all food utensils such as trays, dishes, grinders, etc.
5. Air dry all utensils
6. Clean meat blocks and tables after each use
7. Scrub the working area floor often
8. Wash and scald the meat grinders after each use
9. Clean refrigerator and fixtures often
10. Clean and sterilize the garbage cans and keep them covered
11. See that doors and windows are screened
12. Watch out for flies, roaches, weevils, rats and mice

These could be put on separate cards for the children to pantomime while others guessed.

B. Discuss how the butcher knows that the meat he is cutting is wholesome and fit to be sold to the customer.

1. Have the children bring an actual meat stamp cut from meat from home or make their own on paper.

List of safety to observe as a butcher or meat packer. Discuss and put the class into listing several safety measures such as:

- Keep handle of knife free from grease
- Do not grab for a falling knife
- Meat on knife (may forget it is there when meat is picked up)
do not carry a knife when both hands are needed for carrying packages
5. never throw knives together into a box or drawer
   (may cut self and it dulls blades)
6. do not reach into soapy water for a knife
7. keep the free hand as far away as possible when using cleaver
8. do not crowd the working space
9. let the saw do the work (if the saw is forced it may jump from the bone onto your hand)
10. avoid "horseplay" with meat cutting tools
    (knives, saws and cleavers are dangerous)
11. keep the floor clean (fat meat trimmings are as dangerous as banana peels)
12. treat bone scratches and knife cuts immediately as a minor scratch can become infected and cause blood poisoning.
**ACTIVITY**  
Suggested Subject Area: Social Science

Take a field trip to a supermarket to visit a butcher at work or to a packing plant to view the process of cutting up the meat.

If a butcher is available, ask him to demonstrate the following:
1. boning knife
2. steak knife
3. steel
4. saw
5. cleaver
6. hook
7. stone
8. block scraper
9. block brush
10. metal mesh glove

**Review:**
"How to Get the Most from a Learning Experience Outside the Classroom"
"How to Prepare for a Field Trip"
"How Do You Use Your Experience When You Return to the Classroom"

(From appendix of this book)
ACTIVITY 3: Suggested Subject Area: Math

Follow-up field trip activities:
Compare costs of different cuts of meat and discuss why there is a difference.

Ascertain the average weight of a steer -- then the carcass weight, then the number of pounds of average meat left for consumer after trimming.
1. the pounds for steak
2. the pounds for roasts
3. the pounds for ground beef, short ribs, stews, etc.
The total of 1, 2, 3 should equal the weight after trimming.

Develop math problems such as:
1. If each steak weighs 10 oz., how many steaks can be cut from a piece of meat weighing 56 pounds?
2. If I eat 8 oz. of meat a day, how many pounds would I consume in a week? A month?
3. What is the percentage of meat available for steaks from an average steer?
4. What is the percentage available for roasts?
5. What is the percentage available for hamburger, cube steak, etc.?

Research: Get information from home on amount of money spent on meat for one week. Then figure for a month and a year.

Brainstorming session: Students meet in groups of five and think of all the different people who are involved in producing one steer.
(Pages 12 - 13 of "The Story of Beef")
Many diversified industries employ dietitians. Dietetics is the science that deals with the relationship of food to health. Nutrition is a closely related field. Special diets for gaining or losing weight or the diet of patients of the diet. as are specialized diets for infants and children. In addition, dietitians deal with malnutrition, its prevention and correction, and the definition of malnutrition.
RESOURCE PEOPLE

School Dietitians
Hospital Dietitians

FIELD TRIPS

5.12 DIETITIAN

FILMS

"Eating the Right Kind of Foods" — 956 IMC
"Foods for Health" — 211 IMC
"Food for Life" — 1218 IMC
"Right Foods Keep Health" — 2964B IMC
"Meal Planning" — 1940 IMC
*"The Real You" — National Livestock & Meat Board

BOOKS

Understanding Your Needs (Text) — 5
— Lyons and Carnahan

Discovering Science (Text) — 5
— Merrill

*Better Homes and Gardens Cookbook

*Mystery at the Food Power Tower (Booklet) — 36
— National Livestock & Meat Board

*Test Your Food Power (Booklet) — 30
— National Livestock & Meat Board

GRADE 5

SUPPLIES

Tape recorder
Filmstrip viewers

*SRA Occupations Cards, #27

For experiment in activity #2:
Olive oil
Tinfoil, white paper
Pan
Dried lima beans
Teaspoon
Iodine
Medicine dropper
Peanut butter
Spoon
Feathers or hair
Hot plate
Drinking glass
Miscellaneous food.
ACTIVITY 1
Suggested Subject Area: Social Science

Show the filmstrip "The Real You" to the class and read the materials for each frame. Discuss at the conclusion.

The remainder of this unit is self-directed. The time taken to complete the activities might vary with the emphasis the teacher wishes to place on the unit.
ACTIVITY 2

Introduction

This packet is self-directing. When you finish one activity, go on to the next. At one end there will be a post test. You may work on this packet individually or in a small group.

Please look ahead and plan which day you will be working on what activity. If you need materials, please be sure to write out a request sheet to your teacher.

Sample request sheet:

<table>
<thead>
<tr>
<th>Name:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date handed in:</td>
</tr>
<tr>
<td>Date needed:</td>
</tr>
<tr>
<td>Material needed:</td>
</tr>
<tr>
<td>Number or name of Career Awareness Packet:</td>
</tr>
</tbody>
</table>

ACTIVITY 2.1

Subject Area: Health

While beginning this activity, read Understanding Your Needs, Chapter 2, "Foods for Going and Growing".

Keep a record of the foods you eat for three days. Divide these into the four basic food groups.

Are all of your food groups filled?

Paste or staple your chart into a notebook that you will now begin entitled "Dietitian" (or you may choose another appropriate title).

Go on to activity #2.2.

ACTIVITY 2.2

Subject Area: Health

After completing activity #2.1, start preparing a bulletin board as suggested on page 59 of Understanding Your Needs.

Ask your teacher to obtain the poster "Dietitian". Also, have your teacher make arrangements now for interviews during later activity.

Go on to activity #2.3.

MATERIALS 2.1

Book: Understanding Your Needs (text)

MATERIALS 2.2

Book: Understanding Your Needs (text)

Poster: "Dietitian"
ACTIVITY 2.3
Subject Area: Social Studies
- Filmstrips in groups of five or six. Rotate from strip to strip as each student must view at least three of the strips.
- Written or picture evaluation of each filmstrip. Put in notebook.

ACTIVITY 2.4
Subject Area: Health, Science
Plan menus for a week for your family. If you desire, do a cost accounting for this menu plan.
Make sure you include proper proportions of the basic foods.
You will need cookbooks. Better Homes and Gardens Cookbook is a good one.
Place these in your notebook.
Go on to activity #2.5.

ACTIVITY 2.5
Subject Area: Art, Language Arts
Display preparation. Make a nutrition display showing a balanced diet.
Post near the lunchroom serving line in your school.
Be sure to check with the cooks ahead of time.
5.12 DIETITIAN

ACTIVITY 5.12

Subject Area: Science, Health

Introductions:

I'm going to be a dietitian.

1. List the foods you have that fit the criteria of a low calorie diet.
2. Sugar free
3. Fat free
4. Low cholesterol
5. Low carbohydrate

Now, let's find out more and prevention is also very interesting.

In our English classes are called "tiney".

Reference books, any other resource material, and articles will be available to you. Your Health textbook may be helpful.

GRADE 5

MATERIALS 2.6

Discovering Science, 5

- 1 cup of peanut butter
- 1/2 cup of white paper
- 1 teaspoon of marshmallows
- 1 cup of sugar
- 1 cup of melted chocolate
- 1/2 teaspoon of vanilla extract

Book 1, dropper

Science books

GRADE 5

MATERIALS 2.6

Test Your Food Power

1. Write in the pamphlets.

Test Your Food Power

Write in the pamphlets.

Test Your Food Power

Write in the pamphlets.
ACTIVITY 2.8

Presentation by a resource person who is a dietitian.

Have questions ready ahead of time that you would like to ask about what a dietitian does and where one goes to learn to be a dietitian.

This will be a class project.

Next, answer these questions in your notebook.

1. Write a definition of a dietitian.

2. Write the basic food groups and place today's school lunch menu in these food groups.

3. Write down three businesses in Boise that would employ a dietitian.

4. Write a definition of malnutrition.
The "Occupations" card suggests some excellent activities which you might wish to explore in connection with math and careers. Do all or part of the activities described.
CONCEPTS

The medical profession has many varied occupations within it. People in the medical profession have gone through many years of specialized training. Those in the medical profession will help us take care of our bodies. Doctors, nurses, and others in this profession are in positions of great personal responsibilities. Jobs in the medical profession are desirable and productive.

OBJECTIVES

1. Upon completion of this unit the students will be able to name five of the six major systems of the body.

   Description: Students make charts on the six major systems of the body.

   Teacher Directions: Refer to "Option" activity.

   Description:

   Teacher Directions: Oral test

   Teachers Directions: In individual conferences with each student, ask the student to name at least five of the six major systems of the body.

2. Upon completion of this unit the students will be able to describe seven occupations within the medical profession.

   Description: Class meeting.

   Teacher Directions: Refer to Activity #1. Have students talk about the various occupations seen in the filmstrip "Health Services" and ask them to comment on their own experiences with health services.
PHYSICIAN - NURSE

GRADE 5

RESOURCES PEOPLE

Doctor
Female nurse
Technician
Nurse
Inhalation therapist
Tumor Institute Personnel

FILMS

"Health Heroes: The Battle Against Disease"
-- MP 1085 IMC

FILMSTRIPS

"Our Bodies"
Set of four Whys of Elementary Science
-- Filmstrip House
(All from CA Center)

"Doctor" - IMC 500

BOOKS

Health Text - Understanding Your Needs
-- Lyons and Carnahan

SUPPLIES

* "Diseases and Health" - Transparencies and Masters by Milliken
  (CA Center)

* Nurse Kits

* Doctor Kits

* "Doctor" - IMC 500

* "Diseases and Health" - Transparencies and Masters by Milliken
  (CA Center)

* Nurse Kits

* Doctor Kits

Models of: eye, ear, heart, body
Eye chart
Stethoscope
Stop watch
(School Nurse)

* Filmstrip viewers - CA Center

* Crossword Puzzle: "Doctor"

* CA Center Furnishes
ACTIVITY 1

Suggested Subject Area: Health

This unit will best fit into the section "Your Body Systems" from the text "Understanding Your Needs.

Now the...... "Health Heroes: The Battle Against Disease" and discuss it.

Have your display the doctor and nurse kits so students can see tools used by these occupational areas.

ACTIVITY 2

Suggested Subject Area: Health

Pass out the room set of comics on health careers for students to read. Have mimeographed copies of the last page "Can You Answer These?" for each student.

This might also be used as free reading time material rather than an activity.

Use the crossword puzzle found in the box of supplies. Run off copies so each student has one for his own use. It is suggested the teacher go over the terms so they are well understood by the class. The puzzle included in this unit is "Doctor".

MATERIALS

GRADE 5

Film:
"Health heroes: The Battle Against Disease" - MP 1085 IMC

Text:
Understanding Your Needs
---Lyons and Carnahan

Doctor Kit
Nurse Kit

MATERIALS

Film:
"Health heroes: The Battle Against Disease" - MP 1085 IMC

Text:
Understanding Your Needs
---Lyons and Carnahan

Doctor Kit
Nurse Kit

Crossword Puzzle: "Doctor"
ACTIVITY 1  Suggested Subject Area: Health

Ask the school nurse to conduct a session of questions and answers concerning her duties and the duties of non-school nurses. Emphasize the various levels of nursing.

She might then show the model of the eye and explain it. Then have students take an eye test with a chart for their own experience. She might also demonstrate various other things she does in her work.


GRADE 5

MATERIALS 3

Resource Person: School Nurse
Model of eye
Eye chart

ACTIVITY 2  Suggested Subject Area: Health

The school nurse or teacher will explain the functions of the ear using the model of the ear and the full body model.

Then, using the heart model, explain the circulatory system in conjunction with the text.

Using a stethoscope, have students listen to each other's hearts. Have each count the beats per minute on others or themselves after sitting and after running.
ACTIVITY 6  
(Two days) Suggested Subject Area: Health

Have the transparencies placed around the room and give each student a copy of all the masters. Explain to the students they are to complete the masters in two periods, (2 days) or sooner. They are to view a transparencies, them move to another area and complete the master to which it might pertain.

When they are finished they should turn them in to the teacher. When all have finished, return the masters to the students and go over the results by using the transparencies.

ACTIVITY 7  
Suggested Subject Area: Health

Have a resource person talk with the class describing the job and instruments used. This might be a doctor, male nurse, technician, medex, etc.

If more than one of these are available, don't hesitate to use them on different days.


MATERIALS 5 - 6

Transparencies and Masters
"Discuss and Health" - Milliken
(Care centers)

GRADE 5

MATERIALS 7

Doctor
Male Nurse
Technician
Medex
Inhalation therapist
Tumor Institute Personnel
ACTIVITY 8 - 9  Suggested Subject Area: Health

Students make charts on one of the following:
- skeletal system
- muscular system
- circulatory system
- respiratory system
- digestive system
- nervous system

Diagrams of these can be found in the health text as well as in many other sources.

Other options might be from the health text Understanding Your Needs, page 132, "Something to Do".
Some people work to help us stay healthy.
A pharmacist is a professional expert on drugs.
A pharmacist must have a college education and he must pass an examination to obtain a license.
A pharmacist has many places of work open to him.
The pharmacist must use integrity, precision, and medication in the dispensation of drugs.
Drugs are chemical substances for medical use.
Misuse of drugs can lead to ill health and even death.
Safe storage of drugs in the home is of great importance.

1. The students will be able to tell about the pharmacist - who he is, where he works, and how he qualifies - when given the following choices: a written paragraph, an oral report, or a picture illustration.

Description: Language arts exercise.

Teacher Directions: Instruct each student to tell about the pharmacist - who he is, where he works, and how he qualifies through any one of the following modes of expression: a written paragraph, an oral report, or a picture illustration.
RESOURCE PEOPLE:

- Ivy Ross, Health Consultant
- Arnold Patton, School Physician
- Robert Hunt, Psychologist
- Maharashtra, Supervisor of School Nurses

FIELD TRIPS:

- Police Department (Drug & Narcotic Div)
- Pharmacist

FILMS:

"Drugs and the Nervous System" -- School Nurse

FILMSTRIPS:

"Dangers of Narcotics" -- 200 PMC

BOOKS:

* Healthy Is Happy -- Whitman
  World Book Encyclopedia
  Dictionaries
  New Dimensions in Mathematics (Text) -- 5
  -- Harper and Row
  Our Language Today (Text) -- 5 -- American Book Co.
  Childcraft Encyclopedia
  Vocational Education and Career Bulletin Board
  Ideas -- Maynard (Williston Public Schools)
  *Simulation Games and Activities for Social Studies
     (Booklet) -- Youngers and Aceti
5.14 Pharmacist

Activity

Suggested Subject Area: Social Studies, Language Arts

Students will learn about the role of a pharmacist in the health care system.

Materials

- Visit a pharmacy
- Read about the history of pharmacy
- Research the role of a pharmacist
- Write a short story about a pharmacist

Grade 5

"Healthy is happy" - Whitman
5.14 PHARMACIST

ACTIVITY 1
Suggested Subject Area: Art

Student may select an art project from the following or create one of his own.

1. Use crayon or paint to make a picture of the drugstore or some illustration of the druggist's work. Display mounted pictures on the bulletin boards.

2. Student may design his own transparency about the pharmacist. Experiment with the processes of overlay, labeling, etc. Use the overhead projector to show the picture to the class when completed.

3. Use candies to create "pill" designs and artistic lettering, mosaics, etc. Display on the bulletin board after completion.

Have students evaluate their work.

ACTIVITY 4
Suggested Subject Area: Math

Write the Tables of Standard Measurement on the chalkboard. Include Table of Weight, Liquid Measure, and Metric System (if using metric scales).

Give each child a prescription to fill. (Each child may write a prescription for another to fill.)

Kitchen scales may be used to weigh dry ingredients (flour, cocoa, sugar, etc.) as prescribed. Example: Cold Medicine

1 oz. cocoa
1 oz. flour
2 oz. sugar

Dosage: ½ tsp. daily

As children become proficient, they may use metric scales, or apothecary scales.

Measure liquids in empty medicine bottles which have markings, or in ¼ oz. dosage cups obtained from hospital (plastic cups used in院子 of medicine to hospital patients).

Students solve problems in measurement which have been assigned from book or written on chalkboard.

Evaluate by going over problems together.

GRADE 5

MATERIALS 3
Book:
Simulation Games and Activities for Social Studies (page 44).
---Younger and Aceti

MATERIALS 4
Text:
New Dimensions in Mathematics, 5 (pages 324 and 372)
---Harper and Row

Scales for measuring weight
Ingredients for "prescriptions"
5.14 PHARMACIST

ACTIVITY 5

Suggested Subject Area: Language Arts

Have the children study the form and method of writing a business letter (pages 41-46).

Discuss the parts of the letter and write the parts on the chalkboard to illustrate.

Have the children write business letters asking for more information about a career in pharmacy. They may find their own sources, or use those listed on page 24 in "Your Career Opportunities in Pharmacy".

Example from page 24: Write and ask for a booklet:

See Your Future in Pharmacy
American Pharmaceutical Association
2215 Constitution Avenue, N.W.
Washington, D.C. 20037

ACTIVITY 6

Suggested Subject Area: Language Arts

Give each student a mimeographed copy of the crossword puzzle, "The Druggist".

They are to complete this in a prescribed time or stop when time is called. Go over the results with the class.

Children may do it as a contest, and compete by rows or by pre-arranged rounding. One point may be given for each correct word; total score by rows.

GRADE 5

MATERIALS 5

Text:

Our Language Today, 5 (pages 41-45) -- American Book Company

Booklet:

"Your Career Opportunities in Pharmacy" -- Pfizer Laboratories.
ACTIVITY 7
Suggested Subject Area: Language Arts

List on the chalkboard the following terms (or any words you choose to use).

Children may use a dictionary or reference book to find the meaning.

Write the meaning after each word.

define:
1. pharmacist
2. prescription
3. drug
4. illegal
5. label
6. stimulant
7. depressant
8. hallucinations
9. poison
10. sedative

Write each word on a separate sheet of paper or piece of tagboard; write the meaning on the back or on another small card. Drill on the vocabulary words by matching the word with its meaning.

Ditto sheets for testing.

Learn to spell the words prescription, doctor, and aspirin.

GRADE 5
MATERIALS 7
5.14 PHARMACIST

ACTIVITY Options

Suggested Subject Area: Music, Health Language Arts

1. Group singing: "A Spoonful of Sugar" --Sherman
   (From Walt Disney's Mary Poppins)
   Or compose a song about the pharmacist.

2. Brainstorming: Items in a drugstore.
   Divide class into groups of 5 or 6 students and select a place for each to work. Each group chooses a "recorder" and a "pilot". The "recorder" writes down the responses for his group; the "pilot" keeps the group working quickly and systematically. At the signal "Go!" each group begins to think of as many items as they can, beginning with the letter "t", which are found in a drugstore. After the signal "Stop!" each group counts the items listed. (Example: toothpaste and tums.) The group having the most points is the winner. One student may record the group scores on the chalkboard. The winning group reads their list to the class; the other groups add to it any new items from their lists.

   Show transparency "Alcohol and Drugs" from Disease and Health. Explain transparency.
   Show filmstrip "Danger of Narcotics". Follow with discussion.
   As a home project, have students inventory medicine cabinet and campaign for safe drug storage.

4. Have resource person visit room and talk on some phase of the drug problem. Resource person may present movies, filmstrips, or displays, also. Follow up presentation with a short class discussion.
   Children write a news story about the presentation for a school paper or draw picture illustrations. (This could be done the next day.)
   (Mrs. Formo has the film "Drugs and the Nervous System" available.)

GRADE 5

MATERIALS Options

Music for "A Spoonful of Sugar"
Mary Poppins Album
Wonderland Music Company (Rm. 112)

Text:
Understanding Your Needs, 5
(pages 197-199) --Lyons and Carnahan

Transparency:
"Alcohol and Drugs"
Disease and Health (page 10) Milliken

Filmstrip:
"Danger of Narcotics" --200 IMC

Resource person from among following:
Dr. Harold Hatton, School Physician
Mrs. Joan Ross, Health Consultant
Mrs. Marjorie Formo, Supervising Nurse, BISD
Mrs. Vivian Storey, Garfield Nurse
Mr. Robert Hanson, School Psychologist
Boise Police Department
Drug and Narcotic Division
MENTAL ILLNESS IS SIMILAR TO PHYSICAL ILLNESS IN THAT IT CAN BECOME A PROBLEM TO SOME DEGREE IN EVERY PERSON. MENTAL ILLNESS CAN BE TREATED AND CURED AS CAN PHYSICAL ILLNESS.

THERE ARE MANY FORMS OF MENTAL ILLNESS. THERE ARE MANY TYPES OF WORKERS WITHIN THE MENTAL HEALTH FIELD. MANY YEARS OF TRAINING ARE NECESSARY TO BECOME A SPECIALIST IN THE FIELD OF MENTAL HEALTH.

1. Upon completion of this unit, the students will be able to demonstrate their knowledge of the field of psychiatry by doing research in a particular area of interest and reporting the findings to the rest of the class.

**Description:** Oral report.

**Teacher Directions:** Refer to activity #2.
RESOURCES

PEOPLE

(Mrs.Suggestions for this list)
Dr. Tom Kozier - Psychiatrist
Mrs. Kay Youngerman - Health Worker
Dr. LaMarr Hayford - Psychiatrist
Dr. Charles Stromberg - Clinical Psychologist
School Psychologists
School Counselors
Ada County Mental Health

FILMS

SUPPLIES

FIELD TRIPS

BOOKS

Reference books from the library.
5.15 PSYCHIATRIST

ACTIVITY 1

Suggested Subject Area: Language Arts

List these vocabulary terms on the board. Ask the students the meaning of each to see how much they are aware of the area. Explain each.

1. Psychiatry
2. Psychology
3. Psychosis
4. Psychotherapy
5. Subconscious
6. Neurosis
7. Hysteria
8. Ego
9. Psychoanalysis
10. Abnormal

Divide the class into groups of five and have them brainstorm the activities of a psychiatrist. Have each group present their results.

These activities might be done with the help of the elementary counselor.

ACTIVITY 2

Suggested Subject Area: Language Arts

Divide the class into groups of five students and have them do some research in the following areas:

1. The training needed to become a psychiatrist, psychologist, social worker, counselor.
2. Famous people in these fields: Freud, Turman, Rogers, Adler, etc.
3. Differences between a psychologist and a psychiatrist.
4. Where a person can receive mental treatment.
5. Different kinds of mental illnesses.
6. Phobias.

Report the findings to the rest of the class.
5.15 PSYCHIATRIST

Suggested Subject Area: Health

Have a resource person speak to the class on the mental illness field. Here are some from among the following:

- Dr. Kruzich – local psychiatrist
- Mrs. Kay Youngerman – health worker
- Dr. Heyrend – psychiatrist (methadone project)
- Dr. Stromberg – clinical psychologist
- School psychologists
- School counselors
- Ada County Mental Health

GRADE 5
MATERIALS 2

Suggested Subject Area: Language Arts

Read "Peanuts: The Psychiatrist Is In". Students roleplay a problem, and the class can give their opinions as to what the problem might be and how it might be handled. Perhaps the school counselor can help.

Suggested Subject Area: Spelling

Make a spelling game of the words "psychiatrist, psychologist, psychoanalyst, and psychotherapy". They might spell them in teams with the first team spelling all correctly the winner.
The assembly line has revolutionized American and World Industry. The assembly line process is quicker, more efficient, and more economical than the singly built unit.

There are a variety of occupations in the assembly line process. The assembly line jobs require educational training either on-the-job, technical setting, or college, depending on the position.

Upon completion of this unit the students will be able to describe reasons why an assembly line process is used in most industry today.

(a) Description: Simulation of an assembly line process, followed by a class meeting.

Teacher Directions: Refer to activity #6. Follow this activity with a class discussion on the reasons why an assembly line process is used in most industry today.

(b) Description: Writing exercise.

Teacher Directions: Have each student explain in writing reasons why an assembly line process is used in most industry today. (Instruct the students to limit their explanations to one paragraph.)
FIELD TRIPS

To mobile home or camper assembly plant

SUPPLIES

- 3 x aris (60)
- Clay sticks (30)
- Construction paper
- Glue
- Paints, crayons
- Pencils
- Rulers
- Scissors

5.16 ASSEMBLY LINE WORKER

FILMS

"Automobile in America" --MP5430

FILMSTRIPS

"Detroit: Manufacturing Community" --SVE

BOOKS

*Popeye the Sailor and Manufacturing Careers (Comics)

*Simulation Games and Activities for Social Studies (Booklet) --Youngers and Aceti

*CA (enter Furnished)
ASSEMBLY LINE WORKER

GRADE 5

MATERIALS

...
Suggest Subject: Social Studies.

MATERIALS

Assemble: 10 small pieces of paper and glue. The first step is to write on the front:

For "... assemble line experience can be found on page 11 of Materials and Activities for Social Studies."
5.16 ASSEMBLY LINE WORKER

ACTIVITY 1
Suggested Subject Area: Art, Social Studies

Using the best card from activity #4, set up an assembly line to manufacture them. First cut pasteboard outlines for the card outlines or parts of card outlines. Have the following people on an assembly line:

1. Tracer of the materials
2. Cutter
3. Artist for cover picture
4. Artist for inside picture
5. Writer of poem
6. Writer for front cover and back
7. Gluer
8. Inspector, folder, touchup (one person)

Have three assembly lines set up. Ask them each to make ten cards. Time each and see who did the best job the quickest.

Have three student volunteers make ten cards each as a comparison of assembly line versus single unit.

ACTIVITY 6
Suggested Subject Area: Social Science

Take a field trip to a trailer or camper assembly plant to see an assembly line in action. Emphasize the workers who are on the line.

ACTIVITY 7
Suggested Subject Area: Art, Social Science

Give each student a sheet of blank paper. Ask them to draw the inside of a camper from a top view.

When they have finished, mention a few things that should be in to see if they omitted anything.

ACTIVITY Option

Groups of five students build mobile homes out of boxes and other available materials. They should use their imaginations as to what they need to use to do the building.
The machine industry and welding are vital parts of our national production setup. Machinists and welders are required to have training in a technical setting and/or on the job training. An operator usually specializes on a particular type of machine or a particular type of welding. Machining and welding are desirable and productive occupations.

Upon completion of this unit the students will be able to describe the major duties of most machinists and welders.

a. Description: Field trip to a machine shop, followed by a class meeting.
Teacher Directions: Refer to activity 1. Upon returning to the classroom, have a class discussion on the major duties of the machinists and welders seen at the machine shop.

b. Description: Writing exercise
Teacher Directions: Have each student write a paragraph describing the major duties of most machinists and welders.
5.17 MACHINIST, WELDER

RESOURCE PEOPLE
High School Shop Students

FILMS

FILMSTRIPS
* "Machines That Made America Grow, Troll (CA Center)

FIELD TRIPS
To Machine Shop

BOOKS
* SRA Occupational Briefs (CA Center)
Encyclopedias

*CA Center Furnishes
5.17 MACHINIST, WELDER

ACTIVITY

Suggested Subject Area: Social Studies

Have students look up "Machinists" and "Welders" in the SRA Occupational Briefs. Read them to the class.

Films: This filmstrip shows basic relationships between the producers of various goods and the ultimate consumer. Although a machinist or welder is not specifically mentioned, point out the role played by those occupations with each machine shown: farm machinery, flour mill, bakery, cotton picker, etc.

As a follow-up, students might work in groups. One group list products that originate on the farm, another list products originating on a ranch, in a forest, deep inside the earth. Still another group might list synthetics, such as plastic items. Each group should be ready to explain their list and where in the process the machinist or welder will fit.
ACTIVITY 2

Suggested Subject Area: Social Studies

Students investigate and prepare reports on various kinds of machines machinists operate and different types of welding. It is important that they explain what the machines actually do and what it compares with similar to those shown in the World Book Encyclopedia.


The main purpose of the exercise is to make students aware of various processes rather than being able to name the processes. It would be good to have an example of each on hand plus some small tools.
Activity: Suggested Subject Area: Social Studies

Take a field trip to a machine shop to observe machinists and welders at work. Emphasize the safety measures necessary in these professions.

Review for Field Trip:
How to Get the Best from "Learning Experience Outside the Classroom"
How to Prepare for a "Field Trip"
How Do You at First Experience When You Return to the Classroom?"
from appendix of this book.

Materials 3
Field trip to a machine shop

Materials 4
Resource Persons:
High School Students

Ask them to bring models and materials they are able to display.

Review for Guest Speaker:
"Communicating With Talent", "Resource Talent", "Questions for Group Conferences" from appendix of this book.
5.18  PAPER MACHINE OPERATOR

CONCEPTS

Paper is one of the fastest growing of all products in the United States. We all use paper products every day. People operate and be adequate and at skill in making paper.

LEARNING OBJECTIVE

- Paper machine operations

DIRECTIONS

- Class meeting

TEACHER DIRECTIONS

Have the students describe five to six jobs that are paper manufacturing related. Make a list of these jobs on the blackboard if they are described to the students.

DESCRIPTION:

- Written test

TEACHER DIRECTIONS

Ask each student to make a list of the types of jobs which are paper manufacturing related.
5.18 PAPER MACHINE OPERATOR

RESOURCE PEOPLE

Boise-Cascade employee of box factory - Nampa

FILMS

"Paper and Pulp Making", MP 1133 (IMC)

FILMSTRIPS

"Paper", 975 IMC

FIELD TRIPS

"Paper and Pulp Making", MP 1133 (IMC)

BOOKS

* Pamphlet: "How You Can Make Paper" - CA Center
* The Story of Paper and Pulp - CA Center

Any available library books on paper and paper making

Yellow Pages of Learning Resources, MIT Press (School Library)

SUPPLIES:

* fine mesh wire
  metal pan
  basin
  facial or toilet tissue
  blotting paper
  starch
  egg beater
  rolling pin
  electric iron
  newspaper strips
  wheat paste
  wire frames
  different sizes and shapes of board (wood chips)

microscope
balance
toothpicks
overhead projector
flash cards
toothpicks
clothes hangers
rulers or tape measures

*S.R.A. Occupational Briefs

*CA Center Furnishes
5.18 PAPER MACHINE OPERATOR

ACTIVITY 4

Materials

Introduction:

Discuss the importance of recycling anything. Bring in a variety of paper products. (The location of the recycling center)

Discussion:

Research indicates that returns children could note on their

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198x131

198x131

200x213

245x244

245x244

211x386

211x386

208x404

326x364

326x364

326x428

326x452

386x248

386x248

418x315

418x315

418x369

418x374

418x385

419x433

429x106

429x106

429x166

430x202

430x256

441x225

442x312

442x356

442x397
GRADE 5

MATERIALS

- Filmstrip: "Paper" (partial)
- Papers: "The Story of Pulp and Paper"
- Tools: egg beater or blender, rolling pin, electric iron (household type)
- Starch: laundry starch

WORKS:
- "American Paper" in Young Encyclopedia
- "Making in United States" (text)

REMEMBER:
- Read for Unit 5: "O
- Be sure with these:
  - use paper 'bottom cut out edge"/"bottom cut out edge"/"bottom cut out edge"
  - form block; add to corners
  - work. will fit inside 1st. 2nd. 3rd. 4th... number of lines in a row.

- Use sheets facial tissue (not wet on 6th... 7th... 8th
  - works well)

- Use sheets blotting paper
- laundry starch
- egg beater or blender
- rolling pin
- electric iron (household type)
PAPER MACHINE OPERATING

Let the children create their own shapes and designs.
7. Coating and Finishing
   a. Tin plate
   b. Cold rolled annealed steel
   c. Galvanized steel

8. Steel Markets: finished products
   a. Kinds of products

9. Steel Workers
10. Map of United States
    a. Steelmaking centers
    b. Iron ore deposits
    c. Limestone deposits
    d. Coking-coal deposits

   1. Charts
      a. Steel producing states
      b. Leading iron ore mining areas
      c. Leading iron ore mining countries

   * At this stage, each will require more than one student working on it. These probably require a separate student as well.

   * The steel-rolled from IPC might be in a display and used.

   Suggestion: Give the completed materials to another class so they can study the process or make a display of it in a place where the entire school can see.
5.20 BAKER

GRADE 5

(a) **Description:**

Teacher Directions: Let the students take turns role-playing a baker explaining his job, including his responsibilities and the skills necessary to be a baker.

(b) **Description:**

Teacher Directions: Have each student write a paragraph about the baker's job including his responsibilities and the necessary skills he must have.

2. Without the use of reference materials, the student will be able to describe the baker's job including his responsibilities and necessary skills he must have.
FILMS

BOOKS

Yellow Pages of Learning Resources
- SIP Press (School Library)
- SRA Work Brief (Packet)

SUPPLIES

*CACannot Furnish
GRADE 5

MATERIALS 1

SRA Work Brief "Bakers" (Paquet)
Yellow Pages of Learning Resources

MATERIALS 2

Recipe for making bread on a transparency (in packet)
Yellow Pages of Learning Resources

Read Area: Reading

Ask students: What is the main term for a unit? What are the steps to complete their work? Ask students to brainstorm the terms and present the results.

Ask students: What is the title of the "How to Make Bread" recipe? Ask them to read and copy it carefully.

Ask students: Why do you think it is important to read the recipe and copy it carefully?

Ask students: What other recipes from home can they bring?

Ask students to interview a baker.

Write the terms and ask students to label them.

Write the steps and ask students to label them.
MATERIALS

- Filmstrip
  "Bakery Person" - People Who Organize Others
  - Guidance materials
The fish hatcheries are either public or private operations. Without the hatcheries, there would be no fish to eat. The fish hatchery manager has the job of raising the fish and releasing them into the water. This open letter is written by the man in charge of a stream or a small river.

**Description:**

Draw a diagram illustrating.

**Teacher Directions:**

Refer to activity #2.
FIELD TRIPS
To a fish hatchery.

BOOKS

*Compton's Young Children's Encyclopedia*

*Studying Music* --American Book Company (6)
ACTIVITY 1

Suggested Subject Areas: Science, Art

ACTIVITY 1

Suggested Subject Area: Science, Art

ACTIVITY 1

Suggested Subject Area: Science, Art

ACTIVITY 2

Suggested Subject Area: Science, Art

ACTIVITY 2

Suggested Subject Area: Science, Art

MATERIALS 1

Films:
"Salmon of the Sockeye"
"Way of the Trout"
"Troubled Journey"
-- Idaho Fish and Game Dept.

Book:
Compton's Young Children's Encyclopedia
FIELD TRIPS

Television Station

FILMS

"Recording Engineer" People Who Work in Science, G.A., (CA Center)

"TV Sports Editor" People Who Organize Facts, G.A., (CA Center)

FILMSTRIPS

FIELD TRIPS

Television Station

BOOKS

* Come to Work With Us in a Television Station
  --Sextant (CA Center)

Yellow Pages of Learning Resources
  --MIT Press

*CA Center Furnishes
5.22 TELEVISION - RADIO ANNOUNCER

ACTIVITY 5  Suggested Subject Area: Language Arts

Have a student from TV Programming Class at Bose State College, or local television or radio station to tell about preparation for a locally produced program.

Have groups meet and prepare plans for program with speaker as resource person to provide assistance with technical problems.

Also teach camera crew how to operate video-tape recorder and camera.

(Or ask H. Marquart to come out and do so.)

Review:
"Communicating With Talent"
"Resource Talent"
"Questions for Group Conferences"

from appendix of this book.

ACTIVITY 5  Suggested Subject Area: Language Arts/Social Studies

Rehearse program as small groups and as a total production.

These programs might be: newscasts, sports, weather, or commercials.
Commercials seem to work well as they are short and props are easily used.

MATERIALS 5

Resource Person:
Student from B.S.C. Television, last or local T.V. or radio announcer

Video-tape recorder and monitor

MATERIALS 6

VTR Equipment and TV set
5.22 TELEVISION - RADIO ANNOUNCER

ACTIVITY: Suggested Subject Area: Language Arts/Social Studies

GRADE 5

MATERIALS

Field trip to a television station.

Review:
"How to Get the Most from a Learning Experience Outside the Classroom"
"How to Prepare for a Field Trip"
"How Do You Use Your Experience When You Return to the Classroom"

Appendix of this book.
5.23 TELEVISION REPAIRMAN

ACTIVITY 1  
Suggested Subject Area: Science

Take an informal survey of time spent watching television by members of the class. Discuss value and limitation of television as a communications tool.

Ask students how a television works. Get ideas and jot them down on board.

Use transparency to illustrate simplified explanation of how television works.

ACTIVITY 2  
Suggested Subject Area: Science

 Invite speaker to explain in simplest possible terms how a television set works. Demonstrate how problems in television sets can be located and repaired.


GRADE 5

MATERIALS 1

Transparency showing how television works

MATERIALS 2

Resource person: Television Repairman or Student in electronics
TELEVISION REPAIRMAN

ACTIVITY: Suggested Subject Area: Science

Explain how a television set works. Be sure to say how complex a television set is.

MATERIALS:

Filmsstrip "How a Color TV Works", IM 48

Filmsstrip: "How a Color Television Works" - IM 48

SUGGESTED SUBJECT AREA: Science

MATERIALS:

Filmsstrip "How a Color TV Works", IM 48

Filmsstrip: "How a Color Television Works" - IM 48
How A Television Works

Transmitter

Electric Current → Amplifier → TV Camera

Electron Current → Amplifier → Microphone

TV Waves → Transmitting Antenna

Receiver

Receiving Antenna → Electrical Current → Tuner → Amplifier

Sound System → Speaker

Picture System → Picture Tube
AIRLINE EMPLOYEES

**RESOURCES PEOPLE**

**FILMS**
- "Airline Stewardess" - MP 5248 IMC (optional)
- "From Kitty Hawk to Jumbo Jet" - MP 5407 IMC

**FILMSTRIPS** (All CA Center)

**FIELD TRIPS**

Municipal Airport
- a guided tour of air traffic

**BOOKS**
Various library books on flying industry.
- The Big Book of Space, by E.O. Hensh (school library)

**GRADE 5**

**SUPPLIES**
- Work
- Individual Filmstrip Viewers
- Individual Viewers
- Flash cards
- Chart paper
- Scissors
- Rulers
- X rays or drills
- Tape measure

**Equipment**

- Gelatin cases for direct readout
- Filmstrip holder
- Filmstrip projector

- "Space"
A SUGGESTED SUBJECT AREA: Social Studies

THEME: AIRLINE EMPLOYEES

ACTIVITY: Field Trip

The air traffic control activities are programmed for the students. They
will have five activities, on film, and the last, the field trip, the
activity will be working independently for nine days, in this industry
area. It is suggested that the notebook be set aside early on for the
students to work on these activities.

Each student will be given a notebook of activities, numbered from 1 to 10.
They are to complete nine of these during the next nine days or sooner,
depending on their speed. They may choose to begin with any of the nine
activities at any other, but eventually they should cover nine of
their own. They may start the activity of their choosing.

 Mention to the students that it will be crowded if all students start
with the same activity, therefore they need to spread themselves around
more if there should be three students at a time, in any activity area.

Before the activity is started, the filmstrip must be shown. Directions for each activity are given in
the book. Activities and materials are listed with each activity. Students
get a copy and will use in the room, hallway, and other places
available.

Directions: 

1. Read the directions. 
2. Watch the filmstrip. 
3. Complete the activity. 
4. Return the notebook to your teacher.
You will read at least one book about air transportation or aviation and make a written report on this page. Choose the first book or read another you may have access to. Be sure you have the teacher approve your choice. Most of the reading should be done in your spare time; otherwise you won’t get your other activities finished.

Write a paragraph or more which tells about this book.
Look at the book "The Executive Manual on the Construction of Projectiles" or how to "Build Paper Airplanes at the Office." There are also some diagrams for you to follow.

For this we have you choose 2 of the 5 airplanes or them using your own paper and materials. Notice that some can be decorated and others have pilots in them. If you choose, you may build more than two; however, remember you have many other activities so use your time wisely.

Check those you build.

- Plan E Executive 797
- Plan Fminate Interlude Special
- Plan M Taster
- Plan V The Paul V-Two
- Plan D Demolition Missile

You get your test flight in the classroom. All others must go outside. Remember: Every litter bit hurts.

Materials:

Book: "The Executive Manual on the Construction of Paper Airplanes at the Office"

Materials: 
Read the comic book, "Popeye and Transportation Careers". Then list eight careers in aviation mentioned in the comic book.

1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 

Materials: Room set of King Features comic books: "Popeye and Transportation Careers"
Activity 4

This will be a science experiment from your science text, “Discovering Science, 5.” You are to do this activity in groups of three students. Turn to page 353. One student read this page aloud. Then get all the equipment you will need from Activity 4 box including five balloons, one of each size. Do not waste the materials or it will not be enough for other students.

As a group, write the experiment on pages 356, 357 and 358. Record your findings on this page. Do not hesitate to ask for help.

<table>
<thead>
<tr>
<th>Size of Balloon</th>
<th>Thrust Number Seconds</th>
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</table>

Materials: Text: “Discovering Science, 5” thick soda straws wooden spoon all purpose cement shoe boxes scissors modeling clay tape 3 x 5 file grease pencil tape measure 5 sizes of 0.4...
Language Arts

In this activity, we would like for you to use your imagination to complete two things, a limerick and a four line poem. These should be on some subject of air transportation, either flight, the planes, or the workers. The poem should be no problem, but the form of the limerick may be tricky. An example is listed. Also, look in Our Language Today, pages 315 - 318. Note that lines 1, 2, and 5 rhyme, as do lines 3 and 4.

There once was a pilot named Dwight,
Who tried for a record high flight,
But he ran out of luck
When his throttle got stuck,
And his plane disappeared out of sight.

Limerick:

Poem:

Materials/Text: Our Language Today
Book: Funny Folks in Limerick Land
Activity 6

You are going to ship some cargo by air freight from San Francisco to ten different destinations. The object is to determine the cost of shipping. There is a United States map on the following page which indicates distances by 500 miles from San Francisco. Here are the shipping costs: $7.00 for each 100 pounds for every 500 miles shipped. Any part of 100 pounds counts as 100 pounds and any part of 500 miles counts as 500 miles.

Example: Ship 250 pounds of furs from San Francisco to Kansas City. Cost $63.00 How did we get it? 250 pounds is over 200, therefore it is 37 for each 100 pounds or part of 100 pounds, or $21. (3 x 7) Look at the map. Kansas City is between 1000 and 1500 miles distance and the rate is for every 500 miles or part of 500 miles, or 3 times the rate. Therefore, 3 x $21 = $63.00

Now you work these. Ask for help if necessary.

1. Ship 285 pounds of grapes to Chicago. Cost_____
2. Ship one half ton of machinery to New York City. Cost_____
4. Ship 300 pounds of pictures to Denver. Cost_____
5. Ship 700 pounds of paper to Boise. Cost_____
7. Ship 633 pounds of boxes to Omaha. Cost_____
8. Ship 100 pounds of jewelry to Los Angeles. Cost_____
9. Ship one ton of pepper to Salt Lake City. Cost_____
10. Ship 630 pounds of shrimp to Cleveland. Cost_____

Check your answers with the teacher when you are finished.
You are going to take a trip from Boise to Atlanta. You must figure out your schedule from the United Air Lines Schedule in the Activity 7 box. You will notice that there are no flights directly from Boise to Atlanta; therefore you will have to change planes one or more times in New York, Washington, D.C., or Baltimore, or whichever route you choose. The object is to get there in the shortest time possible.

Since money is obviously no object to you, you are traveling first class all the way.

Record the following as it is needed.

Example: Page 8, Boise to Akron, Ohio
Leave Boise 12:10 p.m. MDT
Flight 374 to Chicago
Flight 552 Chicago to Akron
Arrival time 7:06 p.m. EDT
Time of flight 6 hrs. 54 min. minus 2 hrs. = 4 hrs. 54 min.
There will be a meal and cocktails served on the plane.

*After you have figured the total time, subtract 2 hours for time zone changing.

Leave Boise (time)_____________________

Flight #_____________________________

Change planes at_____________________
to Flight #________________________

Arrive in___________________________ at (time)_____________________.

Was a meal served?_________________

Catch Flight_______________________ at (time)_____________________

Change planes (if necessary) at______________________________

to Flight _________________________ (If necessary)

Arrive in Atlanta at____________________

Was a meal served?_________________
Activity 8

Today there are a number of forms of power used by aircraft. Knowledge about the operation procedures of some of these might some day be useful to you.

Using the book, The Big Book of Space, diagram 1) the turbojet, 2) the ramjet, and 3) the rocket. These are found on pages titled "Jet Motors" and "Rockets". You might also color your diagrams. Read the materials under each of the three types, so you become familiar with your diagrams. Make your diagrams on this page and the next.
Detailed Instructions:

1. Visit two airports set up for you to view and rate new films. Write a very brief one-page summary of the contents of the filmstrips you see.

2. Write a single paragraph: Pistons and Jets.

3. Visit an airport (with record).
ARRANGE for a directed tour of Boise Municipal Airport during a time a jet will be arriving and departing.

Review:
"How to Get the Most From a Learning Experience Outside the Classroom"
"How to Prepare for a Field Trip"
"How Do You Use Your Experience When You Return to the Classroom?"
(From appendix of this book)
INSTRUCTIONAL MATERIALS

DESCRIPTO:

Science exercise...

Teacher Directions:

Refer to activity 1. Have student draw the water cycle by drawing and labeling...
FIELD TRIPS

SUPPLIES

*Preparations for Individual Experimentation: additional supplies

*B boxes or plastic trays
*Flower sprinklers, 1 gallon size
*Floral cans with roses
*Flower jars, 1 quart size
*Seal of various types
*10 yardsticks
*10 sticks, 50" length
*10 carpenter's levels or pans for filling

FIELD TRIPS

SUPPLIES

*Ships of Elementary Science, "The Earth's Surface" (Set of 4) -- Filmstrip House

FIELD TRIPS

BOOKS

*Discovering Science (Text) --
5.25 SOIL CONSERVATION SCIENTIST

ACTIVITY 1
Suggested Subject Area: Science

Show the filmstrip "Soil for Plants". Have on display soil types as shown in the filmstrip.

Then show the filmstrip "How the Earth's Surface Changes". Discuss.

Show "The Land and Water We See" and "Rocks and How They Change" if desired.

Note: This unit should be done in conjunction with pages 191-204 of the science text, Discovering Science, 5.

ACTIVITY 2
Suggested Subject Area: Science

Give each student a copy of the room set pamphlet "Conservation and the Water Cycle".

Use these to indicate the major areas of the cycle and include how this concerns the soil scientist.

There are numerous other pamphlets in the packet to aid the students' understanding and the teacher's general knowledge.

MATERIALS 2
Pamphlets in packet

MATERIALS 1
Booklet:
"Teaching Soil and Water Concepts of Conservation",

See experiment for materials.
ACTIVITY

Suggested Subject Area: Science, Art

There are many other experiments in the booklet that might be tried in addition to or instead of these mentioned.

ACTIVITY 8

Suggested Subject Area: Science

Show one or more of these films:

- "Finding Out About the Water Cycle"
- "Rainshower"

MATERIALS

Booklet:
"Teaching Soil and Water Conservation"
--U.S.D.A.

See experiment for materials

MATERIALS 8

Films:
"Finding Out About the Water Cycle"
--IMC MP5360
"Rainshower" --IMC MP5283
**Description:**

**Small group discussion**

**Directions:**

Group the students into small groups of 3 or 4. Give a recorder to each group. Have the group make a "list of words" in which a meteorologist's predictions are written. Have the recorder write down the group's list (allowing ten to fifteen minutes for this activity.) Have each group share their list with the rest of the class. Combine all lists. Refer to activity #1.
V. METEROLoGIST

ACTIVITY: Supposed subject area - "Weather"

Materials needed: a) Hygrometer, b) Rain gauge, c) Thermometer, d) Barometer, e) "Weather" unit

Display in "My Weather Forecaster Kit from Skillcraft".

MATERIALS

See Skillcraft catalog:

a) Hygrometer
b) Rain gauge
c) Thermometer
d) Barometer

PHYS. 1 T.

MATERIALS

See Skillcraft catalog:

a) Plastic tube
b) Grease pencil

c) "Weather" unit

d) Cleaning fluid

2 paper clips

b) Round balls

C) Glass tubing

D) Jar or beaker

E) Jar or beaker

Weather forecaster unit:

-"Weather"

-"Unit"
No METEOROLOGIST

Material.

Sec. 3. MATERIAL.
ACTIVITY 7

Suggested Subject Area: Science

1. Go over the section "What Can You Learn About Weather Forecasting?" in Yellow Pages of Learning Resources. See how many questions they can answer.

GRADE 5

MATERIALS 7

Yellow Pages of Learning Resources

--MIT Press (CA Center)
**WIND VANE**

Materials: Pencil, pin, soda straw, two small pieces of cardboard.

Cut the cardboard pieces into the shapes as shown. Push the pin through the straw at the middle point. Now push the pin into the rubber of the pencil. Slit the straw at both ends. Slip the pieces of cardboard into the slits. Blow against your wind vane. You will notice the pointed end always points into the wind.

---

**BEAUFORT SCALE FOR MEASURING WIND**

**Intensity:**

- **1.** smoke rises vertically.
- **2.** direction of wind shown by smoke drift but not by wind vane.
- **3.** wind felt on face; leaves rustle; ordinary vane moved by wind.
- **4.** leaves and small twigs in constant motion; wind extends light flag.
- **5.** dust and loose paper; small branches are moved.
- **6.** small trees in leaf begin to sway; crested waves form on inland water.
- **7.** large branches in motion; whistling heard in telephone wires; umbrella moved with difficulty.
- **8.** whole trees in motion; inconvenience felt in walking against the wind.
- **9.** hair whips twigs of trees; generally impedes progress.
- **10.** slight structural damage occurs.
- **11.** trees uprooted; considerable structural damage occurs.
- **12.** rarely experienced; accompanied by wide-spread damage.
- **13.** hurricane.
BAROMETER

Materials: large bottle, glass tube at least 6 inches longer than bottle, rubber stopper with hole in it, colored water.

Pour water into the bottle to a depth of about one inch. Put the tube through the stopper and then into the bottle. The lower end of the tube should be about ½ inch below the surface of the water. Press the stopper in firmly. Blow a bit of air into the tube, enough to send two or three bubbles into the water. The water should rise about halfway into the tube. Then blow a few more bubbles, to bring the water still higher. Keep on blowing until the water in the tube is about 2 inches above the stopper. On a white card make a line 5 inches long, marked off every ¼ inch. Number the marks from 0 to 20. Cut two slits in the card and slip it over the tube.

HYGROMETER

Materials: two thermometers (type with exposed bulb), gauze, small dish

Attach with a rubber band a piece of porous cloth such as gauze around the bulb of one of the thermometers. An inch or so of the gauze should extend from the thermometer to act as a wick. Place the wick in a small dish of water. Place thermometers side by side. Before reading fan the air vigorously in front of the thermometers. Take reading of both. Relative humidity is obtained through chart.

HYGROMETER

Materials: milk carton, a nickle, needle, one broom straw, one paper clip, plastic tape, nail polish, a card, four thumbtacks, a long hair. (Hair should be washed and dried)

Cut in half near one end of the carton. Then bend up the two tabs of the lid and make a hole in the middle of one end. Insert the needle until it can move freely in the holes. Cut a piece of the carton and fit into the eye of the needle. This will make a wick. Make a card as shown and put a nickle in it. Put the carton and put a paper clip between it and the paper. Secure with plastic tape.
HYGROMETER (continued)

Tie one end of the hair to the clip in the end of the carton and other end to the nickel, fasten with a drop of nail polish. Put the needle and straw pointer in place. Now pass the end of the hair with the nickel under and around the needle. Let the nickel land inside the carton, through the slot. The weight of the nickel will keep the hair tight. The damp air causes the hair to become a tiny bit longer, causing the needle to turn. The needle moves the straw pointer toward the higher numbers on the card. In dry air the hair shrinks, moving the pointer toward the low numbers. To set hygrometer, put it in a basin with a damp sponge close by but not on it. Use a damp towel as a cover. Leave it for about ten minutes, and then take off the towel and immediately set the pointer to number 10.

RAIN GAUGE

Materials: A large jar or can (If can is used it should be painted), a smaller bottle with straight sides, paint or nail polish.

Fill water into larger container to the depth of one inch. Then pour this water into the smaller bottle. On the bottle with paint or nail polish the line where the water reaches. Divide this into ten equal marks. These marks now represent tenths of an inch. The large container is left outside to catch rain. Then the water is poured from this can into the bottle for measuring.
SIMPLE WEATHER INSTRUMENTS

PRESSURE PLATE ANEMOMETER

Materials:
- Milk carton
- 2 pencils
- plastic tape
- 1 straight pit
- drinking straw
- nail (about 3" long, about as thick as the straw)

Cut a piece 2" by 1 1/2" out at the bottom of the carton. Attach this with plastic tape to one end of the straw. Slide the nail into the other end and fasten it there with plastic tape. Then attach the whole thing with a pin to the eraser of a pencil. Push a spool halfway down the other pencil. Then push the pencil into the carton at one end. Wiggle the pencil to make the holes just large enough for a loose fit. Then push the pencil with the drinking straw into the middle of the carton. Attach a sheet of paper to the carton as pictured. This is the scale.

This scale may be calibrated at the weather station or in an automobile. For calibration in a car, hold gauge outside window while car is going a steady 5 miles per hour and mark scale. Continue at increasing speeds of 5 miles until straw is almost level. The carton will turn with the wind for wind direction.

ANEMOMETER

Cut 4 table tennis balls in half. Cut 4 dowel rods of equal length, about 8 inches long. Saw 2 slits near the end of each of the rods as far apart as the diameter of the balls. Glue half of a ball in each set of slits making sure that all face the same direction. Cut a 3 inch square of wood and bore a hole the diameter of the dowel rod in the 4 cut sides of the block. Fit dowel rods in holes facing cups the same direction. Fit a dowel rod 12 inches long into a hole bored in the center of the block. Make a square wooden box leaving one side open. Bore a hole a little larger than the dowel rod through the side of the box and bore a shallow hole directly below it in the bottom of the box. Sandpaper and wax the hole in the bottom of the box. Shape the bottom of the rod so it will move freely. Paste a colored strip of paper one-half inch wide around the rod with one end projecting. This should be about an inch up from the bottom of the box. Drive a nail in close to the rod so the paper will strike it each time the rod turns around. By counting the revolutions per minute, wind speed can be estimated.
THERMOMETER

Materials: Coke bottle, cork or clay for stopper (with hole in it), plastic or glass drinking straw

Fill the bottle to the top with colored water. Then insert stopper, with straw in it which forces water part way up the tube. Glue a narrow strip of white cardboard to the tube. Compare the height of the liquid in the tube with readings from a real thermometer, and mark.
Transportation has a major role in our highly mobile nation. The tire industry is an important by-product of this as well as being a major product of the rubber industry. The tire industry is a major force in our nation's industrial system, being part of many things. The tire is a major product in the rubber and synthetic rubber industry. There are many different jobs in the tire industry.

Performance Objectives

1. Upon completion of this unit, the students will be able to demonstrate an understanding of the different jobs in the tire industry.

   Description: Tracing a spool of tread through a tire plant until it ends up a tire on a sports car.

   Teacher Directions: Refer to activity #4.
RESOURCES

PEOPLE

Local tire dealer

FILMS

"Northeast - Gateway for a Nation" --IMC MP1253

FILMSTRIPS

*"The Story of Rubber" --SVE

FIELD TRIPS

BOOKS

New Dimensions in Mathematics (Text) --Harper and Row

Merit Student Encyclopedia

World Book Encyclopedia

The Magic of Rubber --Dreyan

GRADE 5

SUPPLIES

Rubber balloon
Rubber band
Rubber ball
Water bottle
Dry cell battery
Wire
Bell

Optional:
Inner tube
Tire pump

*Charts: Rubber and Tire Production
Flow Charts

*Pamphlets:
Wonder Book of Rubber
Miracle of Rubber
The Story of the Tire
Charles Goodyear and the
Strange Story of Rubber
Tire Guide

*Teacher's Manuals:
Story of Rubber

Telephone Directory

*CA Center Furnishes
ACTIVITY 1

Suggested Subject Area: Science, Social Science

Show filmstrip.

Look over "Wonder Book of Rubber".


Suggestion: Students pick area; each group explore area and pick related activity.

Do culminating activity. See page 7. (Optional)

ACTIVITY 2

Suggested Subject Area: Science, Social Studies

Go through telephone directory to find out how many tire dealers there are in a given area. (Be sure to designate area.)

Make bulletin board of different uses of the tire and rubber or of a collection of rubber products.

List of different kinds of tires.

Suppose you were to have your own tire shop. What tires would you sell?

Drama or roleplaying: Main character - a wheel
Object - convince everyone how important he is

Math: Find out what sizes on a tire mean and make up some math problems you would use if you worked in the tire industry.

List as many different jobs as you can related to the tire industry. Pick one and write a story about how work might be.

MATERIALS 1

Filmstrip:
"The Story of Rubber" --SVE

"Wonder Book of Rubber" (one copy per student)

Flow Chart: Rubber and Tire Producti
Teacher's Manual for "Story of Rubber"
Other reading material in packet

MATERIALS 2

Telephone Directory
Merit Student Encyclopedia
Tire Guide
All material in packet
ACTIVITY 1

Suggested Subject Area: Science

Tell students to suppose that they are going to build a tire and they see that rubber might be a good product to use to build it. They are to test certain properties and explore why rubber is one product that might be used in a tire.

Divide class into six groups. Each group is to perform an experiment to test one of the properties listed above.

Have students try to think of other products that would have the same properties and could be used in making a tire. Remember, a tire is made from a combination of products.

What other properties should the material in a tire have?

Discuss briefly why tire has (1) air - called PL
(2) plies - layers of fabric
(3) beads - two strips of metal that hold tire together

"Continued on next page)
have stations set up around room for groups to perform experiments. Either have each group perform one experiment and report to class the results or have groups move from station to station so that each student helps perform each experiment.

Experiments:

1. Airtight - Blow up balloon or pump up inner tube or ball.

2. Absorbs vibration - Walk across a hard floor in shoes with hard leather heels and then in shoes with rubber heels. Compare difference in absorption of shock and noise.

3. Elastic and flexible - Stretch rubber band. Find other materials. Do they stretch?

4. Waterproof - Fill balloon or rubber glove or water bottle with water. Test some other materials. Is it waterproof?

5. Adhesive - Glue pieces of paper or cloth with rubber cement.

6. Nonconductor of electricity - Demonstrate with a dry cell which is connected to a bell by two wires. Cut one of the wires and scrape the two ends bare. Touch the two bare ends with a piece of copper wire. The bell will ring because copper is a good conductor of electricity. Touch the ends with a piece of rubber. Try wood, glass, paper, silver.

Other: Compare various materials for absorption of shock and noise, strength, and wear.
ACTIVITY
Suggested Subject Area: Creative Writing

Pretend you are a spool of nylon thread. Trace your trip through a tire plant until you end up in a tire on a super-sports car.

Tell about some of the workers you met on the way.

GRADE 5

MATERIALS

Merit Student Encyclopedia


Pamphlets:
The Story of the Tire — Goodyear (pages 9-13)
Rubber — Firestone (page 27)
Miracle of Rubber (page 10)
Wonder Book of Rubber

Rubber and Tire Production Flow Charts

Today and Tomorrow (pages 14-15) (different kinds of tires)
ACTIVITY 5
Suggested Subject Area: 'Reading

Read story "A World on Wheels" (pages 47-59). Emphasize the worker involved in the story.

Read following poem "Feet and Wheels" by Leon Trachtman:

Feet stroll.
Wheels roll.

Walkers, using soles and heels,
Are passed by speedy folks on wheels.

But
Plain old feet
Let people meet,
Let them visit, let them talk,
As they stand and as they walk.

Rolling wheels upon a car
Take people fast, take people far.
But as they're rolling here and there,
People mostly sit and stare.

Walking feet make paths, and where paths cross.
People stop to chat about the weather,
Chat about their children, pets, and boss.
Crossing paths bring people close together.

Rolling wheels need highways smooth and wide
So cars can keep on speeding once they start,
And all the rushing people sit inside
As closed-up autos hold them far apart.

Feet are useful; so are wheels.
Both used well make life complete.
Just don't let wheels make you forget
The uses of your precious feet.
ACTIVITY 6

Suggested Subject Area: Math

Locate the decimal point to tire size.

Example: 6.50 x 17 (first number is the width of the tire in inches, so 6.50 means the tire is 6\frac{1}{2} inches wide across the tread)

(Second number is the diameter in inches of the wheel that the tire goes on, so 17 means a wheel 17 inches in diameter)

Problems

Which tire would have the widest tread?

a. 7.50 x 17
b. 6.00 x 14 (answer is c.)
c. 8.50 x 13

Which tire would fit the larger wheel? (answer is c.)

John took the above tires and has the wheel for each lined up on edge on the floor. Which wheel is taller? (answer is a.) Which is wider? (answer is c.)

Make up other problems or have students make some of their own.

Extra: Find out if any students know someone in the tire industry. See if they can obtain (1) a chart showing stopping rate of cars, (2) chart showing different kinds of wear.

GRADE 5

MATERIALS 6

Text:
New Dimensions in Mathematics
--Harper and Row (page 309)

Tire Guide
World Book Encyclopedia

A good description of tire and how constructed and different kinds (i.e. bias, radial, etc.)