Presented are the workshop-prepared study guides to accompany captioned educational films for the deaf. The guide is designed to give teachers of the deaf at all levels a guide reference to captioned films, with descriptions, reviews, and suggestions for use of the films. Films are cross-referenced, according to levels and subject areas. Types of films included are art, guidance, language arts, mathematics, science, and social studies. The study guide for each film includes the film summary, purpose, preparation for the film, motivation, followup (questions and activities), resource material, and errata. (KW)
PROJECT TITLE

Workshop for the Development and Evaluation of Study Guides of Captioned Education Films for the Deaf

SPONSOR

ROCHESTER SCHOOL FOR THE DEAF
1545 Saint Paul Street
Rochester, New York

U. S. O. E. Contract -- 0-8-001930-3634(019)

PROJECT CONTRACTOR

RALPH L. HOAG
SUPERINTENDENT

PROJECT DIRECTOR

LEONARD G. ZWICK
Principal

Rochester School for the Deaf
Rochester, New York

July 15 - August 9, 1968

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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INTRODUCTION

This manuscript represents the fourth study guide organized and prepared under the guidance and sponsorship of Captioned Films for the Deaf, United States Office of Education. The facilities at the Rochester School for the Deaf were used in the preparation of this volume.

The organization of the summer workshop format was changed somewhat this year. In the three previous Captioned Films summer workshops, the projects concerned themselves with the writing of study guides only. Our over-all project contained two sections, one of which had the task of preparing study guides for films which had been previously captioned. The second section had the responsibility of writing the captions for films which had been selected beforehand at Ball State University. Combining these two groups had many advantages and is to be recommended for future summer workshops of this nature.

As in the past workshops, the main purpose of the Script Writers had been to prepare study guides to be used with already captioned educational films. Many of the films for which the study guides have been written are in the advanced, specialized area. It is felt that these films and study guides used selectively, would be of value to programs which concern themselves with the education of deaf adults outside the perimeters of the school for the deaf.

The suggestions contained in the study guides are guidelines which should be of value to the user. However, the suggestions offered are not meant to be ultimate, final or static.

Any instructional media or materials to be used is only as effective as the skill and creativity with which they are employed by the user. Therefore, users of the study guides are encouraged to use the study guides as a springboard to their own individual imagination and innovative skills. If a new or improvised
technique is used successfully, it should be recorded for future usage and forwarded to Mr. Malcolm Norwood for possible inclusion in future study guides.

We at the Rochester School for the Deaf feel quite honored to have acted as host for such an important undertaking. It has been an experience which will be remembered for many years to come. Special acknowledgement should be made to the Board of Directors of the Rochester School for the Deaf and Dr. Ralph Hoag, Project Contractor, for providing us with the school facilities and financial guidance necessary to conduct such a purposeful project. We wish to recognize Mr. Norwood and Mr. James Kundert from Captioned Films, U. S. Office of Education for the astute guidance they have given us in organizing and managing this workshop.

The Study Guide Writers and Proof Readers are to be commended for their skill, untiring efforts and dedication in producing this very useful manuscript. Their names appear on page X.

We wish to express our gratitude to the following Caption Script Writers who contributed much to the Study Guide Writers.

Mrs. Mabel Nilson, Ohio School for the Deaf, Columbus, Ohio
John O'Brien, Rochester School for the Deaf, Rochester, N.Y.
Mary Ann Mercurio, Bruce Street School for the Deaf, Newark, N.J.
Alonzo Murray, Marie Katzenback School for the Deaf, W. Trenton, N.J.
Agnes Dick Ness, Lexington School for the Deaf, Jackson Heights, N.Y.
Salvatore Scozzari, Fanwood School for the Deaf, White Plains, N.Y.
William Stevens, Gallaudet College, Washington, D. C.

We also wish to acknowledge Mr. Ames Curchin, Guidance Counselor at the Rochester School for the Deaf, Miss Donna Marcocci, Secretary to the Principal, and the Project Secretarial staff for their assistance in making this a most productive endeavor.

Leonard G. Zwick
Project Director
INTRODUCTION

This study guide is similar in organization and purpose to the last three guides. It was designed to supply teachers of the deaf, from primary through advanced levels, with a quick reference to captioned films and with descriptions, reviews, and suggestions for possible uses of the films.

The table of contents is cross-referenced, according to levels and subject areas. Art and mathematics have been added as additional subject areas. Although there is not a separate section for adult education, the reviewers believe that many of the films are applicable for this purpose.

As in last year's guide, an appendix has been included which lists films from all four guides, according to primary, intermediate, and advanced levels. The page numbers have been purposely omitted because when additional copies of the guides were printed, the page numbers had been changed. However, the page numbers may be found in the table of contents of each study guide.

The participants of the workshop attempted to empathize with teachers who might use these films and tried to give them as much information and assistance as they themselves would appreciate receiving. They also wish to thank the staff of the Rochester School for the Deaf for their cooperation and assistance in making this task possible.

Patricia Hogan
Assistant Project Director
Study Guide Section
WORKSHOP PARTICIPANTS

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<th>Location</th>
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<tbody>
<tr>
<td>Project Director:</td>
<td>Mr. Leonard G. Zwick</td>
<td>Principal, Rochester School for the Deaf, Rochester, NY</td>
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</tr>
<tr>
<td>Assistant Project Director:</td>
<td>Miss Patricia Hogan</td>
<td>Assistant Professor, State University College at Buffalo, Buffalo, NY</td>
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<tr>
<td>Writers:</td>
<td>Miss Joan Bell</td>
<td>Teacher, Primary Department, Rochester School for the Deaf, Rochester, NY</td>
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<td></td>
<td>Dr. Diane Castle</td>
<td>Penfield, NY</td>
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<td></td>
<td>Mr. Harold Curry</td>
<td>Teacher, Vocational Department, Marie H. Katzenbach School for the Deaf, West Trenton, NJ</td>
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<td>Sister Gilmary</td>
<td>Principal, Catholic Charities School for the Deaf, Westbury, NY</td>
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<td></td>
<td>Mr. Edward Niedzialek</td>
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<td>Miss Jane Pearce</td>
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<td>Secretarial Staff:</td>
<td>Miss Mary Cardinal</td>
<td>Teacher, Advanced Department, Lexington School for the Deaf, Jackson Heights, NY</td>
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<td>Miss Shirley Dennison</td>
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<td></td>
<td>Miss Christina Hoag</td>
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<td>Mrs. Jo Ann Harvey</td>
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<td>Mrs. Carol Pompano</td>
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</table>
OUTLINE OF STUDY GUIDE

I. Film Summary
   (Short explanation of film content)

II. Purpose of the Film
    (Objectives, etc.)

III. Preparation for the Film
    A. Preview the film and select objectives.
    B. Vocabulary
    C. Selected idioms and expressions

IV. Motivation

V. Followup
   A. Suggested questions
   B. Suggested activities

VI. Resource Material
    A. Films
    B. Filmstrips
    C. Books
    Etc.

VII. Errata
     (Correction of captions, where applicable)
<table>
<thead>
<tr>
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<tr>
<td>ADL</td>
<td>Anti-Defamation League</td>
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<td>AFC</td>
<td>Academic Film Co.</td>
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<td>Churchill-Wexler Films</td>
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<td>Douglas Fir Plywood Association</td>
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<td>Films Incorporated</td>
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<td>POM</td>
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<td>Institute of Life Insurance Co.</td>
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<tr>
<td>ISO</td>
<td>International Screen Organization</td>
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<tr>
<td>JH</td>
<td>Jam Handy Organizations</td>
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<tr>
<td>KB</td>
<td>Knowledge Builders</td>
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<td>KF</td>
<td>Kahana Film</td>
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<td>Acronym</td>
<td>Description</td>
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<td>McGraw-Hill</td>
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<td>Moody Institute of Science</td>
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<td>MK</td>
<td>Mahnke Film</td>
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<tr>
<td>MOT</td>
<td>March of Times</td>
</tr>
<tr>
<td>MTP</td>
<td>Modern Talking Pictures</td>
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<td>MWR</td>
<td>My Weekly Reader Filmstrips</td>
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<td>National Broadcasting Company</td>
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<td>NET</td>
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<td>NFBC</td>
<td>National Film Board of Canada</td>
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<td>NFPA</td>
<td>National Forest Products Association</td>
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<tr>
<td>NYSDEC</td>
<td>New York State Department of Commerce</td>
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<td>OWI</td>
<td>Office of War Information</td>
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<tr>
<td>PPC</td>
<td>Personal Products Corp.</td>
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<td>PS</td>
<td>Popular Science</td>
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<td>RCSS</td>
<td>Rochester Council of Scientific Societies</td>
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<td>RE</td>
<td>Reading Experience Filmstrips, CFD</td>
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<tr>
<td>RWF</td>
<td>Robert Waterman Films</td>
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<td>SEC</td>
<td>Stanley Bowmar Company</td>
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<td>SC</td>
<td>Syd Cassyd</td>
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<td>SD</td>
<td>Sid Davis</td>
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<td>SP</td>
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<td>Stanley Tools Company</td>
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<td>Society of Visual Education</td>
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<td>TFC</td>
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<td>UAC</td>
<td>Utility Airplane Council</td>
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<td>UCF</td>
<td>University of California Films</td>
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<tr>
<td>USA</td>
<td>United States Army</td>
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<td>USCC</td>
<td>United States Chamber of Commerce</td>
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<td>USPH</td>
<td>United States Public Health Service</td>
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<td>UWF</td>
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<td>WaSP</td>
<td>WaSP Filmstrips</td>
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<td>WD</td>
<td>Walt Disney</td>
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<td>Weyerhaeuser Sales Co.</td>
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<td>YAF</td>
<td>Young America Films</td>
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<tr>
<td>YLP</td>
<td>Your Lesson Plan Filmstrips, Inc.</td>
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</tbody>
</table>

**SYNCAP** - Denotes that sound track has been synchronized with the captions.
I. Film Summary

As members of a primary class shop for a class picnic, they use arithmetic to compare sizes, prices, and numbers of items. They can be seen adding ones and adding by exact tens. They use dot drawings to add. They add and subtract numbers with tens and ones and with hundreds, tens, and ones. In making payments, they add cents and convert cents to dollars and cents.

II. Purpose of the Film

A. To illustrate the processes of adding and subtracting

B. To illustrate in a concrete fashion the practical advantages of comparing prices, making payments, and counting change

III. Preparation for the Film

A. Preview the film and select objectives.

B. Vocabulary

Nouns
committee
item
picnic
package
hot dogs
bananas
### Nouns (continued)

<table>
<thead>
<tr>
<th>Noun</th>
<th>Noun</th>
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<td>watermelon</td>
<td>quart</td>
<td>mustard</td>
</tr>
<tr>
<td>potato chips</td>
<td>budget</td>
<td>clerk</td>
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### Verbs

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<tr>
<td>attend</td>
<td>needs</td>
<td>costs</td>
</tr>
<tr>
<td>choose</td>
<td>decides</td>
<td>stands for</td>
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<tr>
<td>subtract</td>
<td>finish</td>
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### Adjectives

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<thead>
<tr>
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<tbody>
<tr>
<td>whole</td>
<td>half</td>
<td>quarter (a fourth)</td>
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<tr>
<td>enough</td>
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### Adverbs

<table>
<thead>
<tr>
<th>Adverb</th>
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<tbody>
<tr>
<td>altogether</td>
<td>correctly</td>
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### Participles

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<tbody>
<tr>
<td>knowing</td>
<td>understanding</td>
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</table>

### C. Selected idioms and expressions

- list of things
- a certain amount
- 9¢ for 10 plates
- better buy
- less expensive item
- how many more
- done its job well
- stayed within his budget

### IV. Motivation

A. Students should have a background in the processes of adding and subtracting.

B. Prepare a bulletin board illustrating the comparative values of pennies, nickels, dimes, etc.

### V. Followup

A. Prepare a class picnic as illustrated in the film. Allow students to purchase certain items.

B. Prepare worksheets with examples of addition and subtraction.

C. Develop a model store for the classroom.

### VI. Resource Materials

A. Filmstrips

1. *Equations and Inequalities*, MGH
2. *Making Change*, MGH

3. *Money*, Series 3, No. 31-66, CFD

4. *More Numbers and Numerals*, MGH

5. *Numbers and Numerals*, MGH

6. *Time and Money*, EG

B. Books


3. Eye Gate House, Inc. has several teachers' manuals on Mathematics Teach-A-Charts.


I. Film Summary

Division determines how many subsets are in a set or how many members are in a specific number of equivalent sets. We can divide by repeated subtraction but an easier and quicker way is to use our division facts. The number line helps check division facts and shows that division is the inverse of multiplication. This inverse concept can help solve division problems.

II. Purpose of the Film

A. To lead the students to discover through sets that division is a quicker way to divide than repeated subtraction

B. To promote the use of the number line for checking division facts

C. To lead to the discovery that division is the inverse of multiplication, and multiplication is the inverse of division by reviewing and correlating the fact that subtraction is the inverse operation of addition, and addition is the inverse of subtraction

D. To continue and to extend the use of the law of order

E. To let the children discover why equivalent sets have the same number of members

F. To introduce the use of the division symbol
III. Preparation for the Film

A. Preview the film and select objectives.

B. Gather visual aids.
   1. Abacus
   2. Teacher-made overhead number line
   3. A plastic coated commercial number line for each student
   4. M & M's, or any other kind of small objects
   5. Any available games, such as darts, marbles, horseshoes, etc.

C. Review the principles involved in multiplication, addition, and subtraction of sets.

D. Vocabulary
   a set of subtract division
   a division fact ring toss altogether
   number line check (verb) law of order
   factor product zero
   problem subsets member
   inverse

E. Selected idioms and expressions
   a pair an easier way

IV. Motivation

A. Play a game of darts, or other similar game.

B. Open a box of M & M's and ask how many each child will get.

C. Take an egg carton and see how many eggs are in one row. How many are in two rows?

D. Divide the students into various work groups and ask how many groups there are, and how many are in each group. See if they can tell you how many children there are altogether.

V. Followup

A. Develop a loop film quiz on the division of sets.
   Marbles, classroom objects, animal pictures, kinds of plants, kinds of people, kinds of words; e.g., find the number of words beginning with s, or having the ee sound
B. Develop a worksheet on the division of sets.

C. Make a chart using the number line to show the division fact.

D. Use the felt board and materials to illustrate the division fact.

E. Using the commercial plastic coated number line, let each student make up his own colored tag board subsets to show any division fact he wants.

F. Give written problems employing the use of division.

G. Make a flannel board or bulletin board progressive story and make up numerous division facts as you go along.

H. Play a game of elimination.
   1. Ask all to stand up.
   2. Ask all children wearing brown shoes to sit down, etc.
   3. Ask how many were in each set and make up a corresponding division fact.

VI. Resource Materials

A. Filmstrips
   1. Let's See How To Divide, E0
   2. Inverse Operations - Multiplication and Division, MGH
   3. Solving Problems - Multiplication and Division, MGH
   4. Changing the Order - Multiplication and Division, MGH
   5. Changing the Grouping - Multiplication and Division, MGH
   6. Multiplication and Division, Set #1, Arithmetic Series, MGH

B. Supplementary reading


EVERYDAY COURTESY

A Captioned Film
for
Upper Primary Level
Intermediate Level

By Arrangement with
Coronet Films

Captioned Films for the Deaf
U.S. Office of Education
Washington, D.C.

Time: 11 minutes

I. Film Summary

In a talk before his class, Jeff defines courtesy as consideration for other people. This involves both courteous speaking and courteous listening. Correct forms of introduction, oral and written invitations and acceptances, respect for one's elders and other social amenities are shown.

II. Purpose of the Film

A. To explain the need for courtesy
B. To show the correct forms of introduction
C. To show the correct forms of oral invitations and acceptances
D. To show the correct forms of written invitations and acceptances

III. Preparation for the Film

A. Preview the film and select objectives.
B. Vocabulary

<table>
<thead>
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<tbody>
<tr>
<td>courtesy</td>
<td>invitation</td>
</tr>
<tr>
<td>listener</td>
<td>introduction</td>
</tr>
<tr>
<td></td>
<td>guests</td>
</tr>
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</table>
Adjectives

courteous  polite  interesting
discourteous

IV. Motivation

A. Discuss the meaning of courtesy and the various ways of "being polite."

B. Ask the pupils if they know how to introduce the various members of their families and their friends.

C. Ask for volunteers to perform mock introductions.

V. Followup

A. Oral activities

1. In play situations have pupils make introductions to family and friends.

2. In play situations have pupils issue oral invitations and accept or decline invitations from others.

B. Written activities

1. Have pupils write invitations to various kinds of parties and activities, e.g., birthday parties, holiday parties, class shows.

2. Have pupils write answers either accepting or declining these invitations.

VI. Resource Materials

A. Films

1. Manners at Home, CFD

2. Manners at School, CFD

3. Manners in Public, CFD

4. Your Table Manners, CFD

B. Filmstrips

1. Manners at Home, YAF

2. Manners at School, YAF

3. Manners When Playing, EG

4. Manners When Visiting, EG

5. Manners Mean More Fun, PS
C. Books


I. **Film Summary**

This film highlights the comparison between the preparation of food several generations ago and its preparation today. The advantages of modern methods are obvious.

The body of the film shows the harvesting of a carrot crop, and the processing and freezing of this crop.

II. **Purpose of the Film**

A. To compare the differences between modern and older methods of food preservation and preparation

B. To introduce the utility and convenience of frozen food products

C. To show children how their lives have been affected through the development of frozen food products

III. **Preparation for the Film**

A. Preview the film and select objectives.

B. Select desired basic vocabulary.

<table>
<thead>
<tr>
<th>Nouns</th>
<th>plant</th>
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<tr>
<td>fresh foods</td>
<td>wheel</td>
<td>heat</td>
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<tr>
<td>life</td>
<td>moving belt</td>
<td>germs</td>
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<td>icebox</td>
<td>ends</td>
<td>racks</td>
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<td>sirloin tips</td>
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B. vocabulary (continued)

<table>
<thead>
<tr>
<th>Nouns</th>
<th>Verbs</th>
<th>Adjectives</th>
<th>Participles</th>
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<td>mushroom sauce</td>
<td>prepare</td>
<td>delicious</td>
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<td>farm</td>
<td>cool</td>
<td>modern</td>
<td>freezing</td>
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<td>machines</td>
<td>sort</td>
<td>nearby</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>preparing</td>
<td></td>
</tr>
</tbody>
</table>

|               | skins    | harmful    | freezining |        |
|               | vegetables | clean     |           |        |
|               | cooker    | frozen     |           |        |
|               |           | pure       |           |        |

|               |           |           |           |        |
|               |           |           |           |        |

C. Selected idioms and expressions

- have changed our lives
- almost the same
- frozen solid
- in a hurry

- make this possible
- how this happened
- air-tight plastic bags
- shipped to market

IV. Motivation

A. Have students collect pictures of foods which are found in the freezer of a supermarket. Question them as to the freezing process.

B. Have students keep a week's record of the different kinds of frozen food which they consume. Compare records.

V. Followup

A. Make a list of foods which can be enjoyed all year long because of freezing.

B. Make a list of foods which would not be available at different seasons were it not for freezing.

C. Make a drawing which shows how our lives have been changed because of modern methods of preparing our food.

D. Have class prepare and cook a fresh vegetable. Compare the process with the preparation of the same frozen vegetable.
VI. Resource Materials

A. Films

1. Alexander Learns Good Health, CF
2. Four Food Groups, AV
3. Good Eating Habits, CF
4. Healthy Families, FAC
5. Tommy's Day, MGH
6. Why Foods Spoil, EBF

B. Filmstrips

1. Finding Out How You Grow, SVE
2. Food for Health, CF
3. Health, SVE
4. Health Habits, EG
5. Proper Food, EBF
6. Right Foods Help Health, EG
7. Why Be Healthy, EG
8. Foods, Markets and Stores, SVE
9. Keeping Food From Spoiling, Food Series No. 8420, EBF

C. Books

INTRODUCING SETS, NUMBERS AND NUMERALS

A Captioned Film
for
Primary Level

By Arrangement with
Coronet Films

Captioned Films for the Deaf
U.S. Office of Education
Washington, D.C.

Time: 11 minutes
Color, SYNCAP

I. Film Summary

Here are the basic concepts of sets, set members, subsets, one-to-one correspondence and equivalent sets. Equivalent sets introduce us to the concept of numbers and its representation by numerals. When we join and separate sets, numerals show the resulting number of the union or the separate subsets.

II. Purpose of the Film

A. To introduce sets
B. To distinguish between set members and subsets
C. To illustrate equivalent sets
D. To develop the concept that addition and subtraction are really just the joining or separating of sets and/or subsets
E. To introduce and to distinguish between the terms number and numeral

III. Preparation for the Film

A. Preview the film and select objectives.
B. Select desired vocabulary.

- a set of
- class
- sets
- class
- within
- shepherds
- subset
- separate
- numeral
- join
- like (similar to)
- different
- match (verb)
- larger than
- share
- whole set

Multiple meanings:

equivalent

C. Gather visual aids.

1. Common classroom articles
2. Common home articles, e.g., spoons, clothespins
3. Teacher-made transparencies showing children or animals and using overlays wherever helpful
4. Group pictures - using any topic
5. Abacus

D. Take a picture of your class preferably with a Polaroid, and have them find as many sets and subsets as they can.

E. Have the children rearrange preconstructed geometric shapes into

1. Sets
2. Subsets
3. Equivalent sets
4. Addition facts
5. Subtraction facts

F. Give practice grouping various objects according to size, shape, color, etc.

G. Mathematical concepts

1. A set is any group of things.
2. Things are members of a set.
3. A subset is a set within a set.
4. Equivalent sets match.
5. When you join sets, you are adding.
6. When you separate sets, you are subtracting.
7. A numeral shows numbers and tells the number of members in any given set.

IV. Motivation
A. Put up a bulletin board with all the new words and concepts scattered on it. Give no explanation as to their relationship.
B. Discuss families, e.g., number of boys, girls, or pets, etc.
C. Construct geometric shapes out of paper, cardboard, or wood. Vary them as to size, shape, color, etc.

V. Followup
A. Have students arrange the bulletin board in its correct sequence.
B. Make worksheet for sets and subsets. Have students match them one-to-one.

VI. Resource Material
A. Filmstrips
1. Equations and Inequalities, MGH
2. Numbers and Numerals, MGH
3. More Numbers and Numerals, MGH
4. The Distributive Property, MGH
5. Introduction to Set Concepts, CFD, or Patterns in Modern Math, Gilbert Altschul Productions Inc.
6. Introduction to Our Number System, CFD, or Patterns in Modern Math, Gilbert Altschul Productions Inc.
B. Supplementary reading


3. Eye Gate House, Inc. have several teachers' manuals on Mathematics Teach-A-Charts. Basically, they are good for teaching one-to-one correspondence, order relations, and for showing the cardinal number of set. Interest is focused on how many members are in a set.


I. **Film Summary**

This film introduces students to the story of lumber. Through a series of flashbacks, the viewer learns how trees are cut, carried to the sawmill, shipped to the lumberyard and sold.

II. **Purpose of the Film**

A. To trace the source of lumber from forest to sawmill to lumberyard

B. To show the products that are sold in a lumberyard

C. To explain the transportation methods used to carry logs and lumber

D. To identify the machines used in a lumberyard

III. **Preparation for the Film**

A. Preview the film and select objectives.

B. Select desired basic vocabulary.

<table>
<thead>
<tr>
<th>Nouns</th>
<th>mill pond</th>
<th>load</th>
</tr>
</thead>
<tbody>
<tr>
<td>plans</td>
<td>moving belt</td>
<td>l x 4 board</td>
</tr>
<tr>
<td>lumberyard</td>
<td>saw teeth</td>
<td>cement</td>
</tr>
<tr>
<td>materials</td>
<td>chute</td>
<td>fencing</td>
</tr>
<tr>
<td>boards</td>
<td>poles</td>
<td>plumbing fixtures</td>
</tr>
<tr>
<td>lumberjack</td>
<td>flat cars</td>
<td>garden supplies</td>
</tr>
<tr>
<td>chain saw</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Time: 11 minutes

Color
B. Vocabulary (continued)

Nouns
- wedge
- machine
- glue
- crane
- lumber "carrier"
- office
- logs
- "fork lift"
- salesman
- point
- shingles
- nails
- plywood
- wire mesh
- storage shed

Verbs
- wait
- guide
- sort
- takes
- unload
- understand
- uses
- stacks
- weighs
- spray

Adjectives
- dull
- dangerous

C. Selected idioms and expressions
- stacks of wood
- write out the order
- one pound of nails
- look over the list
- sheet of plywood
- wants it to fall this way
- first coat of paint
- Timber!
- where they want it to fall

I. Motivation

A. Question class to learn how many have visited a lumberyard. What materials did they purchase? What else was sold at the lumberyard?

B. Question how many students have a workshop at home. What kinds of things do their fathers make in the workshop? What materials do they use?

I. Followup

A. How many children have been through a forest? What kinds of trees can be felled?

B. Discuss the types of transportation involved in moving lumber, particularly those seen in film.

C. Have class construct some form of building.

D. Pantomime some of the activities seen in film, e.g., cutting down trees, walking on logs.

I. Resource Materials

A. Films

1. Life in the Forest, EBF
2. Life in the Woodlot, NFBC
3. The Tree, CWF
4. We Explore the Woodland, COR

B. Filmstrips
1. Redwood Lumber Industry: Lumber Mill, BFI
2. Redwood Lumber Industry: Planing Mill, BFI

C. Books
MAKING CHANGE FOR A DOLLAR

A Captioned Film
for
Primary Level

By Arrangement with
Coronet Films

Captioned Films for the Deaf
U.S. Office of Education
Washington, D.C.

Time: 11 minutes

I. Film Summary

Through a small girl's dreams and actual experiences, the film stresses
(1) the comparative values of pennies, nickels, dimes, quarters, half-dollars,
and dollars; (2) some of the ways these values are commonly expressed; and
(3) how we can "make change" through understanding these comparative values and
expressions.

II. Purpose of the Film

A. To explain that a dollar bill can be broken down into change
B. To show the purchasing power of money
C. To show comparative values of different monetary units
D. To show how change is made upon purchase of an item

III. Preparation for the Film

A. Preview the film and select objectives.
B. Evaluate the benefits the class would receive from the film.
C. Gather visual aids.
   1. Have sufficient coins to show examples of various monetary units.
   2. Make up transparent monetary units for use on the overhead projector.
   3. Have various supplies to set up a model store.

D. Vocabulary

<table>
<thead>
<tr>
<th>Nouns</th>
<th>dream</th>
<th>dollar bill</th>
</tr>
</thead>
<tbody>
<tr>
<td>coin purse</td>
<td>coins</td>
<td>half-dollar</td>
</tr>
<tr>
<td>change</td>
<td>dime</td>
<td>nickel</td>
</tr>
<tr>
<td>quarter</td>
<td>store</td>
<td>cent</td>
</tr>
<tr>
<td>penny</td>
<td></td>
<td></td>
</tr>
<tr>
<td>cost</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Adjective</th>
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<tbody>
<tr>
<td>just</td>
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</table>

<table>
<thead>
<tr>
<th>Indefinite pronoun</th>
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<tbody>
<tr>
<td>something</td>
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</table>

<table>
<thead>
<tr>
<th>Verbs</th>
<th>equal</th>
<th>watch</th>
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<tbody>
<tr>
<td>worth</td>
<td>pays</td>
<td>make</td>
</tr>
<tr>
<td>count</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

E. Selected idioms and expressions

- only in her dreams
- \( \$ = \) sign for cent
- just the right change
to make change

IV. Motivation

A. Have students bring small change to class.

B. Make a bulletin board with comparative values of pennies, nickels, dimes, etc.

V. Followup

A. Suggested questions

1. How many pennies in a nickel?
2. How many pennies in a dime?
3. How many pennies in a quarter?
4. How many pennies in a half-dollar?
5. How many pennies in a dollar?
6. How many nickels in a half-dollar?
7. How many dimes in a half-dollar?
8. How many nickels in a quarter?

B. Discussion questions
1. Why did Sue want change for her dollar?
2. How did Mr. Anderson help Sue?
3. Why does money come in different shapes and sizes?

C. Suggested activities
1. Develop a model store.
   a. students rotate as clerk
   b. students act as customers
2. Use overhead projector with transparent monetary units.
3. Have students work on worksheets available from Continental Press Inc.

VI. Resource Materials

A. Films
1. Money in the Bank—and Out, Churchill
2. My Financial Career, NFBC

B. Filmstrips
1. Money, Series 3, No. 31–66, CFD
2. Time and Money, EG
3. The Mint Makes New Coins, CFD
4. Making Change, MGH
5. The Story of Money, MGH
C. Supplementary reading


D. My Weekly Reader Filmstrips


2. *Money,* Series 3, No. 31-66

3. *New Quarters Are Made,* Series 3, No. 4-66

4. *We Need More Coins,* Series 2, No. 25-66
MONEY AND ITS USES

A Captioned Film
for
All Levels

By Arrangement with
Encyclopaedia Britannica Films

Captioned Films for the Deaf
U.S. Office of Education
Washington, D.C.

Time: 11 minutes Color, SYNCAP

I. Film Summary

This film will give children on any level an idea of how money is used. It also illustrates different articles which have been used as money.

The principle of why money is used instead of bartering is introduced.

The film presents a clear illustration of how money circulates and purchases goods.

II. Purpose of the Film

A. To explain why we must have money
B. To show that using money is a convenient way of trading
C. To explain that the government guarantees money
D. To show what things money will buy
E. To show how money circulates
F. To show how money is earned and spent
III. **Preparation**

A. Preview the film and select objectives.

B. Gather materials or objects to be used for a class auction to illustrate the relative value of various articles.

C. **Vocabulary**

<table>
<thead>
<tr>
<th><strong>Nouns</strong></th>
<th><strong>Verbs</strong></th>
<th><strong>Adjectives</strong></th>
<th><strong>Indefinite Pronoun</strong></th>
<th><strong>Preposition</strong></th>
<th><strong>Adverbs</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>newspaper</td>
<td>deliver</td>
<td>valuable</td>
<td>anything</td>
<td>without</td>
<td>almost</td>
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<tr>
<td>bone</td>
<td>consider</td>
<td>easier</td>
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<td>really</td>
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<td>bills</td>
<td>carry</td>
<td>different</td>
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<td>fertilizer</td>
<td>traded</td>
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<td>barter</td>
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<td>goes</td>
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<td></td>
<td>collecting</td>
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<td>skins</td>
<td>paid</td>
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<td>needs</td>
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<td>skins</td>
<td>medium</td>
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</tbody>
</table>

D. **Selected idioms and expressions**

- wrapped around useful as a measure of value
- hard to get combined to make any amount
- guarantees its values decide to make a trade
- compare values medium of exchange

E. **Multiple meanings**

- values change barter
- use

IV. **Motivation**

A. Prepare a bulletin board to illustrate the bartering process.

B. Have students participate in a class auction sale to illustrate the relative value of various articles.
V. Followup
   A. Suggested questions
      1. Why is the bartering system not as convenient as using money?
      2. Why is money valuable?
   B. Discussion questions
      1. Discuss the merits of the use of money over the barter system.
      2. Discuss why it is impractical today to exchange one article for another, e.g., the pig for a dress.
      3. Discuss the place of courtesy in the exchange process.
   C. Suggested activities
      1. Have students participate in the purchase of a gift or article for a special occasion. Stress the necessity of money as a medium of exchange.
      2. Have students plan a class project, e.g., shoe shine, box lunch sale, auction, in order to raise funds for a class outing.

VI. Resource Materials
   A. Films
      1. Money in the Bank--and out. Churchill
      2. My Financial Career, NFBC
   B. Filmstrips
      1. Money, Series 3-No. 31-66, CFD
      2. Time and Money, EG
      3. The Mint Makes New Coins, CFD
   C. Supplementary reading
MUTIPLICATION FOR BEGINNERS

A Captioned Film
for
Primary and Intermediate Levels

By Arrangement with
Coronet Films

Captioned Films for the Deaf
U.S. Office of Education
Washington, D.C.

Time: 11 minutes
Black and White, SYNCAP

I. Film Summary

We may use multiplication whenever we combine sets that have the same number. Moving from the simple concept of repeated addition, we introduce the importance of multiplication facts and the use of the number line in checking them. Arrays are explained and used to help explain the law of order and the distributive law for multiplication.

II. Purpose of the Film

A. To show the basic uses of the multiplication process

B. To demonstrate the law of order and the distributive law for multiplication using arrays (i.e., sequential arrangements to symbolize a numeral)

III. Preparation for the Film

A. Preview the film and select objectives.

B. Gather visual aids such as egg cartons, candy and cookie trays, felt board and pieces, abacus, number line, and small objects.

C. Introduce and/or review the multiplication process using some of the above visual aids.
D. Vocabulary

<table>
<thead>
<tr>
<th>Nouns</th>
<th>law of order</th>
<th>position</th>
</tr>
</thead>
<tbody>
<tr>
<td>answer</td>
<td>member</td>
<td>product</td>
</tr>
<tr>
<td>array</td>
<td>number line order</td>
<td>row</td>
</tr>
<tr>
<td>distributive law</td>
<td>paper strips</td>
<td>set</td>
</tr>
<tr>
<td>dot</td>
<td>pattern</td>
<td>zero</td>
</tr>
<tr>
<td>factor</td>
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<td></td>
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</tbody>
</table>

| Adjective      |              |              |
| even           |              |              |

| Verbs          | combine      | reverse      |
| add            | distribute   | separate     |
| check          | multiply     |              |
| change         |              |              |

| Indefinite pronouns |    |
| some             | any |

| Partitive       |    |
| a set of        |    |

E. Selected idioms and expressions

another way change position even pattern

IV. Motivation

A. Use several concrete personal objects to illustrate the concept that multiplication is merely an additive process. Question pupil as to the number of articles they have. Then group the ones who have the same number of articles together. Question the class as to how many children have the same number. Illustrate.

B. Further motivation might include ideas rather than concrete materials. Use natural situations wherever possible.

C. Encourage children to look for the explanation of the law of order and the distributive law for multiplication.

V. Followup

A. Prepare charts to illustrate the law of order and the distributive law for multiplication.

B. Prepare worksheets to include review and drill on the above laws.
VI. Resource Material

A. Filmstrips

1. Let's See How To Multiply, EG
2. Inverse Operations - Multiplication and Division, MGH
3. Solving Problems - Multiplication and Division, MGH
4. Changing the Order - Multiplication and Division, MGH
5. Changing the Grouping - Multiplication and Division, MGH
6. Multiplication and Division Set No. I, Arithmetic Series, MGH
7. Operations - Multiplication, CPD; or Patterns in Modern Math, Gilbert Altschul Productions, Inc.

B. Selected reading


C. Pamphlet

Refer to the filmstrip guide which McGraw-Hill presents with this series of films, Modern Arithmetic - Grades 3 and 4, Set II. This pamphlet also gives related filmstrips.
RIKKI THE BABY MONKEY

A Captioned Film
for
Primary Level

By Arrangement with
Encyclopaedia Britanica Films

Captioned Films for the Deaf
U.S. Office of Education
Washington, D.C.

Time: 11 minutes  Black and White, SYNCAP

I. Film Summary

A typical day in the life of a Rhesus monkey is depicted in this short film. Highlights include eating, drinking, and cleaning habits, local dangers, and parental care.

II. Purpose of the Film

A. To show the sequence of events in the daily life of a monkey
B. To show their personal habits
C. To allow for a comparison of how mothers—human and otherwise—care for their young
D. To show family relationships and responsibilities

II. Preparation for the Film

A. Preview the film and select objectives.
B. Select desired basic vocabulary.

Verbs

come down  climb  help
learn  walk  jump
<table>
<thead>
<tr>
<th>Verbs (Continued)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>sit</td>
<td>fall</td>
<td>carry</td>
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<tr>
<td>rest</td>
<td>crawl</td>
<td>watches</td>
</tr>
<tr>
<td>hurt</td>
<td>clean</td>
<td>comb</td>
</tr>
<tr>
<td>take care of</td>
<td>look around</td>
<td>want to</td>
</tr>
<tr>
<td>look (how)</td>
<td>run away</td>
<td>look for</td>
</tr>
<tr>
<td>wake up</td>
<td>surprise</td>
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<table>
<thead>
<tr>
<th>Nouns</th>
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<tr>
<td>tail</td>
<td>log</td>
<td>teacher</td>
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<td>woods</td>
<td>vines</td>
<td>danger</td>
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<td>breakfast</td>
<td>insect</td>
<td>drink</td>
</tr>
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<td>roots</td>
<td>bubble</td>
<td>back</td>
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<td>leaf</td>
<td>place</td>
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<td>babies</td>
<td>friend</td>
<td>arms</td>
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<td>pouches</td>
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<td>eyes</td>
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<table>
<thead>
<tr>
<th>Adjectives</th>
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<tbody>
<tr>
<td>reddish</td>
<td>tired</td>
<td>safe</td>
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<tr>
<td>warm</td>
<td>dangerous</td>
<td>gym</td>
</tr>
<tr>
<td>best</td>
<td>alone</td>
<td>smart</td>
</tr>
<tr>
<td>sharp</td>
<td>much</td>
<td>quiet</td>
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<td>hungry</td>
<td>easy</td>
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<table>
<thead>
<tr>
<th>Adverbs</th>
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<tr>
<td>slowly</td>
<td>again</td>
<td>closer</td>
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<tr>
<td>away</td>
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<th>Prepositions</th>
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<td>in</td>
<td>under</td>
<td>around</td>
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<tr>
<td>by</td>
<td>near</td>
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<table>
<thead>
<tr>
<th>Others</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>another</td>
<td>himself</td>
<td>something</td>
</tr>
</tbody>
</table>

C. Gather visual aids

1. Danger signs

2. Stuffed monkeys or pictures of various kinds of monkeys

3. Family pictures (animal and human)

D. Selected idioms and expressions

let's go down       do not fall       be careful
take a nap          bigger than      good to eat
coming closer       to run away      
IV. **Motivation**

A. Have students draw what they think Rikki looks like.

B. Have a ditto with numbered dots which children will connect to form outline of a monkey.

V. **Followup**

A. Dramatize the story for
   1. Sequence of events
   2. Characterizations

B. Outline story with children.

C. Illustrate the story
   1. As a group
   2. Individually

D. Make a book using the above illustrations.

E. Have children make illustrations to compare Rikki's family with their own.

VI. **Resource Material**

A. **Films**
   1. *Animal Habitats*, Film Associates
   2. *Animal Communities and Groups*, COR
   3. *Animal Homes*, EBF
   4. *Zoo Families*, Film Associates
   5. *Animals Growing Up*, EBF
   6. *Zoo Animals of Our Storybooks*, COR
   7. *Zoo Babies*, COR
   8. *The Zoo*, EBF
B. Filmstrips

1. **Animal Babies**, SVE
2. **Animals of the Zoo**, SVE
3. **A Walk in the Woods**, CF
4. **Animal Babies and Their Families**, Eyegate
5. **Animals Struggle To Live**, Eyegate
6. **The Mountain Lion**, EBF

C. Color prints

Set II Basic Science Series, Set 12

D. Books

I. Film Summary

Basically, this is a story about all the people who help Ted learn. His class is making a model floor plan of the school and are putting in models of the people found in various places. The teacher and students discuss each person as they put them in their model.

II. Purpose of the Film

A. To show the various duties of the:

1. principal
2. secretary
3. school nurse
4. custodian
5. cafeteria and lunchroom supervisors
6. librarian
7. gym teacher
8. crossing guard
9. mothers and fathers

10. teacher

B. To show how children can help people who help them (e.g., keep the halls clean, work very hard)

C. To understand the importance of mothers and fathers in relation to the school program

III. Preparation for the Film

A. Preview the film and select objectives.

B. Gather visual aids.

1. a model, or floor plan of the school

2. dolls, or pictures of the various staff members

3. different articles used by the various people (e.g., a broom, a pencil, a book, a toy typewriter, a tongue depressor, etc.)

C. Select desired vocabulary.

| Nouns         | nurse | custodian
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>principal</td>
<td>secretary</td>
<td>work</td>
</tr>
<tr>
<td>school</td>
<td>child</td>
<td>parents</td>
</tr>
<tr>
<td>office</td>
<td>school nurse</td>
<td>health</td>
</tr>
<tr>
<td>librarian</td>
<td>shots</td>
<td>building custodian</td>
</tr>
<tr>
<td>room</td>
<td>halls</td>
<td>school grounds</td>
</tr>
<tr>
<td>crossing guard</td>
<td>lunch</td>
<td>cafeteria supervisors</td>
</tr>
<tr>
<td>play grounds</td>
<td>soup</td>
<td>hot dogs</td>
</tr>
<tr>
<td>lunchroom supervisors</td>
<td>film</td>
<td>filmstrips</td>
</tr>
<tr>
<td>library books</td>
<td>games</td>
<td>exercises</td>
</tr>
<tr>
<td>gym teacher</td>
<td></td>
<td></td>
</tr>
<tr>
<td>important</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Verbs</th>
<th>learn</th>
<th>help</th>
</tr>
</thead>
<tbody>
<tr>
<td>like</td>
<td>visit</td>
<td>look for</td>
</tr>
<tr>
<td>share</td>
<td>talk to</td>
<td>like to</td>
</tr>
<tr>
<td>look like</td>
<td>clean</td>
<td>put</td>
</tr>
<tr>
<td>plan</td>
<td>use</td>
<td>hurt</td>
</tr>
<tr>
<td>borrow</td>
<td>cost</td>
<td>test</td>
</tr>
<tr>
<td>pay</td>
<td></td>
<td></td>
</tr>
<tr>
<td>forget</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
C. Selected idioms and expressions

help learn  in charge of  they belong
most important  keep from being hurt  test your eyes and ears
old enough  help in turn  how to help yourself

IV. Motivation

A. Make models of all school personnel.

B. Make a display showing a small boy at the bottom of the ladder. At the top of the ladder, attach a lot of strings. (See Suggested activities for completion of this idea.)

C. Ask the children why they would like to be any one person in the school. For example, if Mary wants to be a teacher, question her as to why.

D. Use a polaroid camera to mount and post pictures of the faculty. Ask, "Who are we?"

V. Followup

A. Suggested questions

1. Who are these people?

<table>
<thead>
<tr>
<th>Job</th>
<th>Name of Individual in Your School</th>
</tr>
</thead>
<tbody>
<tr>
<td>principal</td>
<td></td>
</tr>
<tr>
<td>gym teacher</td>
<td></td>
</tr>
<tr>
<td>nurse</td>
<td></td>
</tr>
<tr>
<td>teacher</td>
<td></td>
</tr>
<tr>
<td>crossing guard</td>
<td></td>
</tr>
<tr>
<td>librarian</td>
<td></td>
</tr>
<tr>
<td>lunchroom supervisor</td>
<td></td>
</tr>
<tr>
<td>cafeteria supervisor</td>
<td></td>
</tr>
</tbody>
</table>

2. Who is the leader of our school?

3. To what club do both teachers and parents belong?

4. Which job do you think is the hardest in the school? Why?
B. Suggested activities

1. Dramatize any given activity of someone in the school, and see if the class can guess who it is (similar to charades).

2. Have an "Occupation Day." Let each child pick out and pretend to be any one person in the school he wants to be.

3. Make up a little skit where the children performs all the characterizations involved in a typical day at school.

VI. Resource Materials

A. Filmstrips

1. Cafeteria Workers, #4659, MGH
2. Our Job in School, #5203, EBF
3. Our Library, #5358, EBF
4. Our Parks and Playgrounds, #5363, EBF
5. Our School, #5260, EBF
6. Part of the Team, #5264, EBF
7. School Courtesy, #5265, EBF
8. School Helpers, #5262, EBF
9. School Nurse, #4658, MGH
10. The Custodian, #4655, MGH
11. The Librarian, #4713, MGH
12. The Librarian, #7107 (p-), LFS
13. The New Pupil, #5260, EBF
14. The Principal, #4657, MGH
15. The Safety Patrol, #4656, MGH
16. The School Cafeteria Worker, EG
17. The Teacher, #4654, MGH
18. We Go to School, #4366, KP
19. Work at School, Series #2 5-64, MWR

B. Books


A VERY SPECIAL DAY

A Captioned Film
for
All Levels

By Arrangement with
United World Films

Captioned Films for the Deaf
U.S. Office of Education
Washington, D.C.

Time: 18 minutes

I. Film Summary

Claudia, a six year old, celebrates her birthday with her father at the beach. When her father leaves her to purchase refreshments, she is knocked over by three young boys who run off with her dog. In an effort to retrieve the animal, Claudia pursues the boys and becomes lost. The story then focuses on one of the boys whose desire to help Claudia overcomes his fear of peer ridicule.

II. Purpose of the Film

A. To develop and express feelings for others

B. To foster positive attitudes towards others, e.g., responsibility, compassion

C. To understand and express basic emotions

III. Preparation for the Film

A. Preview the film and select objectives.

B. Vocabulary

<table>
<thead>
<tr>
<th>amusement park</th>
<th>board walk</th>
<th>ocean</th>
</tr>
</thead>
<tbody>
<tr>
<td>beach</td>
<td>ship</td>
<td>sea gulls</td>
</tr>
</tbody>
</table>
Vocabulary (Continued)

- trash (litter)
- fear
- ridicule
- joy
- concern (worry)
- compassion
- love
- danger
- responsibility
- embarrass
- frustration

IV. Motivation
A. Discuss the feelings of any pupil(s) who might have been lost or who might have lost something.
B. Discuss the meaning of various special days.
C. Have children look for reasons why the film is entitled A Very Special Day.

V. Followup
A. Discuss children's reasons for the film being entitled A Very Special Day.
B. From a carefully selected group of pictures, have children chose those which illustrate for them specific emotions.
C. In single sentences, paragraphs, or compositions, have children describe any emotion such as fear, love, compassion, or worry.
D. Pantomine parts of the film. Have children describe their reactions to the pantomine.
E. Have children draw pictures to illustrate some section of the film which impressed them either negatively, or positively.

VI. Resource Materials
A. Films
1. What Liberty and Justice Mean, Churchill Films
2. A Man Without a Country, MGH
3. Good Sportsmanship, COR
4. Children's Emotions, MGH
5. Children of the Sun, John F. Rubley
6. Courtesy for Beginners, COR
7. Let's Go to the Circus, EBE
8. The Red Balloon, Lamorisse, 1959
9. Kindness to Others, COR
11. Fairness for Beginners, EBE
12. Let's Share with Others, EBE
13. Snowy Day, Weston Woods Film (Book also available)

B. Filmstrip

Consideration for Others, SVE

C. Books

Primary

Intermediate


3. Leodhas, Sorche Nie. **Always Room for One More.** Holt, Rinehart.


D. Song

**You Are My Sunshine**
INTERMEDIATE
I. Film Summary

This animated cartoon shows the correct use of hand tools, such as hammers, screwdrivers, pliers and wrenches. "Primitive Pete" shows typical examples of tool misuse.

II. Purpose of the Film

A. To introduce and show proper use of the ball-peen hammer, the claw hammer, the screwdriver, pliers, the open-end wrench, the adjustable wrench, the monkey wrench, the pipe wrench, the box wrench, the half and half wrench and the socket wrench

B. To show that safety is very important in the use of tools

III. Preparation for the Film

A. Preview the film and select objectives.

B. Choose basic vocabulary.

<table>
<thead>
<tr>
<th>abused</th>
<th>accurate</th>
<th>ancestors</th>
</tr>
</thead>
<tbody>
<tr>
<td>angle</td>
<td>appreciate</td>
<td>blows</td>
</tr>
<tr>
<td>caveman</td>
<td>civilization</td>
<td>craftsmen</td>
</tr>
<tr>
<td>crowbar</td>
<td>degrees</td>
<td>designed</td>
</tr>
</tbody>
</table>
B. Vocabulary (continued)

|electricians| equipped| event|
|fitting| flatten| flats|
grinding| grip| handy|
hardness| invention| jams|
jaws| loop| mechanical|
mechanics| misused| notches|
nuts| opposite| pinned|
pliers| prevents| rachets|
reduces| repair| required|
rivet| ruin| serious|
shanks| shape| shear|
skilled| sky-scrapers| sledges|
snugly| Stone Age| strain|
strip| taper| terminal|
wedge|

C. Selected idioms and expressions

think backwards | ball-peen hammer | face end
claw hammer | driving force | blade width
cutting slot | square shank | side-cutting pliers
cutting edge | right angle bend | rachet lever
diagonal pliers | combination pliers | slipping jaws
wrench measurements | swing space | stationary jaw
weaker adjustable jaw | pipe wrenches | box wrench
hinge off-set handle | "T" handle | "knuckle saver"
useful tool | peen end | Stone Age patterns
plated fixtures | eye of the head | well-known
slot length | well-ground screwdriver | chew up
insulated wire | round nose pliers | rachet handle
cotter pins | socket wrenches | slip joint
open-end wrench | "half and half" | universal joint
apply force | "T" handle | adjustable jaw

D. Things to watch for in the film

1. The safe use of tools

2. The operation of grinding a screwdriver face to reduce slippage

3. The habit of keeping moving parts oiled

IV. Motivation

A. Draw a poster of "Primitive Pete" holding a Stone Age tool and discuss the origin of tools.

B. Pretest selected tool vocabulary shown in film.
V. Followup

A. Suggested questions

1. Describe "Primitive Pete's" first hammer.

2. Explain why you should not use a hammer on a screwdriver.

3. Explain why the heavy duty screwdriver has a square shank.

4. How do you prevent rust from damaging tools?

5. Why should you not use a pipe with a wrench to remove tight nuts?

6. Explain the operation of a ratchet.

B. Suggested activities

1. Show a series of transparencies focusing on tools discussed in the film; ask pupils to identify each and describe some of its uses.

2. Describe several manual operations that require tools and ask pupils to demonstrate said operation.

3. Prepare teacher-made slides contrasting correct and incorrect use of tools.

VI. Resource Materials

A. Suggested books (texts)


2. Ludwig, Oswald A. Metalwork. Bloomington, Ill.: McKnight and McKnight, 1962.


B. Suggested pamphlets

C. Charts


D. Films

1. Furniture Craftsman, EB
2. The Piroque Maker, MTP

E. Filmstrips

1. Chisels for Woodworking, STC
2. Hand Saws for Woodworking, STC
3. Planes, STC
4. Safety in the Shop, MGH
6. Woodworking Series, MGH
7. Woodworker's Tools, Visual Science

F. Transparencies

Hand Tools, Industrial Arts 21, #M Co.
I. Film Summary

This animated cartoon shows the correct use of hand tools such as chisels, planes, punches, braces, files, saws and a try square. "Primitive Pete" shows typical examples of tool misuse.

II. Purpose of the Film

A. To introduce and to show proper use of:
   1. cold chisel
   2. wood chisel
   3. wood plane
   4. punches
   5. brace
   6. file
   7. rip saw
   8. cross-cut saw

B. To show that safety is very important in the use of tools

III. Preparation for the Film

A. Preview the film and select objectives.
B. Select desired basic vocabulary.

<table>
<thead>
<tr>
<th>Term</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>bits</td>
<td>grinding</td>
</tr>
<tr>
<td>bolts</td>
<td>ground</td>
</tr>
<tr>
<td>boring</td>
<td>heel</td>
</tr>
<tr>
<td>brace</td>
<td>incorrectly</td>
</tr>
<tr>
<td>chisel</td>
<td>insert</td>
</tr>
<tr>
<td>cleat</td>
<td>lengthwise</td>
</tr>
<tr>
<td>coarse</td>
<td>lip (auger bit)</td>
</tr>
<tr>
<td>draw (to pull)</td>
<td>loosening</td>
</tr>
<tr>
<td>drilling</td>
<td>miracles</td>
</tr>
<tr>
<td>force</td>
<td>parallel</td>
</tr>
<tr>
<td>forcing</td>
<td>paring</td>
</tr>
<tr>
<td>pins</td>
<td>stroke</td>
</tr>
<tr>
<td>pressure</td>
<td>rack</td>
</tr>
<tr>
<td>raps</td>
<td>remove</td>
</tr>
<tr>
<td>rivets</td>
<td>sloped</td>
</tr>
<tr>
<td>slogans</td>
<td>sloping</td>
</tr>
<tr>
<td>spur</td>
<td>stir</td>
</tr>
<tr>
<td>storing</td>
<td>tang</td>
</tr>
</tbody>
</table>

C. Selected idioms and expressions

<table>
<thead>
<tr>
<th>Term</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>cold chisel</td>
<td>block plane</td>
</tr>
<tr>
<td>hard steel</td>
<td>end grain</td>
</tr>
<tr>
<td>rivet heads</td>
<td>jack plane</td>
</tr>
<tr>
<td>rough cuts</td>
<td>uneven cutting edge</td>
</tr>
<tr>
<td>sheet metal</td>
<td>bottom side up</td>
</tr>
<tr>
<td>metalwork</td>
<td>hand chisel</td>
</tr>
<tr>
<td>flying metal chips</td>
<td>eye level</td>
</tr>
<tr>
<td>dull edge</td>
<td>adjusting nut</td>
</tr>
<tr>
<td>emery wheel</td>
<td>adjusting lever</td>
</tr>
<tr>
<td>cutting end</td>
<td>set below the surface</td>
</tr>
<tr>
<td>wood chisel</td>
<td>nail heads</td>
</tr>
<tr>
<td>horizontal cut</td>
<td>with the grain</td>
</tr>
<tr>
<td>with the grain</td>
<td>starting punch</td>
</tr>
<tr>
<td>roughing cut</td>
<td>pin punch</td>
</tr>
<tr>
<td>bevel side</td>
<td>center punch</td>
</tr>
<tr>
<td>center point</td>
<td>firm stroke</td>
</tr>
<tr>
<td>wood planes</td>
<td>line up</td>
</tr>
<tr>
<td>screw point</td>
<td>file teeth</td>
</tr>
<tr>
<td>draw filing</td>
<td>rip saw</td>
</tr>
<tr>
<td>cross-cut saw</td>
<td>stiff wire brush</td>
</tr>
<tr>
<td>45° angle</td>
<td>60° angle</td>
</tr>
<tr>
<td>back stroke</td>
<td>index finger</td>
</tr>
<tr>
<td>adjustable frame backsaw</td>
<td>adjustable frame backsaw</td>
</tr>
<tr>
<td>angle iron</td>
<td>teeth per inch</td>
</tr>
<tr>
<td>the measure of man is</td>
<td>low angle</td>
</tr>
<tr>
<td>try square</td>
<td></td>
</tr>
</tbody>
</table>

D. Things to watch for in the film

1. Safe use of tools

2. How to determine which hacksaw blade to use for a specific job

3. Proper storage of tools: "A place for everything, everything in its place"

IV. Motivation

A. Draw a poster of "Primitive Pete" holding a stone age tool, and discuss the origin of tools.

B. Pre-test selected tool vocabulary shown in film.
V. Followup

A. Suggested questions

1. List three punches mentioned in the film.
2. Why must the metal burrs be ground off the end of a chisel?
3. In which direction should the chisel's bevel point when paring wood?
4. Why do we drill from both sides of a board to make a hole?
5. How do we clean a file?
6. Why do we hold our index finger along the handle of a cross-cut saw?

B. Suggested activities

1. Show a series of transparencies focusing on tools discussed in the film; ask pupils to identify each and describe some of its uses.
2. Have students demonstrate to the class the following operations:
   a. grinding a chisel
   b. rough cutting with a wood chisel
   c. boring a hole with brace and bit, etc.
3. Prepare teacher-made slides contrasting correct and incorrect use of tools.

VI. Resource Materials

See Resource Materials at conclusion of The ABC of Hand Tools-Part I
ALUMINUM WORKERS

A Captioned Film

for Intermediate and Advanced Levels

By Arrangement with
AFL-CIO

Captioned Films for the Deaf
U.S. Office of Education
Washington, D.C.

Time: 14 minutes Black and White

I. Film Summary

The operations of changing alumina (oxide) into sheets of useable aluminum is shown. Operations such as the removing of oxygen from alumina, pouring of aluminum ingots, and rolling of aluminum sheets are depicted.

II. Purpose of the Film

A. To show how alumina is transformed into aluminum through the Hall-Heroult process

B. To show how aluminum ingots are formed into sheets

C. To illustrate the skills of the men working in aluminum production

D. To show something of the cost of producing aluminum

III. Preparation for the Film

A. Background information

Jamaica is the leading country for the mining of bauxite, the raw material from which aluminum comes. The U.S. is the leading manufacturer of aluminum. Through the use of lime, soda ash and water, bauxite is turned into alumina, a white powder. We obtain the raw aluminum through the use of the Hall-Heroult process, which uses electric current to separate aluminum from other impurities.
B. Preview the film and select objectives.

C. Gather visual aids, such as:
   1. articles made of aluminum
   2. pictures of aluminum production
   3. pictures of various aluminum products

D. Select vocabulary.

<table>
<thead>
<tr>
<th>Nouns</th>
<th>Samples</th>
<th>Metal</th>
</tr>
</thead>
<tbody>
<tr>
<td>aluminum</td>
<td>samples</td>
<td>metal</td>
</tr>
<tr>
<td>trades</td>
<td>utensils</td>
<td>equipment</td>
</tr>
<tr>
<td>water towers</td>
<td>alloy</td>
<td>oxide</td>
</tr>
<tr>
<td>alumina</td>
<td>furnaces</td>
<td>refinery</td>
</tr>
<tr>
<td>impurities</td>
<td>scrap metal</td>
<td>electric power</td>
</tr>
<tr>
<td>potroom</td>
<td>potman</td>
<td>melting furnace</td>
</tr>
<tr>
<td>holding furnace</td>
<td>asbestos spots</td>
<td>casting room</td>
</tr>
<tr>
<td>operator</td>
<td>ingots</td>
<td>tube</td>
</tr>
<tr>
<td>citters</td>
<td>crucible</td>
<td>(mineral) compounds</td>
</tr>
<tr>
<td>quality control</td>
<td>modern equipment</td>
<td>oil</td>
</tr>
<tr>
<td>rolling mill</td>
<td>metal industry</td>
<td>tube</td>
</tr>
<tr>
<td>earth's crust</td>
<td>coils</td>
<td></td>
</tr>
</tbody>
</table>

E. Selected idioms and expressions

- more useful
- as cheap as
- chips of metal
- right temperature
- easy to handle
- useful things
- believe in and use
- better products
- almost pure
- pay close attention to

IV. Motivation

A. Construct a bulletin board depicting aluminum products.

B. Take two pieces of metal, the same size and shape, one being aluminum and the other steel. Paint these black. Ask students to describe the difference between them.
V. Followup

A. Suggested questions

1. What is the raw material from which we obtain alumina?
2. What source of power do we use to obtain aluminum from alumina?
3. What are ingots?
4. What process is used to change the form of the aluminum ingots?
5. What lubricant is used when aluminum is rolled?

B. Discussion questions

1. Why do we use for the construction of airplanes?
2. Why is aluminum used in the construction of automobile trim and house exteriors?
3. How many aluminum products can you list?

C. Suggested activities

1. Put a piece of raw steel and raw aluminum in separate beakers of water. Leave them for three days, and then remove them. Observe any oxidation (steel should oxidize).
2. Go to the school parking lot and look at a car. Have students list parts made of aluminum.

D. Suggested activities for vocational teachers

1. Have students try to raise a small dish from a three-inch circle of aluminum. Next, have students raise a small dish from a three-inch piece of sheet metal.
2. Have students work harden a piece of aluminum then have students anneal this.

VI. Resource Materials

A. Films

1. A Product of Imagination, AF
2. New Horizons in Aluminum Brazing, AF
3. Welding Advances with Aluminum, AF
B. Filmstrips
1. Aluminum, SP
2. Four Metallic Elements, FH
3. How We Get Our Aluminum, KP

C. Books
AMERICA THE BOUNTIFUL

A Captioned Film
for
Intermediate and Advanced Levels

By Arrangement with
Jam Hardy Pictures
(Campbell Soup Co.)

Captioned Films for the Deaf
U.S. Office of Education
Washington, D.C.

Time: 16 minutes
Color

I. Film Summary

The viewer will be delighted with this overview of the history of American Foods. Through the miracle of good living typically, foreign foods have been Americanized in order that all members of this "melting pot" may enjoy life in all its faceted splendor. Through the use of animation, sound effects, color contrasts, and music, the history of our gourmet delights is beautifully portrayed.

II. Purpose of the Film

A. To introduce students to the history of American foods
B. To appreciate the gustatory sense of some famous Americans
C. To inspire students with an appreciation of culinary skills
D. To contrast present and past culinary arts

III. Preparation for the Film

A. Preview the film and select objectives.
B. Vocabulary

Nouns
- varieties
- recipes
- New England
- pork and beans
- bean soup
- sweet potatoes
- pioneers
- Creole sauce
- beef broth
- chili beans
- forerunner

Verbs
- agree
- felt

Adjectives
- suffering
- favored

Adverbs
- fully

C. Selected idioms and expressions

- different things to different people
- the good things of life
- no doubt
- "gourmet of the White House"

IV. Motivation

A. Have students collect pictures of their favorite dishes. Ask if they know the history of these foods.

B. Make a list of some of the foods shown in film. Have students guess the origin of these foods.

C. Where did such things as seasoning and soup originate?

V. Followup

A. Compare students previously prepared list of food origins with origins shown in film.

B. Have students plan various meals, e.g., Creole, Mexican, Indian, etc.
C. Plan a gourmet meal for some festive school occasion.
D. Trace the history of various sauces, gravy, salad and dessert.

VI. Resource Materials
A. Films
   1. *Eat for Health*, EBF
   2. *Four Food Groups*, AV
   3. *Where Does Our Food Come From?*, CFD

B. Filmstrips
   1. *Food*, EBF, Series No. 8420
   2. *Food and People*, EBF
   3. *How We Get Our Foods*, EBF

C. Books
BEGINNING TO DATE

A Captioned Film
for
Upper Intermediate and Advanced Levels

By Arrangement with
Encyclopaedia Britannica Films

Captioned Films for the Deaf
U.S. Office of Education
Washington, D.C.

Time: 14 minutes
Color, SYNCAP

I. Film Summary

Although the styles in this movie are quite out-of-date, this film shows the correct procedures a boy and girl should follow when dating.

II. Purpose of the Film

A. To show how a boy should and should not ask a girl for a date
B. To show how a girl should accept a date
C. To show the correct way to:
   1. answer the door bell
   2. greet someone
   3. introduce parents and
   4. carry on conversation
D. To show that proper planning is needed prior to the date
E. To show that proper etiquette on a date includes thinking about someone else's feelings
F. To give the students the idea that most boys find it difficult to ask a girl for a date, especially the first time

G. To show the socially acceptable behavior during and after a date

III. Preparation for the Film

A. Preview the film and select objectives.

B. Gather visual aids such as a dance poster put up prior to a school dance and a teacher-made transparency showing the do's and don'ts of dating.

C. Vocabulary

<table>
<thead>
<tr>
<th>Nouns</th>
<th>date</th>
<th>rule</th>
</tr>
</thead>
<tbody>
<tr>
<td>club</td>
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<td>manners</td>
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<td>committee</td>
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<th>successful</th>
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<td>well-groomed</td>
<td>party</td>
<td>boring</td>
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<tr>
<td>frightening</td>
<td>honest</td>
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<tr>
<td>easy</td>
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<table>
<thead>
<tr>
<th>Verbs</th>
<th>scare</th>
<th>date (past tense and the participle)</th>
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<tr>
<td>dive</td>
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<td>get</td>
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<td>embarass</td>
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<td>relax</td>
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<tr>
<td>correctly</td>
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</table>

D. Selected idioms and expressions

- things are happening
- looking forward to
- to talk about
- What's the trouble?
- a floor show
- ahead of time
- Gosh!
- think about things

IV. Motivation

Correlate use of film with some school activity where boys and girls have the opportunity to date.
V. Followup

A. Suggested questions

1. Why is it improper to tease others about their dates?
2. Why should you suggest to girls what you will do on a date?
3. Why is it wrong to accept a date, and break it to go out with another boy or girl?
4. Why is it good to plan what you will do on a date?

B. Suggested activities

2. Have boys and girls dramatize the acceptable procedure in asking for and accepting a date.
3. Have a panel discussion. Topic: How I would like to be treated on a date.

VI. Resource Materials

A. Films

1. Beginning Responsibility, Being on Time, COR
2. Habit Patterns, MGH
3. High School Prom, COR
4. How To Be Well Groomed, COR
5. Responsibility, MGH
6. The Other Fellow's Feelings, MGH
7. The Show-Off, MGH

B. Filmstrips

1. Date Behavior, SVE
2. Do's and Don't's in Good Manners, EG
3. Getting a Date, SVE
4. Growing Up, EG

5. What To Do on a Date, SVE

6. Why Have Manners, EG

C. Prepared Transparencies

1. Developing Dating Criteria, 3M Visucom

D. Suggested reading

1. Books


BREATHING

A Captioned Film
for
Intermediate and Advanced Levels

By Arrangement with
Junior Science Films

Captioned Films for the Deaf
U.S. Office of Education
Washington, D.C.

Time: 26 minutes
Black and White

I. Film Summary

The respiratory process and the parts of the human body, necessary for respiration, are clearly portrayed in this film. Further scientific tests, such as those for the presence of oxygen and carbon dioxide, the comparison between the rate of burning in oxygen and carbon dioxide, the average breathing rate per minute both at rest and after exercise, and the process of dissolving and absorbing oxygen and carbon dioxide into the blood, are further incentives for the use of this film in a science class.

II. Purpose of the Film

A. To illustrate the process of breathing

B. To show the inhalation and exhalation of air through the lungs

C. To show the expansion and contraction of air

D. To show the procedures for testing the pressure of oxygen and carbon dioxide

E. To test the average breathing rate per minute

F. To illustrate the process of dissolving and absorption of oxygen and carbon dioxide into the blood stream
III. **Preparation for the Film**

A. Preview the film and select objectives.

B. **Vocabulary**

<table>
<thead>
<tr>
<th>Nouns</th>
<th>Verbs</th>
<th>Participles</th>
<th>Adjectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>model man</td>
<td>pour</td>
<td>breathing</td>
<td>average</td>
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<td>refrigerator</td>
<td>take apart</td>
<td>freezing</td>
<td>milky</td>
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<tr>
<td>ribs</td>
<td>expand</td>
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<td>measure</td>
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<tr>
<td>butcher</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Nouns</th>
<th>Verbs</th>
<th>Participles</th>
<th>Adjectives</th>
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<td>chest cavity</td>
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<td>Moisture</td>
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<tr>
<td>butcher</td>
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<td></td>
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</tr>
</tbody>
</table>

C. Selected idioms and expressions

- almost the same
- lower the pressure
- rate of breathing
- bumps and balls
- puffing and panting
- quietly and naturally
- get into the blood
- mixes with moisture
- prove it with an experimenter
- dissolves and enters the blood

D. Gather materials necessary to perform experiments shown in film.

IV. **Motivation**

A. Obtain a pair of animal lungs from a butcher. Display them as children enter the room. Question students as to what part of the body they are.
B. Illustrate the function of the lungs using the bottle and balloons as shown in film.

C. Question students as to contents of the air which they inhale and exhale. Have them blow into lime water, notice the change, and then question the cause of change.

D. Question students as to possible capacity of human lungs.

V. Followup

A. Perform experiments as shown in film.

B. Have students test each other's breathing rate both at rest and after exercise.

C. Have students report on the effects of smoking.

D. Make a list of various diseases of the lungs and other parts of the respiratory system.

VI. Resource Materials

A. Films

1. Human Body: Respiratory System, COR

2. Matter of Time, ILI

3. No Smoking, SD

4. Smoking and You, COFI

B. Filmstrip

Human Respiration, Introductory Physiology Series, MGH

C. Books


DENSITY

A Captioned Film
for
Intermediate Level

By Arrangement with
Junior Science Films

Time: 11 minutes
Black and White, SYNCA

I. Film Summary

This film vividly portrays the scientific principle of the density of a liquid. Experiments are used to indicate: (1) that different materials have different densities, (2) that certain things can change the density of other materials, and (3) that specific gravity is the density of a liquid compared with the density of water.

II. Purpose of the Film

A. To explain the meaning of the word density
B. To explain the principle of hydrometer
C. To show that two liquids of equal content will weigh differently
D. To show that the density of a liquid can be changed

III. Preparation for the Film

A. Preview the film and select objectives.
B. Vocabulary

<table>
<thead>
<tr>
<th>Nouns</th>
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<tbody>
<tr>
<td>steel ball</td>
<td>surface</td>
<td>attendant</td>
</tr>
<tr>
<td>object</td>
<td>instrument</td>
<td>salt</td>
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<tr>
<td>liquid</td>
<td>battery</td>
<td>waterline</td>
</tr>
<tr>
<td>experiment</td>
<td>specific gravity</td>
<td>scale</td>
</tr>
</tbody>
</table>
Nouns (continued)
- hydrometer
- molecule
- material
- densities
- wire

Verbs
- welcome
- measure
- change

Adjective
- weighted

C. Selected idioms and expressions
- block of wood
- less than
- more closely together
- becomes more dense
- mark it at . . .
- oil is less dense than water
- seems to float

like to know how
more than
change the density
something else about
compare with
steel is less dense than mercury

D. Gather materials for experiments shown in film.

IV. Motivation
A. Arouse student interest by utilizing the experiment portrayed in film e.g., floating a steel ball on milk.

B. Mount captioned pictures illustrating the principle of density.

V. Followup
A. Encourage students to develop their own experiments to illustrate the principle of density.

B. Perform the more advanced experiments depicted in films.

C. Have students write a paragraph explaining the principle of density. Use opaque projector to compare students' work.

D. Plan a science fair which will include projects on density.
VI. Resource Materials

A. Films
   1. Chemical Changes All about Us, COR
   2. Come to the Fair, RCSS
   3. Forces, EBF
   4. Things Dissolve, MGH
   5. Water and What It Does, CFD
   6. Waves on Water, EBF
   7. Wonders of Chemistry, MGH

B. Filmstrips
   1. First Experiments with Air Series, JH
      a. Air Is Everywhere
      b. Air Is Real
      c. Air Helps Things To Float
      d. Air Pushes Against Things
   2. The Physical Characteristics of Air (Grades 7-9), JH
   4. Some Things Dissolve, MGH
   5. Understanding Chemical Change, MGH
   6. What Is Air Pressure? (Grades 7-9), JH

C. Books


I. Film Summary

This film contrasts the effects of the use of accurate as well as inaccurate tools for measurement. By allowing a student to measure distance, time, and weight with poor tools, the teacher demonstrates that the results of the experiment are devastating. Success crowns the efforts when the same experiments are performed with accurate tools.

II. Purpose of the Film

A. To illustrate the effect of the use of inaccurate measuring devices;

B. To demonstrate the difference between everyday working tools, precision-made instruments, and the instruments used by the U.S. Bureau of Standards;

C. To show how distance, time, and weight are measured.

III. Preparation for the Film

A. Preview film and select objectives;

B. Gather materials shown in film to be used for simple experiments.
C. Vocabulary

**Nouns**
- radio
- satellite
- effort
- spaceship
- tools
- flight test
- length
- width
- height
- volume
- scale
- device
- orbit
- pointer
- inch
- anti-aircraft gunners
- atmosphere

**Verbs**
- pretend
- leave
- switch

**Adjectives**
- special
- heavy
- large
- wide

**Participles**
- measuring

**Adverbs**
- almost

**sighting device**
- skies
- three-quarter mark
- angle
- bulletin board
- surveyor
- error
- weight
- fuel
- trouble
- materials
- grams
- ground test
- milligram
- problem
- airplane
- accuracy
- outer space

**handle**
- threads
- clamp
- surprises
- trick
- navigator
- pilot
- seconds
- control panel
- button
- take-off
- flight
- miles
- timer
- million
- signals
- count down

**Verbs**
- decide
- added
- multiply
- fix

**Adjectives**
- accurate
- wrong
- insured
- real

**Participles**
- keeping

**Adverbs**
- afterwards
- automatically

D. Selected idioms and expressions

- good enough
- congratulations
- line it up
- get into position

- back and forth
- keeps us in touch
- check you out

- screen door spring
- one error in 200,000,000
- fix it so that it . . .

IV. Motivation

Ask the following questions.

A. How do scientists know where a spaceship will land?
B. When you measure a 12 inch line, how do you know it's a 12 inch line?

C. How can you be sure you weigh exactly ___ lbs.?

V. Followup

A. Have students construct mockup of the moonshot illustrated in film.

B. Show variations in weight through the use of small items, e.g. Erector Set.

C. Compare the weights of the children on both a bathroom scale and a medical scale.

VI. Resource Materials

A. Films

1. *How To Measure Time*, EBF

2. *Jet Propulsion*, CFD

3. *Laws of Motion*, CFD

4. *Machines Do Work*, CFD

5. *Rocketship X-M*, CFD

6. *Rockets, How They Work*, CFD


B. Filmstrips

1. *Machines*, SVE

2. *Newton's Laws of Motion*, SVE

3. *Simple Machines*, SVE

4. *Space Travel*, SVE

C. Supplementary reading


I. **Film Summary**

The success of the Wright Brothers is dramatically depicted through a series of flashback interviews with both the proponents and opponents of "the flying machine." The narrator using the present tense returns in time, to December 17, 1903, the day Orville and Wilbur Wright completed their first successful flight at Kitty Hawk, North Carolina.

II. **Purpose of the Film**

A. To show the first successful flight of an airplane
B. To create an appreciation of the difficulties involved in developing heavier-than-air machines
C. To indicate that perseverance overcomes all difficulties
D. To dispense the fallacy that only men of science can be productive

III. **Preparation for the Film**

A. Preview the film and select objectives.
B. Vocabulary
<table>
<thead>
<tr>
<th>Nouns</th>
<th>Smithsonian Institute</th>
<th>congresswoman</th>
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</thead>
<tbody>
<tr>
<td>flight</td>
<td>flying machine</td>
<td>shed</td>
</tr>
<tr>
<td>failures</td>
<td>experiments</td>
<td>life-saving station</td>
</tr>
<tr>
<td>mainland</td>
<td>gusts</td>
<td>glider</td>
</tr>
<tr>
<td>Weather Bureau</td>
<td>gravity</td>
<td>kite</td>
</tr>
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<td>dreamers</td>
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<td>propeller shapes</td>
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<td>impossible</td>
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<td>practical</td>
<td>ignorant</td>
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<td>less dangerous</td>
<td>reasonable</td>
<td>shifting (winds)</td>
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<tr>
<td>spiritual (material)</td>
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<td></td>
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<tr>
<td>Preposition</td>
<td>against</td>
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</tr>
</tbody>
</table>

C. Selected idioms and expressions

- turned people
- solve the problem
- sensitive to criticism
- defy the laws of nature

- blow an average of ___ miles an hour
- commercial and military use
- report the facts
- open their souls
C. Selected idioms and expressions (continued)

sure of success  
dream will come true
ideas were refined  
prove your point
it takes courage  
share this world
shift their weight  
change the angle
over the years

IV. Motivation

A. Encourage students who have flown to describe plane to the class.

B. Question students as to the history of air travel. Were planes always as they are today? Who initiated air flight? What difficulties were present?

C. Display model airplanes which depict the history of aviation.

D. Have students research the scientific principles involved in building heavier-than-air craft.

E. Show filmstrip Faster Airplanes are Planned, CFD Series 3.

V. Followup

A. Have students demonstrate and describe the construction of their own model airplanes. Include the time in history their plane was used.

B. Discuss the value of air travel over other forms of transportation.

C. Make a list of the parts of a plane. Describe the use of each part.

D. Visit, if possible, a local airport. Write report of visit.

E. Compose a science fiction story related to the future of air travel.

VI. Resource Materials

A. Films

1. Aviation: They Were First, Pathe

2. The Day Man Flew, Image

3. Dream of Flight, Craven

4. Icarus and Daedalus, Sterling
B. Filmstrips

1. Amelia Earhart, EG
2. Flying's for Everyone, UAC

C. Books


FROM GENERATION TO GENERATION

A Captioned Film
for
Intermediate and Advanced Levels
and Adult Education

By Arrangement with
Cullen Associates

Captioned Films for the Deaf
U.S. Office of Education
Washington, D.C.

Time: 28 minutes
Color, SYNCAP

I. Film Summary

Through the use of excellent animated art work and photography, this film depicts how human life is created. Analogies are made between the development of life and the seasons of the year. Through the use of color and a carefully chosen vocabulary, the concept that just as trees create new life in spring, man, through his love, creates new life too, is developed. This concept of life, being created through love, is stressed throughout.

The quality and content of this film are such that it would easily lend itself to use in adult education.

II. Purpose of the Film

A. To show that just as nature has time sequences of growth to follow, so has man

B. To show that all reproduction, including man, is an integral part of nature

C. To show that human reproduction is a process of love; it "begins with love, and ends in the birth of a child"

D. To show the processes of ovulation, menstruation, and birth

E. To illustrate female reproductive organs
F. To show the process of fertilization
G. To show the development of the fetus
H. To show the process of child birth

III. Preparation for the Film
A. Preview the film and select objectives.
B. Gather visual aids.
   Transparencies showing reproductive organs (3M Co.)
C. Select desired vocabulary.

<table>
<thead>
<tr>
<th>Nouns</th>
<th>Verbs</th>
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<tbody>
<tr>
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<td>villi</td>
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<td>fetus</td>
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<td>water</td>
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<td>amniotic fluid</td>
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<td>rhythm</td>
<td>labor</td>
</tr>
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<td>ligaments</td>
<td>original size</td>
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<td>cervix</td>
<td>relaxation</td>
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<td>childbirth</td>
<td>birth canal</td>
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<tr>
<td>decision</td>
<td>break open</td>
</tr>
<tr>
<td>creating</td>
<td>enriched</td>
</tr>
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<td>fertilizes</td>
<td>mix</td>
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<td>cycle</td>
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<tr>
<td>shapes</td>
<td>messages</td>
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<td>visible</td>
<td>law of nature</td>
</tr>
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<td>genes</td>
<td>cavities</td>
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<td>umbilical cord</td>
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<tr>
<td>ducts</td>
<td>ovary</td>
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<td>follicle</td>
<td>column</td>
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<td>nerve cells</td>
<td>amniotic sac</td>
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<tr>
<td>circulation system</td>
<td>placenta</td>
</tr>
<tr>
<td>growth</td>
<td>veins</td>
</tr>
<tr>
<td>mineral</td>
<td>shock absorber</td>
</tr>
<tr>
<td>contraction</td>
<td>coordination</td>
</tr>
<tr>
<td>second stage</td>
<td></td>
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</tbody>
</table>
Verbs (continued)
goes back from
closes overencircles
pass through
can move
push down
turns
dissolve
protects
depends
protects
expands
comes out
nestles
receive
grow
purifies
comes nearer
escape

Adjectives
single
surrounding
rapid
various
clear
delicate
slow
subtle

Adverb
clockwise
counterclockwise
lengthwise

D. Selected idioms and expressions
begins in love
settles against
helps to grow
ready to be born
begin at the top
outside her body
day follows night
time goes by
ends with the birth of a child
bear fruit
supply of blood
as natural as breathing
all her strength
no longer necessary
earth turns

e. Things to watch for in the film
1. Human life begins in love.
2. All human life begins in the uterus.
3. Two cells unite to begin the pattern of new life.
4. Life is made up of cycles and is compared to the seasons.
5. In the film, the woman becomes pregnant in the spring of the year and gives birth in the winter.
6. Just as plants need sun to grow, the embryo depends on the mother's body to grow.
7. The blood of the mother and child do not mix; their circulation systems are separate.
8. The film shows how, in 6 months, a baby moves its arms and legs, and the mother and father can feel this.
9. The mother feels regular contractions; this is called labor. Labor is a very natural thing, as natural as breathing.

10. Periods of relaxation are shown as starry periods in the film.

11. The mother needs all of her strength for childbirth.

IV. Motivation

A. Show filmstrips (available through McGraw-Hill) on
   1. Female reproductive system
   2. Menstrual cycle
   3. Fertilization
   4. Development in pregnancy
   5. Labor and birth

B. Review basic vocabulary.

V. Followup

A. Suggested questions
   1. Where does life begin?
   2. What two cells must unite for life to begin?
   3. Where do women produce the egg cell?
   4. How often do women produce an egg cell?
   5. Where must the male cell meet the female cell for conception to take place?
   6. What do genes determine?
   7. Where are the genes found?
   8. As the fetus develops, the stalk becomes the ___________.
   9. What services does the placenta provide for the fetus?
   10. What two services does the amniotic fluid provide during pregnancy?
11. What do the muscles in the uterus do during the process of labor?

12. How does a baby generally emerge from the birth canal?

B. Suggested activities

1. Provide students with a teacher-made worksheet, which illustrates the anatomy of a woman, for them to fill out while watching the film.

2. Review filmstrip series on human reproduction, going into more detail.

3. Have students chart reproduction process of plants and animals.

VI. Resource Materials

A. Films

1. Biography of the Unborn, EBF

2. Boy to Man, CFD

3. DNA: Molecules of Heredity, EBF

4. Gene Action, #2138, EBF

5. Girl to Woman, CFD

6. Growing Up, MGH

7. Heredity, EBF

8. Heredity and Prenatal Development, MGH

9. Human Growth, CFD

10. Human Reproduction, MGH

11. Laws of Heredity, #2073, EBF

12. Meiosis: Sex Cell Formation, EBF

13. Reproduction Among Mammals, EBF

B. Filmstrips

1. Heredity, EBF

2. Human Reproduction, EG

3. Human Reproduction, #6082 MX, MGH
4. **Reproduction in Flowers**, EG

5. **Reproduction System**, #6866, MGH

C. Books


FURNITURE WORKERS

A Captioned Film
for
Intermediate and Advanced Levels

By Arrangement with
AFL-CIO

Captioned Films for the Deaf
U.S. Office of Education
Washington, D.C.

Time: 13 minutes
Black and White

I. Film Summary

This film shows the process of furniture manufacturing, from the raw material stage to the finished product. It excellently portrays the skills needed to build furniture. It points up the ever-present need for craftsmen to continue the skill of hand-carving furniture.

II. Purpose of the Film
A. To show the basic processes involved in furniture manufacture
B. To show the machine ornamentation of furniture
C. To portray the different styles of periodic furniture
D. To appreciate the skill of the craftsmen who hand tool and finish furniture
E. To encourage students to consider furniture making as a future career

III. Preparation for the Film
A. Preview the film and select objectives.
B. Vocabulary

Nouns
- craftsmen
- cabinet maker
- ripping machine
- legs
- design
- trademark
- Chippendale chair
- planing machine
- Brazil
- Colonial days

inlay
skill
heating machine
spindles
skills
Sheratin styles
Cabriole leg
rosettes
Central America
Thomas Chippendale

Verbs
- continues
- welded
- rubbed

change
sanded

Adjectives
- mahogany
- four poster

hand carved
careful

Participles
- dove-tailing

high lighting

Adverb
- carefully

C. Selected idioms and expressions

talented hands
village smith
proud of their skills

shape of a leaf
uniform thickness
grace of a chair

making copies of
dragon claw holding a pearl
works of beauty

IV. Motivation

A. Question students about the history of the manufacture of an important piece of school furniture.

B. If possible, visit a museum or furniture store which displays periodic furniture.

C. To arouse students' curiosity, mount such terms as Chippendale, Queen Ann, Cabriole, Sheraton, etc.
V. Followup

A. Have students research the different types of furniture.
B. Have students carve small pieces of furniture for a model display.
C. Visit a furniture store and list the types and prices of periodic pieces.
D. If possible, attend a furniture auction sale to note the value of different types of furniture.

VI. Resource Materials

A. Films

1. A Film on Unicom, NFPA
2. Boring Tools for Woodworking, STC
3. Chisels for Woodworking, STC
4. Delta Shop, AF
5. Furniture Craftsman, EBF
6. Precision Wood Machining, Operations on Joiner, USOE

B. Filmstrips

1. Machines in Our Industrial Life, MGH

C. Books

THE GREAT WHITE TRACKWAY

A Captioned Film
for
Intermediate and Advanced Levels

By Arrangement with
Wilding Picture Production, Inc.

Captioned Films for the Deaf
U.S. Office of Education
Washington, D.C.

Time: 26 1/2 minutes
Color

I. Film Summary

This is a public relations film from the Hammermill Paper Company on the making of paper, and it shows the importance of paper in business and communication today. It is highlighted by scenes and descriptions of the various processes involved: the transporting of the logs to the factory, the preparation of the pulp, the pressing of the paper, the final treatment and trimming, and the packaging of the finish product.

II. Purpose of the Film

A. To show how business and communication depend upon paper
B. To show how paper is made
C. To show how large the paper industry is

III. Preparation for the Film

A. Preview the film and select objectives.
B. Collect various kinds of paper, e.g., newsprint, bond, onion skin, parchment, cover stock, book paper, etc.
C. Vocabulary

arteries  filtered  gadget
records (v.)  sulfur  sample
tubes  limestone  slots
pulp  pulpwood  diaphragm
thinned  production  uniform (adj.)
craftsmen  laboratory  reel

D. Selected idioms and expressions

tracks of business  cooking liquor  living link of business
natural resources  paper industry  chlorine solution
calcium hypochloride  caustic soda  web of fibers

IV. Motivation

A. Display several kinds of paper, e.g., newsprint, bond, onion skin, parchment, cover stock, book paper, etc., and point out the differences.

B. Make a bulletin board display, showing different stages in the making of paper.

V. Followup

A. Have pupils describe the procedures involved in the making of paper and draw pictures to illustrate these procedures, if possible. Each pupil's work could be incorporated into his own book on paper making.

B. In business classes, have pupils list the types of paper used in business and tell how each is used.

C. Have pupils make reports, graphs, and charts describing various aspects of paper making and related subjects, e.g., history of paper, materials used in paper making, processes involved, kinds of paper made and their uses, leading paper making countries and states, other industries involved in paper making, etc.

VI. Resource Materials

A. Films


2. Paper and Pulp Making, COR

3. Paper, EBF
B. Filmstrip

How We Get Our Paper, American Paper and Pulp Association, New York City

C. Books


HOW PLANTS HELP US

A Captioned Film for Intermediate Level

By Arrangement with Young America Films (McGraw-Hill)

Captioned Films for the Deaf
U.S. Office of Education
Washington, D.C.

Time: 1½ minutes

I. Film Summary

Plants are virtually indispensable to man's life. The film shows plant processes such as seed planting, plant growth, food production, and food storage within the plant. The numerous ways plants help man are clearly depicted in this film.

II. Purpose of the Film

A. To show how seeds are planted
B. To show what they need for growth
C. To introduce the process of photosynthesis
D. To show where different plants store their food
E. To show that although some animals and fish give us meat, they themselves require green plants in order to survive
F. To show products and services which plants provide us with
III. Preparation for the Film

A. Preview the film and select objectives.

B. Gather visual aids.

1. Bean Sprouts (8 mm single concept film - plant growth)
2. Flannel board materials
3. Package of bean seeds, pots, and soil
4. Various plant products - illustrations or actual objects

C. Select desired vocabulary.

<table>
<thead>
<tr>
<th>Nouns</th>
<th>air</th>
<th>soil</th>
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<tbody>
<tr>
<td>sponges</td>
<td>plant food</td>
<td>photosynthesis</td>
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<tr>
<td>corn meal</td>
<td>roots</td>
<td>stem</td>
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<tr>
<td>H2O (water)</td>
<td>CO2 (carbon dioxide)</td>
<td>products</td>
</tr>
<tr>
<td>leaves</td>
<td>culture</td>
<td>wood pulp</td>
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<td>flax</td>
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<td>silk</td>
<td>sap</td>
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<td>paper mill</td>
<td>microscope</td>
<td>mold</td>
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<td>laboratory</td>
<td>flavor</td>
<td>bacteria</td>
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<td>drugs</td>
<td>chlorophyll</td>
<td>sunlight</td>
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<td>forest</td>
<td>earth</td>
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<th>important</th>
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<tr>
<td>fluffy</td>
<td>tiny</td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>bury</td>
<td>against</td>
</tr>
</tbody>
</table>

D. Selected idioms and expressions

- very useful
- a lump of coal
- tons of earth
- by man
- millions of years
- care for
- by nature
- drying up
- earth's surface
- almost all
- blowing away
- save our soil
- to need for
- give off

IV. Motivation

A. Show several objects and ask where they come from.

B. Have students list how they think plants help us.
C. Show a loop film on plant growth.
D. Show students a plant which is growing and ask them how it helps them.
E. Use flannel board material to show parts of a plant.

V. Followup
A. Suggested questions
   1. Explain the process of photosynthesis.
   2. List, next to the plant, where it stores its food, e.g., tomato—around the seed, celery—in the stalk, lettuce—in the leaf.
   3. How do plants aid the living processes of human beings?
   4. Compare the uses of corn and peanuts.

B. Suggested activities
   1. Have children plant seeds of their own. Make bar graphs indicating rate of plant growth.
   2. Grow some plants without soil using only distilled water (to show that plants do not require soil or minerals in order to carry out the process of photosynthesis).
   3. Grow some plants in total darkness to see what effect it will have.
   4. Use a microscope to discover different structures of a leaf.
   5. a. Obtain one pan of sod and one pan of soil.
       b. Tilt both pans.
       c. Pour water over them.
       d. Observe how the roots absorb much of the water.
   6. Make a chart with several plants in the middle and various products scattered around them. Have children attach string from the product to the plant.

IV. Resource Materials
A. Films
   1. How Green Plants Make and Use Food, COR
2. How Plants Live and Grow, PS
3. Life of a Plant, EBF
4. Photosynthesis, EBF

B. Filmstrips
1. How Plants Help Us, EBF
2. Leaves of Plants, EBF
3. Plant Factories, SVE
4. Plants: How They Live and Grow (series), EBF
5. Roots of Plants, EBF
6. Stems of Plants, EBF
7. The Structure of Plants, EBF
8. The Wonderful World of Plants, SVE

C. Transparencies
1. Plant Structure, Part 1, 3M Co. Visucom
2. Story of Trees, 3M Co. Visucom

D. Suggested reading
1. Textbooks

2. Supplementary reading
HOW TO BE WELL-GROOMED

A Captioned Film
for
Intermediate and Advanced Levels

By Arrangement with
Coronet Films

Captioned Films for the Deaf
U.S. Office of Education
Washington, D.C.

Time: 11 minutes
Color: SYNCAP

I. Film Summary
This film shows the importance of good grooming. It also gives detailed examples of how to appear well-groomed. Sue and her brother, Don, are shown choosing correct clothing. Their habits of personal cleanliness are also stressed.

II. Purpose of the Film
A. To encourage good grooming habits
B. To show young people how to select a well-matched ensemble
C. To encourage good habits of personal cleanliness
D. To show that good grooming is an important asset in social and business life

III. Preparation for the Film
A. Preview the film and select objectives.
B. Gather teaching aids.
   1. a variety of fabrics
   2. articles of clothing
C. Select desired basic vocabulary.

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<tr>
<th>activities</th>
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<td>appearance</td>
<td>dressing</td>
<td>outfit</td>
</tr>
<tr>
<td>attention</td>
<td>details</td>
<td>polished (adj.)</td>
</tr>
<tr>
<td>blouse</td>
<td>depends</td>
<td>regular</td>
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<tr>
<td>blends</td>
<td>essential</td>
<td>routine</td>
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<td>blot</td>
<td>fussy</td>
<td>reflects</td>
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<td>shades</td>
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<td>shampoo</td>
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<td>style</td>
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<td>schedule</td>
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<td>complete</td>
<td>improve</td>
<td>slacks</td>
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<td>individual</td>
<td>tailored</td>
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<td>complexion</td>
<td>lightly</td>
<td>wear</td>
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<tr>
<td>consideration</td>
<td>manicure</td>
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</tr>
<tr>
<td>cleanliness</td>
<td>match</td>
<td>pats (v.)</td>
</tr>
</tbody>
</table>

D. Selected idioms and expressions

<table>
<thead>
<tr>
<th>blot off</th>
<th>correct posture</th>
<th>well-groomed</th>
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<tbody>
<tr>
<td>daily bath</td>
<td>final touches</td>
<td>Cleanliness is a must.</td>
</tr>
<tr>
<td>individual taste</td>
<td>hair-do</td>
<td>hearty breakfast</td>
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<tr>
<td>pressed slacks</td>
<td>first one up</td>
<td>nail care</td>
</tr>
<tr>
<td>pattern and color</td>
<td>tie to match</td>
<td>wear her hair</td>
</tr>
<tr>
<td>well-matched</td>
<td>looks right</td>
<td>ready to leave</td>
</tr>
</tbody>
</table>

IV. Motivation

A. Design a bulletin board displaying different kinds of fabrics.

B. Have students bring in different kinds of fashion magazines and catalogues.

C. Have a poster contest on the topic of personal cleanliness and/or grooming habits.

V. Followup

A. Selected questions

1. Why is sleep important for good grooming?

2. What four factors influence good grooming?

3. What do you do to get ready for school every morning?

4. What should you do to get ready for school every morning?
5. how often should you bathe?

B. Suggested activities

1. have a dress-up day.

2. Over a period of one week, have the teachers look for and choose a posture queen.

3. Let a group make a bulletin board display about any facet of the film that impressed them.

VI. Resource Materials

A. Films

1. Habit Patterns, MGH
2. How To Be Well-Groomed, COR
3. Learning About Our Bodies, COR
4. Posture Habits, COR
5. Posture In Motion, COR
6. Your Clothing, CFD

B. Filmstrips

1. Grooming for Boys, MGH
2. Grooming for girls, MGH
3. To Beauty or Not to beauty, Coty

C. Books

HOW TO CHANGE A CHEMICAL REACTION

A Captioned Film
for
Intermediate and Advanced Levels

By Arrangement with
Junior Science Films

Captioned Films for the Deaf
U.S. Office of Education
Washington, D.C.

Time: 28 minutes
Black and White

I. Film Summary

A chemical reaction occurs when several solutions are combined, and either a gas is diffused, or the solutions change color. How to effect a further chemical reaction through a change in temperature or concentration is described in this film.

II. Purpose of the Film

A. To explain the difference between a chemical reaction and a mechanical reaction
B. To explain what takes place in a chemical reaction
C. To explain the results of a chemical reaction
D. To show the effect of temperature change on a chemical reaction
E. To show the effect of change of chemical concentration on chemical reaction

III. Preparation for the Film

A. Preview the film and select objectives.
B. Vocabulary

Nouns
- liquid
- chemical reaction
- iodine vapor
- solution
- hydrogen
- sodium bicarbonate
- detergent
- starch
- temperature
- magnetic stirrer
- tartaric acid
- dough
- molecules
- strength

Verbs
- pour together
- capture
- investigate
- react
- form
- dilute

Adjectives
- former
- household

C. Selected idioms and expressions

- make a prediction
- speed up a chemical reaction
- make the molecules move faster
- form something else
- much more than the other
- amount of chemicals dissolved in water

D. Gather materials necessary for experiments shown in film.

IV. Motivation

A. Students should be given some background knowledge of a chemical reaction.

B. Illustrate the difference between a chemical and mechanical change.

C. Plan a chemical reaction which will be clearly and startlingly evident to the students. Ask students what causes a chemical change.

V. Followup

A. Perform experiments shown in film.

B. Have students change chemical reactions by using chemicals other than sodium bicarbonate and tartaric acid which were used in the film.

C. Have students look for chemical reactions which occur in ordinary household tasks; e.g., in cooking and cleaning.

D. Have students mix Epoxy glues and note the chemical change.
VI. Resource Materials

A. Films

1. Chemical Changes All About Us, COR
2. Simple Changes in Matter, COR
3. Things Dissolve, MGH
4. Wonder of Chemistry, MGH

B. Filmstrips

1. Atoms and Molecules, #427-22, SVE
2. Chemical Changes, #427-21, SVE
3. Some Things Dissolve, MGH
4. Understanding Chemical Change, MGH
5. What Things Are Made of, #427-20, SVE

C. Books

HOW YOUR BLOOD CIRCULATES

A Captioned Film
for
Intermediate and Advanced Levels

By Arrangement with
Junior Science Films

Captioned Films for the Deaf
U.S. Office of Education
Washington, D.C.

Time: 28 minutes
Black and White

I. Film Summary

Various visual stimuli are utilized in this film to prove that the human body contains blood, and that this blood circulates throughout the body. It also shows the structure of the heart. Evidence of the sounds of the heartbeat, how the heart effects the entire body, and the flow of blood through the veins are also portrayed.

II. Purpose of the Film

A. To indicate the circulation of blood throughout the body.
B. To show the structure of the heart and its functions, particularly in the circulation of blood.
C. To prove that the body contains blood.

III. Preparation for the Film

A. Preview the film and select objectives.
B. Vocabulary

<table>
<thead>
<tr>
<th>Nouns</th>
<th>chambers</th>
<th>pulse</th>
</tr>
</thead>
<tbody>
<tr>
<td>tubes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>heart</td>
<td>blood</td>
<td>pump</td>
</tr>
</tbody>
</table>
skin
pulse thumps
wrist
soda straw
rubber bottom drops
auricle
thickness
aorta
stethoscope
rod
tails
microscope

Verbs
contains
cut
exercise
wiggle
rumbles
trace

Adjectives
alive
thick

Participles
beating

C. Selected idioms and expressions
watery fluid
divided in half
drilled a hole
leaks through
near the surface

affects the pulse
wiggles the tube
enters and leaves through different passages
real blood flowing through real veins

D. Gather materials necessary to perform experiments shown in film.

IV. Motivation

A. Ask students to prove that blood circulates in their bodies other than by cutting themselves.

B. Ask students to have a local butcher save an animal's heart for class experimentation.
C. Have students check each other's pulse before and after exercise.

D. Have students locate several parts of their body (other than wrist) where their heartbeats can be felt.

V. Followup

A. Have students perform the experiments shown in film.

B. Discuss the various sections of the heart specimen. Have them draw a heart with all its segments.

C. Discuss how anxiety, nervousness, excitement and other emotional factors can affect hearbeat.

D. Discuss heart transplants.

VI. Resource Materials

A. Films

1. The Blood, EBF
2. Body Defenses Against Disease, EBF
3. Circulation, MGH
4. Circulation, UWF
5. Common Heart Disorders and Their Causes, MGH
6. The Heart: How It Works, MGH
7. Heart, Lungs and Circulation, COR
8. Hemo the Magnificent (2 parts), BT

B. Filmstrips

1. The Circulatory System, The Human Biology Series, Set 2, MGH
2. Heart and Circulation, Human Body Series, EBF
3. Human Circulating System, Human Physiology Series, SVE
4. Our Heart and Circulation, The Human Biology Series, Set 5, MGH
C. Books


JUNIOR HIGH: A TIME OF CHANGE

A Captioned Film for Intermediate Level

By Arrangement with McGraw-Hill Text Films

Captioned Films for the Deaf
U.S. Office of Education
Washington, D.C.

Time: 11 minutes
Color

I. Film Summary

Junior High School is a time of change. The fact that students mature physically, mentally, and socially at different rates is stressed. Responsibility and how a student must earn it are also discussed.

II. Purpose of the Film

A. To show that Junior High students mature physically, mentally, and socially at different rates

B. To show some of the problems faced by a Junior High student

C. To help a teenager learn to accept himself by answering the question, "Who am I?"

III. Preparation for the Film

A. Preview film and select objectives.

B. Gather visual aids.
   1. Polaroid camera
2. Materials for bulletin board display

3. Pictures of the growth of a tadpole

C. Vocabulary

Nouns
- elementary school
- junior high school
- pest
- responsibilities
- appointment

Subject
- classmates
- adults
- rights

Eighty
- a sign
- problems
- troubles

Verbs
- compare
- accept
- decide
- act
- enjoy

Promise
- change
- shave
- trip
- improve

Clean
- become
- weigh
- bump

Adjectives
- different
- cooperative
- thoughtful

Unsure
- lazy
- angry

Typical
- independent
- grown up

Adverbs
- after a while
- socially

Emotionally
- mentally

Physically

D. Selected idioms and expressions

Ways of teaching
- just about everything

Know yourself
- do your own thinking

Nothing about
- just like everybody else

IV. Motivation

A. With a polaroid camera, photograph class. Have student look at the picture. Ask following questions:

1. Who is the tallest boy?

2. Who is the tallest girl?

3. Which boy looks like he weighs the most?

4. Which girl is the thinnest?

5. Who is the oldest boy in class? Does he look like the oldest?
B. Ask the question, "Who are you?" Allow for discussion but come to no conclusion; then, watch the film.

C. Design a bulletin board in three sections.

Section I - Draw the silhouette of a person. Around the person scatter such words as polite, tall, prangster, slim, etc. On the silhouette, superimpose the question, "Who am I?"

Section II - Draw another silhouette and superimpose the question, "Who do I want to be?"

Section III - Leave blank, to be filled in at the end of the film (refer to Followup).

V. Followup

A. Suggested questions

1. How does a junior high school differ from an elementary school?
2. List four ways in which we develop as mentioned in the film.
3. How did one boy's mother help him develop responsibility?
4. What responsibilities do you have at home?
5. What other responsibilities do you feel you should have? Why should you have them?

B. Suggested activities

1. Complete the board mentioned under Motivation by having students suggest ways in which they might help themselves to become the person they would like to be.
2. Write a descriptive caricature of yourself.

VI. Resource Materials

A. Films

1. Belonging to the Group, EBF
2. Boy to Man, CWF
3. Girls to Women, CFD
4. How To Be Well-Groomed, COR
5. Making Friends, EBF
6. Personality and Emotions, EBF
7. Responsibility, MGH
8. The Other Fellow's Feelings, MGH
9. The Show-Off, MGH

B. Filmstrips
1. Growing Up, EG
2. Learning To Be Forging, SVE
3. Learning To Be Unselfish, SVE

C. Supplementary reading
1. Books
   b. Corner, George, M.D. Attaining Womanhood. N. Y.: Harper Bros.,
      1952.
   c. Craford, John E. and Woodward, Luther E. Better Ways of Growing
   d. Frank, Anne. The Diary of a Young Girl. N. Y.: Doubleday & Co.,
      1952.
   e. Lerrigo, Marion O. and Southard, Helen. What's Happening to Me.

2. Pamphlets
   a. Floyd, Mary F. Ball. Let's Talk. Chicago: Science Research Assn.,
      1962.
   c. Lerrigo, Marion O. Finding Yourself. Joint Commission on Health
      Problems in Education of the National Education Association and
      Medical Association.
   d. Remmers, H. H. and Hackett, C. G. What Are Your Problems. Chicago:
MACHINES THAT HELP US

A Captioned Film
for
Intermediate and Advanced Levels

By Arrangement with
Bailey Films, Inc.

Captioned Films for the Deaf
U.S. Office of Education
Washington, D.C.

Time: 11 minutes
Black and White

I. Film Summary

Through this film, the basic premises necessary for an understanding of our mechanized society are introduced. It indicates that machines are tools that help men work; that new machines are generally developed from older ones; and that almost everything man does is done with machines.

The thesis is propounded that we live in a machine-made world where machines are servants which help to raise our standard of living.

II. Purpose of the Film

A. To familiarize students with some commonly used machines

B. To show how machines help in making, building and growing things

C. To help students acquire an understanding and appreciation of automation

III. Preparation for the Film

A. Preview the film and select objectives.

B. Select desired basic vocabulary.

<table>
<thead>
<tr>
<th>Nouns</th>
<th>harrow</th>
<th>oil refinery</th>
</tr>
</thead>
<tbody>
<tr>
<td>machines</td>
<td>inventors</td>
<td>fuel</td>
</tr>
<tr>
<td>tools</td>
<td>ox cart</td>
<td>factory</td>
</tr>
<tr>
<td>motors</td>
<td>wagon</td>
<td>highways</td>
</tr>
<tr>
<td>lathe</td>
<td>propellers</td>
<td>farm products</td>
</tr>
</tbody>
</table>
B. Vocabulary (continued)

<table>
<thead>
<tr>
<th>Nouns</th>
</tr>
</thead>
<tbody>
<tr>
<td>cement mixer</td>
</tr>
<tr>
<td>factories</td>
</tr>
<tr>
<td>gasoline engine</td>
</tr>
<tr>
<td>oil</td>
</tr>
<tr>
<td>needs</td>
</tr>
<tr>
<td>leisure time</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Verbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>invent</td>
</tr>
<tr>
<td>load</td>
</tr>
<tr>
<td>requires</td>
</tr>
<tr>
<td>crisscross</td>
</tr>
<tr>
<td>operate</td>
</tr>
<tr>
<td>effect</td>
</tr>
<tr>
<td>ship</td>
</tr>
<tr>
<td>transport</td>
</tr>
<tr>
<td>packaged</td>
</tr>
<tr>
<td>decide</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Adjectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>simple</td>
</tr>
<tr>
<td>industrial</td>
</tr>
<tr>
<td>complicated</td>
</tr>
<tr>
<td>machine-made</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Adverbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>easily</td>
</tr>
<tr>
<td>nearby</td>
</tr>
<tr>
<td>usually</td>
</tr>
</tbody>
</table>

C. Selected idioms and expressions

all about us, earning a living, our way of living
all over the world, large amounts, over long periods of time
hundreds upon hundreds of things

IV. Motivation

A. Have students list their concept of some basic machines. How did they arrive at this concept?

B. Question students as to the uses of various machines. What would happen if suddenly man were deprived of the use of machines?

V. Followup

A. Have students again define the uses of machines. Check against their previous concepts.

B. Trace the history of the wheel from its invention to the present time.

C. Develop a science fiction story about the use of machines in space.

D. Compare the life of man in an automated society with that of man in the stone age.

VI. Resource Materials

A. Films

1. *Energy and Work*, CPD
2. **Machines Do Work**, CFD

3. **Simple Machines**, CFD

B. **Filmstrips**

1. *Energy and Work*, No. 1871, EBF


4. *Simple Machines Help Us Work* (Series), JH

5. *Tools at Work*, MGH

6. *Work, Friction and Machines* (Series), JH

C. **Books**


I. Film Summary

This film presents very graphic illustrations of the meaning of the mathematical term Pi. The relationship or proportion of circumference to diameter as the basis for the figure 3.14 is clearly depicted. Having seen this film, it should not be difficult for students to understand the meaning of such terms as radius, diameter, circumference.

II. Purpose of the Film

A. To clarify in a meaningful way the meaning of the term Pi (3.14)

B. To simplify through pictures the various measurements of circles

C. To introduce students to such terms as radius, diameter, and circumference

III. Preparation for the Film

A. Preview the film and select objectives.

B. Vocabulary

- Nouns
  - circle
  - wheel
  - geometric concepts
  - machinery
  - compass

- Time: 11 minutes
  - Color, SYNCAP
### Nouns (continued)
- center
- circumference
- measurements
- value
- Greeks
- yardstick
- definition
- Egyptians

### Verbs
- involves
- label
- measure

### Adjectives
- confused
- useful

### C. Selected idioms and expressions
- help him understand
- remains constant
- exact value
- define our terms
- that make sense
- relationship between
- whatever the size of

### IV. Motivation

**A.** Prepare worksheets with circles of varying sizes. Have children draw several radii on each circle.

**B.** Have children extend radii to introduce them to the term diameter.

**C.** Ask students if it is possible to determine the circumference of the circles if they know only the radius or diameter. Indicate that more information is needed. Such information will be presented in the film.

### V. Followup

**A.** Suggested activities
1. Using previously prepared worksheets, have students determine the circumference of the circles.
2. Have students prepare their own math problems related to circumference, diameter, or radius. Present them to the class for reinforcement.

**B.** Suggested questions
1. Why is it important to know the circumference of a circle?
2. Why must a tire manufacturer know the circumference of a circle?
3. How can an engineer determine the radius of a wheel if he knows the circumference?
4. How can an engineer determine the radius of a wheel if he knows the diameter?
VI. Resource Materials

A. Films

1. Donald in Mathmagic Land, Disney
2. Rythmetic, NFBC
3. Story of Our Number System, COR

B. Books

2. Feravolo, Rocco V. *Wonders of Mathematics*. N. Y.: Dodd, Mead, 1963. 64 pp
NAVAJO SILVERSMITH

A Captioned Film
for Intermediate and Advanced Levels

By Arrangement with ACI Productions

Captioned Films for the Deaf
U.S. Office of Education
Washington, D.C.

Time: 11 minutes

I. Film Summary

This film pictures the Navajo Indian as a master of the most delicate craft in history, silversmithing. It bridges a span of years by showing how objects of another Century are made. The skills, necessary for silversmithing, are beautifully portrayed.

II. Purpose of the Film

A. To show how the Navajo Indians make silver ornaments by hand
B. To illustrate the culture of the Navajo Indian
C. To explain why the Navajo will not change to modern machine production
D. To arouse an appreciation of a primitive culture

III. Preparation for the Film

A. Preview the film and select objectives.
B. Vocabulary

Nouns
Navajo temperatures southwest desert nature
southwest desert centuries Arizona

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Nouns (continued)
shepherds
sweat baths
artistic ability
sheet or wire form
mold
volcanic-ash
file handle
cast
emery paper
tongue
income
experts
silversmithing
object
soft stone
shape (design)
lead-in channel
center bars
files
silver wire

Verbs
forge
shaped
ribbed
blackens
fastens
melt
filed
copied
ties together
polish

Adjectives
melted
perfect

Adverb
harshly

Participle
glaring

crack
smoothed
escape
bends
disappear

C. Selected idioms and expressions
over 500 years ago
against the law
the beauty of this way of life
treats this land harshly
shows in their art work
white beauty in the sunshine
replace (grow out of) the old
earn a living
half a day
comes loose
always moving about
way of life
much like those

IV. Motivation

A. Mount a picture of a Navajo working as a silversmith. Question students as to possible things the Indian could be making.

B. Have students make a list of the uses of silver. How are these articles prepared?

C. Visit a museum which displays artifacts of Indian life.

114
V. Followup

A. Have students do a research paper on the influence of the Mexicans on the Navajo Indians.

B. Compare the factory production of articles of silver with the hand-crafted process used by the Navajo.

VI. Resource Materials

A. Films

1. Boy of the Navajos, COR
2. Indian Influence in the United States, COR
3. Navajo Canyon Country, Daggett
4. The Navajo Indian, COR
5. Navajo—A People Between Two Worlds, Fine

B. Filmstrips

1. Adventures with Early American Indians, #233-5, SVE
2. American Indian Cultures—Plains and Woodland, #8600, EBF
3. Indians: Our Land and Its Story, #220-4, SVE
4. Jamestown: The Settlement and Its People, #8890, EBF

C. Books

I. Film Summary

This film gives an overall picture of the precision toolmaking and machining industry. It shows the importance of the precision tools and machines that are used for mass production in manufacturing. It follows an apprentice as he works and learns to become a journeyman tool and die maker, and can be used to stimulate interest in such a career.

II. Purpose of the Film

A. To explain precision machining and tool and die making; to show their importance to industry
B. To show how items are mass produced
C. To explain why accuracy is of prime importance in mass production
D. To show that tool and die making is a respected profession
E. To set forth the requirements and qualifications needed for an apprentice tool and die maker

III. Preparation for the Film

A. Preview the film and select objectives.
B. Vocabulary

<table>
<thead>
<tr>
<th>Industry</th>
<th>Custom-built</th>
<th>Armaments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volumes</td>
<td>Hot forged</td>
<td>Computers</td>
</tr>
<tr>
<td>Assembled</td>
<td>Stamping press</td>
<td>Microscopes</td>
</tr>
<tr>
<td>Plants</td>
<td>Identical</td>
<td>Micrometer</td>
</tr>
<tr>
<td>Dies</td>
<td>Interchangeable</td>
<td>Gauge blocks</td>
</tr>
<tr>
<td>Jigs</td>
<td>Accuracy</td>
<td>Miniaturation</td>
</tr>
<tr>
<td>Molds</td>
<td>Tolerances</td>
<td>Craftsmanship</td>
</tr>
<tr>
<td>Gauges</td>
<td>Ingenuity</td>
<td>Apprentice</td>
</tr>
<tr>
<td>Tape-controlled machine</td>
<td>Journeyman</td>
<td>Dial indicating gauges</td>
</tr>
</tbody>
</table>

C. Selected idioms and expressions

<table>
<thead>
<tr>
<th>Assembly lines</th>
<th>Mass production</th>
</tr>
</thead>
<tbody>
<tr>
<td>Millionth of an inch</td>
<td>Tedious handiwork</td>
</tr>
<tr>
<td>Captive shops</td>
<td>Volume manufacturing</td>
</tr>
<tr>
<td>Contract shops</td>
<td>Complex and precise instruments</td>
</tr>
<tr>
<td>Mechanical aptitude</td>
<td>Integrated craftsmanship</td>
</tr>
<tr>
<td>Practical experience</td>
<td>Tool, Die and Precision Machining Companies</td>
</tr>
<tr>
<td>Highest living standard</td>
<td>Keystone of American industry</td>
</tr>
</tbody>
</table>

IV. Motivation

A. Question students as to their knowledge of mass production.

B. Display mass produced items such as razor blades, nails, screws, nuts, bolts, etc. to illustrate the fact that because of the method of production, each kind is identical and interchangeable.

C. Set up a bulletin board showing various stages in the assembling of a mass-produced item, e.g., cars.

V. Followup

A. If possible, set up an assembly line to show how it works.

B. Discuss the advantages of mass-produced products over products made by hand.

C. Discuss how mass production of precision items helps America lead in industry and world trade.

D. If facilities are available, have students mass produce some item.

VI. Resource Materials

A. Films

1. Bright Steel, MTP

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2. Die Casting - How Else Would You Make It?, MTP
3. Drawings and the Shop, MGH
4. The Drill Press, DFL
5. The Milling Machines, DFL

B. Filmstrips
1. Four Metallic Elements, FH
2. Introduction to Machining (three kits: A.B.C.), JH

C. Books

D. Other Materials
1. Course of study

I. Film Summary

This film does much to stimulate the imagination as to the unlimited possibilities of clay. The processes of molding, firing and wedging are beautifully portrayed. The imprint of an artist's hand can be, forever, molded in ceramic - a stimulating factor for showing this excellent film.

II. Purpose of the Film

A. To show the utilitarian value of clay
B. To show flexibility in the use of clay
C. To stimulate creativity through the use of clay
D. To encourage individuality in the creation of ceramics

III. Preparation for the Film

A. Preview the film and select objectives
B. Vocabulary

<table>
<thead>
<tr>
<th>Nouns</th>
<th>earth</th>
<th>thumb</th>
</tr>
</thead>
<tbody>
<tr>
<td>clay</td>
<td>metal scraper</td>
<td>solid</td>
</tr>
<tr>
<td>Pinch Pot</td>
<td>pitcher</td>
<td>kiln</td>
</tr>
<tr>
<td>sponge</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
bisque     glaze     firm   fire
oven      cylinder  middle    shaggy dog
poodle    piece of wire, bowls  block of wood
waist     middle     wire loop tool  potter's wheel
wedging   wire        design    base
firm       liquid     press    slip

Verbs
bake

Adjectives
soft        rough       smooth
thick       strong      extra
wonderful   plastic

C. Selected idioms and expressions
same all around     make many things

IV. Motivation
A. Plan a very attractive ceramics exhibit.
B. Plan a tour of the art department so that students may see others at work with clay. Let them observe the various stages of work, using clay.
C. Have students research the discovery and early uses of clay, e.g., in brickmaking.

V. Followup
A. Have students plan an art exhibit depicting the history of the use of clay.
B. Have students design something which can be made out of ceramic.
C. Encourage students to make a ceramic piece for a friend or relative.
D. Have students make a list of the uses of ceramics.

VI. Resource Materials
A. Films
   1. Colour in Clay, BIS
   2. Craftsmanship in Clay: Decoration, Ind. U.
   3. Craftsmanship in Clay: Glaze Application, Ind. U.

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4. **Craftsmanship in Clay: Simple Mold, Ind. U.**

5. **Craftsmanship in Clay: Simple Slab Methods, Ind. U.**

6. **Craftsmanship in Clay: Stacking and Firing, Ind. U.**

7. **Craftsmanship in Clay: Throwing, Ind. U.**

8. **Making of Fine China, Lenox**

9. **Pottery Making, EBF**

C. Books


I. Film Summary

Although this film is intended primarily for teachers, it is believed that through this medium the creativity of students might be stimulated. The viewer is subjected to the basic concepts of paper construction—folding, cutting, scoring. Captions are missing, but the artistry of the film is no less enhanced. A deaf person need only note the skills involved in paper construction to feel impelled to imitate the processes shown.

II. Purpose of the Film

A. To stimulate the use of construction paper in Arts and Crafts
B. To develop creativity in the use of construction paper
C. To stimulate an appreciation of color, art, and design
D. To stimulate an appreciation of color photography for design

III. Preparation for the Film

A. Preview the film and select objectives.
B. Vocabulary (For teacher's use; film is not captioned.)

- **Nouns**
  - tool
  - forms
  - ideas
  - design
  - diamond shapes
  - diagonals

- **Verbs**
  - fold
  - cut
  - tear
  - repeated
  - score
  - design
  - diagonals

- **Adjectives**
  - blunt
  - irregular
  - soft
  - solid

IV. Motivation

A. A dearth of ideas as to creative use of construction paper might encourage a teacher to view this film.

B. Exhibit several items shown in film to stimulate other teachers and/or students to view the film.

V. Followup

A. Have students create original mobiles and other art forms using strips of construction paper.

B. Have students photograph the designs produced by the class.

C. Plan an art exhibit to include various art forms made with construction paper.

VI. Resource Materials

A. Films

1. *Children Are Creative*, Bailey
2. *Make a Mobile*, Bailey
3. *Non-Objective Art*, Bailey

B. Filmstrip

*Famous Works of Art*, EG
C. Books


I. Film Summary

With the advent of vulcanization, the rubber industry has taken many new avenues. This film lists some of the various physical properties of rubber and the products made from it. While the film shows production of items in a factory, it neglects industrial safety.

II. Purpose of the Film

A. To show how vulcanization has changed the rubber industry
B. To show that the rubber industry is always changing
C. To show the production of such products as conveyor belts, foam rubber mattresses, and rubber pipes
D. To trace the growth of the rubber industry from its infancy

III. Preparation for the Film

A. Background information on rubber (not in film)

Source

Natural rubber comes from the juice of trees. Some scientists believe that it acts as a protective substance when a plant is wounded.
It is not the sap of the plant.

Discovery of Vulcanization

In 1839, Charles Goodyear spilled a sulphur-rubber mixture on a hot stove and accidentally discovered how to make rubber stronger and give it resistance to heat and cold.

Natural Rubber

Latex consists of 30%-35% pure rubber. The remainder is water. It holds little globules of rubber in the same way milk holds butterfat. Because it spoils easily, it must be processed quickly.

Separating the Latex

An equal amount of water is added to the latex, which is then strained to remove the dirt. Next formic acid is added, making it coagulate. The rubber particles rise to the surface and form a doughy white mass of crude rubber.

Processing Crude Rubber

The crude rubber is then fed through rollers which squeeze out the water. These sheets are hung to dry for several days in a hot smokehouse which turns it brown and kills the mold and bacteria. This form of crude rubber is called ribbed smoke sheets.

Pale crepe rubber is formed by passing the doughy mass through rollers that roughen and crinkle the sheets, constantly washing them as they are being rolled. They turn pale yellow when dry.

Sometimes the latex is put into machines similar to the separators that are used to separate cream from milk. These machines remove part of the water from the latex. Ammonia is then added as a preservative to keep the latex from coagulating and spoiling.

Manufacturing

Different methods of plasticization and different methods of adding compounds and mixtures are used to give the rubber different characteristics and shapes. To shape the rubber into its final form requires the use of such methods as:

1. calendering - rolling it into sheets

2. extrusion - tube machines push the soft rubber through a hole, much as toothpaste is squeezed from a tube.
3. molding - preparing pieces in the approximate size of the finished articles. During vulcanization, the rubber takes the exact shape of the mold.

4. dipping - (used only for liquid latex) dipping molds into tanks of latex. Drain and repeat to build up several layers.

B. Preview the film and select objectives.

C. Gather visual aids.

1. various rubber products

2. pictures of various facets of the rubber industry

D. Selected vocabulary

<table>
<thead>
<tr>
<th>Nouns</th>
<th>Verbs</th>
<th>Adjectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>a weeping tree</td>
<td>produce</td>
<td>accurate</td>
</tr>
<tr>
<td>inventions</td>
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<td>largest branch</td>
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<td>life belts</td>
<td></td>
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<td>compressed air</td>
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<td></td>
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<tr>
<td>controlled time</td>
<td></td>
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<tr>
<td>conveyor</td>
<td></td>
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<tr>
<td>factories</td>
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<tr>
<td>finished products</td>
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<tr>
<td>firehose</td>
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<td>foam rubber</td>
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<tr>
<td>fuels</td>
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<tr>
<td>gases</td>
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</tr>
<tr>
<td>Goodyear</td>
<td></td>
<td></td>
</tr>
<tr>
<td>hose</td>
<td></td>
<td></td>
</tr>
<tr>
<td>inner core</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

127
Adverbs
easily (bent)

E. Selected idioms and expressions

- cause death
- chunks of
- hard as rock
- know about
- layers of
- combined with
- coated with
- rubbed out
- long lasting
- metal rod

- like flying carpets
- soft as skin
- speed of jet propulsion
- will be continued
- contradictory characteristics
- beaten into a frothy mass
- controlled by
- put out
- bakes into (shape)
- rubber workers

IV. Motivation

A. Set up a display table with various rubber products.

B. Create a bulletin board showing how rubber products are produced: e.g. tires.

C. Display a picture of a car and ask students to list parts of the car made from rubber.

V. Followup

A. Suggested questions

1. What is the vulcanizing process?
2. Who discovered the vulcanizing process?
3. How did the word rubber originate?
4. What are three variables in the vulcanization process?
5. Why is rubber such a desirable product?
6. List three physical properties of rubber which make it so useful.

B. Suggested activities

1. Use a U.S. map to show where the big rubber centers are.
2. Have the class name the articles which they have with them that are made of rubber.
3. Compare the weights of various pieces of rubber to show that all rubber is not of equal weight.

VI. Resource Materials

A. Films

1. Rubber In Today's World, CFD
2. Wonder of Rubber, EG

B. Filmstrips

1. How We Get Our Rubber, KP

C. Books

SCIENCE OF ORBITING

A Captioned Film
for
Intermediate and Advanced Levels

By Arrangement with
Modern Learning Aids

Captioned Films for the Deaf
U.S. Office of Education
Washington, D.C.

Time: 28 minutes
Black and White

I. Film Summary

The film is concerned with the problems of how to get into orbit, how to stay there and how to return to earth safely. The force of gravity, weightlessness, free falling, temperature changes, sound changes, and re-entry into the earth's atmosphere are discussed; experiments are presented to demonstrate some of these concepts.

II. Purpose of the Film

A. To explain that every action has an opposite, equal reaction
B. To demonstrate the problems of thrusting objects into orbit
C. To show by experiment that the faster a body rotates, the less the gravitational pull
D. To demonstrate by experiment, the meaning of weightlessness as applied to orbiting bodies
E. To demonstrate by experiment, how heat is measured in an orbiting body
F. To show how fiber glass and modern resins act as a vapor to shield an orbiting body on re-entry
G. To note that rockets are used to change direction
H. To demonstrate how retro-rockets are used to slow down the orbiting body enough to bring it back into the earth's gravitational force
III. Preparation for the Film

A. Preview the film and select objectives.

B. Gather visual aids (to be used to demonstrate the experiment after viewing the film)

<table>
<thead>
<tr>
<th>funnel</th>
<th>oscillator</th>
<th>transmitter</th>
</tr>
</thead>
<tbody>
<tr>
<td>rounded metal disk</td>
<td>fire extinguisher</td>
<td>piece of aluminum</td>
</tr>
<tr>
<td>piece of plastic foam</td>
<td>Bunsen burner</td>
<td>scale</td>
</tr>
<tr>
<td>lead-filled balloon</td>
<td>amplifier</td>
<td></td>
</tr>
<tr>
<td>heat device (to change heat into electrical impulses)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

C. Select desired vocabulary

**Nouns**
- orbit
- molecules
- funnel
- weight
- force
- radius
- Carpenter
- walkie-talkies
- temperatures
- atmosphere
- outer space
- engineers
- resins
- rockets
- fire extinguisher
- experiment
- blast
- opportunity
- pellet
- gases
- space ship
- gravity
- problem
- astronaut
- lead shot
- a free fall
- energy
- circuit
- voice signals
- metal
- plastic foam
- steam
- aluminum foil
- retro-rockets

**Verbs**
- touching
- increases
- relayed
- decreasing
- processed
- recall
- investigate
- force
- increase
- melt
- scatters
- blast-off
- overcome
- heat up
- orbiting
- spot spinning
- communicate
- removing
- vaporize
- spinning
- suppose

**Adjectives and Adverbs**
- accurate
- important
- weightless
- solid fuel (pellet)
- automatically

D. Selected idioms and expressions

- force of gravity
- continue to fall
- flopped down
IV. **Motivation**

A. Prepare a bulletin board with some articles on UFO's.

B. Have a scaled model of our solar system on display.

C. Discuss any recent newspaper clippings concerning space flights, etc.

D. Make a bulletin board question: "Is It Possible?" Include things which are and are not possible, e.g., is it possible for satellites to orbit the moon? Try to include recent newspaper clipping and/or pictures wherever applicable.

V. **Followup**

A. Suggested questions

1. What does every action have?

2. What reduces gravitational pull?

3. Is it true man is without weight when he is in space? Why?

4. What do we mean by "weightless"?

5. How are sound waves measured?

6. How are heat waves measured?

7. How can we tell when the temperature of a heating device has been raised?

8. How did water and plastic foam stop the aluminum from melting?

9. How do modern resins and fiber glass stop aluminum from melting?

10. What do astronauts use when they want to change direction?

11. What do they use when they want to slow down their ships?

12. What finally stops them?

B. Discussion topics

1. How can you boil water in a paper cup?

2. Discuss why certain metals are better than others in the production of satellites and rockets.

3. Explain the properties of an ellipse. Draw one.
4. Introduce Kepler's discovery that planets move in elliptical orbits.

5. Demonstrate the experiments shown in the film in the classroom.

VI. Resource Materials

A. Films

1. A Trip to the Moon, CFD
2. Friction All Round, CFD
3. Gravity: How It Affects Us, CFD
4. Jet Propulsion, CFD
5. Planets in Orbit, EBF
6. Rockets: How They Work, CFD
7. Rocketship X-M, (Fiction), CFD
8. Solar System, ISO
9. Solar System, COR
10. Telstar, NET

B. Filmstrips

1. Earth's Satellite - The Moon, SVE
2. Exploration of Space, EG
3. Flight Around the Moon, EBF
4. Flight Into Space, EBF
5. Flight to Mars, EBF
6. Galileo, EG
7. Gravity and Space Travel, Budek
8. Man in Space, EBF
9. Man in Space, SVE
10. Rockets: Key to the Space Age, Budek
11. The Earth, SP
C. Transparencies

1. **Communications Satellites**, No. 5913.2, SB
2. **Earth and Moon From Lunar Orbiter**, No. 5916.3, SB
3. **Lift Off**, No. 5911.2, SB
4. **Mating Rocket Stages**, No. 5910.2, SB
5. **Nimbus Weather Satellite**, No. 9513.1, SB
6. **Orbiting Telescope**, No. 5913.4, SB
7. **Re-entry and Recovery**, No. 5917.7, SB
8. **Rocket Manufacture**, No. 5910.1, SB
9. **The Solar System**, No. 5810.1, SB
10. **Tracking Equipment**, No. 5911.3, SB

D. 8MM Single Concept Films

1. **A Walk in Space**, Part I, No. 1501
2. **A Walk in Space**, Part II, No. 1502
3. **The M-2 Spacecraft**, No. 1503

E. Books

1. California State College at Long Beach. **Model Spacecraft Construction.** Report to National Aeronautics and Space Administration
2. Freeman, Mae Blacker and Freeman, Ira. **You Will Go to the Moon.** N.Y.: Random, 1959.

II. Errata

<table>
<thead>
<tr>
<th>Caption</th>
<th>Correction</th>
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<tbody>
<tr>
<td>Cape Canaveral</td>
<td>Cape Kennedy</td>
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</table>
SO YOU WANT TO BE AN ELECTRONICS TECHNICIAN

A Captioned Film
for
Upper Intermediate and Advanced Levels

By Arrangement with
Vocational Films

Captioned Films for the Deaf
U.S. Office of Education
Washington, D.C.

Time: 11 minutes  Color

I. Film Summary

This film sets forth the opportunities available in a career as an electronics technician. Three classmates, John, Harold and Tom begin their study of electronics in different ways. Both John and Harold receive on the job training under the supervision of trained technicians, together with supplementary study. Tom chooses to enroll in a technical institute. The film also sets forth some of the requirements in this field and suggests the satisfaction, the responsibility, the status and the income which accompany this career.

II. Purpose of the Film

A. To interest pupils in a career in electronics

B. To show the various means of pursuing such a career

C. To help pupils appreciate the importance of the electronics technician in our world today

D. To encourage pupils to seek further information about such a career

III. Preparation for the Film

A. Preview the film and select objectives.
B. Vocabulary

<table>
<thead>
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<th>Technology</th>
<th>Ignition</th>
<th>Methodical</th>
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<tr>
<td>Electronics</td>
<td>Complex</td>
<td>Logically</td>
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<td>Transistors</td>
<td>Experts</td>
<td>Automatically</td>
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<tr>
<td>Outer space</td>
<td>Professionals</td>
<td>Fundamentals</td>
</tr>
<tr>
<td>Universe</td>
<td>Circuitry</td>
<td>Diagnose</td>
</tr>
</tbody>
</table>

C. Select idioms and expressions.

- properly trained technicians
- ham radio operator
- tour the plant
- practical education
- team work
- on the job training
- push-button era
- assembly plant
- natural talent
- accredited technical institute
- electronics bug

IV. Motivation

A. Discuss with the pupils the various kinds of work done by an electronics technician, repair and maintenance of home radio, television and hi-fi; participation in fabrication, assembly, installation and testing of equipment; installation and maintenance of equipment in broadcast stations, in two-way radio and in computer installations; as an assistant to an engineer, performing tasks related to design and development of electronic products.

B. Prepare a bulletin board display of pictures and materials showing an electronics technician at work on various types of jobs. This could be incorporated into a larger bulletin board display including other kinds of job opportunities.

V. Followup

A. Arrange a field trip to a local Television Repair Shop.

B. If possible, visit a local manufacturer of electronic products.

C. Plan a trip to a local radio or television broadcasting station.

D. Visit the audiological department of your school to see hearing aids being repaired and to inspect the testing facilities.

VI. Resource Materials

A. Films

1. Electromagnets: How They Work, CFD
2. **Learning About Electric Current**, CFD
3. **Making Electricity**, CFD
4. **Television Serves the Community**, CFD

**B. Filmstrips**

1. **Finding Out about Electricity**, SVE
2. **Home Electrical Appliances**, EBF

**C. Books**

THUNDER AND LIGHTNING

A Captioned Film
for
Intermediate Level

By Arrangement with
Young-America Films
(McGraw-Hill Book Co.)

Captioned Films for the Deaf
U.S. Office of Education
Washington, D.C.

Time: 11 minutes
Black and White

I. Film Summary

This film introduces the science of thunder and lightning. There is a
good deal of emphasis on the processes of static electricity. It explains how
one should act in a thunderstorm and why lightning strikes some places and not
others. The cause of thunderstorms is also explained.

II. Purpose of the Film

A. To explain the causes of thunderstorms
B. To introduce students to the concept of static electricity
C. To show students how to act in a thunderstorm

III. Preparation for the Film

A. Preview film and select objectives.
B. Gather materials shown in film to be used for simple experiments.
C. Vocabulary

<table>
<thead>
<tr>
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<tr>
<td>electricity</td>
<td>spark</td>
<td>cloud</td>
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<tr>
<td>experiment</td>
<td>plastic</td>
<td>atoms</td>
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</tbody>
</table>
Nouns (Continued)
number  scientist  billions
thunder  lightning  metal
ground  chain  thunderstorm

Verbs
rubs  changed  attracted
repels  jump (scientific term)  drag

Prepositions
toward  during

Pronoun
everything

Adjectives
small  neutral  strong
positive  unlike  safe
negative  bright

D. Selected idioms and expressions
tall rod  do you like  going to do
became charged with  so small that  have equal numbers of

IV. Motivation
A. Ask following questions:
1. Who has seen a thunderstorm?
2. Have you thought about why it occurred?
3. Who does not like a thunderstorm?
4. Do you think it possible that after you see this film you might have a
different idea of thunderstorms?

B. Prepare a bulletin board about thunderstorms.

V. Followup
A. Allow students to prepare a bulletin board entitled "Weather."
B. Perform simple experiments shown in film and answer the questions at
conclusion of film.
VI. Resource Materials

A. Films

1. Making Electricity, CFD
2. Weather for Beginners, CFD

B. Filmstrips

1. Electricity, EBF
2. Electricity, MGH
3. Seasons and Weather, series MGH (six filmstrips)
4. Science at Work, EBF Series No. 8040, Magnets, Electricity, Light
5. Weather, (Primary and Intermediate) MGH (three filmstrips)

C. Supplementary reading

TYPESETTING

A Captioned Film
for
Intermediate and Advanced Levels

Captioned Films for the Deaf
U.S. Office of Education
Washington, D.C.

Time: 35 minutes Black and White

I. Film Summary

This film gives an excellent description of the linecasting machine and its three operations: composition, casting and distribution. All are thoroughly explained and illustrated. In addition, the operation and use of a teletypesetter, a perforator and an operating unit are explained and illustrated.

II. Purpose of the Film

A. To give an overall picture of a linecasting machine
B. To show the parts of the linecasting machine
C. To illustrate the three major operations of the machine
D. To explain how a teletypesetter, a perforator and an operating unit work

III. Preparation for the Film

A. Preview the film and select objectives.
B. Gather materials to show to class: matrices, spacebands, linecasting slugs, liners, etc.
C. Basic vocabulary

<p>| publishers | ejected | wedge |
| typesetting | circulating | stationary |
| mechanical | distributor | spaceband |
| automatic | analyze | expand |</p>
<table>
<thead>
<tr>
<th>linotype</th>
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<td>magazine</td>
<td>justification</td>
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<tr>
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<td>partitions</td>
<td>synchronized</td>
</tr>
<tr>
<td>slugs</td>
<td>hinged</td>
<td>pinion</td>
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<tr>
<td>matrix (mat)</td>
<td>internal</td>
<td>visecap</td>
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<td>simultaneously</td>
<td>thermostats</td>
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<td>sequence</td>
<td>manipulation</td>
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<td>crucible</td>
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<td>indicator</td>
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<td>solidifies</td>
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</tbody>
</table>

D. Selected idioms and expressions

- composing machine
- depressing the keys
- magazine channel
- assembling elevator
- punched character
- lugs and ears
- casting mechanism
- characters in relief
- first elevator
- second elevator
- composition of the matrix line
- casting of the slug
- distribution of the matrices
- principle parts
- matrix delivery belt
- delivery slide
- eccentric cam
- descending mats
- Visilite magazine
- star wheel
- duplex rail
- dovetailed construction
- complete cycle
- helicoidal screws

IV. Motivation

A. Ask pupils why printing and the linecasting machines are so important to all of us in our everyday life.

B. Ask pupils if they know how type is set on a linecasting machine. Discuss.

C. Display matrices, spacebands, linecasting slugs, liners, etc. to acquaint pupils with real materials.

D. Show pupils the linecasting machine in action, demonstrating as much as possible the operations shown in the film.
V. Followup

A. Suggested activities

1. Have pupils point out on the linecasting machine the parts used in the three operations; composing, casting and distribution.

2. Have pupils explain the functions of these parts.

3. It might be beneficial, after the initial viewing of this film, to show it in three teaching sections. The first section would include the introduction and the composition segment of the film. The second would be the segment on casting, and the third that on distribution and the conclusion of the film. Questions and discussion should follow the viewing of each segment.

4. Set up a bulletin board displaying a large illustration of a linecasting machine. Label each part as deemed necessary.

VI. Resource Materials

A. Books


5. Linotype Keyboard Operation. N.Y.: Mergenthaler Linotype Corp.


I. Film Summary

This film shows General George Washington at Valley Forge. His officers tell him that many American soldiers are leaving the Army because of the terrible hardships and unbearable suffering. Through his conversation with Billy, a drummer boy, Washington explains the ideals for which the new nation is fighting and why he considers it important not to give up.

II. Purpose of the Film

A. To give historical information concerning the American Revolution

B. To set forth some of the causes of the American Revolution and the ideals of the founders of the new United States

C. To depict some of the hardships and suffering endured by those fighting the war

III. Preparation for the Film

A. Preview the film and select objectives.

B. Selected vocabulary

<table>
<thead>
<tr>
<th>Proper nouns</th>
<th>Congress</th>
<th>General George Washington</th>
</tr>
</thead>
<tbody>
<tr>
<td>British</td>
<td>Delaware</td>
<td>Trenton</td>
</tr>
<tr>
<td>Baron Von Steuben</td>
<td>Poland</td>
<td></td>
</tr>
<tr>
<td>Valley Forge</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Nouns
taxes               camp               secret agent

Verbs
trade              suffer              blame

C. Selected idioms and expressions

break up the army
best for all
for nothing

D. Things to watch for in the film

1. Washington's distress at the desertion of some of his troops
2. Washington's kindness to Billy
3. Washington's concern and desire to establish a new nation
4. Billy's respect and admiration of Washington
5. The officers' return and their silent approval and admiration of Washington's speech
6. Von Steuben's unnoticed arrival and subsequent offer to help
7. Von Steuben's praise of Washington

IV. Motivation

A. Previous preparation should include background work on American Revolution.

B. Display copies of famous paintings, such as Washington Crossing the Delaware, Valley Forge, Spirit of '76

V. Followup

A. Suggested questions

1. Where is Valley Forge?
2. Who met with Washington at Valley Forge?
3. Why were the officers worried?
4. What did General Greene want to do?
5. What answer did Washington give to his officers?

6. Who was Billy?

7. Why did he come to see General Washington?

8. Why was it necessary for the struggle for independence to be successful?

9. Why was it necessary to keep the Army together?

10. What freedoms did Washington hope the new nation would offer to oppressed people in other countries?

11. What did Baron Von Steuben offer to teach to the American army?

12. What had Washington taught to his men?

B. Suggested discussion topics

1. How did Washington inspire his officers and men?

2. Upon what ideals of government is our government based?

C. Suggested activities

1. Make a list of people mentioned in the film. Write a paragraph about each telling his contribution to the American Revolution.

2. Have the pupils pretend they are in the army at Valley Forge, and have them write letters home describing their experiences.

I. Resource Materials

A. Films

1. The American Revolution, CFD

2. George Washington, CFD

3. The Boston Massacre, CFD

B. Filmstrips

1. Valley Forge, EBF

2. The Story of George Washington, SVE

C. Books

WHY STUDY HOME ECONOMICS

A Captioned Film
for
Intermediate and Advanced Levels

By Arrangement with
Young America Films

Captioned Films for the Deaf
U.S. Office of Education
Washington, D.C.

Time: 11 minutes

I. Film Summary

This film attempts to rationalize the necessity for studying home economics. Students are encouraged to study various arts involved in becoming a good homemaker.

This reviewer believes that because this film is outdated and rather simplistic in its approach, it will not attain the purposes for which it was intended.

II. Purpose of the Film

A. To encourage the study of home economics

B. To give students some insight into the various occupations which comprise home economics

C. To indicate that the study of home economics can be the prelude to such professions as dietician, bacteriologist, sociologist, psychologist, or textile worker

III. Preparation for the Film

A. Preview the film and select objectives.
B. Vocabulary

Nouns
bacteria
bacteriology
behavior
child development
community
course
costume
design
decorator colors
decoration
dietician
economics
fabric
fiber
history
homemaker
income
institution
decoration
dietician
economics
fabric
fiber
history
homemaker
income
institution
money management
nutrition
nursery school
psychology
responsibility
sociology
style
texture
trailer

Adjectives
advanced
attractive
familiar
individual
natural
man-made
related
technical
trained

Verbs
enroll
spend
select
handle
plan

Adverb
wisely

C. Selected idioms and expressions
how to run a home
most important
a waste of time
that's not enough
spend money well

IV. Motivation
A. Give the students a tour of the Home Economics Department.
B. Visit any type of display or function prepared by the current home economics classes.

V. Followup
A. Encourage students to do research on the qualifications for specific related professions, e.g., dietician, social worker.
B. Have students prepare bar graphs to illustrate the necessary qualifications for various professions.
C. Have students prepare bulletin board illustrating various aspects of the film.
VI. Resource Materials

A. Films

1. The ABC of Babysitting, DP
2. Anyone for Nursing, USPH
3. Careers for Girls, MOT

B. Filmstrips

1. The School Cafeteria Worker (Including the Dietician), Occupational Education Series, EG
2. The Variety Store, Occupational Education Series, EG
3. The Nurses Aid, Occupational Education Series, EG
4. The Waitress, Occupational Education Series, EG

C. Books


D. Magazines

1. McCall's
2. Ladies Home Journal
3. Good Housekeeping
4. Family Circle
5. Woman's Day

E. Study prints

1. Set #4 Social Studies Series, Community Helpers
2. Set #34, Hospital Helpers
WHY STUDY SCIENCE

A Captioned Film for Intermediate Level

By Arrangement with Young America Films (McGraw Hill)


Time: 11 minutes Black and White, SYNCAP

I. Film Summary

Were any students to question the validity of the study of science, this film might be shown. It endeavors to give a realistic basis for the study of science by indicating its place in preparing students for a future career. However, this reviewer believes that these endeavors are extremely simplistic, outmoded, and naive. Whether or not the purpose, for which this film is intended is accomplished, remains to be seen.

II. Purpose of the Film

A. To present a basis for the study of science

B. To explain the necessity of science courses for all careers, including homemaking

C. To appreciate the role of science in everyday living

III. Preparation for the Film

A. Preview the film and select objectives.

B. Vocabulary

<table>
<thead>
<tr>
<th>Nouns</th>
<th>Space station</th>
<th>Facts</th>
</tr>
</thead>
<tbody>
<tr>
<td>planets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>adventure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>science</td>
<td></td>
<td></td>
</tr>
<tr>
<td>course</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Nouns (continued)

teen-agers  career  homemaker
biologist  chemist  physicist
artist  agriculture  voter
happiness  radiology  astronomy
photography  minister  social worker
knowledge  history  hobbies
field trip

Verbs

travel  picked  leave
vote  cures  protects
destroy  supply  harm
adjust  understand

Adverb

relaxing

Adjectives

special  healthy

C. Selected idioms and expressions

afraid not  that depends  almost touch those stars
m-m-m  no doubt about it  doesn't lack imagination
get ready  a lot to think about  more fun than
you caught some  talk about  have a career

IV. Motivation

A. Caption a blank bulletin board, "Why Study Science?" Have students complete it.

B. Together with the science teacher, arrange a tour of the school laboratory.

C. Discuss with students the occupations which have some basis in science.

V. Followup

A. Encourage students to participate in a class discussion on the relevancy of science in today's world.

B. Invite men of various professions to discuss the need for science in their careers.
VI. Resource Materials

A. Films
1. *Come to the Fair*, RCSS
2. *Not by Chance*, NEA
3. *The Question Tree*, IBM
4. *Unheard Melodies*, Radiant

B. Filmstrips
1. *Learning About Living Things* (Series), EBF
2. *A Student's Guide to the Science Laboratory*, SP
3. *World Around Us* (Series), MGH

C. Books
WOODWORKERS

A Captioned Film
for
Intermediate and Advanced Levels

By Arrangement with
AFL-CIO

Captioned Films for the Deaf
U.S. Office of Education
Washington, D.C.

Time: 11 minutes
Black and White

I. Film Summary

This film follows the process of lumbering from the falling of trees to the finished boards leaving the sawmill. The skills of the loggers, saw operators, and sorters are explained and depicted. However, the film dates itself by stating that lumbering is one of the most important industries of the U.S.

II. Purpose of the Film

A. To show the stages involved in the manufacturing of lumber from a tree to a board

B. To show the various occupations involved in the process of manufacturing lumber

C. To show that these occupations are highly skilled jobs

III. Preparation for the Film

A. Preview the film and select objectives.

B. Gather visual aids, e.g., (1) pictures of various occupations involved in lumbering and manufacturing, (2) actual wood products or by-products, and (3) specimens of various types of wood, etc.
C. Selected vocabulary

<table>
<thead>
<tr>
<th>Nouns</th>
<th>machines</th>
<th>band saw</th>
<th>boom boat</th>
<th>sawyer</th>
</tr>
</thead>
<tbody>
<tr>
<td>woodworkers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>uses</td>
<td>bark</td>
<td>grain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>materials</td>
<td>saw teeth</td>
<td>grinding wheel</td>
<td>control panel</td>
<td></td>
</tr>
<tr>
<td>products</td>
<td>conveyor</td>
<td>trap doors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>shield</td>
<td>veneer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>gang saw</td>
<td>kiln</td>
<td>stacks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>plywood</td>
<td>grappling hooks</td>
<td>siding</td>
<td></td>
<td></td>
</tr>
<tr>
<td>green chain</td>
<td>pulp</td>
<td>operator</td>
<td></td>
<td></td>
</tr>
<tr>
<td>crane</td>
<td>diameter</td>
<td>tongue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>logger</td>
<td>furniture</td>
<td>variety</td>
<td></td>
<td></td>
</tr>
<tr>
<td>groove</td>
<td>jams</td>
<td>length</td>
<td></td>
<td></td>
</tr>
<tr>
<td>board feet</td>
<td>lumbering</td>
<td>window frames</td>
<td></td>
<td></td>
</tr>
<tr>
<td>planing machine</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>sawmill</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Verbs</td>
<td>reseeded</td>
<td>bundled</td>
<td>peeled off</td>
<td></td>
</tr>
<tr>
<td>invent</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>sort</td>
<td>jammed</td>
<td>sharpened</td>
<td></td>
<td></td>
</tr>
<tr>
<td>forced through</td>
<td>wasted</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>grinds</td>
<td>inspects</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>seasoned</td>
<td>cured</td>
<td>grades</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjectives</td>
<td>legendary</td>
<td>easier</td>
<td></td>
<td></td>
</tr>
<tr>
<td>unbelievable</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>finest</td>
<td>raw</td>
<td>sure-footed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>responsible</td>
<td>skilled</td>
<td>necessary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>valuable</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adverbs</td>
<td>backwards</td>
<td>sideways</td>
<td></td>
<td></td>
</tr>
<tr>
<td>forward</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>correctly</td>
<td>hardly</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D. Selected idioms and expressions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>cut better</td>
<td>each tooth</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

IV. Motivation

Prepare a bulletin board display and discuss wood products, the lumbering process and lumbering occupations.
V. Followup

A. Suggested questions

1. How are logs transported?
2. Name two methods by which lumber is dried.
3. Why must saws be kept sharp?
4. Describe some of the skills needed by a man who operates the saws in a lumber mill.
5. What is a kiln?
6. How does a kiln operate?

B. Suggested activities

1. Obtain a small fireplace log and trace the stages of lumbering in the classroom: (a) cut the tree down, (b) take the bark off, (c) cut the wood into boards, (d) stack lumber in a pile and let it air-dry, and (e) run the wood through the planer.
2. Have students list products made from wood.
3. Have students make a flow chart showing a log entering a lumber mill and exiting as a board.
4. Have students discuss which job they would like to do if they were lumbermen.

VI. Resource Materials

A. Films

1. American Walnut, AWMA
2. Mahogany—Wood of the Ages, MAI
3. Miracle in Wood, DFPA
4. Prefabrication with Plywood, DFPA
5. Trees and Homes, WSC
6. Trees for Tomorrow, NYSDC

B. Filmstrips

1. Forest and Forest Products, set of 5, BF
   a. Paper Industry: Trees in the Forest
b. Plywood Industry

c. Redwood Lumber Industry: Lumber Mill

d. Redwood Lumber Industry: Planning Mill

C. Books


D. Posters


WRITING BETTER BUSINESS LETTERS

A Captioned Film
for
Intermediate Level

By Arrangement with
Coronet Films

Time: 11 minutes

Color

I. Film Summary

This film demonstrates clearly and concisely the necessary form and content required for business correspondence.

II. Purpose of the Film

A. To demonstrate the correct form for business letters
B. To demonstrate that which is necessary for the content of business letters
C. To impress students with the benefits of well-styled business correspondence

II. Preparation for the Film

A. Preview the film and select objectives.
B. Select desired basic vocabulary.

<table>
<thead>
<tr>
<th>Nouns</th>
<th>Form</th>
<th>Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>business office</td>
<td>form</td>
<td>service</td>
</tr>
<tr>
<td>example</td>
<td>style</td>
<td>courtesy</td>
</tr>
<tr>
<td>album</td>
<td>wording</td>
<td>appreciation</td>
</tr>
<tr>
<td>information</td>
<td>request</td>
<td>arrangements</td>
</tr>
<tr>
<td>carbon copy</td>
<td>salutation</td>
<td>records</td>
</tr>
<tr>
<td>paragraph</td>
<td>complimentary close</td>
<td>changes</td>
</tr>
<tr>
<td>money order</td>
<td>business letter</td>
<td>catalog</td>
</tr>
<tr>
<td>postage</td>
<td>complaint</td>
<td>impression</td>
</tr>
</tbody>
</table>
C. Selected idioms and expressions

different kinds of
looks pretty good
pays attention

that's a good idea
told him so
letter of application

don't happen
accomplishes its purpose
get to the point

IV. Motivation

A. Introduce students to the concept of business letters when some interesting article is needed for a class project. Plan to whom the letter should be written, what article is requested, what form should be used.

B. Ask students if it is possible to apply for a position in a way other than a personal interview.

C. Ask students what could be done if they have purchased a defective article in an out-of-town store.

V. Followup

A. Have students write a business letter requesting some necessary personal article. Have them use a catalog in order to obtain the necessary information.

B. Have students write a letter of complaint about the receipt of a damaged article. Show completed letters on the opaque projector.

C. Have students apply for a summer position.
VI. Resource Materials

A. Films
   1. Building Better Paragraphs, COR
   2. How to Write Effectively, COR
   3. Making Sense with Sentences, COR

B. Filmstrip
   Effective Business Correspondence, MGH

C. Book
I. Film Summary

When Jim sells his lawn-mower rental business, he has to find answers to the questions: How much did he make last year? What does he own now? How much does he owe to others? Standard methods of keeping ledgers and journals are illustrated and explained.

II. Purpose of the Film

A. To show the importance of accounting in business

B. To explain some of the commonly used procedures in accounting

C. To explain some of the basic vocabulary used in accounting

III. Preparation for the Film

A. Preview the film and select objectives.

B. Select vocabulary.

- accountants
- accounting
- advertising
- assets
- bookkeepers
- bought
- debit
- entries
- equipment
- expenses
- figures
- income
- liabilities
- liability
- owe
- post
- posting
- records
B. Vocabulary (continued)

<table>
<thead>
<tr>
<th>business</th>
<th>interest</th>
<th>rents</th>
</tr>
</thead>
<tbody>
<tr>
<td>cash</td>
<td>journal</td>
<td>repaying</td>
</tr>
<tr>
<td>companies</td>
<td>ledger</td>
<td>total</td>
</tr>
<tr>
<td>credit</td>
<td>lent</td>
<td>transactions</td>
</tr>
</tbody>
</table>

C. Selected idioms and expressions

- financial transactions
- spare parts
- opening entry
- business transaction
- repair kit
- net worth
- business records
- business report
- net income
- power mower
- Income Statement
- net profit
- business student
- debit account
- Profit and Loss Statement
- balance sheet
- source of income
- general credit
- office supplies
- bookkeeping system
- cash credit
- general debit

D. Things to watch for in the film

1. The items considered to be assets versus those considered to be liabilities

2. The transfer of information from a balance sheet to a journal and from a journal to a ledger

3. The increased complexity of the procedures used in working with a cash journal

IV. Motivation

A. Pupils should have an understanding of the basic accounting vocabulary.

B. Create and discuss teacher-made transparencies for balance sheet, income statement, ledger and journal.

C. Establish a small business and discuss the need for accounting procedures.

V. Followup

A. Suggested discussion questions

1. What is the purpose of a balance sheet, income statement, ledger and the journal?

2. Contrast Jim’s assets with his liabilities.

3. How do you obtain the net income?

4. Where are daily transactions listed?
5. What is cash considered to be when listed in the cash debit column?


B. Suggested activities

Play game of monopoly and have each pupil establish his own accounting system.

VI. Resource Materials

A. Filmstrips

1. Bookkeeping Equation and the Balance Sheet, MGH
2. Closing Entries, MGH
3. Journalizing and Posting, MGH
4. Preparation of the Work Sheet and Financial Statements, MGH
5. Preparing the Trial Balance, MGH
6. Use of Accounts and Analysis of Transactions, MGH

B. Books

JOHN ADAMS  
(Profiles in Courage Series)  

A Captioned Film  
for  
Advanced Level  

By Arrangement with  
Robert Saudek Associates  

Captioned Films for the Deaf  
U.S. Office of Education  
Washington, D.C.  

Time: 50 minutes  
Black and White  

I. Film Summary  

This film gives some insight into the character and courage of John Adams as a young lawyer. His concern for the laws and the rights of individuals is emphasized. The story is based on events leading to the Boston Massacre in 1770.  

II. Purpose of the Film  

To show John Adams' personal courage in defending the rights of British soldiers despite his belief in colonial liberty  

III. Preparation for the Film  

A. Preview the film and select objectives.  

B. Choose basic vocabulary.  

1. Partial list of characters  

   John Adams  
   Abigail Adams  
   Josiah Quincy  
   Montgomery  
   Killroy  

2. Selected vocabulary  

   adjournment  
   evidence  
   ambitious  
   favor (v)  
   (the) Prosecution  
   rebel (v)  


Selected vocabulary (continued)

apologize  
bayonet  
cause (n)  
coin  
colonials  
complaints  
compliments  
console (v)  
copy  
corpse  
cross-examine  
cutlasses  
defend  
dishonor  
disturbances  

apologize  
bayonet  
cause (n)  
coin  
colonials  
complaints  
compliments  
console (v)  
copy  
corpse  
cross-examine  
cutlasses  
defend  
dishonor  
disturbances  

guard (n)  
illegal  
indictments  
innocent  
intent  
jury  
malice  
manslaughter  
mob  
muskets  
offended  
opponents  
perjury  
prejudice  
principles  

Redcoats  
representation  
retainer  
revenge  
self-defense  
sentry  
sergeant  
smuggled  
sword  
troublemaker  
victims  
violence  
watchword  
wound (n)  
wrongdoers  

3. Selected idioms and expressions

Declaration of Independence  
Sons of Liberty  
Boston Massacre  
Lobster!  
Bloody-back!  
members of Parliament  
sworn account  
false alarm  
unlawful assembly  

pleaded not guilty  
were the guns loaded  
enforce tax laws  
bend the truth  
take advantage of  
without trial  
trouble was brewing  
men have natural rights  

C. Things to watch for in the film

1. How the townspeople are aroused and incited to riot beginning with name-calling and snowball-throwing by the children

2. How John Adams becomes aware of the angry mood of the townspeople

3. How the bell is used as a signal to arouse the townspeople

4. How John Adams thoughts are included in the captions

5. The token amount that John Adams accepted as a retainer for representing the British soldiers

IV. Motivation

A. Pupils should have a background knowledge of events leading to the Boston Massacre.
B. Discuss the meaning of these legal terms: self-defense, manslaughter, and murder.

C. Prepare a bulletin board display and discuss the idea of trial by jury including judge, jury, prosecution, defense, defendants, witnesses, verdict, cross-examination, etc.

V. Followup

A. Suggested discussion questions
   1. What is your opinion concerning types of punishment for murder: imprisonment vs. capital punishment; for manslaughter: imprisonment vs. branding of left thumb, as shown in film; etc.?
   2. Discuss some of the causes and effects of inciting a mob to violence; relate this question to past and present events.
   3. Reconcile John Adams' membership in the Sons of Liberty with his acceptance to act as a defense attorney for the British soldiers.

B. Suggested activities
   1. Have each pupil write a biographical sketch of John Adams based on library research.
   2. Hold a mock trial with students assuming roles of judge, jury, etc. (see IV C).
   3. Collect news items describing current trials and have pupils identify defendants, witnesses, etc. as a means of reinforcing the trial by jury concept.

VI. Resource Materials

A. Films
   1. The Sons of Liberty, TFC
   2. The Boston Massacre, CFD

B. Filmstrip
   American Leaders, MGH

C. Books


JOHN QUINCY ADAMS
(Profiles in Courage Series)

A Captioned Film
for
Advanced Level

By Arrangement with
Robert Saudek Associates

Captioned Films for the Deaf
U.S. Office of Education
Washington, D.C.

Time: 50 minutes  Black and White

I. Film Summary

The film describes some events in the political and personal life of John Quincy Adams during the period of time he served as a Senator from Massachusetts. Through a series of naval encounters, Britain provoked American retaliation. Senator Adams' dedication to his country is highlighted as he firmly supports the Embargo Act against Britain despite the threat to his political ambitions.

II. Purpose of the Film

A. To show the courage of John Quincy Adams in the conflict between his political ambitions and his personal integrity

B. To show England's disregard for American sovereignty and freedom of the seas

III. Preparation for the Film

A. Preview the film and select objectives.

B. Choose basic vocabulary.

1. Partial list of characters

   John Quincy Adams  John Adams
   Louisa Adams  President Jefferson
Partial list of characters (continued)

Mr. Gray
Senator Pickering

Mr. George Rose
Meriwether Lewis

2. Selected vocabulary

ahoy impose prudent
amiable impressed (into service) Republicans
arrogant impulse resolve
austere incline (tend toward) respond
bribed independent retire (leave)
britches indignant scoundrel
Chesapeake industrious secession
colleagues intellect selectman
confiscate Leopard short-handed
contempt linsey-woolsey slovenly
contemptuous Louisiana sober
crook (bend) mere squall
descendants negotiate tact
diary noxious temporize
debargo obvious threat
estee offensive vex
exaggerated Potomac virtuous
Federalist produce (n.) weapon
grievances protest (n.)
harassment provoke

3. Selected idioms and expressions

request permission to board Captain's compliments
Captain ... presents his respects pressed into ... service
plow right through him secure the ladder
bring her into the wind British deserter
British piracy American sovereignty
freedom of the seas rights and freedoms
whistle the tune he listens for regional interests
special interests to change ... character
to give up ... principle out of style
ornament of civilization strengthen our hand
Jefferson's creature

C. Things to watch for in the film

1. The refusal of the American captain to return American sailors to the British as deserters
2. The implied threat made by Senator Pickering to Senator Adams
3. John Adams advice to his son
4. Mrs. Adams' attempts to divert her husband's attentions from his worries and her later attempts to improve his sociability

5. Mr. George Rose's contempt for things American and his needling of Meriwether Lewis

6. The pressure exerted by the New England senators in their attempt to gain Adams' cooperation

7. Mrs. Adams' attempts at feminine persuasion

8. The work on his poem that strengthens Adams' resolve to oppose the New England senators

IV. Motivation

A. Pupils should have a knowledge of the British harassment of American ships, impressment of American sailors, the Embargo Act, and other events that led to the War of 1812.

B. Draw and label a map tracing the route of the Meriwether Lewis and William Clark Expedition to the Pacific Ocean.

V. Followup

A. Suggested discussion questions

1. How did the impressment of American citizens impinge upon the political sovereignty of the U.S.?

2. Why did President Jefferson single out John Quincy Adams as the sponsor of the Embargo Bill in Congress?

3. Why did Mr. George Rose, representative of the British Admiralty, show contempt for America and things American?

4. How did Adams resolve the conflict between his political ambitions and his personal integrity?

5. Why was New England so afraid of the Embargo Act? How would the economy of the region change as a result of its passage?

B. Suggested activities

1. Have each pupil prepare a written report on the life of John Quincy Adams.

2. Have pupils write reports describing various aspects of the Lewis and Clark Expedition, e.g., preparation for the journey, difficulties encountered, various discoveries made, the role of Sacajawea, etc.
VI. Resource Materials

A. Films

1. John Quincy Adams, EBF
2. Lewis and Clark, EBF
3. The War of 1812, CFU

B. Books

I. Film Summary

This film shows the courage of John Peter Altgeld when he chose to grant full pardon to three men convicted as accessories to murder during the Haymarket Square Riot of 1886. His decision to pardon these prisoners, made after a review of the trial proceedings, resulted in a national scandal, personal political ruin, and public denunciation.

II. Purpose of the Film

To show the personal courage of John Peter Altgeld in his devotion to justice and the law in spite of possible political ruin and adverse public opinion.

III. Preparation for the Film

A. Preview the film and select objectives.

B. Choose basic vocabulary.

1. Partial list of characters

   Albert Parson       George Schilling       Brand Whitlock
   Lucy Parson         William Hinrichsen    Carter Harrison
   John Peter Altgeld  

Time: 50 minutes
2. Selected vocabulary

accessories  dynamite  pardon
affidavits  emulate  peaceably
alien  exposing  penology
ambition  fanatical  perjured
amnesty  fiery  perjury
anarchists  framed  preach
appalling  futile  perseverance
assassins  guts  precedence
atheists  hide  prejudice
banned  immediately  pressure
betrayal  inauguration  principle
bluntness  incompetent  proofs
blustering  irritable  prosecution
bomb  insinuations  pyramids
bribes  integrity  rationalize
capitalists  judge  revolutionaries
clemency  judicial  rioted
clubbed  labor  sacrifice
communists  lackey  scorn
compromise  lawyer  socialistic
condemned  legacy  succumb
crime  legislature  tainted
corruption  loud-mouthed  threatened
crimes  malice  toast
cronies  misjudging  tolerate
defendants  misled  tragedy
democracy  nigger  vicious
dungheap  pacify  viper

C. Selected idioms and expressions

Garyism
preach the use of ...
overthrow the government
jump the gap
armed resistance
shirk the issues
anarchy is on trial
in accordance with the verdict
snide little wise guy
Franchise Bill
old skin game
compromise to stay on top
subjects linked
clemency pardon

demand hard labor
plain baloney
Amnesty Association
mercy petitions
sworn statements
scream like stuck pigs
construction and franchise bills
hair shirt
kill you politically and financially
quarry workers
state militia
party support
be true to yourself
exposing the courts errors
Selected idioms and expressions (continued)

full pardon  
strength of character  
Law and Order  
slimy demagogue  
devoted to law  
social reform  
national scandal  
cried out for hate and violence  
burned in effigy  
humane act  
fat capitalists  
political cronies  
spouting sauerkraut  
linked with  
Pinkerton men  
on strike  
defender of the underdog  
break the law  
shooting crap  
in accord with  
playing poker  
let the blood be on their hands  
wildest coalition  
not your style  
true and blue  
labor figure  
in conspiracy with  
public figure  
just my way of talking  
a betrayal of justice  
president hate  
at stake  
rot in jail  
long faces  
commit suicide  
old hat  
party business  
without precedent

D. Things to watch for in the film

1. Albert Parson's unwavering belief in his cause

2. The emotional involvement of George Schilling, lawyer for the Anarchists

3. The cool detachment of Judge Altgeld regarding the sentences imposed upon the Anarchists

4. George Schilling's attempt to bait Judge Altgeld into action in the hope that he can influence the death sentence imposed on the Anarchists

5. The way in which service to the Party is rewarded by appointments to public office after elections

6. William Hinrichsen's political advice to Governor Altgeld

7. Altgeld's distress while reading the proceedings of the trial of the Anarchists

8. The mayor's attempt to influence Altgeld's possible pardon of the Anarchists

9. The effect of Parson's last letter to his children on Altgeld's realization that he must be true to his own ideals of justice

10. The decision to grant a full pardon to the Anarchists despite political pressures and possible public denunciation
IV. **Motivation**

A. Discuss the events leading to the Haymarket Square Riot in Chicago, Illinois, in 1886.

B. Discuss amnesty and contrast a clemency pardon with a full pardon.

C. Read and discuss Vachel Lindsay's poem, *The Eagle that Is Forgotten*.

V. **Followup**

A. Suggested discussion questions

1. Discuss the beginnings of the labor movement in the United States and the effect of the Haymarket Square Riot on this movement.

2. Discuss political patronage and the Spoils System with reference to the Civil Service Acts.

3. Discuss the qualifications for the office of President as described in the Constitution of the United States; did Altgeld meet these qualifications?

B. Suggested activities

1. Have pupils prepare a bulletin board display using pictures and biographical sketches of outstanding labor leaders, past and present.

2. Make a time-line of outstanding events in the labor movement in the United States, from its inception to the present.

VI. **Resource Materials**

A. Films

1. *The Labor Movement: Beginnings and Growth in America*, COR


B. Books


### VII. Errata

<table>
<thead>
<tr>
<th>Caption</th>
<th>Correction</th>
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<tbody>
<tr>
<td>plain baloney</td>
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<td>bible</td>
<td>Bible</td>
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AMERICANS AT WORK
AIRCRAFT MACHINISTS

A Captioned Film
for
Advanced Level

By Arrangement with
AFL-CIO

Captioned Films for the Deaf
U.S. Office of Education
Washington, D.C.

Time: 14 minutes
Black and White

I. Film Summary

The various functions of the machinists who help man to master land, sea, and air are concisely shown in this film. Clearly depicted are the tools and machinery used in the manufacture of planes, the assembly of the aircraft, and the testing of the plane to insure the safety of future passengers and crew.

II. Purpose of the Film

A. To explain the design and manufacture of aircraft
B. To show the necessity for a multitude of workers in the manufacturing of a plane
C. To encourage students to consider the work of an aircraft machinist as a career
D. To encourage pride in work
E. To emphasize the safety features incorporated into air flight

III. Preparation for the Film

A. Preview the film and select objectives.
B. Vocabulary
Nouns
passenger
crew member
fighters
bombers
assembly line
output
aircraft industry
aluminum alloys
riveter
operations
machinery
tools
materials
fuselage
wings
tails
jets
transport
wing span
sub-contractors
suppliers
qualities
machinist
skills
inspection
rivet
horseshoe nail
requirements
frame
connection
fluids
vessels and valves
features
comfort
titanium

Verbs
socialize
designed
assemble
stretch
install

Adjectives
fine
complicated
human (error)
safety

Adverbs
constantly
exactly

C. Selected idioms and expressions
four stories tall
a million square feet
master of the air
increased the output
moved into plane
flow of fluids
goes on at the same time
proud of their skill

IV. Motivation
A. Prepare a bulletin board illustrating airplanes at different stages of construction.
B. Have a contest among the students to see who can calculate most accurately the amount of time necessary for the completion of an airplane (from design to final delivery). Answer is in film.

C. Have students research the types of materials and operations used in the manufacture of planes.

V. Followup
A. Have students prepare a written report on the work of an aircraft machinist.
B. If the school has a machine shop, plan a tour to give students first-hand experience with some industrial tools and machinery.
C. Discuss the effects of war and peace on the production of aircraft.
IV. Resource Materials

A. Films

1. Airplanes: How They Fly, EBF
2. Airport in the Jet Age, CFD
3. Cloud Sailing, Carousel
4. How an Airplane Flies, Shell
5. Mr. Withers Stops the Clock, Sterling
6. Wings Like Eagles, Hotchkiss

B. Filmstrips

1. Careers in Aviation, FAA
2. Flying's for Everyone, UAC

C. Books

I. Film Summary

A group of students and their counselor examine scholastic achievement, aptitude, and interest tests - the basic types used to guide students toward the selection of a satisfying occupation. The basic groups of aptitudes and interests are fully illustrated in scenes detailing a variety of occupational categories. Individual counseling and consideration of scholastic records and extracurricular activities are stressed as necessary adjuncts of testing.

II. Purpose of the Film

A. To stimulate students to think about what they would like to be, in order to begin the necessary training and take the necessary courses

B. To put their minds at ease regarding these tests since answers will not be marked right or wrong, but will be used to determine where their interests and aptitudes lie

C. To show that people work better and are usually happier doing something for which they have the ability

D. To make the students aware of the different kinds of tests, their purposes and format

E. To show the necessity of determining all three aspects: achievements, aptitudes and interests
III. Preparation for the Film

A. Preview the film and select objectives.

B. Gather teaching aids:
   1. Samples of tests discussed in the film
   2. Posters and/or pamphlets discussing various occupations
   3. Dictionary of occupational titles

C. Select desired vocabulary.

<table>
<thead>
<tr>
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<th>flair</th>
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<tr>
<td>relatives</td>
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<td>careers</td>
<td>secretary</td>
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<td>aptitudes</td>
<td>chemists</td>
<td>livestock</td>
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<td>achievement test</td>
<td>ministry</td>
<td>space shots</td>
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<td>talents</td>
<td>counselor</td>
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<td>ballerina</td>
<td>accountant</td>
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<tr>
<td>welfare</td>
<td>construction worker</td>
<td>machinist</td>
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<td>journalists</td>
<td>hobbies</td>
<td>playwright</td>
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<td>products</td>
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<td>executives</td>
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<td>numerical</td>
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<tr>
<td>complex</td>
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</table>

D. Selected idioms and expressions

- multiple choice questions
- scholastic achievement tests
- social services
- reasoning aptitudes
- professional people
- business interests
- business careers
- complex equipment
- dictionary of occupational titles
- industrial engineer
- mechanical aptitudes
IV. Motivation

A. Bulletin board display - "What will you be?" In the center draw the outline of a person. Around the outline, have pictures showing various occupations. Place a question mark in the center of the outline of the person.

B. Bring in posters or pamphlets of various occupations and discuss their duties and educational requirements.

C. Invite several persons working at different jobs to talk to the class about their work and the requirements for such work.

D. Have students watch the film to find the answers to the following questions:
   1. How do you choose an occupation?
   2. Upon what does job success depend?
   3. How can you decide on a certain job?

V. Followup

A. Suggested questions:

   1. How have some students become interested in different kinds of careers?
   2. How do you choose an occupation?
   3. How do you know what your aptitudes, interests and abilities are?
   4. What are the purposes of tests?
   5. Where can you find information about certain occupations?
   6. Upon what does job success depend?
   7. What do aptitude tests predict?
   8. What is the purpose of the scholastic achievement test?
   9. Who makes these tests? (trained people and experienced teachers)
  10. What do scores tell you?
  11. What is aptitude?
  12. What aptitude does a salesman have?
  13. What aptitude does an accountant have?
14. What aptitude does a philosopher or historian have?

15. What aptitude does a machinist have?

16. How does an interest in an occupation help you?

17. How does a guidance counselor help you choose an occupation?

VI. **Resource Materials**

   A. Filmstrip

   1. The Job Interview, EG

   B. Additional Resources

   1. Application forms for various kinds of jobs
BANKS AND CREDIT

A Captioned Film
for
Advanced Level

By Arrangement with
Coronet Films

Captioned Films for the Deaf
U.S. Office of Education
Washington, D.C.

Time: 11 minutes

I. Film Summary

This film demonstrates the services rendered by banks and the techniques involved in rendering these services quickly and carefully. The meaning of credit is propounded.

II. Purpose of the Film

A. To illustrate the services rendered by banks
B. To demonstrate the meaning of credit
C. To examine the bookkeeping department of a bank
D. To illustrate cash deposit, cash withdrawal, credit transfer and checking accounts.

III. Preparation for the Film

A. Preview the film and select objectives.
B. Select desired basic vocabulary.

Nouns
credit
bookkeeping department
depositor
account
balance sheet
capital stock
community
liability
savings account
time deposits
check
certified check
bank draft
interest
Nouns (Continued)
assets  
cash  
stockholder  
government bonds  

Verbs
balance (checks)  
issue  
insure  
appear  
remodel  

Adjectives
trustworthy  
reliable  

Participle
deducting  

C. Selected idioms and expressions
meet future needs  
on the other side of the balance  
write checks against  
credit is increased  
two thousand dollars worth of goods  
take advantage of this  
minus interest  
discounting a note  
comparatively little cash  

IV. Motivation
A. Visit a local bank to observe the depositing and withdrawal of money. Note such workers as bank guard, cashiers, officers.  
B. Examine bank deposit and withdrawal slips.  

V. Followup
A. If feasible, check the bank books of several students. Check the bookkeeping process involved when a deposit or withdrawal is made.  
B. Note the interest incurred on bank accounts over a period of time.  
C. Discuss a check as transfer of credit.  
D. Discuss the factors necessary for obtaining credit.  
E. What are some of the purposes for which credit is extended?
VI. Resource Materials

A. Films

1. Banking in Action, AF
2. Banks and Credit, COR
3. Check Collection Process, Industrial Union
4. Credit and Loans, Progressive Films
5. Money in the Bank and Out, Churchill
6. My Financial Career, NFBC

B. Filmstrips

1. Money, Series 3, No. 31-66, CFD
2. Time and Money, EG
3. The Story of Money, MGH

C. Books

BIOGRAPHY OF THE UNBORN

A Captioned Film
for
Advanced Level

By Arrangement with
Encyclopaedia Britannica Films

Captioned Films for the Deaf
U.S. Office of Education
Washington, D.C.

Time: 18 minutes

Black and White, SYNCAP

I. Film Summary

This is the story of the first nine months of human life—from the moment of conception until birth. It indicates how man comes out of the unknown, enters the phase of life which all human beings of all races have in common, and continues to grow until he attains a human life which can be lived independently.

II. Purpose of the Film

A. To show how the fetus develops during the first nine months of life

B. To show the growth of the various systems before birth

C. To give students an appreciation of human life

III. Preparation for the Film

A. Preview the film and select objectives.

B. Vocabulary

<table>
<thead>
<tr>
<th>Nouns</th>
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<tbody>
<tr>
<td>egg</td>
<td>sperm</td>
<td>microscope</td>
</tr>
<tr>
<td>Fallopian tube</td>
<td>fertilization</td>
<td>photomicrograph</td>
</tr>
</tbody>
</table>
Nouns (continued)
cells
throphoblast
embryonic disc
"blood islands"
vitamins
food canal
organs
incubator
chromosomes
nourishment
embryo
blood corpuscles
minerals
fetus
womb
endocrine glands
uterus
cavities
yolk sac
hormones
groove
glands
umbilical cord
air sacs

Verbs
divide
thickens

Adjectives
outer-inner
empty
protective

C. Selected idioms and expressions

man comes out of the unknown	small solid mass
quickening of the womb
covering all body organs
a lot happens
thumbnail size
different line patterns

IV. Motivation

A. Review the development of life among plants and animals.

B. Introduce students to the idea that human growth and development are similar to the above.

C. Perhaps some questions, as to where man actually comes from, would be in order at this point.

V. Followup

A. Talk to students by either school doctor or nurse. Follow with a question and answer period.

B. With separate groups for boys and girls, a discussion with a married couple might be in order.

VI. Resource Materials

A. Films

1. Boy to Man, CFD

2. The Day Life Begins, CFD
3. *Eggs to Chickens*, CFD
4. *Girl to Woman*, CFD
5. *Human Body: Reproductive System*, CFD
6. *Life Story of a Toad*, CFD
7. *Mammals Are Interesting*, CFD

B. Visual Products 3M Transparencies

1. *The Family*, Cat. #4161
2. *The Origin and Evolution of Life*, Science Series #51, Cat. #297

C. Books

BOOKMAKERS

A Captioned Film
for
Advanced Level

By Arrangement with
AFL-CIO

Captioned Films for the Deaf
U.S. Office of Education
Washington, D.C.

Time: 16 minutes

I. Film Summary

The beautiful art of restoring old books and binding new volumes is presented to the viewer. Included in the film are such processes as pamphlet making and ruling the pages of ledgers.

II. Purpose of the Film

A. To introduce students to the art of restoring old books

B. To appreciate the process of making new books

C. To encourage students to consider bookmaking as possible career

III. Preparation for the Film

A. Preview the film and select objectives.

B. Vocabulary

Nouns
bookmaker | writer | printer
event | thoughts | skins
patience | effect | apprentice
pattern | boards | information
lettering | intelligence | cover
folding machine | trimming machine | seamstress
mashing machine | signature | craftsman
A. Exhibit several loosely bound books to show how volumes are divided into signatures before they are bound.

B. Prepare a display table with several pamphlets to illustrate different types of binding, i.e. saddle stitching, side stitching, spiral binding, plastic binding and regular hard cover binding.

C. Question students as to the possibility of restoring a treasured old volume. Where? Why? How?

V. Followup

A. Plan a trip to a local book bindery. See how closely the process resembles that shown in the film.

B. Plan a class book repair project using discarded library books.

C. If the school has a print shop, have students observe and compare the similarity of processes in printing and book-making.

I. Resource Materials

A. Films
1. *Beginning Responsibility: Books and Their Care*, Coronet
2. *The Book*, EBF
3. *Love of Books*, BIS
4. *Printing Through the Ages*, EBF
6. *Typesetting*, CFD

B. Filmstrips

1. *Safety in School Shops and Gymnasium*, EG

C. Books

I. Film Summary

The following principles of buoyancy are clearly and carefully portrayed; (1) water pressure has a surface that moves in all directions; (2) when something is weighed in water, it appears to lose some of its weight depending on how much water is displaced; (3) some articles appear weightless in liquid.

II. Purpose of the Film

A. To explain water pressure
B. To illustrate density
C. To demonstrate weightlessness
D. To combine all these principles to illustrate buoyancy

III. Preparation for the Film

A. Preview the film and select objectives.
B. Vocabulary

<table>
<thead>
<tr>
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<tr>
<td>quart jar</td>
<td>playing cards</td>
<td>center</td>
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<td>&quot;density float&quot;</td>
<td>liquids</td>
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**Nouns (continued)**

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<td>fluid</td>
<td>directions</td>
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<td>rubber square</td>
<td>lamp chimney</td>
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<tr>
<td>leak</td>
<td>difference</td>
<td>principle</td>
</tr>
<tr>
<td>displacement</td>
<td>volume</td>
<td>tank</td>
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<tr>
<td>raft</td>
<td>water wings</td>
<td>centuries</td>
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<tr>
<td>layers</td>
<td>object</td>
<td>reason</td>
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**Verbs**

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<th>spun</th>
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<th>check</th>
<th>evaporate</th>
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**Participles**

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**Adjectives**

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<thead>
<tr>
<th>common</th>
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<th>interchanged</th>
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<tbody>
<tr>
<td>huge</td>
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<td>dense</td>
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**Preposition**

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**Adverb**

<table>
<thead>
<tr>
<th>slowly</th>
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C. Selected idioms and expressions

- homemade experiment
- on top of the other
- way down underneath
- making water more dense
- less dense than
- make them close to

- put that together
- seem to disappear
- appear to lose weight
- right in the middle
- more dense than

D. Gather materials necessary to perform experiments shown in film.

IV. Motivation

A. Question students as to why ships float.

B. Illustrate the principle of buoyancy by first dropping a flat piece of aluminum into water. Then by folding the edges of the same metal, form a raft and allow it to float.

C. Question students as to relative buoyancy differences between swimming in fresh and salt water.
D. Ask why it is mandatory for ships and airplanes to carry life preservers.

V. Followup
A. Perform experiments illustrated in film.
B. Have students draw diagrams illustrating the principle of buoyancy.
C. Have students make a list of things which can be used to illustrate buoyancy.
D. Have students write reports on Weightlessness and Water Displacement.

IV. Resource Materials
A. Films
1. Chemical Changes All About Us, COR
2. Come to the Fair, RCSS
3. Forces, EBF
4. Things Dissolve, MGH
5. Water and What it Does, CFD
6. Waves on Water, EBF
7. Wonders of Chemistry, MGH

B. Filmstrips
1. First Experiments with Air Series, JH
   a. Air is Everywhere
   b. Air is Real
   c. Air Helps Things to Float
   d. Air Pushes Against Things
2. The Physical Characteristics of Air (Grades 7-9), JH
4. **Some Things Dissolve**, MGH
5. **Understanding Chemical Change**, MGH
6. **What is Air Pressure (Grades 7-9)**, JH

C. Books


I. Film Summary

All information, visual or auditory, is composed of a series of dots and dashes. The process of interpreting what is seen and recording what is meant is the main theme of the film. The Communication Theory presupposes that an understanding of the position and/or combination of dots and dashes is the mode for interpreting print, television, and radio.

II. Purpose of the Film

A. To explain the different types of communication
B. To explain how a computer system works
C. To explain how all forms of communication are related
D. To indicate that two people must understand the same code before communication is established

III. Preparation for the Film

A. Preview the film and select objectives. n.b.: it is important that the students have had an introduction into the science of light and sound.

B. Vocabulary

<table>
<thead>
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<tr>
<td>screen</td>
<td>band</td>
<td>dots-dashes</td>
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<td>bead</td>
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<td>bits</td>
<td>bump</td>
<td>hold</td>
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<td>symbol</td>
<td>Morse Code</td>
<td>group</td>
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<td>series</td>
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<td>orchestra</td>
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<td>recognize</td>
<td>separates</td>
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<td>depend</td>
<td>represents</td>
<td>determine</td>
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<tr>
<td>store (to contain)</td>
<td>focus</td>
<td>disappears</td>
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<td>pop</td>
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<td>finest (or tiniest)</td>
<td>amazing</td>
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### Adverbs

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<td>hole</td>
<td>shape</td>
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### Selected idioms and expressions

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<tr>
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<td>used to do</td>
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<tr>
<td>similar about them all</td>
<td>different from</td>
</tr>
<tr>
<td>it could mean anything</td>
<td>stand for a sound</td>
</tr>
<tr>
<td>group in various ways</td>
<td>put things around it</td>
</tr>
<tr>
<td>it has a special meaning</td>
<td>set off something</td>
</tr>
<tr>
<td>one of anything</td>
<td>depends on</td>
</tr>
<tr>
<td>means nothing until ...</td>
<td>go one step further</td>
</tr>
<tr>
<td>left one out</td>
<td>working in this direction</td>
</tr>
<tr>
<td>holds the current back</td>
<td>pick up the speed</td>
</tr>
<tr>
<td>keep your eyes on the screen</td>
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IV. Motivation

A. Ask who knows about Morse Code and how it works.

B. Ask if anyone has ever composed a secret code. Explain the film shows how to develop a secret code.

C. Ask if anyone in the class has ever seen a computer or knows how it works.

D. Allow two students to communicate with each other by using their secret code. Show the rest of the class how impossible it is to join the conversation of the two students without a knowledge of their code.

V. Followup

A. Have the students design their own code.

B. Have students examine a picture from a newspaper under a magnifying glass to observe the dots.

C. As a class project have students send messages with flashlights using Morse Code.

D. Borrow some Braille books from public library. Have students translate the message.

E. Make it a point to show that fingerspelling, lipreading, and signs are all forms of code.

VI. Resource Materials

A. Films

1. Communications Primer, Eames

2. Eye of the Beholder, Reynolds

3. Getting Yourself Across, MGH

4. Is There Communication When You Speak?, MGH

5. Person to Person Communication, MGH

6. Say What You Mean, MGH

7. 8 mm Single-Concept Films (Fingerspelling Series), CFD
B. Filmstrips

1. Can You Tell Why?, EG
2. Select the Right Words, EG

C. Supplementary reading

I. Film Summary

This film explains the concepts underlying business competition and shows how competition and its key factor, variety, are basic to our free enterprise system. We learn how competition, both direct and indirect, works on several levels, including price, service, quality and the development of new and improved products.

II. Purpose of the Film

A. To introduce students to the concept of competition in business

B. To introduce students to the concept of variety in our free enterprise system

C. To understand how competition works in (1) price, (2) service, (3) quality, and (4) the development of new and improved products

III. Preparation for the Film

A. Preview the film and select objectives.

B. Vocabulary
Nouns
variety
wants
service company
product
funds
staff
buyer resistance
free enterprise
competition
firms

Verbs
causes
benefits

Adjectives
important
stiff (competition)

important
stiff

C. Selected idioms and expressions
variety is the spice of life
further improve
our stiffest competition
something new to offer
tooling-up costs
advertising campaign
had our biggest headache
on several levels
good credit terms
become popular

freedom of choice
direct (indirect) competition
sell enough to show good profits
better than average
things got hotter
eye-catching packaging
in the business world
submitted bids
like its looks

IV. Motivation
A. Introduce the idea of competition through a discussion of competition in sports.
B. Question students about their ideas and values with respect to competition in academic areas.
C. Question whether competition always has good effects.
D. Is the spirit of competition unique to man alone?

V. Followup
A. Discuss the idea of free enterprise. Does it exist everywhere in the world? Why or why not?
B. Discuss the different types of businesses that engage in competition.

C. Discuss the factors that make sport and scholarship competition vital.

D. Interview a businessman to determine the type of competition his firm fears or welcomes.

VI. Resource Materials

A. Films

1. Engineering of Agreement, Roundtable
2. Introduction to Work Sampling, UCF
3. People Sell People, MTP
4. Your Share In Tomorrow, IFF

B. Filmstrips

1. Looking at Business Careers, MGH
2. Communication in Modern Life, MGH

C. Books

PRUDENCE CRANDALL  
(Profiles in Courage Series)

A Captioned Film  
for  
Advanced Level

By Arrangement with  
Robert Saudek Associates

Captioned Films for the Deaf  
U.S. Office of Education  
Washington, D.C.

Time:  50 minutes  
Black and White

I. Film Summary

This is the story of Prudence Crandall, a Quaker teacher, who started the first school for Negro girls in Windham, Connecticut in 1833. The film portrays her struggles against prejudice, hostile community attitudes, and legal attempts to close the school.

II. Purpose of the Film

A. To show the courage of Prudence Crandall in her struggle to establish educational opportunities for Negro women

B. To illustrate the varying roles and responsibilities of an individual, e.g., teacher - wife - friend, etc.

C. To show some effects of prejudice, fear, and anger

III. Preparation for the Film

A. Preview the film and select objectives.
B. Choose basic vocabulary.

1. A partial list of characters

   Miss Prudence Crandall (Mrs. Calvin Philleo)
   Reverend Calvin Philleo
   Sarah Harris
   Andrew Judson
   Reverend May
   Dr. Fenner

2. Selected vocabulary

   abolitionist   adultery   crusader
   demolished    deportment  fortitude
   foul-polluted  fret        hypocrite
   issue         jeopardy    journalist
   moderation    mulatto     oppressors
   pageant       prudence    prejudiced
   prospered     salve       prudent
   Quaker        virtuous    to found

C. Selected idioms and expressions

   I don't follow you  strike a blow
   blow up the issue   post bond
   gird one's loins    a split jury
   to rail at          snarled my harness [archaic]
   to speak with some appetite [archaic]

D. Things to watch for in the film

   1. How Reverend May used Prudence Crandall to further his Abolitionist Movement
   2. How various individuals reacted because of fear, anger, prejudice, etc.
   3. How difficult it was for Prudence Crandall Philleo to choose between her role as a teacher and her role as a wife

IV. Motivation

   A. Display materials pertaining to past and present civil rights.
   B. Discuss the meaning, causes, and effects of prejudice.
   C. Discuss the background of the Abolitionist Movement.
V. Followup

A. Suggested discussion questions

1. Have you formed a strong opinion concerning civil rights?

2. Explain why Prudence Crandall might have been considered a very modern woman for her times.

3. If you had been Calvin Philleo, what would have been your feelings and reactions toward your wife's activities?

4. What is your opinion of civil rights demonstrations as a means of achieving equal opportunity?

B. Suggested activities

1. Impromptu dramatization of certain roles

2. Class playwriting activity based on current civil rights incidents

3. Arrange a debate between those having differing opinions about civil rights.

IV. Resource Materials

A. Films

1. All the Way Home, ADL

2. The Challenge, MT

3. Segregation in the School, NGH

B. Books


FILING PROCEDURES IN BUSINESS

A Captioned Film for Advanced Level

By Arrangement with Coronet Films


Time: 14 minutes

I. Film Summary

The film shows a step-by-step breakdown of the procedures for record-keeping in a typical business office, including the preparation of records for filing, retrieval and transfer to storage. The film shows the different methods of file organization, such as alphabetical, numerical, geographical and by subject.

II. Purpose of the Film

A. To show several systems of filing information
B. To show the need for an efficient filing system
C. To expose students to the occupation of record assistant

III. Preparation for the Film

A. Preview the film and select objectives.
B. Choose basic vocabulary.

annually architects certain (particular) classify coded correspondence helpful incoming initials inspect insurance knowledge received records related removed request retrieved
B. Vocabulary (continued)

duplication  lawyers  retrieving
duplicator  letterhead  separate
enengineers  miscellaneous  serve (aid)
enlarged  stockroom  order (request/arrangement)
files  organization  tabs
filing  prepared  transfer
guides  quantities  underscore

C. Selected idioms and expressions

electronic machines  letter's location  stored information
entire folder  filing departments  release mark
out folder  filing system  record assistants
slash marks  filing procedures  coding marks
special places  separating guides  requisition card
divided into units  alphabetical order  cross-referencing
primary guides  special sheet  primary unit
latest date  secondary unit  seldom used
according to  numerical file  charges it out
personnel records  out card  subject-headings
subject files  geographic file  executive files
microfilms  open shelf files  related records
storage space  microfilm records  credit bureaus
elevator files  a case is closed  stamped with the date
read from front to rear  electronic data processing system

D. Things to watch for in the film

1. The different systems for filing information
2. The three reasons for using a filing system
3. The importance of knowing alphabetical order
4. The coding system used to prepare correspondence for filing

IV. Motivation

A. Gather two dozen letters, bills, advertisements, etc. Contrast the time it takes a pupil to find information before and after organization of a filing system.

B. Ask pupils to develop their own system for organizing and retrieving information.
V. Followup

A. Suggested questions

1. Why do businesses require a filing system; list reasons mentioned in the film?

2. What are the different systems for filing information?

3. Describe the preparation of a letter before filing.

4. When would a letter be cross-referenced?

5. What are the advantages of microfilming records?

6. What are the advantages of electronic data processing systems over manual systems?

B. Suggested activities

1. Visit the principal's office, nurse's office, and library to see what types of systems are used.

2. Assign a student to do library research and report on electronic data processing.

VI. Resource Materials

A. Films

1. Filing Procedures in Business, COR

2. A Matter of Some Urgency, CFD

B. Filmstrips

1. Files and Filing, MGH

2. Filing, Finding, Followup, MGH

3. Getting a Job and Keeping It, MGH

4. Looking at Business Careers, MGH

5. Progressive Filing Methods and Procedures, MGH

6. Progressive Filing Series, MGH
C. Filing Kit

Gregg Quick Filing Practice, MGH

D. Book

A FILM ON UNICOM

A Captioned Film
for
Advanced Level

By Arrangement with
National Lumber Manufacturers

Captioned Films for the Deaf
U.S. Office of Education
Washington, D.C.

Time: 30 minutes
Color

I. Film Summary

This is a public relations film intended to demonstrate the benefits of the use of Unicom in designing and erecting prefabricated buildings. Through the use of uniform modular dimensions, the components of buildings are prepared and assembled in a quicker, more efficient and less expensive manner.

II. Purpose of the Film

A. To demonstrate the Unicom method of building construction, i.e., prefabricated housing
B. To introduce students to a particular type of building design
C. To develop an understanding and appreciation of building construction

III. Preparation for the Film

A. Preview the film and select objectives.
B. Vocabulary

Nouns
materials  methods  builder
producer  design  symbol
uniformity  components  installation
job-site  modules  dimensions
B. Vocabulary (continued)

<table>
<thead>
<tr>
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<th>grid</th>
<th>trusses</th>
<th>slope</th>
<th>fabrications</th>
<th>sheathing</th>
<th>seams</th>
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C. Selected idioms and expressions

- on the move
- with the growing demand
- on center
- keep track of
- controlling factor
- soundly built
- reasonably priced

IV. Motivation

A. Have students collect blueprints of several houses and compare the varying dimensions.

B. Discuss building construction and housing in general.

C. Visit a local construction site.
V. Followup

A. Revisit construction site and look for:
   1. types of materials used, e.g., 2 X 4 studs, plywood, tongue and groove boards
   2. placement of joist, 11 course basement, bridging, use of a double header
   3. sequence of house construction

B. In the school shop, build a scale model home.

C. Discuss the pros and cons of prefabricated construction versus on-the-site construction.

VI. Resource Materials

A. Films
   1. The Hardwood Story, MTP
   2. Houses Have Four Sides, CFD
   3. The Lumber Yard, CFD
   4. Make a House Model, CFD
   5. Miracle in Wood, American Plywood Association
   6. Perpetual Harvest, Telesound Film Recording

B. Filmstrips
   1. Hammers, Screwdrivers, Nails and Screws, STC
   2. Hand Saws for Woodworking, STC
   3. How We Get Our Homes, SVE
   4. The Story of the Building of a House, EG

C. Books


I. Film Summary

This film shows the courage of Hamilton Fish, who served as Secretary of State under President Ulysses S. Grant. Despite pressures to the contrary, Fish urged diplomacy as a means of settling the Cuban rebellion against Spain. His diplomacy resulted in the abolition of slavery in Cuba and the establishment of a principle of non-aggression that became a keystone of American foreign policy.

II. Purpose of the Film

To show the courage and determination of Hamilton Fish in his stand that diplomacy was preferable to bloodshed in settling disputes between nations.

III. Preparation for the Film

A. Preview the film and select objectives.

B. Choose basic vocabulary.

1. Partial list of characters

   Hamilton Fish    John A. Rawlins    Señor Lemus
   President Grant  Bancroft Davis    Mr. Brewster
2. Selected vocabulary

abolish
accusation
adjutant
armistice
basis
betray
blighted
bloodshed
blunt
bond
bribed
butt
Cabinet
charity
cheated
collapsed
compliment
confidential
consolate
consumption
the Continent
convene
corrupt
defrauded
detective
diplomat
dupe
earnest
cloquent
essentials
expansionists
footnote
formidable

gain
guarantee
gulled
hedge (v.)
hemisphere
hideous
hoodwinked
hotheads
ill-equipped
incompetent
indefinitely
integrity
intensity
launch (v.)
medicate
misery
monstrous
muster
mutes
negotiations
non-aggression
obligations
oppression
optimism
otherwise
outraged
pension
persuasive
pessimism
popularity
principle
proclamation
profit

proposition
pussyfoot
rebellion
rebuke
recipient
recommend
recruiting
reputation
resign
resignation
resolved
round
rumor
satisfy
solution
stalemated
strategist
swindled
swindler
symptoms
thin-skinned
treasure (v.)
turmoil
unique
vague
variety
warmongers
widow
witlessly
wound (n.)

3. Selected idioms and expressions

public sentiment
a diplomatic post
a stuffed shirt
wages of corruption
wages of sin
sit on it
public confidence
blacken your name
fellow creature
draw a breath
at stake
full face value
stop a tidal wave with a
shovelful of sand

men of good faith
recognize a government
heart of the agreement
an incurable optimist
mount an invasion
bled to death
until hell freezes over
split...down the middle
gristly game
what their gain is
fatten their purses
pull a rabbit out of your hat
the keystone of American foreign policy
C. Things to watch for in the film

1. The opinions of Bancroft Davis regarding the members of Grant's Administration
2. The influence of Bancroft Davis upon Hamilton Fish
3. John Rawlins' personal reasons for wanting American involvement in Cuba's revolution against Spain
4. Grant's indecision regarding the Cuban crisis
5. The devious methods of John Rawlins in his dealings with President Grant, Senor Lemus, and Hamilton Fish on the Spain-Cuba issues
6. The contrast between Rawlins' emotional attack on Fish and Fish's straightforward defense in their final confrontation during the Cabinet meeting

IV. Motivation

A. Pupils should have a background knowledge of social-economic-political conditions following the Civil War.

B. Discuss the background history of Cuba from the landing of Columbus to the struggle against Spain in 1868.

V. Followup

A. Suggested discussion questions

1. Discuss Hamilton Fish's reasons for accepting the position of Secretary of State and Grant's reasons for selecting him.

2. Discuss Grant's reasons for appointing John A. Rawlins as Secretary of War.

3. Discuss the political corruption during Grant's administration.

4. Discuss the qualifications and personality traits most needed by a person seeking a diplomatic career.

5. Discuss the relationship between Bancroft Davis and Hamilton Fish.
B. Suggested activities

1. Contrast the number of Cabinet posts existing during Grant's administration with the number of Cabinet posts in the present administration.

2. Have each pupil write a biographical sketch of Ulysses S. Grant.

3. Contrast the reasons behind the Cuban Revolution in 1869 with the 26th of July Movement led by Fidel Castro.

VI. Resource Materials

A. Film

1. *Grant- An Improbable Hero*, MGH

B. Filmstrip

1. *Ulysses S. Grant*, EG

C. Books


FLUIDS IN MOTION

A Captioned Film
for
Advanced Level

By Arrangement with
Modern Learning Aids

Captioned Films for the Deaf
U.S. Office of Education
Washington, D.C.

Time: 28 minutes

I. Film Summary

This film has been prepared in an effort to overcome the fallacy that gases, particularly air, are not fluids. Various visual stimuli clearly convince the viewer of the fluidity of air and water.

II. Purpose of the Film

A. To illustrate Burdooley's Principle, i.e. when a fluid flows, pressure drops
B. To show the fluidity of various gases, especially air
C. To describe the expansion and contraction of air

III. Preparation of the Film

A. Preview the film and select objectives.
B. Vocabulary

<table>
<thead>
<tr>
<th>Nouns</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>pipe</td>
<td>fluids</td>
<td>bottle</td>
</tr>
<tr>
<td>funnel</td>
<td>fluted edges</td>
<td>bubbles</td>
</tr>
<tr>
<td>gasoline</td>
<td>differences</td>
<td>air</td>
</tr>
<tr>
<td>liquid</td>
<td>salad oil</td>
<td>drop</td>
</tr>
<tr>
<td>hole</td>
<td>nozzle</td>
<td>saucer</td>
</tr>
</tbody>
</table>

219
Nouns (Continued)
gas beam screen
Freon refrigerator tank
heater convection current gravity
tricks candle pump
motor switch stream of water
aquarium transformer force
hydrofoil pontoons speed
paper clip column syrup
air stream helium oxygen
pigeon Burdooley's Principle counterweight
pivot metal rotor
flight suction cup

Verbs
shooting up holding up investigate
pour describe prove
remember flow in (out) sinks
connect bump support
hand are winded point
curved direct

Preposition
underneath

Adverbs
actually definitely

Adjectives
clear (glass) hard (difficult) full
sharp (shadow) wide narrower
geasy lightweight practical
actual messy

Participles
overflowing splashing

tell me what happens up with this hand
whoops! much the same way
flow like water higher the pressure
not sure that lower the pressure
prove that to me lifts them out
that is used we don't normally
they're the same but... through the air
act much like

D. Gather materials necessary to perform experiments shown in film.
IV. Motivation

A. Have three separate vials prepared with water, salad oil and air. Ask students how many fluids are present. Encourage them to look for answer in film.

B. As students enter room, have small balloon suspended on a steam of water. Question them as to how this principle works.

C. Prepare flannel board pieces which will not only depict fluids but which can later be labelled.

V. Followup

A. Perform experiments illustrated in film.

B. Encourage students to perform at home the experiments with the garden hose and balloon as described in film. Have students submit written report on effects of water pressure.

C. Have students prepare a list of experiments which illustrate the fluidity of air, water and other gases.

D. Have students draw diagrams illustrating fluids in motion.

VI. Resource Materials

A. Films

1. Introducing Air, CFD

2. Properties of Liquids, CFD

3. Solids, Liquids and Gases, MGH

4. States of Matter, CFD

5. Water and What It Does, CFD

B. Filmstrips

1. Air Around Us, SVE. 435-7

2. Air Conditioned Planet, (Mysteries of Water), EG, 3B

3. Air Works for Man (Grades 7-9), JH
4. Chemical Changes, SVE. 427-4
5. Classification of Matter, EBF, 9080 (series)
6. Earth's Blanket of Air, SVE. 410-2
8. First Experiments With Air Series, JH
   a. Air is Everywhere
   b. Air is Real
   c. Air Helps Things to Float
   d. Air Pushes Against Things
9. Matter and Molecules, EG. 177E
10. Our Earth: Land, Water and Air, SVE. 410-1
12. Water and Its Importance, EG. 43A
13. What is Air Pressure (Grades 7-9), JH

C. Books
I. Film Summary

This film indicates that by subjecting individual substances to certain tests a scientist can determine their content and usefulness. Various materials undergo several analytical tests for solubility, conductivity, iodine solution, formula, and melting point. All tests are recorded on a chart as written proof of substance content.

II. Purpose of the Film

A. To indicate the chemical content of several materials such as sugar, salt, and hypo
B. To show the types of tests which may be used to determine chemical content
C. To identify materials that look alike but have different chemical contents

III. Preparation for the Film

A. Preview the film and select objectives.

B. Vocabulary

Nouns
analytical chemist  sugar  salt
hypo  sodium-thio-sulfate  leather
Nouns (continued)
cyanide  iodine  ringworm
cardboard  powder  letter
particles  scientist  crystals
microscope  structure  center part
face shapes and angles  cube  handbook
information  grams  solubility
centimeters (cc)  temperature  wires
buzzer  current  iodine solution
conclusions  melting point  carbon
chemical  chlorine gas

Verbs
task  decide  evaporate
condense  grind  dissolve
develop  discover  chokes
decompose

Adjectives
effective  oblong-shaped  sugary
finer

Adverb
finally

Participles
bleaching  poisoning  bubbling

C. Selected idioms and expressions
ought to  number of tests  series of tests
become clear  as a fixer  take a closer look
have been broken  much about them  condenses into crystals
needn't know  nothing so far  shows what happens
squeeze the lemon

D. Gather materials for experiments listed in film.

IV. Motivation
A. Place containers of several similar-looking items on the desk, e.g., sugar and salt, flour and corn starch, liquid coffee and coke. Ask students to identify each item by simply looking at them.
B. Ask why sugar and salt cannot be used interchangeably, especially on food.
C. Dilute sugar and salt in separate beakers. Ask for volunteers to taste each solution to determine its content.
V. Followup

A. Perform experiments listed in film.

B. Dissolve sugar and salt in separate beakers. Dip weighted string into each solution. Note the type crystals which form on each string as it dries.

C. Have students plan additional experiments to be used to determine the conductivity of other solutions.

VI. Resource Materials

A. Films

1. Catalysis, Suth
2. Chemical Changes, CFD
3. Chlorine, Suth

B. Filmstrips

1. Science Experiments, SVE, 436-2
2. Some Things Dissolve, MGH
3. Understanding Chemical Change, MGH
4. What Things Are Made of, SVE, 427-20

C. Books

SAM HOUSTON
(Profiles in Courage Series)

A Captioned Film
for
Advanced Level

By Arrangement with
Robert Saudek Associates

Captioned Films for the Deaf
U.S. Office of Education
Washington, D.C.

Time: 50 minutes
Black and White

I. Film Summary

The film shows the courage of Sam Houston when he chose to oppose the
secessionists in Texas. Houston ran for Governor as an Independent on an
antisecession platform. He believed that without the Union there was no
Texas. In spite of Houston's efforts, Texas voted to secede from the Union
in 1861, and the Confederates removed him from office. Houston withdrew from
political life, but refused to give up his principles.

II. Purpose of the Film

To show the personal courage of Sam Houston in his devotion to the Union
and Texas in the face of overwhelming odds and loss of political office

III. Preparation for the Film

A. Preview the film and select objectives.

B. Choose basic vocabulary.

1. Partial list of characters

   Sam Houston  Margaret Houston  Edward Clark
2. Selected vocabulary

accompany  accompany  accomp  accomplish
accompany  allegiance  allegiance  allay
appreciate  appreciate  appreciate  appraise
archives  archive  archives  archery
Austin  Austin  Austin  Austin
bandits  bandits  bandit  bandits
baptized  baptized  baptized  bathe
bayonets  bayonets  bayonets  bayonet
campaign  campaign  campaign  campaign
campaign  campaign  campaign  campaign
courtesy  courtesy  courtesy  consider
despair  despair  despair  despair
disperse  disperse  disperse  disperse
divan  divan  divan  divan
downfall  downfall  downfall  downfall
eagle  eagle  eagle  eagle
fiery  fiery  fiery  fiery

C. Selected idioms and expressions

take measures  a compromise candidate  A mule doesn't belong in
sweep the state  dangers  A mule doesn't belong in
ruffled up  oath of allegiance  They want no part of me.
national issues  flea barking at a lion  I have watered it (Texas)

D. Things to watch for in the film

1. Sam Houston's violent temper, gruff manner, and strong ideals
2. Sam Houston's use of physical force to relieve pent-up emotion, e.g.,
   chopping wood, whittling, slashing with his sword, etc.
3. Margaret Houston's calm, persistent manner
4. Edward Clark's unwillingness to commit himself on the issue of
   secession

IV. Motivation

A. Discuss Sam Houston's leadership in the fight for the Independence of
   Texas from Mexico and his role in the admission of Texas into the Union.
B. Discuss the Kansas-Nebraska Act of 1854 and how it relates to earlier
   compromises.

V. Followup

A. Suggested discussion questions

   1. In the film, Houston said he watered Texas with his blood. Explain.
2. Discuss why Houston ran as an Independent rather than as a Party candidate.

3. Discuss Houston's arguments for Texas remaining in the Union and their validity.

B. Suggested activities

1. Have each pupil write a biographical sketch of Sam Houston.
2. Prepare a bulletin board using pictures of famous Texans and important locations in the history of Texas.
3. Prepare a time-line including important events in Sam Houston's life.

V. Resource Materials

A. Film

   The Civil War, CFD

B. Filmstrips

   1. The Causes of the Civil War, SBC
   2. Sam Houston, SBC
   3. Texas' Colorful Past, Texas Highway Department - Travel and Information Division, Austin

C. Books

I. Film Summary

This film shows Anne Hutchinson's struggle for religious freedom in the Massachusetts Bay Colony in the 1630's. The story tells in detail her controversy with the Governor and the Church authorities over spiritual values and matters of conscience. It includes her final banishment from the Colony and her excommunication from the Church.

II. Purpose of the Film

A. To show Anne Hutchinson's courage in following her conscience and her religious convictions in spite of the consequences to her and her family

B. To show the struggle involved in the search for religious freedom

III. Preparation for the Film

A. Preview the film and select objectives.

B. Choose basic vocabulary.

1. Partial list of characters

<table>
<thead>
<tr>
<th>Anne Hutchinson</th>
<th>Will Hutchinson</th>
<th>Governor Winthrop</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mr. Wilson</td>
<td>Mr. Cotton</td>
<td>Mr. Wheelwright</td>
</tr>
<tr>
<td>Mr. Trenshaw</td>
<td>Mr. Brackett</td>
<td>Bridget</td>
</tr>
</tbody>
</table>
2. Selected vocabulary

abundance  hesitate  revenge
adult      inconsistent  riot
authorities  indebted  ritual
barter    insolent  rival (adj.)
betrayal  leper  rude
blasphemy  lessees  salvation
clergy    loophole  savages
cloak    merchant  secretive
community  midwife  sedition
congregation  minister  Separatist
conscience  naughty  shackles
criticize  neglect  spies
dictates  oath  spires
dissension  obedience  split
duty      opinion  stocks
elders    opposition  strangle
excommunication  persuade  stubborn
fainthearted  physician  threaten
guidance  practical  thrifty
heathen  pulpit  tyrant
herbs    rebellion  wilderness
hersy    retreat (v.)

C. Selected idioms and expressions

country is a storehouse  tightening up discipline  a public nuisance
matter of conscience  poisoning the mind  playing with fire
a spiritual retreat  profane language  hold your tongue
underhand methods  worldly interest  feel like Judas
pass the time  cast you out

D. Things to watch for in the film

1. The comic relief provided by the men in the stocks

2. Mr. Wilson's hatred of Anne Hutchinson because of her threat to his authority

3. Mr. Brackett's observations regarding his American son and the differences between their dreams

4. The warning that Mr. Cotton gives to Anne Hutchinson about the potential danger of her discussion group and its effect on the safety of the whole colony

5. Mr. Trenshaw's treachery to Anne Hutchinson

6. Mr. Hutchinson's acceptance of Anne's actions

7. The admiration of the community for Anne Hutchinson's good works
IV. Motivation

A. Pupils should have a knowledge of the founding of the Massachusetts Bay Colony and the continuing search for religious freedom.

B. Prepare a bulletin board display on the American Colonies that were founded for the purpose of religious freedom.

C. Discuss the meaning of "conscience" and how it can contribute to the building of character.

V. Followup

A. Suggested discussion questions

1. Why did Governor Winthrop and Mr. Wilson feel threatened by Anne Hutchinson's religious beliefs?

2. Discuss some of the changes that are taking place within present-day religions, e.g., the ecumenical movement, the church's involvement in socio-economic problems of the community, the modification of rulers, etc.

B. Suggested activities

1. Have each pupil write a biographical sketch of Anne Hutchinson.

2. Have each pupil write a biographical sketch of other Colonial religious leaders, e.g., William Penn, Roger Williams, etc.

3. Have each pupil write a news item about any part of the Anne Hutchinson story that might have been published at that time; include headlines, editorials, and factual accounts.

VI. Resource Materials

A. Films

1. William Penn and the Quakers, COR

B. Filmstrips

1. Freedom of Worship, CF

2. New England Colonies, SBC

3. The Pilgrims and the Puritans, SVE

4. Roger Williams, MCH

5. Roots of Religious Freedom, JH
C. Books


ANDREW JOHNSON
(Profile in Courage Series)

A Captioned Film
for
Advanced Level

By Arrangement with
Robert Saudek Associates

Captions Films for the Deaf
U.S. Office of Education
Washington, D.C.

Time: 50 minutes

Black and White

I. Film Summary

This film takes place during the Campaign of 1860 when the nation was involved in the turmoil of pre-Civil War. Johnson's staunch fight to maintain his border state of Tennessee as part of the Union is stirringly portrayed.

II. Purpose of the Film

To show Andrew Johnson's personal courage in advocating the necessity for Tennessee to remain with the Union during the Civil War.

III. Preparation for the Film

A. Preview the film and select objectives.

B. Choose basic vocabulary.

1. Partial list of characters

<table>
<thead>
<tr>
<th>Character</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senator Andrew Johnson and son, Robert</td>
</tr>
<tr>
<td>Senator Alfred Nicholson</td>
</tr>
<tr>
<td>William Brownlow and son, John</td>
</tr>
<tr>
<td>Tom Nelson</td>
</tr>
<tr>
<td>Senator Wigfall</td>
</tr>
<tr>
<td>Mrs. Eliza Johnson</td>
</tr>
</tbody>
</table>
2. Selected vocabulary

abolition  foreign powers  referendum
"Black Abolitionist"  Fort Sumter  secession
border states  Fugitive Slave Law  stockholder
canvas (vb.)  Homestead Bill  treason
committee  House of Representatives  treasury
confederacy  legislature  unconstitutional
convention delegate  Magna Carta  union buster
Democrat  military governor  veto
effigy  mint  vicious
election campaign  official dispatch  Whig

C. Selected idioms and expressions

here's to you!  Campaign of Terror
hold up his head  no set answer
federal government's rights  owe to my constituents
it won't pass  deeper in enemy country
he'll come back fighting  under military rule
leave the Union  Cotton is King!
State of the Union speech

D. Things to watch for in the film

1. Johnson's inherent love for the Union and his steadfast opposition to secession

2. The strong feelings against Johnson as a person aroused by the politicians who favored secession from the Union

3. The political issue which caused Johnson's worst personal enemy to rescue him in the face of danger

IV. Motivation

A. Pupils should have a background knowledge of events leading to the Civil War, especially Lincoln's election.

B. Discuss the meaning of: border states, secession, Union, Confederacy, Greys, Northern States, Southern States, State Sovereignty.

C. Discuss the idea of state treason versus individual treason.

D. Prepare a bulletin board illustrating in color the Northern Border States.
V. Followup

A. Suggested discussion questions

1. Why was Andrew Johnson opposed to Tennessee's secession from the Union?
2. What did the South hope to accomplish by secession?
3. Why was a State Convention called prior to secession? Why was it followed by a referendum?
4. Should the state have abided by the result of the referendum?
5. Was Johnson correct in maintaining a stand against his State of Tennessee?

B. Suggested activities

1. Have students participate in a debate: States Rights vs. Civil Rights.
2. Discuss the factors that cause people to react with violence toward political issues.
3. Prepare a class newspaper reporting several of the issues noted in the film.
4. Prepare a mock State Convention called for the purpose of discussing secession.

VI. Resource Materials

A. Films

1. A Day in Congress, FI
2. History of the Negro: Freedom Movement, MGH
3. The Man on the Hill, USA
4. Pressure Groups, EBF
5. Voices of the People, OWI

B. Filmstrips

1. American History Series, Sets 1 to 4, MGH
2. Basic Ideas of Democratic Government, MGH
C. Books


I. Film Summary

The procedures used in dry cleaning and laundering are depicted in this film. Various occupations involved in these processes such as sorters, cleaners, pressers, and packagers are explained, including the names of the machines. Although this film is dated (by the people's dress), it covers the basic process involved in laundering and dry cleaning.

II. Purpose of the Film

A. To show the operations of a dry cleaning and laundry establishment

B. To show that specialization results in efficiency

C. To stress that cleanliness and good grooming make for a feeling of well-being

D. To foster an appreciation of, and respect for, the laundry and dry cleaning worker as respected members of the community

E. To show that clothes last longer and look better when dry cleaned

III. Preparation for the Film

A. Preview the film and select objectives.
B. Gather visual aids.

1. A few soiled articles
2. Soap
3. Water
4. Stiff brush
5. Wash board

C. Select desired vocabulary.

<table>
<thead>
<tr>
<th>Nouns</th>
<th>Unloading station</th>
<th>Wash day</th>
<th>Extractor drum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Products</td>
<td>Drying machine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wash wheels</td>
<td>Sleeves</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A service</td>
<td>Folds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Centrifuge</td>
<td>Hand iron</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wrinkles</td>
<td>Fluids</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flat work</td>
<td>Stiff brush</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer</td>
<td>Patience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extractor</td>
<td>Conveyors belts</td>
<td></td>
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<tr>
<td>Stain</td>
<td>Baskets</td>
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<td>Bundles</td>
<td></td>
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<td>Housewife</td>
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<table>
<thead>
<tr>
<th>Verbs</th>
<th>Renew</th>
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<tr>
<td>Tagged</td>
<td>Pressed</td>
<td>Cleaned</td>
</tr>
<tr>
<td>Delivered</td>
<td>Beating</td>
<td>Ironed</td>
</tr>
<tr>
<td>Folded</td>
<td>Packaged</td>
<td>Returned</td>
</tr>
<tr>
<td>Take out (wrinkles)</td>
<td>Shake</td>
<td>Removed</td>
</tr>
<tr>
<td>Handled</td>
<td>Marked</td>
<td>Balance</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Adjectives</th>
<th>Well dressed</th>
<th>Neat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry cleaned</td>
<td>Experienced</td>
<td>Deep</td>
</tr>
<tr>
<td>Automatic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Special (times, machines, care)</td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Adverbs</th>
<th>Carefully</th>
<th>Evenly</th>
</tr>
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<tbody>
<tr>
<td>Thoroughly</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Multiple meaning | Laundry referring to a place | Laundry referring to clothes |

D. Selected idioms and expressions

- Clothes make the man
- Damp enough
- Really know how
- Last a long time
- Want to please
- One after another
- Designed for
Motivation

A. Ask the class the question: "Why should we send clothes to a commercial dry cleaner?" Try to evoke such answers as: It is safer, easier, and clothes last longer.

B. Discuss the need of cleanliness and good grooming to insure health and general well-being.

C. Discuss the fact that expensive clothes or new clothes are not needed to be well-groomed.

Followup

A. Suggested questions

1. Why do people take their clothes to the launderers and to dry cleaners?

2. How many different jobs are entailed in the cleaning of one garment?

3. Which job do you think is the most important? Why? (In the film one job is just as important as the other.)

4. Which job do you think is the most difficult? Why?

5. How are your clothes washed?

6. How are they dried?

7. How do soap and water clean?

8. How do cleaning fluids clean?

9. Which method is easier on clothes? Why?

10. Why do three different people work on pressing one shirt? (Specialization speeds the process)

11. What is the difference between a laundry and a dry cleaning establishment?

B. Suggested activities

1. Take the class on a field trip to a local commercial laundry and a cleaning establishment, or to the school laundry.

2. Make a bulletin board tracing the history of washing clothes from the time clothes were washed in river beds and wells to modern times.

3. Wash soiled articles using different methods which have been used in the past and compare the labor used and the results with modern methods.
VI. Resource Materials

A. Film

1. Your Clothing, CPD

B. Filmstrips

1. Clothes and Why We Wear Them, NO. 5764, EBF
2. Proper Clothes and Their Care, NO. 5765, EBF

C. Study Print

1. Appearance Helpers, SBC
I. Film Summary

This film tries to inspire young boys to take up a trade in such detailed occupations as tool and die making, layout work, and setup work. It explains the importance of machines and machinists and then goes on to discuss the work involved in some of their jobs. The length of time needed to become certain tradesmen is also discussed, along with a suggested list of aptitudes.

II. Purpose of the Film

A. To encourage teenage boys to look into the possibilities of a future occupation in tool and die making, layout work, and setup work

B. To foster the idea that these skills are very detailed and require a great deal of patience and accuracy

C. To explain why an apprenticeship is necessary

D. To relate these jobs to our technical society

E. To generate respect for these men and their jobs

III. Preparation for the Film

A. Preview the film and select objectives.
B. Select desired vocabulary.

**Nouns**
- machines
- gear rods
- rough spots
- external grinder
- damage
- aluminum
- jigs
- blueprint readings
- adjustments
- scribe
- ground crews

**Verbs**
- repair
- operate
- remove

**Adjectives**
- responsible
- power-driven
- semi-skilled
- well-fed

**Adverbs**
- without

C. Selected idioms and expressions

- all sizes and shapes
- life is hard without
- pieces of metal
- as thin as hair
- good enough
- almost perfect
- passed on (give to)
- grind off

- step by step
- all-around
- get ready
- make is possible
- exactly alike
- still needed
- on-the-job training
- think for itself

IV. Motivation

A. If possible, visit the shop department in your school and watch some of the advanced students using the different kinds of machines. Let students watch the making of one article, if at all possible. Then discuss uses and operation of the machine.

B. Discuss our technological development and its causes and effects on our economy, our cultural patterns, etc.
C. Count how many different kinds of machines you used before coming to school today; e.g., toaster, electric frying pan, electric toothbrush, car, etc.

D. From the information in the film, calculate how many years it takes to become a layout man.

V. Followup
A. Suggested questions
1. Why do tool and die makers have to be so precise?
2. If you had a choice of all the jobs you saw in the film, which do you think you would prefer?
3. How many years does it take to become a layout man?
4. How old do you have to be before you can begin learning a trade?
5. Where can you learn a trade?
6. List 5 machines which you have observed in the film.
7. In what ways are working in a factory and working in a school shop similar? In what ways are they different?
8. What are gauge blocks?
9. What is a surface grinder?
10. What is a milling machine?

B. Discussion questions
1. Do you think that machines will eventually take over all the jobs in the future?
2. How many jobs can you think of that have been replaced by machines in the last ten years? Do you think that this is good?
3. What kind of machine would you like to see invented? e.g., a house-cleaning machine, a robot.

C. Suggested activities
1. Take a field trip to a small machine shop.
2. Have students research and give reports to class about various machining trades. Include:
   a. necessary education
   b. qualifications
   c. pay

3. Relate the basic operation of various machines to the basic 6 simple machines.
   a. lever
   b. incline plane
   c. screw

VI. Resource Materials
   A. Films
      1. ABC's of Hand Tools, GMAC
      2. Bright Steel, MTP
      3. Die Casting-How Else Would You Make It, MTP
      4. Precision Toolmaking and Machining, MTP
      5. Technology And You, Neubacher
      6. You Can Go Along Way, Crawley
   
   B. Filmstrips
      1. Care and Use of the Shaper, No. 6262, MGH
      2. Evolution of Machines In Industry, No. 6258, MGH
      3. Introduction To Machining, JH (note: 3 kits, total of 16 films)
   
   C. Books


I. Film Summary

This film shows tools and procedures used in the construction of a scale model home. Beginning with the blueprint drawing, each step in the building of the house is followed to its completion.

II. Purpose of the Film

A. To show the importance of accurate work and measurement
B. To show the patience and skill required of an architect
C. To show the procedure for building a scale model house

III. Preparation for the Film

A. Preview the film and select objectives.
B. Choose basic vocabulary

| attention | location | solidity |
| architects | model | tacky |
| backing | penetrate | trimming |
| beams | perimeter | warp |
| blossoms | permissible | blueprint |
| plot | boundaries | porch |
| carport | represent | casement |
B. Vocabulary (continued)

<table>
<thead>
<tr>
<th>scored</th>
<th>excess</th>
<th>section</th>
</tr>
</thead>
<tbody>
<tr>
<td>flaps</td>
<td>shreds</td>
<td>inward</td>
</tr>
<tr>
<td>shrubbery</td>
<td>landscaping</td>
<td>siding</td>
</tr>
<tr>
<td>solidity</td>
<td>tacky</td>
<td>trimming</td>
</tr>
<tr>
<td>warp</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

C. Selected idioms and expressions

<table>
<thead>
<tr>
<th>tissue paper</th>
<th>sycamore tree</th>
<th>drafting machine</th>
</tr>
</thead>
<tbody>
<tr>
<td>ground plan</td>
<td>pin pricks</td>
<td>planning pays off</td>
</tr>
<tr>
<td>standard size</td>
<td>spring up</td>
<td></td>
</tr>
</tbody>
</table>

D. Things to watch for in the film

1. The use of water colors to paint the model
2. The scoring of paper prior to folding
3. The proper positioning of the cardboard backing
4. The proper use of glue
5. The preparation of materials for landscaping

IV. Motivation

A. Show pupils a completed scale model and have them describe how they would construct one.

B. Organize a bulletin board display of the important components needed for a model home, e.g., layout of wall section, roof, plot, shrubbery, etc.

V. Followup

A. Suggested questions

1. Discuss the reasons behind an architect's use of a model home.
2. Explain the need for accuracy when constructing a model home.

B. Suggested activities

1. Have pupils make simple models, e.g., dog house, bird house, garage, barn, etc.
2. Make a scale model of the school grounds and buildings.
3. Have each pupil make a scale model of his own house or apartment.

VI. Resource Materials

A. Films
   1. A Film On Unicorn, CFD
   2. Building America's Homes, NYSDC
   3. Houses Have Four Sides, CFD
   4. Shop Procedures-Mechanical Drawing, MGH

B. Filmstrip
   How We Get Our Homes, SVE

C. Books
MARY S. McDOWELL
(Profiles in Courage Series)

A Captioned Film
for
Advanced Level

By Arrangement with
Robert Saudek Associates

Captioned Films for the Deaf
U.S. Office of Education
Washington, D.C.

Time: 50 minutes  
Black and White

I. Film Summary

The courage of one woman, in following her conscience and remaining a pacifist during World War I, is stirringly portrayed. Mary McDowell's willingness to sacrifice her teaching position in order to uphold her political and religious convictions is the subject of this film.

II. Purpose of the Film

A. To point up the ideal of free conscience upon which America was founded

B. To portray a subject for the stability of one's convictions - both political and religious

III. Preparation for the Film

A. Preview the film and select objectives.

B. Choose basic vocabulary.

1. Partial list of characters

   Mary S. McDowell     Lili Koeller
   Fred Simpson         Mr. Ralson, Principal
   Mr. Schneider        Mrs. McDowell
2. Selected vocabulary

<table>
<thead>
<tr>
<th>attack</th>
<th>German</th>
<th>Red Cross</th>
</tr>
</thead>
<tbody>
<tr>
<td>beliefs</td>
<td>a hearing</td>
<td>religious freedom</td>
</tr>
<tr>
<td>Board of Education</td>
<td>Latin</td>
<td>self-protection</td>
</tr>
<tr>
<td>Board of Superintendents</td>
<td>loyalty</td>
<td>Society of Friends</td>
</tr>
<tr>
<td>constitutional right</td>
<td>Loyalty Oath</td>
<td>tenants</td>
</tr>
<tr>
<td>crusader</td>
<td>murderer</td>
<td>thrift stamps</td>
</tr>
<tr>
<td>curriculum</td>
<td>overseas</td>
<td>treason</td>
</tr>
<tr>
<td>Custodian of the Flag</td>
<td>pacifist</td>
<td>unpatriotic</td>
</tr>
<tr>
<td>fanatics</td>
<td>patriotism</td>
<td>violence</td>
</tr>
<tr>
<td>gas masks</td>
<td>peacetime</td>
<td>war effort</td>
</tr>
<tr>
<td>generations</td>
<td>Quaker</td>
<td>wartime</td>
</tr>
</tbody>
</table>

C. Selected idioms and expressions

- not feminine enough
- we've got nothing but time
- we must do our share
- declare our allegiance
- highest ideal of American citizenship
- follow this idea
- keep my beliefs to myself
- courage in her beliefs
- it's very noticeable
- makes sense sometimes
- for many generations
- right to my own conscience
- just pretend you're not
- a German national symbol

D. Things to watch for in the film

1. The foundation of Mary's religious and political convictions
2. The substitution of personal antipathies for patriotism
3. The early subtle attempts on the part of family, school and social acquaintances to influence Mary's convictions

IV. Motivation

A. Students should have an understanding of the meaning of pacifist, hawk, dove, and other terms connected with various wars and peace.

B. Students should be encouraged to explore and share their feelings about incidents in their lives which required the courage of their convictions.

V. Followup

A. Suggested questions

1. Where do Americans obtain their rights to certain basic freedoms?
2. Does any institution have the right to deny a person these basic rights? Are there ever any exceptions?
3. Is it possible to develop certain convictions based on a false premise?
4. Should one allow his religious beliefs to influence his political convictions?

5. Are teachers today required to sign a Loyalty Oath? Are any other professional people?

B. Suggested activities

1. Have students write a report on Mary S. McDowell, Right or Wrong?

2. Research the terms used in all 20th Century wars to designate those who were for or against the war.

3. Gather current articles which indicate pacifist activities.

4. Find the exact words of the Loyalty Oath.

VI. Resource Materials

A. Films

1. Date with Liberty, SC
2. Democracy, EBF
3. Don't Be a Sucker, OWI
4. The Great Rights, Brandon
5. House I Live In, YAF
6. Picture in Your Mind, IFF
7. Secure the Blessings, NEA
8. The Toymaker, Athena
9. Voices of the People, OWI

B. Filmstrips

1. Acceptance of Differences, No. 777-3, SVE
2. Recognition of Responsibilities, No. 777-4, SVE

C. Books

I. Film Summary

Although this film is primarily intended as a public relations film, it could be utilized to demonstrate the speed and efficiency of the duplicating and copying process. An excited office force is trying to expedite filling a rush order for supplies by using modern business machines.

II. Purpose of the Film

A. To demonstrate the use of such business machines as dry copier, photocopier, fluid duplicator, mimeograph and videograph

B. To show the advantages of fast, efficient, dependable services rendered by large companies

III. Preparation for the Film

A. Preview the film and select objectives.

B. Vocabulary

<table>
<thead>
<tr>
<th>Nouns</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>electronic parts</td>
<td>business</td>
<td>supply house</td>
</tr>
<tr>
<td>problem</td>
<td>circuit boards</td>
<td>capacitors</td>
</tr>
<tr>
<td>customer</td>
<td>paper work</td>
<td>ulcer</td>
</tr>
<tr>
<td>engineering</td>
<td>spec sheets (specs)</td>
<td>photo copier</td>
</tr>
<tr>
<td>volume</td>
<td>schedule</td>
<td>fluid duplicator</td>
</tr>
</tbody>
</table>
B. Vocabulary (continued)

Nouns
process
inmate
unit
videograph
capacity
representatives

press
offset
operator
input data
labels
advantages

Verbs
enables

embarrass

manufacture

Adjectives
heavy-duty
reasonable
sturdy
efficient
unemployed
apparent

dependable
ideal
fully-automated
bold
specific

photo-exact
simplest
popular
technical
quality

Adverbs
smoothly

immediately

obviously

Participle
erasing


C. Selected idioms and expressions

most of the time
cover all phases
as you can imagine
it covers the field
they’re enroute

cheap to operate
any leeway
behind schedule
face a penalty
follow-through

matter of some urgency
this put us in the big league
diffusion transfer photocopier
threw us another fancy curve
let us know

IV. Motivation

A. Plan a tour of the commercial department of the school or of a local business office which utilizes various business machines.

B. Ask a business machine sales representative to demonstrate a fast method of reproducing a class report.

V. Followup

A. Have students list the advantages of the various business machines shown in the film.
B. Have students comment on the advantages and disadvantages of working for a high production company.

C. There were various character studies manifest in the film. Have students discuss their reaction to these personalities.

VI. Resource Materials

A. Films

1. Office Etiquette, EBF
2. People Sell People, (2 parts), MT
3. People, Products and Progress: 1975, USCC
4. Person to Person Communication, McM-Gold
5. Technology and You, Neubacher

B. Filmstrips

1. Communications in Modern Life, MGH
2. Looking at Business Careers, MGH
3. The Trade Acceptance, MGH
4. Transportation and Modern Life, MGH

C. Books

I. Film Summary

The main purpose of this film is to illustrate occupations within the missile making industry. Occupations such as; electronic assembly, sheet metal workers, tool and die makers, spot welders, assemblers and inspectors are illustrated. The film shows missiles in action.

II. Purpose of the Film

A. To expose students to the following occupations

1. assemblers
2. electronic assemblers
3. sheet metal workers
4. tool and die makers
5. spot welders
6. inspectors
7. press operators

B. To show students how missiles are built
C. To show the precision and care involved in missile production
D. To make students aware of industrial safety

III. Preparation for the Film

A. Preview the film and select objectives.
B. Gather visual aids.
   1. Pictures of missiles
   2. Pictures of occupations involved in building missiles
   3. Plastic model of a rocket
C. Select desired vocabulary.

**Nouns**

<table>
<thead>
<tr>
<th>Missiles</th>
<th>Rockets</th>
<th>Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skills</td>
<td>Titan</td>
<td>Automobiles</td>
</tr>
<tr>
<td>Lacrosse</td>
<td>Bullpup</td>
<td>Target</td>
</tr>
<tr>
<td>Seconds</td>
<td>Pershing</td>
<td>Electronics</td>
</tr>
<tr>
<td>Judgment</td>
<td>Magnifier</td>
<td>Vacuum tubes</td>
</tr>
<tr>
<td>Device</td>
<td>Program</td>
<td>Diagrams</td>
</tr>
<tr>
<td>Color codes</td>
<td>Blue prints</td>
<td>Handwheel</td>
</tr>
<tr>
<td>Turret punch press</td>
<td>Template</td>
<td>Rocket</td>
</tr>
<tr>
<td>Atmosphere</td>
<td>Form block</td>
<td>Sand molds</td>
</tr>
<tr>
<td>Molten metal</td>
<td>Aluminum</td>
<td>Titanium</td>
</tr>
<tr>
<td>Magnesium</td>
<td>Fuel</td>
<td>Equipment</td>
</tr>
<tr>
<td>Jig</td>
<td>Assembly line</td>
<td>Current</td>
</tr>
<tr>
<td>Pressure</td>
<td>Decal</td>
<td>Information</td>
</tr>
<tr>
<td>Mace</td>
<td>Spoilers</td>
<td>Matador</td>
</tr>
<tr>
<td>Satellites</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Verbs**

<table>
<thead>
<tr>
<th>Explore</th>
<th>Destroy</th>
<th>Manned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soldering</td>
<td>Removed</td>
<td>Spot welded</td>
</tr>
<tr>
<td>Completed</td>
<td>Checking</td>
<td>Wiring</td>
</tr>
<tr>
<td>Orbited</td>
<td>Inspected</td>
<td>Removed</td>
</tr>
<tr>
<td>Launched</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Adjectives**

<table>
<thead>
<tr>
<th>Accurate</th>
<th>Experienced</th>
<th>Faraway</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safest</td>
<td>Pilotless</td>
<td>Concerned</td>
</tr>
<tr>
<td>Operational</td>
<td>Advanced</td>
<td></td>
</tr>
</tbody>
</table>
D. Suggested idioms and expressions

<table>
<thead>
<tr>
<th>defense industry</th>
<th>aircraft workers</th>
<th>internal combustion</th>
</tr>
</thead>
<tbody>
<tr>
<td>aviation industry</td>
<td>age of jets</td>
<td>new ways needed</td>
</tr>
<tr>
<td>most important</td>
<td>correct errors</td>
<td>electronic parts</td>
</tr>
<tr>
<td>flow of electrons</td>
<td>miles of wire</td>
<td>Wheel of Fortune</td>
</tr>
<tr>
<td>remove chance</td>
<td>important jobs</td>
<td>guidance systems</td>
</tr>
<tr>
<td>basic electronics</td>
<td>sheet metal worker</td>
<td>locked together</td>
</tr>
<tr>
<td>must be perfect</td>
<td>tons of pressure</td>
<td>trained workers</td>
</tr>
<tr>
<td>foundry workers</td>
<td>perfectly formed</td>
<td>final assembly</td>
</tr>
<tr>
<td>depending on</td>
<td>correct course</td>
<td>wrong paths</td>
</tr>
<tr>
<td>nation's safety</td>
<td>launch crew</td>
<td>flight path</td>
</tr>
</tbody>
</table>

IV. Motivation

A. Gather articles from the newspaper about:

1. recent missile and rockets launchings
2. astronauts

B. Gather pictures or films on any recent launching.

C. Make a bulletin board depicting the various occupations involved in the production of a missile. As the focal, or end point of the display, have a picture of finished missile or rocket.

D. Obtain a plastic model of a missile and begin to assemble it in class.

V. Followup

A. Suggested questions

1. What are five occupations involved in missile production?
2. What were the names of the missiles that you saw in the film?
3. Why does the electronic industry play such an important part in the missile industry?
4. How does the tool and die maker help in rocket production?

B. Suggested activities

1. Have a discussion about the occupations mentioned in the film.
2. Make a chart showing relationship between the earth, moon and the sun.
a. Plot various missiles and rockets, showing how far they went.
b. Discuss as to future aims and anticipated accomplishments.

3. Make a bar graph plotting the various rockets and their accomplishments.

4. Have students construct model rockets out of cardboard tubing and construction paper.

VI. Resource Material

A. Films

1. Guided Missiles, USA
2. Knowing's Not Enough, AF
3. Machines Help Us, BF
4. Rockets and Satellites, HFC
5. Rocket Instrumentation, USA

B. Filmstrips

1. Evolution of Machines in Industry, MGH
2. Introduction to Machining, JH

C. Books

I. Film Summary

This film illustrates the services which the U.S. Post Office provides for Americans. It shows how mail is handled and transported to its destination. A short description of various postal occupations and skills required is also depicted. The film illustrates the basic concept of how mail is handled but is not current because of some of the outdated methods and machinery used.

II. Purpose of the Film

A. To show some of the services which Post Offices provide
B. To show how mail is transported and handled
C. To show that various postal positions require an extensive training period and a high degree of skill
D. To show the purpose of parcel post and special delivery

III. Preparation for the Film

A. Preview the film and select objectives
B. Vocabulary
Nouns

canceller
moving belt
location
studies
cases
communications
congress
world

Verbs

deal
load
sort
serve
seal
cancel
envy

Others

responsibility
skillful
A.F.L.
delivery

C. Selected idioms and expressions

the mail must go through
all over the world
changes hands

arrive on time
special ways
carefully handled

IV. Motivation

A. Have students write about the handling of mail between a nearby town and the school.

B. Have students bring to school letters which they have received.

C. Write to the Postmaster General for the postal rates, and clerk qualifications. Make bar graphs if applicable.

V. Followup

A. Suggested questions

1. Compare postal delivery of the west with that of today.

2. List various methods by which we transport mail.
3. Describe how you feel mail will be delivered in the future.

B. Discussion questions

1. Why is the Zip Code helpful?

2. Is mail sorted today by the same method depicted on the film? (Note use of Zip Code)

C. Selected activities

1. Use the overhead projector to describe the parts of the Zip Code.
   a. Prepare twenty cards with addresses and twenty cards with addresses and Zip Code. Have students sort. Time them. Ask which method is easier.

2. Have students make a bulletin board, tracing how mail is handled as it goes across country. (How many hands does it go through?)

3. Obtain a scale and show how mail is weighed to determine the cost of shipping.

VI. Resource Material

A. Films

1. Mailman (2nd Edition), EBF

2. Our Post Office (Rev. ed.) (P-1), EBF

B. Filmstrips

1. Christmas Mail Stacks Up, MWR Ser #2 No 12-65

2. Our Post Office, #5361, EBF

3. The Postman, #7104, LFS

C. Books


I. Film Summary

This film gives an overview of the printing trade from the layout of the magazine to the finish product. It deals in generalities rather than specifics. However, it is a good film for students who are at the initial stage or have not had previous exposure to the printing trade.

II. Purpose of the Film

A. To introduce students to the technology of printing

B. To give students an understanding and appreciation of the people and processes involved in printing

C. To stimulate students to study printing as a trade

III. Preparation for the Film

A. Preview the film and select objectives.

B. Vocabulary

Nouns
magazine blueprint stencil
rotary press activities editor
profession electrotypes journal
printer statesman metal
AFL-CIO
shape
reader
journeyman
type faces and sizes
cuts
photoengraving
vibrator
galley (tray)
dummy layout
blanks
space
subscriber

set
guide

Attractive
complicated

regularly

confusing

basically the same

take pride in the work

good for the work

twist of the wrist

ready to mail

IV. Motivation

A. Show students several magazines and ask if they can explain how they are printed.

B. Prepare a bulletin board to exhibit the layout of a school publication.

C. Arrange a tour of a local printing plant.
V. Followup

A. Have students layout a small class publication.

B. Discuss and compare different types of publications, e.g., a first-rate publication versus a comic book.

C. Prepare a class display of selected quality publications.

VI. Resource Materials

A. Films

1. Basic Reproduction Processes in the Graphic Arts, Farrell
2. Printing Through the Ages, EBF
3. A Safe Shop, MGH
4. Typesetting, CFD
5. Working Safely in the Shop, COR

B. Filmstrip

Safety in School Shops and Gymnasiums, EG

C. Books


PUTTING A JOB ON A PLATEN PRESS

A Captioned Film
for
Intermediate and Advanced Levels

By Arrangement with
Bailey Films, Inc.

Captioned Films for the Deaf
U.S. Office of Education
Washington, D.C.

Time: 11 minutes Black and White

I. Film Summary

Putting a job on a platen press begins with the inking of a press preparatory to putting in the form. A student demonstrates how to ink properly and how to put in a heavy or light form. Cautions are given about the danger of smashing the form on grippers or guides.

A simple packing is prepared. Guides are marked out and inserted. A proof is pulled and checked for ink, packing, and the position of the guides. After the second proof is checked, a slight guide correction is made. The third proof is pulled and then approved by the instructor.

The guides are sealed and tapped; the grippers are moved in to cover the margins, and the press run begins.

II. Purpose of the Film

A. To demonstrate to beginning presswork students the general principles involved in putting a job on a platen press

B. To stimulate interest in a new activity of the graphic arts or print shop

C. To point out the sequence of steps in producing a printed job
III. Preparation for the Film

A. Preview the film and select objectives.

B. Select desired vocabulary.

**Nouns**
- heavy form
- grippers
- light form
- draw sheet
- bottom guides
- gripper wrench
- packing
- air pockets
- throw-out lever
- ink plate
- sealing wax
- fly wheel
- clearance
- packing sheet clamps

**Verbs**
- skinned
- scratched

**Adjectives**
- smooth
- adjusted

C. Selected idioms and expressions

- ink the press
- washed up
- well distributed

IV. Motivation

A. Set up a display of quality printed materials, e.g., letter heads, business cards, etc. Beside this, display some printed materials that are smudged and printed unevenly. Discuss why neatness and quality are necessary.

B. Display a type form that has been smashed by the grippers on a press. Discuss why this must not be allowed to happen.

V. Followup

A. Suggested questions

1. What effect do air pockets have on ink?
2. In what position should the rollers be when the press is stopped?
3. How do you insert a heavy form on the press?
4. How do you insert a light form on the press?
5. What are the packing sheet clamps called?
6. What is the top packing sheet called?
B. Suggested discussion questions

1. Distribute to the pupils proofs of a job that has been printed on a slant. Ask the pupils how they would move the guides, so that the work could be printed correctly.

2. Discuss the reasons why different kinds of ink are needed.

VI. Resource Materials

A. Films

1. How to Make a Linoleum Block Print. BF
2. Poster Making: Printing by Silk Screen. BF
3. Printing with a Brayer. BF

B. Books

5. Polk, Ralph W. The Practice of Printing. Peoria, Ill.: Chas Bennett, 1952.
THE ROAD TO WORLD WAR II

A Captioned Film
for
Advanced Level

By Arrangement with
McGraw-Hill

Captioned Films for the Deaf
U.S. Office of Education
Washington, D.C.

Time: 20
Black and White, SYNCAP

I. Film Summary

This film centers on the rise of totalitarianism after World War I. It depicts the acts of aggression committed by the Axis Powers and the futile appeasement policies tried by the free nations which finally ended in the start of World War II. It begins with the invasion of Manchuria by Japan in 1931, and ends with the attack on the United States by Japan in 1941.

II. Purpose of the Film

A. To give information concerning events which led to the start of World War II

B. To show the weakness of the League of Nations in preventing acts of aggression

C. To show the failure of appeasement, and the lack of decision and unity among the free nations

III. Preparation for the Film

A. Preview the film and select objectives.

B. Choose basic vocabulary.

Proper nouns
Neville Chamberlain Nazi Party Czechoslovakia
Benito Mussolini Munich Pact Poland
Proper nouns (continued)

Adolf Hitler  Maginot Line  Rhineland
Emperor Hirohito  Monarchists  China
Lord Lytton  United Nations  Sudetenland
Haile Selassie  Lytton Commission  Austria
Francisco Franco  Italy  United States
Maxim Litvinov  Germany  Nanking
Edward Daladier  Japan  Prague
Edward Benes  Manchuria  Munich
Josef Stalin  Ethiopia  London
League of Nations  Spain  Paris
Axis Powers  Russia  Washington, D.C.
Fascist Party  France  Rome

Nouns

oppressor  oppressor
aggressors  dictator
militarists  indecision
industrialists  investigation
prime minister  organization
chancellor  prosperity
emperor  persecution

Adjectives

semifeudal  widespread

Verbs

invaded  appease
seized  prevent
sacrifice  unite

C. Selected idioms and expressions

mineral resources  international morality
financial insecurity  nonaggression treaty
superior race  protest notes
power-hungry nations  acts of aggression
brute force  economic sanctions
take advantage  bad faith
living space  insure peace

IV. Motivation

A. Previous preparation should include background of events leading to World War II.
B. Prepare worksheet of basic vocabulary to be distributed to pupils.

C. Prepare bulletin board displays of people and events relating to World War II.

V. Followup

A. Using worksheet suggested above, have pupils identify all proper nouns and explain selected idioms and expressions.

B. Prepare worksheet listing acts of aggression leading to World War II as shown in the film. Have pupils rewrite them in chronological order and give date of each.

C. Suggested discussion topics

1. Discuss the steps which the free nations took in trying to combat the acts of aggression leading to World War II.

2. Discuss the effectiveness of economic sanctions as a method of political control.

3. Discuss nationalism as it is developing at the present time.

D. Suggested activities

1. Collect and discuss current news item relating to the acts of political aggression, acts of appeasement, the rise of nationalism.

2. Have each pupil choose a person mentioned in the film and prepare a written report based on library research.

VI. Resource Materials

A. Films

1. League of Nations, MOT

2. Mussolini, (CBS News "20th Century" Production), MGH

3. The Rise and Fall of Nazi Germany, MOT

4. The Twisted Cross, NBC

5. World War II: Background and Causes, COR

6. World War II: Prologue, U.S.A., EBF
B. Books

I. Film Summary

The question, "What is noise?" is answered by this film. Initially, many different concepts people have of noise are discussed. Then the scientific concept of noise is visually depicted through the use of an oscilloscope.

II. Purpose of the Film

A. To show what noise is in the scientific sense
B. To show that sound has waves and these can be seen through the use of an oscilloscope
C. To show the concept of negative noise and positive noise
D. To show us how noise, in the scientific sense, affects us everyday

III. Preparation for the Film

A. Preview the film and select objectives.
B. Gather visual aids.
   1. A picture of an oscilloscope, or, if possible, a real one
2. A record player
3. Records
4. A simple jigsaw puzzle

C. Select desired vocabulary.

**Nouns**
- oscilloscope
- noise
- instruments
- volume
- selection
- signal ratio
- generator
- message
- positive noise
- transmitting button
- visual information
- signal information

**Verbs**
- recognize
- define
- notice
- interfere

**Adjectives**
- scientific
- unpleasant
- stylish

**Adverb**
- electrostatically

**Preposition**
- underneath

D. Selected idioms and expressions

- signal to noise ratio
- a computer singing (This is meant literally.)

IV. Motivation

A. Have an oscilloscope so that the children can see their voices.

B. Discuss what they think noise is. Try to formulate a definition.
C. Give students several pieces of a jig saw puzzle and have them try to figure out what it is. At the end of the film, have them complete the picture.

V. Followup

A. Suggested questions

1. What is scientific noise?
2. How does scientific noise affect deaf people?
3. Why does music make many lines on the oscilloscope?
4. What causes "snow" on a T.V. screen?
5. Do you think most popular songs are noise or music?

B. Suggested activities

1. Design a message in code form, then using a piece of paper with holes cut in it, filter out the message (positive noise).
2. Put several screens over a picture and see how many screens must be removed before students can guess what the picture is.
3. Make various noises so that students might see how signals affect their hearing aids.
   a. Show how loudness affects hearing aids.
   b. Demonstrate how noise between sender and hearing aid affect the hearing aid.
4. Using the oscilloscope and a record player, demonstrate the wave patterns of
   a. music (popular and classical)
   b. and the human voice

   1) Use a high voice to say the same thing then repeat using a low voice.
   2) Use a loud voice to say the same thing then repeat using a soft voice.
   3) Read a poem to show the fluency of our language – or to show the staccato.
5. Possibly, compare a modern art picture with the patterns on an oscilloscope.

VI. Resource Materials

A. Films
   1. Change of Frequency, 8 mm Single Concept, IFC
   2. The Nature of Sound, COR

B. Suggested reading
I. Film Summary

On-the-job typing proficiency requires adequate preparation for the day's work, in addition to the mastering of basic operating skills. A typist anticipates a variety of jobs and plans each individual job. She can eliminate needless movement and increase her output by organizing her desk, grouping similar jobs, and applying special techniques to such tasks as typing envelopes, stencils, and tabulated reports.

II. Purpose of the Film

A. To show that planning a day's work is necessary

B. To show how a typist can help herself by:
   1. Planning for a variety of jobs
   2. Planning each job as it comes
   3. Planning to be accurate

C. To give some tips on how to improve your typing:

   When typing a number of carbons, put a slip of folded paper over the top of all the papers to keep them from slipping when they are being put into the rollers.
D. To show how planning jobs can eliminate needless work:

1. By having supplies handy at the beginning of the day, you save yourself many trips to the supply room.

2. By grouping similar jobs together, you save time setting up tabs.

3. By asking your employer questions if you are not sure of what he wants, you avoid making mistakes.

4. By knowing when to make carbons, copies, spirit masters or stencils, you can save time.

III. Preparation for the Film

A. Preview the film and select objectives.

B. Gather visual aids.

C. Select desired vocabulary.

<table>
<thead>
<tr>
<th>Nouns</th>
<th>verbs</th>
<th>Adjectives</th>
<th>Adverbs</th>
</tr>
</thead>
<tbody>
<tr>
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<td>needless</td>
<td>efficiently</td>
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<td>unfinished</td>
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<td>sections</td>
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<td></td>
<td>masters</td>
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</tbody>
</table>

D. Selected idioms and expressions

- warm up
- carbon paper
- finger exercises
- chain-feeding method
- production time
- letterhead paper
- incoming work
- stroking action
- spirit duplicator
- master
- second sheets
- reference books
- normal load
- I used to be the same way
- stencil master
IV. Motivation

A. Post on the bulletin board a neatly typed letter and a poorly typed letter.

B. Ask half the class to watch the film and find as many tips as they can on how to improve their typing. Ask the other half of the class to watch for how to plan their jobs to avoid needless work.

V. Followup

A. Selected questions

1. What happens when you are not prepared for work?
2. Why is it important to warm up before beginning to type?
3. What must a good typist think about?
4. How can she become a valuable worker?
5. What is the difference between pica and elite type?
6. What is the chain-feeding method?
7. How do you type post cards?
8. When do you make carbon copies?
9. When do you make photo copies?
10. When do you use a spirit duplicator master?
11. When do you use a stencil master?
12. Why is it important to proofread your work?
13. How do you center a statement?
14. What do Cap., Com. and Point mean?

B. Suggested Activities

1. Discuss three ways in which planning aids production.
2. Let them try several of the techniques as shown in the film such as:
   a. chain-feeding envelopes
   b. inserting postcards
c. centering different exercises
d. using a folded paper while making carbon copies

3. Show each girl how to clean her own machine. Let her do it.

VI. Resource Material

A. Films
1. Building Speed, COR
2. Right At The Typewriter, IBM Corp.
3. Typing Skills - Daily Job Techniques, COR

B. Filmstrips
1. Basic Letter Typing - Parts I & II, MGH
2. Basic Manuscript Typing - Principles of Arrangement, MGH
3. Basic Tabulation Typing, MGH
4. Better Posture, Better Typing, MGH
5. Display Typing Principles and Patterns, MGH
6. Fundamental Typing Habits, MGH
7. Getting Ready - Parts I & II, MGH
8. Gregg Secretarial Training - Set No. 2 Secretarial Short, MGH
9. Gregg Typing Series 2 - Method and Short Cuts, MGH
10. How Typing is Learned, MGH
11. Remedial Typing Techniques, MGH

C. Books

D. Transparencies
1. Business Forms, General Aniline and Film Corp.
2. How to Make the Typewriter Work Better for You, General Aniline and Film Corp.

3. Making Routine Duties Interesting, General Aniline and Film Corp.

4. Typing the Manuscript, General Aniline and Film Corp.

5. What Makes a Typewriter Function, General Aniline and Film Corp.

6. Writing a Letter, General Aniline and Film Corp.

E. Perceptoscope

1. PDL Typewriting Skill Improvement, Perceptual Development Laboratories

2. Typing Skill Development Orientation, Perceptual Development Laboratories
I. Film Summary

This film shows the courage of Daniel Webster when he chose, despite family and political pressure, to help in the preservation of the Union rather than to further his own political prestige. By his support of the Clay Compromise, he alienated his powerful Massachusetts constituency and destroyed any chance he might have had to become President of the United States, the office he considered "the highest earthly honor."

II. Purpose of the Film

A. To show the personal courage of Daniel Webster in his support of the Compromise of 1850

B. To show the emotional fervor among the extremists on the issue of slavery

C. To show the respect accorded Webster as a politician and as the outstanding orator of his time

III. Preparation for the Film

A. Preview the film and select objectives.
B. Choose basic vocabulary.

1. Partial list of characters

<table>
<thead>
<tr>
<th>Daniel Webster</th>
<th>Fletcher Webster</th>
<th>Ralph Waldo Emerson</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caroline Webster</td>
<td>Henry Clay</td>
<td>John Calhoun</td>
</tr>
</tbody>
</table>

2. Selected vocabulary

- abolish
- Abolitionists
- Achilles
- acknowledge
- Alexandria
- apologize
- anxiety
- arson
- avert
- awkward
- brandy
- breadth
- candidate
- canvassing
- champion (v.)
- cherish
- chilled
- circulating
- cloves
- compels
- compromise
- condemned
- conscience
- constituency
- constituents

- crucify
- deny
- distrust
- dynamic
- eloquence
- extremists
- feeble
- fervor
- flippant
- fugitive
- goodwill
- handcuffs
- homicide
- hotheads
- inducements
- inevitable
- inferiority
- inhuman
- inseparable
- justify
- labor
- Marshfield
- measure
- miracle
- moan

- monstrous
- moody
- non-slaveholder
- oratory
- otherwise
- politician
- prestige
- principle
- racket
- reasonable
- recipient
- refute
- renegade
- rumor
- secession
- seldom
- shield
- simplicity
- situation
- sociality
- territories
- toothache
- traitor
- ungraciously
- vast
- witty

3. Selected idioms and expressions

- slave trade
- speak for the country
- Senator from Massachusetts
- a fair solution
- a living lie
- a social call
- preserve the Union
- a young buck
- accept a bribe
- over yonder
- poisoning his liver
- a good voice box
- don't be so touchy

- my soul is my own
- hold my head high
- hold to silence
- a profitable government post
- a great price to pay
- lose all
- Scarlet Infamy!
- can command such an audience
- give the floor to ...
- split in two
- debauch a nation's conscience
- drive a man to drink
- not a bad one in the lot
C. Things to watch for in the film

1. Daniel Webster's struggle with his conscience and his preoccupation with thoughts that he later uses in his Compromise speech

2. The attempts by his wife and son to influence Webster's decision concerning the Clay Compromise

3. Webster's reactions to (a) the sight of men confined for the purpose of being sold, (b) the deliberate separation of slaves from their families and (c) the indifference of the trader toward the slaves and his overly-familiar attitude

4. Clay's patriotism: concern for the welfare of his country versus his personal health

5. Webster's appreciation of his homeland

6. The enmity that develops between Webster and his Massachusetts constituents, specifically Emerson

7. The tension in the Webster family on the eve of Daniel's speech to the Senators

8. The courage and understanding shown by Caroline Webster when, despite her former opposition, she tells Daniel she will accept his decision to support the Clay Compromise

9. The nightmare in which Webster defends his position against Emerson and other opponents of the Clay Compromise

IV. Motivation

A. The pupils should have a knowledge of the events and other legislation involving compromises that led up to the controversy over the Compromise of 1850.

B. Prepare a bulletin board display using maps, pictures and other materials illustrating the spread and control of slavery in new territories, etc.

C. Discuss the underground railway and make a map of the routes most frequently traveled.

V. Followup

A. Suggested discussion questions

1. What had been Webster's position on the abolition of slavery and how did he reconcile it with his support of the Clay Compromise?
2. What did Clay mean by his statement, "they will kill my bill with endless delays and amendments"? Relate this to current bills before the Congress.

3. Contrast the issues involved in the abolition of slavery with the current civil rights movement and indicate what progress has been made since the 1850's.

4. Differentiate between the achievements of Noah Webster and Daniel Webster.

B. Suggested activities

1. Have each pupil write a biographical sketch of Daniel Webster that involves library research.

2. Read and discuss the complete speech that Webster made in the Senate in support of the Clay Compromise.

3. Have each pupil write a report about one of the outstanding literary or political figures of 1850, e.g., Emerson, Whittier, Clay, Calhoun, etc.

VI. Resource Materials

A. Films

1. Daniel Webster, EBF

2. John Greenleaf Whittier, CFD

3. John C. Calhoun, EBF

4. New England: Background of Literature, COR

5. Webster's Sacrifice to Save the Union, MGH

B. Filmstrips

1. Causes of the Civil War, SVE

2. Henry Clay: Western Nationalist, SBC

3. John C. Calhoun: Spokesman for the South, SBC
C. Books


II. Errata

<table>
<thead>
<tr>
<th>Caption</th>
<th>Correction</th>
</tr>
</thead>
<tbody>
<tr>
<td>you make me sick</td>
<td>you turn my stomach</td>
</tr>
</tbody>
</table>
I. Film Summary

Woodrow Wilson's fearlessness in risking his career and possible re-election to appoint and support Louis Brandeis as Associate Supreme Court Justice is clearly portrayed in this film.

II. Purpose of the Film

A. To confirm Woodrow Wilson's courage of his convictions in appointing Louis Brandeis to the U.S. Supreme Court

B. To show the necessity of personal courage in making and supporting a personal decision

III. Preparation for the Film

A. Preview the film and select objectives.

B. Choose basic vocabulary.

1. Partial list of characters

Woodrow Wilson
Joseph Tumulty
Louis Brandeis

Attorney General Gregory
Senator Lodge
2. Selected vocabulary

<table>
<thead>
<tr>
<th>Appointment</th>
<th>Democrat</th>
<th>Republican</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attorney General</td>
<td>flattery</td>
<td>revenge</td>
</tr>
<tr>
<td>Candidate</td>
<td>Judiciary Committee</td>
<td>roll call</td>
</tr>
<tr>
<td>Chief Justice</td>
<td>nominate</td>
<td>rumor</td>
</tr>
<tr>
<td>Citizens</td>
<td>public utilities</td>
<td>senator</td>
</tr>
<tr>
<td>Clerk</td>
<td>protest</td>
<td>Supreme Court</td>
</tr>
<tr>
<td>Confirm</td>
<td>quorum</td>
<td>vacancy</td>
</tr>
<tr>
<td>Congressman</td>
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</tr>
</tbody>
</table>

C. Selected idioms and expressions

- take a chance to advance his country
- bully and murderer
- highest court in the United States
- native of (Louisville, Kentucky)
- might owe ______ a favor
- I doubt he'll make trouble
- lose the election
- breach of promise
- get the idea
- understand the common people
- worthy of its honors
- approve his appointments
- have no faith in him
- personal choice
- will lose seats
- committee is adjourned
- withdraw his name
- change their minds
- great act of courage
- see some changes

D. Things to watch for in the film

1. The attempts on the part of several senators to dissuade Wilson from his choice of Louis Brandeis as Associate Justice of the Supreme Court

2. The concern of the common people (e.g., the kitchen help) for the appointment

3. Wilson's tactics in influencing the Senate Judiciary Committee to recommend that Brandeis' appointment be confirmed by the Senate

4. The social and political machinations prior to the committee's confirmation of the President's appointment

5. The ability of small groups to influence politics

IV. Motivation

A. Students should have a background in the American Constitution, the duties of the President in making political appointments, and the confirmation of such appointments.

B. Students should be aware of the history of Woodrow Wilson's first term as President of the United States.
V. Followup

A. Suggested questions

1. What happens when a Supreme Court Justice dies in office?
2. How long is the term of office of a Supreme Court Justice?
3. What is the function of the Supreme Court?
4. If the Senate had not approved Brandeis' appointment, what would have happened?
5. Why was Brandeis a controversial figure?

B. Suggested activities

1. Discuss the ability of a small group to influence politics.
2. Research other historical conflicts over political appointments.
3. Discuss the importance of the courage of one's convictions.
4. Discuss the politics of political schemes.
5. Discuss checks and balances of power of the three branches of government as stated in the Constitution of the United States.

VI. Resource Materials

A. Films

1. How We Elect a President, CFD
2. Over There 1914-18, COFI
3. Woodrow Wilson: Spokesman for Tomorrow, MGH
4. World War I, EBF
5. World War I, Part I: Background, COR
6. World War I, Part II: The War Years, COR
7. Your Government - The Presidency, CFD

B. Filmstrips

1. Our Constitution Series, MGH
2. The President: Office and Powers, MGH

3. Why Study Democracy, MGH

4. Woodrow Wilson, EG

C. Books


APPENDIX

The purpose of this appendix is to provide the teacher with a cross index of all the study guides for educational captioned films that have been published from August 1965 to August 1968. Baxter, Berkeley, De Paul, and Rochester refer to the four volumes where the study guides can be found.

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<tr>
<th>Film</th>
<th>Study Guide Book</th>
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<td>Adventures of Willie the Skunk</td>
<td>De Paul</td>
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<tr>
<td>An Airplane Trip to Mexico</td>
<td>Berkeley</td>
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<td>Animal Homes</td>
<td>Baxter</td>
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<tr>
<td>Animals in Autumn</td>
<td>Berkeley</td>
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<td>Animals in Spring</td>
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<td>An Apartment House</td>
<td>Baxter</td>
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<td>Ant and the Dove</td>
<td>Berkeley</td>
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<td>Johnny Appleseed</td>
<td>Berkeley</td>
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<td>Arithmetic in the Food Store</td>
<td>Rochester</td>
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<td>A Balanced Aquarium</td>
<td>Berkeley</td>
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<tr>
<td>Beginning Responsibility: Doing Things for Ourselves in School</td>
<td>Baxter</td>
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<tr>
<td>Beginning Responsibility: Other People's Things</td>
<td>De Paul</td>
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<tr>
<td>Beginning Responsibility: Taking Care of Things</td>
<td>Baxter</td>
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<td>Country Mouse and the City Mouse</td>
<td>De Paul</td>
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