In this document, developed by teachers during two career education workshops, are varied ideas on ways that career education can be integrated into subject matter areas in the elementary grades. Emphasis is placed on the use of local business as resources both for learning experiences in subject areas and for career awareness experiences. Classroom, field experiences, and sources of material for further study are all included. Mathematics experiences are illustrated with reference to work in a service station, a nursery, a bakery, and a department store. Jobs requiring skill in the mathematics, language arts, and health and science areas are listed. A short section discusses ideas for implementing career education in the elementary school. (SA)
SAMPLES OF CAREER EDUCATION K-6

Units in ...

Health
Science
Mathematics
Language Arts
Social Studies

Developed by
Council Bluffs Teachers
Career Education Workshop
March 6-17, 1972

Compiled and Edited by
Don Haberman, Career Education Coordinator
Council Bluffs School System
and
Jacquelyn Crabtree, Elementary Counselor
Pottawattamie County School System
In this booklet are many varied ideas on ways that career education can be integrated into subject matter areas. These ideas evolved from two 5-day workshops on career education. The twenty-two teachers who attended the workshops spent two and a half days touring various local businesses and talking to the businessmen. The last two days of the workshop, the teachers developed the ideas in this book of ways they could relate the world of work to their classroom teaching.

Following this page is a guide sheet. It gives the name of each write-up and the areas that each relates to, such as math or science. We have then divided the write-ups by subject areas. Each area is printed on a different color of paper for ease in using this notebook. We have placed the materials in the area where the greatest application is, since all of these materials can be integrated into more than one area. On the guide sheet we have placed an "x" where we have placed each unit. We put check marks (✓) under the other areas that it also can be integrated into.

The ideas in this booklet are samples of how career education can be integrated into subject areas. We invite you to try some of these ideas and/or create your own. Try using career education with your students to show them WHY they are studying various subject. If you try it just once, we think that you will find it will enhance your class and that it will be exciting, fun and worthwhile for both you and your students!

Sincerely,

Jacquelyn Crabtree
Elementary Counselor
Department of Career Education

Don Haberman
Career Education Coordinator
Council Bluffs Schools
<table>
<thead>
<tr>
<th>Study of a Meatcutter</th>
<th>SOCIAL STUDIES</th>
<th>SCIENCE</th>
<th>LANGUAGE ARTS</th>
<th>MATH</th>
<th>ART</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career Education In Social Studies</td>
<td>X</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Pottawattamie County</td>
<td>X</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Integrating Career Education--T.V. Gulf</td>
<td>X</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>World of Wood Industry</td>
<td>X</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

Others:

| Sample Math Problems | ✓ | ✓ | X |
| Careers AS Related To Math | | | ✓ | ✓ |
| Using Math in a Department Store | ✓ | ✓ | X | ✓ |
| A "Lube" Man Uses Math | ✓ | ✓ | X | ✓ |
| Bricklayers Use Multiplication | ✓ | ✓ | X | ✓ |
| Do You Really Need To Study Math? | ✓ | ✓ | X |

Others:

<table>
<thead>
<tr>
<th>Jobs in Local Businesses</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>First National Bank</td>
<td>✓</td>
</tr>
<tr>
<td>Arnold Tool &amp; Die</td>
<td>✓</td>
</tr>
<tr>
<td>Jenny Edmundson Hospital</td>
<td>✓</td>
</tr>
<tr>
<td>Nonpareil</td>
<td>✓</td>
</tr>
<tr>
<td>T.V. Gulf Service Station</td>
<td>✓</td>
</tr>
<tr>
<td>Airpost (Omaha)</td>
<td>✓</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Jobs In These Council Bluffs Businesses</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Police Department</td>
<td>✓</td>
</tr>
<tr>
<td>Rapid Printing Company</td>
<td>✓</td>
</tr>
<tr>
<td>Peoples Store</td>
<td>✓</td>
</tr>
<tr>
<td>Peoples Natural Gas Company</td>
<td>✓</td>
</tr>
<tr>
<td>Northwestern Bell Telephone Company</td>
<td>✓</td>
</tr>
<tr>
<td>Charles Custom Furniture</td>
<td>✓</td>
</tr>
<tr>
<td>Mercy Hospital</td>
<td>✓</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Jobs In Council Bluffs Businesses</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northwestern Bell Telephone Company</td>
<td>✓</td>
</tr>
<tr>
<td>Beno's</td>
<td>✓</td>
</tr>
<tr>
<td>Holiday Inn</td>
<td>✓</td>
</tr>
<tr>
<td>Katelman Foundry</td>
<td>✓</td>
</tr>
</tbody>
</table>

<p>| Griffin Pipe Company | ✓ | ✓ | X |
| Twin City Artificial Limb Company | ✓ | ✓ | X | ✓ |
| Service Director at a Car Garage | ✓ | X |
| People Are Important | ✓ | ✓ | X |</p>
<table>
<thead>
<tr>
<th></th>
<th>SOCIAL STUDIES</th>
<th>SCIENCE</th>
<th>LANGUAGE ARTS</th>
<th>MATH</th>
<th>ARTS</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workers At United Airlines (Slide Narration)</td>
<td>✔️</td>
<td>✔️</td>
<td>✗</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Hey Man, What Are You Doing?</td>
<td>✔️</td>
<td>✔️</td>
<td>✗</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td><strong>Additions:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary Ideas for Integrating Career Education</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✗</td>
</tr>
<tr>
<td>Intermediate Ideas for Integrating Career Education</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✗</td>
</tr>
<tr>
<td>Travel &amp; Careers</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✗</td>
</tr>
<tr>
<td>Job Interview Guide Sheet Used in Workshop</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✗</td>
</tr>
<tr>
<td><strong>Additions:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Teachers Who Attended The Five-Day Workshop on Career Education

<table>
<thead>
<tr>
<th>School</th>
<th>Teacher</th>
</tr>
</thead>
<tbody>
<tr>
<td>March 6-10, 1972</td>
<td></td>
</tr>
<tr>
<td>Avenue B</td>
<td>Arlene Buttenschon (5th)</td>
</tr>
<tr>
<td>Center</td>
<td>Janice Wingert (5th)</td>
</tr>
<tr>
<td>Lake</td>
<td>Mrs. Sharon Peterson (5th)</td>
</tr>
<tr>
<td>Escent</td>
<td>Donna Adams (3rd)</td>
</tr>
<tr>
<td>Forest</td>
<td>Mary O'Bradovich (2nd)</td>
</tr>
<tr>
<td>uge</td>
<td>Doug Smith (6th Science)</td>
</tr>
<tr>
<td>ison</td>
<td>Lena Rutledge (6th S.S.)</td>
</tr>
<tr>
<td>nklin</td>
<td>no representative</td>
</tr>
<tr>
<td>ndale</td>
<td>Mildred Finch (3rd)</td>
</tr>
<tr>
<td>n</td>
<td>Janice Kamtz (6th Math)</td>
</tr>
<tr>
<td>ison</td>
<td>Mrs. Helen Newberg (1st)</td>
</tr>
<tr>
<td>ver</td>
<td>Mrs. Judith Stubblefield (2nd)</td>
</tr>
<tr>
<td>hington</td>
<td>Carlotta Tierney (6th)</td>
</tr>
<tr>
<td>March 13-17, 1972</td>
<td></td>
</tr>
<tr>
<td>Lake</td>
<td>Phyllis Vanfossan (5th)</td>
</tr>
<tr>
<td>Lewis &amp; Clark</td>
<td>Mrs. Wilda Briggs (Sp. Ed.)</td>
</tr>
<tr>
<td>Longfellow</td>
<td>Doris Spetman (6th)</td>
</tr>
<tr>
<td>Madison</td>
<td>Margaret Jacob (5th)</td>
</tr>
<tr>
<td>Myers</td>
<td>no representative</td>
</tr>
<tr>
<td>Peterson</td>
<td>Ted Stilwill (4th)</td>
</tr>
<tr>
<td>Pusey</td>
<td>Francis Children (4th Reading)</td>
</tr>
<tr>
<td>Roosevelt</td>
<td>Letha Solliday (3rd)</td>
</tr>
<tr>
<td>Rue</td>
<td>no representative</td>
</tr>
<tr>
<td>Sunnydale</td>
<td>Breen Caldwell (6th)</td>
</tr>
<tr>
<td>Tinley</td>
<td>Mrs. Berniece Schoemaker (5th)</td>
</tr>
<tr>
<td>Walnut Grove</td>
<td>Darlene Schwarzkopf (6th)</td>
</tr>
</tbody>
</table>
SOCIAL STUDIES

Contents:
Study of a Meatcutter
Career Education in Social Studies
Pottawattamie County
Integrating Career Education-T.V. Gulf
Neilsen Nursery
World of Wood Industry
The class may take a field trip to the meat department of a supermarket. Following this they should be able to:

1. List the meat-cutter's duties
2. List some safety and health precautions a butcher must take (e.g., clean hands, refrigeration).
3. Explain how his meat gets from the meat packer to the family table.

Possible related activities:

1. Math activities with weighing and figuring price of meat.
2. Set up a display using empty meat packages with pictures. Make signs for this display.
3. Film strips about supermarkets may be used.
4. Study of areas of country where meat products come from. List meat-packing centers.

Example of teachers' study of an occupation: Meat-Cutter

What does he do?
Responsible for cutting, wrapping, weighing, pricing, and displaying meat products. Weighing, wrapping, and pricing are done with machines.

Where does he work?
He may work in a supermarket meat department or in a butcher shop or small meat market.

Skills or abilities needed:
Strong in basic quarters of beef. Manual dexterity. He must be safety-conscious.

Training:
24 months of on-the-job training as an apprentice. He may go to short seminars on the job training.

Example of student ideas of an occupation: Meat-Cutter

What does he do?
He cuts up big pieces of meat so we can buy them.

Where does he work?
He works in a grocery store or supermarket.

Skills needed:
He must be strong. He may get cut with knives or saws.

Training:
He works at a store to learn how to do it.
Developed by:

COUNCIL BLUFFS ELEMENTARY TEACHERS
CAREER EDUCATIONAL WORKSHOP

March 6 - 17, 1972
What are these workers wearing for protection?

Why should these workers be aware of safety?
Which worker is using a safety device? Why?
Should the other worker be using a safety device? Why?

Can you see the safety guards on the machines? Do you think these machines need safety guards? Why?
Purpose: To make the student aware of the vast field of workmen connected with the occupation of farming.

Objectives
1. The child will be able to list as many as ten businesses related to farming.

2. The child will be able to choose three of these jobs and write a short paragraph telling the training necessary for each job chosen.

3. That from this study the child will be able to choose one or two occupations that he feels he might like to do and explain why.
I. List ten jobs that are connected with agriculture (farming).

1. 

2. 

3. 

4. 

5. 

6. 

7. 

8. 

9. 

10. 

II. Choose a job connected with farming and write a paragraph telling what the job requires in education and training. Illustrate the job with pencil drawings.
I. List five jobs connected with agri-business.

1.

2.

3.

4.

5.

II. Illustrate all five jobs given above in a way that will show what is required of a trained person in each area. (Use one sheet of drawing paper for each illustration.)

III. In a short paragraph explain a job of your choice and tell why it appeals to you.
Texts to Help in Depth Study

Farm Journal Magazine

Successful Farming Magazine

Dictionary of Occupational Titles (available from libraries or guidance counselors)

Advertising Material From:

1. International Harvester
2. Nonpareil
3. Des Moines Register
4. Peet's Feeds
5. Beno's Department Store
6. Peoples Department Store
7. Council Bluffs Savings Bank
8. Service Stations
9. Emarines (Farm Records)
10. World Radio (Communication between field-home and house-barn)
11. Veterinary Clinic
12. Rog and Scotty's Super Valu (groceries)
13. Northwestern Bell Telephone
14. John Deere
15. Ford Trucks and Tractors
Integrating Career Education Into A Social Studies Unit on Canada (Sixth Grade Level)

1. This is an approach to a 6th grade Social Studies unit on Canada. It involves some beginning lessons on the natural resources (metal resources, i.e. nickel, iron ore, etc.)

These lessons deal predominately with the metal resources found in the Canadian Shield, Ontario, Quebec and Northwest Territory.

By studying and discussing the foundry, the children should become aware of career opportunities available in this type of industry, i.e. owner, secretary, draftsman, engineer, lay-out man, welders, machine operators and furnace man.

II. Thought questions to students:
   1. What is a natural resource?
      a. Are things found in nature that man has no way to use—are these called natural resources?
      b. What natural resources are available in the area where you live?

   2. Which of Canada's resources are not renewable?

   3. Can mineral deposits be regrown or replaced?

   4. How could nations conserve their non-renewable resources?

III. Children will read and become familiar with metal resources in Canada.

   Joyce, Houston, Exploring Regions of Latin America and Canada pp. 351-352 and 367-370

   Uttley, Whittemore, Canada and Latin America, pp. 13, 14, 42, 43

   Preston, Tottle, In Latin America and Canada, pp. 463-464

After familiarization with metals, discuss thought questions. Discuss foundry—children formulate a definition.

IV. Follow-up, optional or enrichment activities.

   1. Films
      M334-Riches of the Earth - 17 min., color
      S-555-Earth, the Resources in the Crust - 11 min., color
      -from the Halverson Center for Education

   2. Enlarge map of Canada and have children draw metal resources on the map. (They may select symbols on their own.)
IV. Follow-up, optional or enrichment activities. (Cont.)

3. Pictures may be taken of the foundry by the students during a field trip. Or the teacher may take pictures of the foundry on his own. These pictures can be arranged as a picture story of the processes used in making iron ore into a metal product. Students may want to write captions for the pictures or draw their own picture story.

4. Ask Mr. Abe Katelman to come and speak to your class on the processes of a foundry. Ask him to bring pictures and samples of some of the work being done. Other topics you might like to have him discuss are the following: (1) What he looks for when he hires people, (2) Jobs in the foundry, (3) Job opportunities in the foundry industry.

5. Records from the Halverson Center for Education (Area XIII)

   RC-366 "A Man's Work - Foundry Worker"
   "A Man's Work - Draftsman"

6. Griffin Pipe Company has a slide presentation that they will loan to the schools. It shows the main steps involved in a foundry from the raw material to the end product.

V. Correlation with other subjects.

Math

Work on measurement, scale drawings
Measurement - any activities involving angles, area, perimeter, geometric forms, etc.
Scale Drawings - examples found in Addison Wesley, Book 6, p. 194-195 and p. 212-213

Language Arts

Write a thank you letter to Mr. Katelman

Art

a. Metal Mosaic is made with scrap metal found by the students in their yards or on their way to school. It is glued on a cardboard background.

b. Use a milk carton as a cast or have the students make their own forms and by using plaster of paris make a casting. Students can then decorate with paint, paper, fabric, etc., and use as a paper weight, conversation object or object d'arte.

VI. Resource Material

Carl Gerbracht and Frank E. Robinson - Understanding America's Industries - pp. 29 & 56 (available at the Central Office)
VI. Resource Material, (Cont.)

S. Norman Feingold and Sol Swerdloff - Occupations and Careers, pp. 37, 282, 314, 329 and 336 (available from Don Haberman)


SRA Occupational Briefs
(These are available from the Department of Guidance and Vocational Education or from the counselors' offices in most schools)
To be used with the 5th or 6th grade Social Studies Unit on Iowa

POTTAWATTAMIE COUNTY

Offices (elected):

Auditor
Attorney
Clerk of Court
Recorder
Sheriff
Treasurer

Board of Supervisors (policy making)

County Superintendent of Schools (appointed by County Board of Education)

I. Discussion of Voting
   A. Age
   B. Residence (length of time)
   C. Location of voting precincts
   D. Registration

II. Discussion of Qualifications of Elected Officials
   A. High school education
   B. Personality
   C. Good judgement

III. Discussion of the Departments in the Court House
   A. Three divisions
      1. supervisors - policy makers
      2. administration - sheriff, treasurer, etc.
      3. judicial

IV. Discussion of Each Department (office)

V. Suggested Activities
   A. If possible, take a trip to the Court House
   B. If not possible, have a county official visit the classroom
   C. Set up a mock court house - several of the different departments
   D. Write letters of thanks
   E. Assign children to different departments - have them interview people of the different departments
DUTIES OF ELECTED COUNTY OFFICIALS

I. Supervisors
   A. County roads and bridges
   B. County ambulance
   C. County Home
   D. Aid to Dependent Children
   E. Visiting Nurses
   F. County surveyor
   G. Issue county liquor permits
   H. Levy taxes

II. Treasurer
   A. Collects taxes and assessments

III. Recorder
   A. Records transfer of property
   B. Records mortgage (time sales)
   C. Releases of liens and mortgages

IV. Clerk of Court
   A. Marriage license – divorce
   B. Birth certificates
   C. Take down proceedings of every court trial

V. Attorney
   A. Legal advisor to the board of supervisors
   B. Local county prosecutor (arrests, felonies, etc., via sheriff’s office)

VI. Sheriff
   A. Maintains the peace
      1. Keeps public peace
      2. Constabulary
      3. Legal sale of stolen goods (drugs, etc.)
      4. Investigating accidents
      5. Transporting prisoners
      6. Control of violent criminals

VII. County Superintendent of Schools
   A. Supervises county school system
   B. Policy making department for county schools
   C. Certification of teachers

VIII. Auditor
   A. Secretary to the board of supervisors
   B. Prepares tax levies
   C. Certifies assessments
   D. Responsible for dog tax
   E. Voting (county registration) and elections
   F. County employees payroll
   G. Road - Bridge maintenance
   H. Plot books and transfer property
   I. Issues building permits (county)
   J. Delinquent taxes are collected
Other Personnel at the Court House

1. Each county officer has a deputy
2. They have typists and clerks
   a. operate machines such as Xerox, etc.
   b. file
   c. handle money - make change
   d. ability to meet the public
   e. be able to look up records
3. Custodial service
4. Telephone operator
5. Vendor in lobby
INTEGRATING

CAREER

EDUCATION
OLD ENGLISH:

T.V.

GULF

TRANSLATION:

T.V.

GULF

By Letha Solliday
T. V.'s Gulf Service Station

Math - Addition, Subtraction and Decimals

Arrange a dramatization of groups of children doing the several jobs of the service station:

1. Give them group names such as:
   a. Pump Readers
   b. Manager of Car Wash
   c. Manager of Credit and Charge Sales
   d. Manager of Station

2. Provide statistical information that each group works with on worksheets and gives to manager to make up Daily Balance Sheet.

Language Arts:

Vocational emphasis

Suggestions:

1. Write an appropriate ad for telephone directory and local newspaper
2. Interview and picture of service station attendant done by individual students
3. Group reports on gasoline and its components (simplified)
4. Story of the "Life of a Manager"
### FROM GALLON PUMP READINGS

<table>
<thead>
<tr>
<th>PUMP NO.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Closing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Open</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gallons</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### DOLLAR PUMP READINGS

<table>
<thead>
<tr>
<th>PUMP NO.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLOSING</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>READINGS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OPEN</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>READINGS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DOLLARS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### CASH PAIL OUTS (Merchandise-refunds-discounts)

<table>
<thead>
<tr>
<th>ACCOUNTS RECEIVABLE CONTROL</th>
<th>CREDIT CARD CONTROL</th>
</tr>
</thead>
<tbody>
<tr>
<td>BALANCE FORWARD</td>
<td>BALANCE FORWARD</td>
</tr>
<tr>
<td>TODAY'S CHARGES (Add)</td>
<td>CREDIT</td>
</tr>
<tr>
<td></td>
<td>CREDIT SALES (Add)</td>
</tr>
<tr>
<td>TOTAL</td>
<td>TOTAL</td>
</tr>
<tr>
<td>RECEIVED ON</td>
<td>CREDIT CARDS</td>
</tr>
<tr>
<td>ACCOUNT (Subt.)</td>
<td>RECEIVED (Subt.)</td>
</tr>
<tr>
<td>ADJUSTMENTS (Subt.)</td>
<td>Adjustments (Subt.)</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>TOTAL</td>
</tr>
<tr>
<td>Balance End Of Day</td>
<td>Balance End Of Day</td>
</tr>
<tr>
<td>PUMP NO.</td>
<td>1</td>
</tr>
<tr>
<td>----------</td>
<td>-----</td>
</tr>
<tr>
<td>Closing Reading</td>
<td>5581.9</td>
</tr>
<tr>
<td>Open Reading</td>
<td>5582.8</td>
</tr>
<tr>
<td>Total Gallons</td>
<td>41</td>
</tr>
</tbody>
</table>

### Dollar Pump Readings

<table>
<thead>
<tr>
<th>PUMP NO.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Closing Reading</td>
<td>5581.9</td>
<td>6837.2</td>
<td>7882.6</td>
<td>8016.1</td>
<td>01176</td>
<td>8945.2</td>
<td>77536</td>
<td>58352</td>
<td>59214</td>
<td></td>
</tr>
<tr>
<td>Open Reading</td>
<td>5582.8</td>
<td>6836.7</td>
<td>7869.1</td>
<td>7994.5</td>
<td>00984</td>
<td>89276</td>
<td>77372</td>
<td>58362</td>
<td>59118</td>
<td></td>
</tr>
<tr>
<td>Total Dollars</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Cash Paid Out (Merchandise, Refund, Discounts)

<table>
<thead>
<tr>
<th>Accounts Payable Control</th>
<th>Credit Card Accounts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance Forward</td>
<td>Balance Forward</td>
</tr>
<tr>
<td>Today's Charges (Add)</td>
<td>Credit</td>
</tr>
<tr>
<td>Total</td>
<td>Cash Sales (Add)</td>
</tr>
<tr>
<td>Accounts Receivable (Subt.)</td>
<td>Adjustments (Subt.)</td>
</tr>
<tr>
<td>Balance End of Day</td>
<td>Balance End of Day</td>
</tr>
</tbody>
</table>

Best Copy Available
<table>
<thead>
<tr>
<th>Category</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gasoline</td>
<td>461.63</td>
</tr>
<tr>
<td>Oil</td>
<td>17.56</td>
</tr>
<tr>
<td>Wash</td>
<td>39.15</td>
</tr>
<tr>
<td>Wax</td>
<td>4.50</td>
</tr>
<tr>
<td>T.B.A.</td>
<td>6.98</td>
</tr>
<tr>
<td>Cig.</td>
<td>26.63</td>
</tr>
<tr>
<td>Grocery</td>
<td>16.26</td>
</tr>
<tr>
<td>Tax</td>
<td>1.76</td>
</tr>
</tbody>
</table>

**Total**

**Net Sales** 565.47

**Cash Balance**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash Sales</td>
<td>389.72</td>
</tr>
<tr>
<td>Rec./Account (Add)</td>
<td>76.05</td>
</tr>
<tr>
<td>Total</td>
<td>465.77</td>
</tr>
<tr>
<td>Less Paid Outs</td>
<td>80.25</td>
</tr>
<tr>
<td>Net Cash</td>
<td>385.52</td>
</tr>
<tr>
<td>Actual Money Count</td>
<td>392.86</td>
</tr>
</tbody>
</table>

**Difference Over** 7.34 / 7.34
Worksheet and Information

Student information for pump readers:

<table>
<thead>
<tr>
<th>Pump Number</th>
<th>Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>55869</td>
</tr>
<tr>
<td></td>
<td>55828</td>
</tr>
<tr>
<td>2</td>
<td>68372</td>
</tr>
<tr>
<td></td>
<td>68307</td>
</tr>
<tr>
<td>3</td>
<td>78826</td>
</tr>
<tr>
<td></td>
<td>78691</td>
</tr>
<tr>
<td>4</td>
<td>80161</td>
</tr>
<tr>
<td></td>
<td>79945</td>
</tr>
<tr>
<td>5</td>
<td>01176</td>
</tr>
<tr>
<td></td>
<td>00984</td>
</tr>
<tr>
<td>6</td>
<td>89452</td>
</tr>
<tr>
<td></td>
<td>89276</td>
</tr>
<tr>
<td>7</td>
<td>77536</td>
</tr>
<tr>
<td></td>
<td>77322</td>
</tr>
<tr>
<td>8</td>
<td>52352</td>
</tr>
<tr>
<td></td>
<td>52262</td>
</tr>
<tr>
<td>9</td>
<td>59214</td>
</tr>
<tr>
<td></td>
<td>59118</td>
</tr>
</tbody>
</table>

Transfer answers to Gallons and Dollars Inventory
Books by Eugene Baker:

I Want to be a Secretary
I Want to be an Architect
I Want to be a Sales Clerk
I Want to be a Taxi Driver

Books by Carla Greene:

I Want to be a Zoo Keeper
Railroad Engineers and Pilots - What Do They Do?
I Want to be a Baseball Player
I Want to be an Animal Doctor
I Want to be a Doctor

Books by Irene Miner:

The True Book of Policemen
True Book of Our Post Office

Books by Jean and Ned Wilkinson

Come to Work With Us in a T.V. Station
Come to Work With Us in a Hospital
Come to Work With Us in House Construction

Let's Look Under the City, by H. N. Schneider
About the People Who Run Your City, by Newman and Sherman
About Helpers Who Work at Night, by Hoffman and Hefflefinger
Let's Go to an Airport, by Laura Sootin
The Trucks That Haul by Night, by Leonard Stevens
This is a Department Store, by Louis Romano
Let's Go to a Garage, by J. M. Goodspeed
The True Book of Schools, by Benjamin Elkin
At the Library, by Lillian Colonius

--- These books are available at Area XIII and are most helpful in Career Education.
RELATION OF LEARNING TO WORK IN A NURSERY

By:
Letha Solliday
Third Grade Teacher
Roosevelt Elementary School
Council Bluffs School System

Career Education Workshop
March 6-17, 1972

Materials and information provided by Neilsen Nursery of Council Bluffs, Iowa
Social Studies:

Natural Resource and Trees

Suggestions

1. Chart of trees (from Nursery)
2. Books (on Primary Level) on trees and related products
3. Bulletin Board on trees

Activities:

1. Booklet on popular Iowa trees - made up by youngsters
2. Fieldtrip on grounds for types of trees
3. Slides of Neilsen Nursery and related jobs and titles involved
   Ex.: Landscape Architect
   Potting and Catagorizing

Art

Creative expression with scrap pieces of different woods from local lumber yard.

Seed creations from variety packages of Bird Seed (grocery store)

Language Arts

Suggestions:

Poetry
Letter writing or addressing orders
Index and Content Reading (Alphabetical)
New terms (Vocabulary)
   wholesale/warehouse
   importers
distributors
varieties
credit
guarantee

Science

Order and plant seeds in the room. (free from Earl May Seed in Shenandoah, order on school paper)
Directions for activity with catalogs

1. Children could work in groups of two; provide catalogs.
2. Discuss nursery use of wholesale catalogs and why we would compare prices.
3. Provide worksheet of order blank for actual compiling of order.
4. Use overhead projector or blackboard for guiding children in the activity.
5. In this activity children must keep order small, as they will need time and help to actually transfer information.
6. Provide mock envelope for mailing.

Measurements

1. Symbols: (') foot, (") inch
2. Using 1/2
3. Adding and subtracting inches and feet and the fraction 1/2
4. Go outside and measure the shrubs of the school yard.
5. Practice worksheet to reinforce concepts (see sample)
Worksheet

Measurement, page 171 (Math textbook) Background information

12 inches = 1 foot
3 feet = 1 yard
Symbols: (') foot
(") inches
5280 feet = 1 mile

Add:
12 inches
+12 inches
\[ \frac{24}{2} \text{ inches or 2 feet} \]

Add:
2-1/2 inches
+5-1/2 inches
\[ \frac{7}{7} \text{ plus 1 inch = 8 inches} \]

Add:
1-1/2 ft. 6 inches
+9 ft. 3 inches
10-1/2 ft. 9 inches

49" 68" 35" 45"
+38" -19" +99" -28"

Measurements

1. symbols: (') foot, (") inch
2. using 1/2
3. adding and subtracting inches and feet and the fraction 1/2
4. go outside and measure the scrubs of the school yard
5. practice worksheet to reinforce concepts (see sample)
Activities:

A. Price Lists
   1. Sample sheets of price lists with actual cover of Neilsen Nursery (a local business). Pictures of interest
   2. Worksheet of questions or assignments
   3. Worksheet of order blank for child's written work to order

B. Catalogs
   1. Comparison of prices to determine best buys
   2. Worksheet of catalog's order for m for actual work of children

C. Directions for assignment with price lists
   1. Discuss Price List
      How to read it, etc.
   2. Do sample ordering on the board and how to enter items desired.
   3. Then allow them the freedom and fun of going on their own from here ...
   4. Caution some with math difficulties not to over buy or get more than they can add or work with.
   5. Supply mock-envelopes to address and send to the nursery. Pay on delivery!
Contents:

Sample Math Problems

Careers As Related To Math

Using Math In A Department Store

Bricklayers Use Multiplication

A"Lube" Man Uses Math

Do You Really Need to Study Math?
CAREER EDUCATION: SAMPLE MATH PROBLEMS

Dear Teacher:

These math problems were written for a class who was studying about the jobs in a bakery. Problems could be written to fit the type of problems a class is studying.

This is a sample of how one can integrate career education into math. This shows how career education can be used to enhance the concepts one is teaching by making the subject matter more relevant to everyday life.

Sincerely,

Jacquelyn Crabtree
Elementary Counselor
Department of Career Education
Math

1. Alice works for the bakery. She has a dozen rolls and she sells six of them to Mrs. Jones. How many rolls are left?

2. Mary needed three batches of bread dough to bake enough bread for one day. If one batch is mixed, how many more batches of dough does Mary need?

3. If the recipe for chocolate cookies that Mary is using will yield 72 cookies and Mary has baked 35, how many more cookies should she be able to make?

4. Joe had an order for 100 cupcakes. He has baked 73. How many more does he need to fill the order?

If Joan works at the bakery from 2:00 p.m. to 10:00 p.m. Monday through Friday, how many hours a day does she work? How many hours a week does she work?

The bakery received an order for three chocolate doughnuts, three glazed doughnuts, three cherry filled doughnuts, and six french doughnuts. How many doughnuts did this order ask for? How many dozen is this? If doughnuts are five cents each, how much will this order of doughnuts cost?

The bakery bakes 50 pies and sells each pie for 69¢. If it cost 40¢ to make each pie, how much money would the bakery make on each pie? How much money would the bakery make on all 50 pies.
Answers

1. 12 rolls minus 6 rolls leaves 6 rolls.
   \[12 - 6 = 6\]

2. \[3 - 1 = 2\] batches of dough, so 2 batches of dough are still needed.

3. 
   \[
   \begin{array}{c}
   72 \\
   \underline{-35} \\
   37
   \end{array}
   \]

4. 
   \[
   \begin{array}{c}
   100 \\
   \underline{-73} \\
   27
   \end{array}
   \]
   cupcakes (he needs 27 more cupcakes to fill the order)

5. \[10:00\text{ p.m.} \quad 2:00\text{ p.m.} \quad \frac{8}{8}\]
   The answer is 8 hours
   \[8\text{ hours} \times 5\text{ days} = 40\text{ hours a week}\]

6. 3 chocolate
   3 glazed
   3 cherry filled
   6 french
   \[15\]
   The order asked for 15 doughnuts.
   \[15 - 1-1/4\text{ dozen} \quad (15 \div 12 = 1 \text{ and } 3\text{ 13ft over or } 3/12 = 1/4)\]
   At 5¢ a doughnut, the order will cost 15 \times 5 or 75¢ (not figuring tax).

7. 69¢ - 40¢ = 29¢ profit on each pie
   Since the bakery makes 29¢ on one pie, it would make 29¢ \times 50 or $14.50 profit on all 50 pies.
CAREERS AS RELATED TO MATH

By:

Phyllis VanFossan
6th Grade Teacher
Lake Elementary School
Council Bluffs School System
Council Bluffs, Iowa

Career Education Workshop
March 6-17, 1972

April 28, 1972
Dear Teacher:

This material was developed during a career education workshop conducted by the Pottawattamie County School System and the Council Bluffs Community School System on March 6-17, 1972.

This material was written by Phyllis VanFossan, an elementary teacher in the Council Bluffs Community School System in Council Bluffs, Iowa. Phyllis has coordinated career education materials with the basic math text for the Council Bluffs School System* for grades fourth, fifth and sixth.

This is a sample of how career education can be effectively correlated and integrated into math texts. The use of the career education materials in mathematics makes the subject matter more relevant to the students.

The approach that Phyllis has used here could be used with any math textbook series at any grade level.

Jacquelyn Crabtree
Elementary Counselor
Department of Guidance and Vocational Education
Director of Career Education Workshop

* The basic textbook math series in the Council Bluffs School System is the Elementary School Mathematics by Addison-Wesley.
CAREERS AS RELATED TO MATH

by
Phyllis VanFossan

I. Occupations requiring high school education and/or on-the-job training:

Carpenter
Mechanic
Electrician
All-round Machinist
Farmer
Insurance Agent
Waitress or Waiter
Beauty Operator
Barber
Cashier
Salesman
Real Estate Salesman
Bookkeeper
Telephone Operator
Shipping - Receiving Clerk
Postal Clerk
Bank Teller
Computer Programmer
Surveyor
Interior Decorator
Draftsman
Pilot
Laboratory Technician
Musician
Accountant
Auditor
Various military careers
II. Occupations requiring college education:

Statistician
Actuary
Geologist
Architect
Teacher
Astronaut
Librarian
Doctor
Nurse
Optometrist
Pharmacist
Airline Pilot

III. Concepts required for most math-related occupations

A. Addition and subtraction
   1. Strive for accuracy

B. Bases - especially bases two and eight as related to computers

C. Understanding money - especially being able to make change quickly and accurately

D. Scale drawing - as applied to drawing blueprints

E. Geometry

F. Decimals

G. Measuring

H. Seeing differences; e.g., small-large, near-far

I. Banking procedures
IV. Careers and Math in Grade Four

A. Materials and/or resources

Elementary School Mathematics, Addison-Wesley

B. Chapter Two

1. Concepts: Addition and subtraction concepts, money-dollar and decimal-point notation, and seeing universal relationships

2. Enrichment materials*

      Airline Ticket Agent
      Grocery Checker
      Gas Station Salesman

   b. Filmstrips: FS-686, Dollars and Cents
      (Anything suitable to addition and subtraction)

   c. Films: S-321, Arithmetic in the Food Store
      S-256, More and Less

   d. Kit 32, Spinner Games (whole numbers)

C. Chapter Three

1. Concepts: Multiplication and division concepts

2. Enrichment materials*

      Baker
      Foundry Worker
      Carpenter
      Tailor

   b. Filmstrips: FS-204, Story of Linear Measurement

   c. Films: S-316, Measurement in the Food Store
      S-626, Story of Weights and Measures

*Enrichment materials are available from Halverson Center for Education.
V. Careers and Math in Grade Five

A. Materials and/or resources

**Elementary School Mathematics**, Addison-Wesley

B. Chapter One

1. Concepts: Seeing differences and work with other bases

2. Enrichment materials*
      Data Processor
   b. Filmstrips: Anything relevant to big and little numbers or computers and their place in occupations
   c. Films: S-951, Computers

C. Chapter Five

1. Concepts: Geometry and measuring

2. Enrichment materials*
      Carpenter
      Tailor
      Pattern Maker
   b. Filmstrips: FS-204, Story of Linear Measurement
   c. Films: Anything related to geometry and a career that makes use of it

D. Chapter Six

1. Concepts: Addition and subtraction concepts, multiplication and division concepts, money

2. Enrichment materials*
      Airline Ticket Agent
      Gas Station Salesman
      Grocery Checker
   b. Filmstrips: FS-151, Percentage and Using Money
      FS-686, Dollars and Cents

*Enrichment materials are available from Halverson Center for Education.
c. Films: S-321, Arithmetic in the Food Store

d. Kit 32, Spinner Games (whole numbers)

E. Chapter Eight

1. Concepts: Fraction concepts, experience with equivalent fractions

2. Enrichment materials*

      Baker
      Foundry Worker
      Tool and Die Maker
      Carpenter
      Electrician
      Aircraft Refueler
      Tailor
      Pattern Maker
      Telephone Repairman

   b. Filmstrips: FS-280, Scale Drawings and Tables

   c. Films: Any film related to fractions and their relation to the "world of work"

   d. Kit 33, Spinner Games (fractions)

F. Chapter Eleven

1. Concepts: Decimals - using decimals in measurement; using notation for money to decimal notation; addition and subtraction of decimals

2. Enrichment materials*

      Airline Ticket Agent
      Grocery Checker
      Gas Station Salesman
      Plumber
      Electrician
      Long-haul Truck Driver

   b. Filmstrips: FS-148, Decimal Fractions and Reading Instruments

   c. Films: S-795, Percent - Why and How

*Enrichment materials are available from the Halverson Center for Education.
VI. Careers and Math in Grade Six

A. Materials and/or resources

**Elementary School Mathematics**, Addison-Wesley

**A Teaching Unit on Banking**

**Road Map Math**

**Area Measurement**

B. Chapter One

1. Concepts: Place value, reading and writing large numbers, bases other than ten, exponents and powers of ten, and expanded notation using exponents

2. Enrichment materials*

      Data Processor
      Electrician
      Meter Reader

   b. Filmstrips: Any filmstrip related to large numbers, exponents or bases other than ten, and the "world of work"

   c. Films: S-951, Computers
      S-256, More and Less

C. Chapter Three

1. Concepts: Review of addition, subtraction, multiplication and division; money problems; time, rate and distance

2. Enrichment materials*

      Airline Ticket Agent
      Grocery Checker
      Gas Station Salesman
      Long-haul Truck Driver

** Available from Mr. Duane Lewis, Coordinator of Mathematics
Council Bluffs School System
207 Scott Street
Council Bluffs, Iowa (51501)

* Enrichment materials are available from the Halverson Center for Education.
b. Filmstrips: FS-686, Dollars and Cents

c. Kit 32, Spinner Number Games (whole numbers)

d. Films: S-321, Arithmetic in the Food Store

e. Pamphlets: Road Map Math**

A Teaching Unit on Banking**

D. Chapter Five

1. Concepts: Geometry and measurement; area and perimeter; and segments, angles, and triangles

2. Enrichment materials*

   Foundry Worker
   Carpenter
   Telephone Repairman

b. Filmstrips: FS-204, Story of Linear Measurement

c. Films: Any film that relates geometry and measurement to the "world of work"

d. Pamphlets: Area Measurement**

E. Chapter Six

1. Concepts: Fractions - equivalent fractions, transition from fractions to numbers

2. Enrichment materials*

   Baker
   Foundry Worker
   Tool and Die Maker
   Carpenter
   Plumber
   Tailor

b. Filmstrips: Any relating fractions to careers

c. Films: S-316, Measurement in the Food Store

d. Kit 33, Spinner Games (fractions)

** Available from Mr. Duane Lewis, Coordinator of Mathematics (See page 6)

* Enrichment materials are available from the Halverson Center for Education.
F. Chapter Ten

1. Concepts: Decimals - fractions and decimals, addition and subtraction of decimals, decimals and money notation, scientific notation

2. Enrichment materials*
      Airline Ticket Agent
      Grocery Checker
      Gas Station Salesman
      Banker
      Electrician
   b. Filmstrips: FS-148, Decimal Fractions and Reading Instruments
      FS-151, Percentage and Using Money
   c. Films: S-321, Arithmetic in the Food Store
      S-795, Percent - Why and How
   d. Pamphlets: Teaching a Unit on Banking**
   e. Kit 33, Spinner Games (fractions)

G. Chapter Twelve

1. Concepts: Percent - notation for percent; graphs and diagrams; interest

2. Enrichment materials*
      Banker
      Electrician
      Telephone Repairman
   b. Filmstrips: FS-151, Percentage and Using Money
      FS-280, Scale Drawings and Tables
   c. Films: S-795, Percent - Why and How
   d. Pamphlets: Teaching a Unit on Banking**

*Enrichment materials are available from the Halverson Center for Education.
Employment Outlook for Accountants  
Bulletin No. 1550-1  
U. S. Department of Labor  
Bureau of Labor Statistics  
U. S. Government Printing Office  
Washington, D. C. 20402

Employment Outlook for Architects  
Bulletin No. 1550-5  
U. S. Department of Labor  
Bureau of Labor Statistics  
U. S. Government Printing Office  
Washington, D. C. 20402

Employment Outlook for Automobile Service and Sales Occupations: Automobile, Truck and Bus Mechanics; Body Repairmen; Painters; Upholsterers; Gas Station Attendants; Salesmen; Parts Countermen; Service Advisors  
Bulletin No. 1550-6  
U. S. Department of Labor  
Bureau of Labor Statistics  
U. S. Government Printing Office  
Washington, D. C. 20402

Career Opportunities in Aviation  
National Aerospace Education Council  
Room 616 Shoreham Building  
806 15th Street, N. W.  
Washington, D. C. 20005

Employment Outlook for Bookkeeping Workers, Office Machine Operators  
Bulletin No. 1550-19  
U. S. Department of Labor  
Bureau of Labor Statistics  
U. S. Government Printing Office  
Washington, D. C. 20402
Sources for Career Material

Jobs in Building Construction Trades
Science Research Associates, Inc.
250 E. Erie Street
Chicago, Illinois 60611

Employment Outlook for Commercial Artists, Industrial Designers, Interior Designers and Decorators
Bulletin No. 1550-19
U. S. Department of Labor
Bureau of Labor Statistics
U. S. Government Printing Office
Washington, D. C. 20402

Employment Outlook for Earth Scientists, Geologists, Geophysicists, Meteorologists, Oceanographers
Bulletin No. 1550-29
U. S. Department of Labor
Bureau of Labor Statistics
U. S. Government Printing Office
Washington, D. C. 20402

General Farmer
Chronicle Guidance Publications, Inc.
Moravia, New York

Food Store Workers
Science Research Associates, Inc.
259 E. Erie Street
Chicago, Illinois 60611

Employment Outlook for Lawyers
Bulletin No. 1550-45
U. S. Department of Labor
Bureau of Labor Statistics
U. S. Government Printing Office
Washington, D. C. 20402

Employment Outlook for Librarians
Bulletin No. 1550-46
U. S. Department of Labor
Bureau of Labor Statistics
U. S. Government Printing Office
Life Insurance Agent
Chronicle Guidance Publications, Inc.
Moravia, New York

Employment Outlook for Machining Occupations: Instrument Makers, Machinists, Machine Tool Operators, Tool and Die Makers, Setup Men, Layout Men
Bulletin No. 1559-47
U. S. Department of Labor
Bureau of Labor Statistics
U. S. Government Printing Office
Washington, D. C. 20402

A Career in Medicine, Neal H. Rosenthal
B'nai B'rith Vocational Service
1640 Rhode Island Avenue, N. W.
Washington, D. C. 20036

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

Dimensions of Veterinary Medicine
American Veterinary Medical Association
600 S. Michigan Avenue
Chicago, Illinois 60605

Employment Outlook for Technicians: Engineering and Science, Draftsmen
Bulletin No. 1590-88
U. S. Department of Labor
Bureau of Labor Statistics
U. S. Government Printing Office
Washington, D. C. 20402
USING MATH IN A DEPARTMENT STORE

By Jacquelyn Crabtree
May 31, 1972

Dear Teacher:

This math lesson was written to illustrate how career education can be integrated into math and how career education can be used to make the subject matter more relevant to the students.

In this lesson, the students not only learn basic operations with fractions, but they also learn that these skills are necessary to work in a department store.

This sample lesson can be used as a guide for developing others. The same method used here could be used to show the relationship between math and any number of different occupations.

If you're creative, imaginative and like to try new ideas, try your hand at relating math skills to the world of work. I think that you'll find it is an exciting experience!

Sincerely,

Jacquelyn Crabtree
Elementary Counselor
USING MATH IN A DEPARTMENT STORE

By
Jacquelyn Crabtree
Elementary Counselor

Under the
Direction and Supervision
of
Earl E. Winters, Director
Department of Career Education
Pottawattamie County School System

May, 1972
Fractions are used in the business world. One place that fractions are used is in a department store. After completing these ten problems, do the following activities:

1. List at least five ways fractions can be used in a department store.
   1.
   2.
   3.
   4.
   5.

2. Can you think of other ways, in addition to the ones given in these problems, how employees of a department store use fractions? (List any ways you can think of.)

3. Do you see why it is important to learn how to work fractions? (Explain your answer.)

4. Can you name other workers who must use fractions in their jobs?

5. What kind of person do you like to have wait on you in a store when you buy clothes? Why?

6. Would you like to be a salesman? (Why or why not)
1. Mr. Jones wanted to buy a hat. He tried on a size 7-1/4, but it was too small. He tried a size 7-3/4, but it was too big. The following sizes were available in the style hat that he wanted. Which of these size hats would you suggest that he try? (Tell why.)

Sizes:
1-7/8, 8-1/2, 7-1/2, 7-5/8, 7-3/8, 8-1/4

2. Mary began working as a clerk in a department store. One day there was a sale. The spring dresses were 1/3 off the regular price. The spring coats were 1/4 off the regular price. Ladies suits were half price. Mrs. Simmon brought the following items to the counter:
1. a spring dress, regular price $25.00
2. a spring coat, regular price $50.00
3. a suit, regular price $40.00

Pretend that you are Mary. In the space below show how you would figure the price of each article. How much would the dress cost? How much would the coat cost? How much would the suit cost? What would the total bill be?
3. Joan wanted to buy a pair of black boots. She wore a size 7-1/2AA. The only pair of black boots in the store were size 8-1/2AA. Would these boots fit Joan? (If not, what is the difference in the sizes?) Should Joan buy these boots? (Why or why not?)

4. If a sweater is on sale for 1/4 off the regular price, what price should the clerk put on it if it regularly sells for $35.00 (round off to the nearest cent). Show your work.

5. Blouses were on sale for $4.00 each. At regular price they are $6.00 each. A woman asked the clerk how much the blouses were reduced. Should the clerk reply 1/2, 1/4, or 1/3? How do you know? Show your work.
6. Mona wanted some fabric to make a dress. In the fabric department of the store she found some orange double knit material. The material cost $6.00 a yard. Since it was sixty inches wide, Mona only needed 1-1/2 yards to make her dress. How much would the material cost Mona? Show your work.

7. Marge works in a fabric department of a large store. Mrs. Smith purchases 1-3/4 yards of corduroy material at $1.35 a yard, 2/3 yard of crepe at $3.00 a yard, and 6-3/8 yards of double knit material at $7.00 a yard. How much did her bill come to? Show your work.

Julie told the clerk that she wanted 2/3 yards of felt. The clerk measures the material on a yardstick attached to the cutting table. How many inches of material should she cut for Julie? How many feet of material will this be?

During a pre-Easter sale the store sold 3/4 of the blouses on sale. If there were sixty blouses on sale, how many did the store sell? (Show your work.)
10. Mark is the owner of a department store. Recently, he was reading over the employees' monthly time sheets. John Brown's time sheet caused Mark concern. Using the chart below, answer the following questions.

1. How many days of work did John miss the first week?
2. How many days of work did John miss the second week of the month?
3. How many days of work did John miss the third week of the month?
4. How many days of work did John miss the fourth week of the month?
5. How many days each week was John supposed to work?
6. What fraction of the first week was John absent?
7. What fraction of the second week was John not at work?
8. What fraction of the third week was John not at work?
9. What fraction of the fourth week was John not at work?
10. What fraction of the total number of work days for this month had John not reported for work? (Show your work.)

<table>
<thead>
<tr>
<th>Date</th>
<th>M</th>
<th>T</th>
<th>W</th>
<th>Th</th>
<th>F</th>
<th>Sa</th>
<th>Hours Worked</th>
<th>Days Worked</th>
<th>Days Absent</th>
<th>Total Work Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 3-8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>April 10-15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>April 17-22</td>
<td></td>
<td></td>
<td></td>
<td>9:00-10:00</td>
<td></td>
<td>7:00-10:00</td>
<td>1:00-4:00</td>
<td>2</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>April 25-29</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12</td>
<td>12</td>
<td>24</td>
</tr>
</tbody>
</table>

Thought Question: If you were Mark, what would you do about John?
1. 7-1/2 because 7-1/2 is larger than 7-1/4, but smaller than 7-3/4.
   \[7-1/2 - 7-1/4 = 1/4 \]
   \[7-3/4 - 7-1/2 = 1/4 \]

7-5/8 because it is larger than 7-1/4 and smaller than 7-3/4
   \[7-5/8 - 7-1/4 = 7-5/8 - 7-2/8 = 3/8 \]
   \[7-3/4 - 7-3/8 = 7-6/8 - 7-5/8 = 1/8 \]

7-3/8 because it is larger than 7-1/4 and smaller than 7-3/4
   \[7-3/8 - 7-1/4 = 7-3/8 - 7-2/8 = 1/8 \]
   \[7-3/4 - 7-3/8 = 7-6/8 - 7-3/8 = 3/8 \]

2. 1/3 of $25.00 equals the amount off of the regular price of the dress
   1/3 of $25.00 = $8.33, so the price of the dress would equal
   $25.00 - $8.33 or $16.67

1/4 of $50.00 equals the amount off the regular price of the coat
   1/4 of $50.00 = $12.50, so the price of the coat on sale would be
   $50.00 - $12.50 or $37.50

1/2 of $40.00 equals the amount off the regular price of the suit
   1/2 of $40.00 = $20.00, so the sale price of the suit would be
   $40.00 - $20.00 or $20.00

The total bill should be $16.67
   \[37.50 \]
   \[20.00 \]
   \[\$74.17 \]

8-1/2 - 7-1/2 = 1

No, the boots would not fit Joan. They are one size too big. No,
Joan should not buy the boots because they would not fit her. If
she wore them she might get blisters on her feet.

1/4 of $35.00 = $8.75. Sale price of the sweater would be $35.00 -
$8.75 or $26.25

\[6.00 \]
\[-4.00 \]
\[\$2.00 \] $2.00 is what part of $6.00? 2/6 = 1/3

\[6.00 \times 1-1/2 = \$6.00 + \$3.00 = \$9.00 \]
$9.00 is the price of the material

\[1.35 \times 1-3/4 + \$3.00 \times 2/3 + 6-3/8 \times \$7.00 = \text{total of bill} = \]
\[\$2.36 \quad + \quad \$2.00 \quad + \quad \$44.63 \quad = \quad \$48.99 \]
8. \( \frac{2}{3} \) of 36 inches (number of inches in a yard) = 24 inches

24 inches divided by 12 inches (number of inches in a foot) equals the number of feet in 24 inches, or 2 feet.

9. \( \frac{3}{4} \) of 60 = number of blouses sold during the sale

\[ \frac{3}{4} \times 60 = 45 \]

10. 
1. missed 4 days the first week
2. missed 3 days the second week
3. missed 2 days the third week
4. missed 3 days the fourth week
5. should have worked six days each week
6. John was absent \( \frac{4}{6} \) or \( \frac{2}{3} \) of the first week
7. John was absent \( \frac{3}{6} \) or \( \frac{1}{2} \) of the second week
8. John was absent \( \frac{2}{6} \) or \( \frac{1}{3} \) of the third week
9. John was absent \( \frac{3}{6} \) or \( \frac{1}{2} \) of the fourth week
10. John was absent \( \frac{4+3+2+3}{24} \) or 12 days out of 24 days or \( \frac{12}{24} \) of the month so he was absent \( \frac{1}{2} \) of the time.

Thought question: Student's own opinion, any answer is correct.
Points to be noted should include: the lack of responsibility on John's part when not showing up for work.
Before firing John, employer should check and see if there is a valid reason for John being absent so much, such as illnesses. Employer should check with the immediate supervisor to see if he has called John on it and if not why he hasn't called John on his high record of absenteeism. Employer should make sure that John has been warned that being absent \( \frac{1}{2} \) of the time is not acceptable to the company and should personally talk to John if the supervisor has failed to do so.
These brick-layers use multiplication to work problems about area.

1. This house will be 80 ft. by 50 ft. What is the area of the house?

2. The basement wall needs to be 10 ft. high. Each brick is 8". How many bricks deep should the men lay the basement wall?

3. You need 2 gallons of water for each 5-pound bag of cement. How much water would you need for 20 pounds of cement?

4. One wall is 65 bricks long and 15 bricks high. How many bricks would the men need to order for that wall?
1. This "lube" man earns $2.10 an hour. Each day he works 8 hours. How much does he earn each day? In 5 days? In 20 days?

2. One day he came to work at 7:30. He took one-half hour off for lunch and left work at 5:30. How many hours did he work that day?

3. This worker changes oil in cars. Each car takes 5 quarts of oil. He must do 13 cars this day. How many quarts of oil does he need to order?
BRIEF PROJECT SUMMARY

"Do You Really Need To Study Math?"

Written and Recorded
by
Ted Stilwill and Francis Children

Using a set of 31 slides with a tape narration that depicts various people at work in local businesses, we have attempted to show how different mathematical skills are necessary or useful in a wide variety of occupations. Addition, subtraction, multiplication and division are featured, but other skills including counting, decimals, fractions, percentages, ratios and geometry are also mentioned.

While the quality of this presentation is questionable, it does demonstrate how a teacher might relate classroom math to the "outside world." Perhaps an audio-visual approach might provide an occasional interest boost. This same type of procedure might be just as easily applied to the other subject areas.

Most simply, we feel that the teacher can apply his or her own knowledge of the world of work to add meaning to the classroom.

Note: The slide-tape presentation is available through the Career Education Department of the Pottawattamie County School System.
Contents:

Jobs in Local Businesses

Jobs In These Council Bluffs Businesses

Jobs In Council Bluffs Businesses

Griffin Pipe Company

Twin City Artificial Limb Company

Service Director at a Car Garage

People Are Important!

Workers at United Airlines (Slide Narration)

Hey Man, What Are You Doing?
JOBS IN THESE LOCAL BUSINESSES

First National Bank
Arnold Tool & Die
Jennie Edmundson Hospital
Nonpareil
T.V. Gulf
Airport

By:
Lena Rutledge

Career Education Workshop
March 6-17, 1972
<table>
<thead>
<tr>
<th>Jennie Edmundson Hospital</th>
<th>Nonpareil</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volunteers</td>
<td></td>
</tr>
<tr>
<td>Switchboard</td>
<td></td>
</tr>
<tr>
<td>Personnel</td>
<td></td>
</tr>
<tr>
<td>Laboratory - Technicians</td>
<td></td>
</tr>
<tr>
<td>Dietary - Technicians</td>
<td></td>
</tr>
<tr>
<td>Nursing - Teaching</td>
<td></td>
</tr>
<tr>
<td>Doctors</td>
<td></td>
</tr>
<tr>
<td>Secretaries</td>
<td></td>
</tr>
<tr>
<td>Business Manager</td>
<td>Bookkeepers</td>
</tr>
<tr>
<td>Admissions</td>
<td>Filing</td>
</tr>
<tr>
<td>X ray Technicians</td>
<td></td>
</tr>
<tr>
<td>Laundry</td>
<td></td>
</tr>
<tr>
<td>Engineers - Boilers</td>
<td></td>
</tr>
<tr>
<td>Housekeeping</td>
<td></td>
</tr>
<tr>
<td>Therapy - Physical - Mental/Occupational</td>
<td></td>
</tr>
<tr>
<td>Medical Records</td>
<td>Recording</td>
</tr>
<tr>
<td></td>
<td>Filing</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Nonpareil</td>
<td></td>
</tr>
<tr>
<td>Office Clerks</td>
<td>Billing</td>
</tr>
<tr>
<td></td>
<td>Purchasing Ads</td>
</tr>
<tr>
<td></td>
<td>Circulation</td>
</tr>
<tr>
<td>Newsroom</td>
<td>Society - Reporters</td>
</tr>
<tr>
<td></td>
<td>Sports - Teletype</td>
</tr>
<tr>
<td></td>
<td>Proof readers</td>
</tr>
<tr>
<td></td>
<td>News</td>
</tr>
<tr>
<td></td>
<td>Pictures - Photographers</td>
</tr>
<tr>
<td>Presses</td>
<td>Four Pressmen</td>
</tr>
<tr>
<td>Off-set Room</td>
<td>Type setters</td>
</tr>
<tr>
<td></td>
<td>Lead smelter</td>
</tr>
<tr>
<td>Circulation</td>
<td>Packaging</td>
</tr>
<tr>
<td></td>
<td>Distribution</td>
</tr>
<tr>
<td></td>
<td>Carriers</td>
</tr>
<tr>
<td>T.V. Gulf</td>
<td></td>
</tr>
<tr>
<td>Manager</td>
<td>All help on Inventory Control</td>
</tr>
<tr>
<td>Pump</td>
<td>and Daily Balance Report</td>
</tr>
<tr>
<td>Grocery</td>
<td></td>
</tr>
<tr>
<td>Gas - etc.</td>
<td></td>
</tr>
<tr>
<td>Car Wash</td>
<td></td>
</tr>
<tr>
<td>Outside for accounting</td>
<td></td>
</tr>
</tbody>
</table>
Arnold Tool & Die

Management

Shop

Plastics

Shop

First National Bank

Tellers, 6-8

Loan

Secretaries

Filing

Machines

Proof

Vaults, 3

General

Safety Deposit

Public Relations

Cashier

President

Vice President (several)

Farm Management

Owned by Midland - 80,000,000 Assets

Owned by Bank - 50,000,000 Assets

Secretary

Manager

Draftsmen

Truckers (supplies)

Machinists

"Donkey" Driver

Warehouse

Die Press Operators (noise)

(production)

Machine Operators (package, remove wax finish)

Warehouse

"Donkey" Drivers

Labeling (hand-work)

Checker
Airport

Public Relations
Secretary
Ticket desk (upstairs if pre-ticket)
Stewardess
Pilot and Company
Housekeeping
Control
  Weather
  Computer
Tickets
  Computer ticket sales
Flight kitchen
  Salads and dessert cooks
  Drinks (liquor and cold)
  Chef
  Loading
Cafe
  Waitress
  Manager
  Hostess
Baggage
  Loading and unloading
  Claims on damaged baggage
Mechanics
Tower - F.A.A.
OUTLINE OF JOBS IN THESE COUNCIL BLUFFS BUSINESSES

Northwestern Bell
Beno's
Holiday Inn
Katelman Foundry

Council Bluffs Teachers

Career Education Workshop
March 6-17, 1972
Cashier
Service Representative
Messengers
PBX operator
Computer operator
Duplicator Operator
Business - home equipment
Repair Department - revolving table (bookkeeper)
Architecture Engineers
District Office

BENO'S

Advertising Agent
Business Office
 Personnel Director
PBX Operator
Bookkeeper
Buyers - on all floors
Clerks
Interior Decorator
Shipping and Receiving
Packaging for City delivery
Maid
Custodian
Accounting Department
Seamstress

HOLIDAY INN

Desk Clerk PBX operator
Inn Keeper (sells service)
Secretary
Bookkeeper
Chef
Salad Girl
Dishwasher
Back-up cook
Waitress
Head Maid
Maids
Carpenters
Laundry

KATELMAN FOUNDRY

Ow
Secretary - Bookkeeper
Draf't'man
Eng'r
Lay-out man
Welders - Machine operators "Do it all"
Furnace man
Finisher
Molder
Machinist
JOBS IN THESE COUNCIL BLUFFS BUSINESSES

Council Bluffs Police Department
Rapid Printing Company
People's Department Store
Peoples Natural Gas Company
Northwestern Bell Telephone Company
Charles Custom Furniture
Mercy Hospital

By:
Judith Stubblefield

Career Education Workshop
March 6-17, 1972
I. Police Department

A. Requirements for employment

1. Must be between the ages of 21 to 35 inclusive
2. Be a citizen of the United States
3. Be of good moral character
4. Not a liquor or drug addict
5. Never convicted of a felony
6. Never borne arms against the U. S. Government
7. Never claimed exemption from military service on account of being a conscientious objector
8. Must be 5 feet 8 inches or more in height with weight being commensurate
9. Have 20/30 eyesight without glasses
10. Have a high school education or its equivalent

B. Positions

1. Patrolman
2. Investigator
3. Sergeant - Field Sergeant
4. Lieutenant
5. Captain
6. Assistant Chief
7. Chief
8. Custodians (non-Civil Service)
9. Radio operators
10. Poundmaster
11. Dog catcher

C. Training

1. State law that each patrolman attend the Police Academy for four weeks
2. Courses in criminology at the nearby colleges and universities are recommended
3. On the job training
   a. Officer must be able to control himself under situations of stress
   b. Must get away from being "badge happy"

D. Promotions

1. All positions on the force are under Civil Service
2. Oral and written tests must be passed to move from one position to another

E. Responsibility

1. When officers are off duty they are still confronted by aspects of their jobs; i.e., people often call officers at their homes concerning different problems or to harass them.
II. Rapid Printing Company

A. Requirements for employment
   1. General knowledge of different kinds of presses

B. Positions
   1. Printer

C. Training
   1. Courses in educational institutions in printing
   2. On the job training
      a. Takes three days to one week to be proficient on a new machine

D. Promotions
   1. This is a two man operation

E. Responsibility
   1. There are no responsibilities beyond the eight hour day

III. People's Department Store

A. Requirements for employment
   1. High school education
   2. Willingness to train

B. Positions
   1. Owner-manager
   2. Credit clerks
   3. Telephone operator
   4. Buyers
   5. Sales personnel
   6. Stock handlers
   7. Snack Counter attendants
   8. Custodians
   9. Display artist
   10. Bookkeepers

C. Promotions
   1. Sales personnel can advance to positions as buyers and department heads and possibly to managerial positions. However, in such a small operation, this last move would be unlikely.
D. Responsibility

1. There are no responsibilities beyond the eight-hour day except perhaps for the owner-manager

IV. Peoples Natural Gas

A. Requirements for employment

1. High school education
2. Ability to communicate and use numbers

B. Positions

1. Sales personnel
2. Cashiers
3. Customer service representatives
4. Meter readers
5. Meter repairmen
6. Sales manager
7. Personnel manager
8. General manager
9. Accountant
10. Bookkeeper

C. Training

1. On the job

D. Promotions

1. Possibility of promotion between departments
2. All available positions in the Northern Natural Gas System are posted for anyone in the company who would like to apply and is qualified

E. Responsibility

1. There are no responsibilities beyond the eight-hour work day

V. Northwestern Bell Telephone Company

A. Requirements for employment

1. High school education
2. Previous electronics work helpful
B. Positions

1. Splicers
2. Switchboard operators
3. Supervisor
4. Chief operator
5. Equipment controllers

C. Training

1. On the job
2. Various schools within the company to which personnel can be sent

D. Promotions

1. Promotions are mainly between departments
2. If a person within the company qualifies for a particular position, he is considered before anyone from outside is considered

E. Responsibility

1. There are no responsibilities beyond the eight-hour work day

VI. Charles Custom Furniture

A. Requirements for employment

1. None

B. Positions

1. Clerical workers
2. Serger
3. Framer
4. Springer
5. Quilter
6. Sewer
7. Stuffers
8. Upholsterer
9. Dock workers

C. Training

1. On the job
2. Depending on difficulty of job, training takes from three weeks to three months
D. Promotions

1. Employees generally stay in one position. However, there are foreman positions to which employees can be promoted.

E. Responsibility

1. There are no responsibilities beyond the eight-hour day.

VII. Mercy Hospital

A. Requirements for employment

1. Range from high school education to several graduate degrees

B. Positions

1. Doctors
2. Nurses - L.P.N. - Aides
3. Laboratory technicians - X ray technicians
4. Physical therapists
5. Engineers
6. Carpenters
7. Plumbers
8. Laundry
9. Central supply workers
10. Clerical positions - PBX operator
11. Cooks
12. Dishwashers
13. Cafeteria personnel
14. Custodians
15. Teachers

C. Training

1. Training is on the basis of the particular position
   a. On the job
   b. Schools

D. Promotions

1. Areas where there would be promotions would basically be according to amount of education
2. In other areas promotions would be based on qualifications

E. Responsibility

1. Here again, responsibility is measured according to position
2. The majority of hospital positions would not require any responsibility beyond the eight-hour day
GRiffin pipe company

Pictures by
Elementary Teacher of
Council Bluffs School System

Script Written by
Jacquelyn Crabtree
Elementary Counselor
Department of Career Education

Under the
Direction and Supervision of
Earl E. Winters, Director
Department of Career Education

April, 1972
How are pipes made?

Hot liquid (molten) iron is poured into pipe molds. When the iron cools, the pipes will be removed from the molds. The molds give the pipe its shape.

After the pipes are removed from the molds, the width of the pipes are checked with an ultrasonic instrument. In the picture at the right you see one of the employees of Griffin Pipe Company doing this.

The man in the background of the picture at the left is a crane operator. In the foreground of the picture you can see the hot molten iron being poured into the pipe molds.

After the pipes have cooled and are inspected and approved for use, a special machine loads the pipes onto trucks to be delivered to buyers.
Pipes are used for many things. Below, list five ways that pipes are used

1. 
2. 
3. 
4. 
5. 

For more information about Griffin Pipe Company, contact Mr. Carl McCormick, Sales Manager, 2601 9th Avenue, Council Bluffs, Iowa (51501), telephone number: 322-6641. Perhaps you can take a field trip there or have one of the workers come talk to your class.
These men make artificial legs and arms. They fit the limb to the person for whom it is made. In the picture at right, you can see that the leg is made to end at the knee. They try to make artificial limbs as nearly like real ones as possible.

In the picture at left, you see one of the men holding an artificial arm. Many people need artificial legs or arms. Some people lose an arm or leg due to illness. Sometimes, doctors have to amputate an arm or leg to save a person's life. These men who make artificial limbs have a very important job.

For more information, contact David Burton at Twin City Artificial Limb Company, 3204 W. Broadway, Council Bluffs, Iowa (51501), telephone number 322-6216
SERVICE DIRECTOR AT A CAR GARAGE

Discussion questions for language arts:

1. What would he say when he answers the telephone?

2. Why does he wear a suit and tie?

3. What does he need to know about the business to answer the questions people might ask?

4. Does he need to be pleasant? Why?
PEOPLE ARE IMPORTANT

Developed by
Jacquelyn Crabtree

Under the supervision and direction of
Earl E. Winters, Director
Career Education Department

March, 1972
People Are Important!

Airports

After reading this pamphlet, do one of the following activities:

1. Write a letter to a friend telling him about the airport.

2. Pretend you just completed a tour and write a thank you letter to Mr. Jake Hutchinson, Customer Service Manager, United Airlines, Eppley Airport, Omaha, Nebraska.

3. Role play various jobs of an airline.

4. Given a sample irate letter from a customer, answer it as a Customer Service Agent. Remember how you treat a person is very important!

5. Write a paragraph about each worker. Underline the topic sentence.

6. Write one sentence about each picture. Underline the verb.

7. Take a field trip of Eppley Airport or United Airlines.

The following pictures show only a few of the jobs involved in an airline. These pictures were taken at Eppley Airport in Omaha, Nebraska during a tour conducted by United Air Lines.

Since an airline company serves the public, it is very important that the people working for the airline be gracious and considerate of people. If people are treated well (as if they are important) they will come back. The success of an airline depends a lot on the public relations of each worker.

For more information, contact Mr. Jake Hutchinson, Customer Service Manager, United Airlines, Eppley Airport, Omaha, Nebraska (telephone number: 422-6224).

or

Ron Greer, Eppley Airport Authority, Omaha, Nebraska (telephone number: 422-6800).
The pictures above show men who work in the flight tower at Ep. ley Air-
port in Omaha, Nebraska. These men are responsible for giving pilots
of all planes in their area the altitude where they should fly. They give the
pilots directions for landing and taking off. By directing all flights through
the flight tower, the men in the flight tower can prevent air crashes. With-
out the flight tower, two planes could crash in mid-air.

This woman works in the United Airline office in Omaha, Nebraska.
She is wrapping packages of food each day on the meal trays for
the various flights.
This is a cook at United Airlines Flight Kitchen in Omaha, Nebraska. Here the meals are prepared for United Airlines flights leaving Omaha. He is cooking meat that will later be served to someone on an airplane.

This is the cockpit of an airplane. This is where the pilot sits. You can see the instrument panel. He uses all these instruments to fly the plane. A pilot needs a lot of training. The lives of several hundred people may be in his hands.
This is the inside of a plane. The men in the uniforms are cleaning the plane between flights. They remove any suit cases that are left, pick up dirty cups and vacuum the floor and seats... How well these men do their job will be very important. People don't want to sit in a dirty seat. A clean plane makes people enjoy their trip more.

This is the control center of United Airlines at Eppley Airport in Omaha, Nebraska. If a plane is late or doesn't fly on schedule, the people who work here try to route passengers on other planes to make connections. If passengers miss a flight and have to stay overnight these workers will make the necessary arrangements.
If you drive to an airport to fly somewhere, you will have to park your car. This lady is collecting money from people for parking their cars. There are hourly rates and daily rates. This lady must figure out how much you owe. To do this she will find out how long your car was in the parking lot and multiply that times the appropriate rate.
Narration to slides:

1. Entering terminal - name of airport and year dedicated
2. Car rental
3. Trainer of customer service agents: here the agents are trained in how to use these machines. The machines are connected to a computer in Chicago and you can get instant reply on the closed circuit television as to what flights are available, time of departure, time of arrival and if the flights are on time.
4. Customer service - this man among other duties receives all the complaints of customers
5. This man cleans the inside of the plane between flights. He will vacuum the carpet and do such things as pick up all dirty cups and place airbags in seats if they need them.
6. Picture of a plane
7. Picture of a plane through the terminal window
8. Pilot of a United Airlines airplane
9. This man makes salads for the flight trays in the United Airlines flight kitchen.
10. Rich Moreno, kitchen supervisor of United Airlines flight kitchen, is showing a tray ready to be served on a flight.
11. Here Mr. Moreno is showing a tray of salads ready to be put aboard the plane.
12. Here Mr. Moreno is showing a tray ready to be served aboard a flight. You can also see in this picture the unit where the trays are stored. These units are made so that they can keep the food hot. The units are put on the plane shortly before the plane takes off.
13. This lady packages salt, pepper, sugar for each tray for each flight.

14. This lady is filling ice bags for drinks on flights.

15. One of the cooks in the flight kitchen is cooking meat for the hot meals.

16. This picture shows the hot meals being kept warm until they are put into the compartments and put on the plane.

17. The man in white is the food clerk for United Airlines Flight Kitchen. He keeps track of how much food is in store (vegetables, fruits, meats, etc. either canned or frozen) and how much is used and what is needed.

18. Picture of the outside of the tower

19. Picture of teachers visiting in the tower with the men who work there.

20. Picture of the runways from the tower

21. Jake Hutchinson taking teachers on a tour

22. Teachers at Eppley Airfield - reception of United Airlines

Script written by Jacquelyn Crabtree, elementary counselor for Pottawattamie County School District, Department of Guidance and Vocational Education, under the supervision and direction of Earl E. Winters, Director of the Exemplary Project on Career Education. If you wish to use the slides, please contact Jacquelyn Crabtree (phone: 328-0730 or 366-0503)
HEY MAN, WHAT ARE YOU DOING?

By
Jacquelyn Crabtree
Elementary Counselor

April 19, 1972

Under the direction and supervision of

Earl E. Winters
Project Director
Hey man, what are you doing?

English-Career Education Lesson

Directions: On the lines below each picture, write a sentence telling what the person (or persons) in the picture are doing. Underline the verb in each sentence.

Example: The man runs after the dog.
Contents:
Big John's Pharmacy
United Airlines Chef
Hospital Study Sheet
I AM A PHARMACIST. SOME OF THE THINGS I DO IN MY JOB ARE:
UNITED AIRLINES CHEF

Discussion questions for health:

1. What must he do before he begins to work with the food?
2. Why does he wear that hat?
3. What would he need to put on each tray for a well-balanced meal?
4. How would the food be kept until it is ready to be used?
HOSPITAL

Purpose for Teaching the Unit

1. The hospital has over 200 different jobs with a wide range of training, abilities, work schedules, education and non-medical related occupations.

2. To interest students in health-related areas, as there is an expected manpower shortage as hospitals become more self-sufficient and complex. Three areas in particular are:
   A. Hospital Business
   B. Data Processing
   C. Hospital Management

3. To stress the needed cooperation which is necessary in getting such a complex organization to work together to form one unit which will better serve the general public.

4. To build a unit around the first grade social studies unit of family and the second grade social studies unit of community.

Different Departments

1. Nursing Service (comprises 50% of the staff)
2. Doctors
3. In-service (to train their own employees and to keep them abreast of the newest innovations)
4. Management
5. Accounting
6. Business
7. Food Services (for hospital and guests)
8. EEG and EKG
9. Engineering (the hospital is totally self-sufficient - only buys raw gas)
10. Maintenance (a full staff of electricians, plumbers, carpenters, etc. for the hospital itself)
11. Housekeeping (all custodial services)
12. Inhalation Therapy
13. Laboratory or Pathology Department
14. Laundry
15. Medical Records
16. Pharmacy
17. Physical Therapy
18. Department of Materials
19. Radiology
20. Pastoral (cares for all spiritual aspects of the patient)
21. Psychiatric Ward (also includes a teacher for long term students)

Note: There is a set of slides about occupations in hospitals taken at the two local hospitals of Council Bluffs, available from the Department of Guidance and Vocational Education, Pottawattamie County School System, Route 1, Council Bluffs, Iowa (51501) or phone: 328-0730.
GENERAL

Contents:

Primary Ideas for Integrating Career Education
Intermediate Ideas for Integrating Career Education
Travel & Careers
Job Interview Sheet Used in Workshop
IDEAS FOR IMPLEMENTING CAREER EDUCATION

I. Primary purpose

A. Familiarize children with the many different jobs
B. Make the dignity and importance of work evident of all types of jobs - positive attitude
C. Self-expression, their interest
D. Use it as a motivation for school areas

II. Areas of relation

A. All areas are needed from language arts to math.

III. Methods for using in the classroom

A. Bring some workers into the classroom
B. Fieldtrips
C. Filmstrips, tapes, and other materials
D. Discussion
E. Work in committees and groups
F. Stories about different workers
G. Classroom meetings
H. Independent readings

IV. Methods for use in the curriculum with several examples

A. Bring in some workers for discussion
   1. Reading - bring in mailman
   2. Social studies - produce man
   3. Relative on some particular job

B. Field trips
   1. Check recommendations for grade level (social studies)

C. Filmstrips, tapes, and other materials
   1. List from Miss Crabtree
   2. Halverson Center listings

D. Discussion
   1. Social studies - mayor of city
   2. Pictures - discuss different aspects of the pictures

E. Work in committees and groups
   1. Art - mural for any subject area (bank)
   2. Language art - work on newspaper
F. Stories about workers
   1. Reading - tape a book about helpers
   2. Language art - write a story and draw a picture about your favorite worker

G. Classroom meetings
   1. What kind of work are you interested in? Why?
   2. What does a landscape architect do?

H. Independent reading
   1. Books from Halverson Center on careers
INTERMEDIATE IDEAS TO IMPLEMENT CAREER EDUCATION

As suggested by business contacts:

I. MATH
   A. Develop a unit on balancing a checking account for one week. According to bank people this is important.
   B. Making change is an important item in most businesses.
   C. Weights and measures and fractions are important in a feed industry, drugstore, etc.
   D. Fractions, figures and measuring are important.
   E. Mail orders—inventory and purchasing are included in Math.
   F. Accuracy in numbers and four basic processes.

II. SCIENCE
   A. Classification of characteristic items
   B. Accuracy of writing formula
   C. Hypothesis Process
   D. Use of correct terms and their meaning.
   E. Accuracy of measurement.

III. ART
   A. Advertising—activity: sell a product (maybe in Social Studies)
   B. Scale drawings
   C. Room color schemes and layout
   D. Posters
   E. Mixing color

IV. SOCIAL STUDIES
   A. Filling out forms
   B. Dignity of work
   C. Drafting and reading maps
   D. Understanding of people, location and weather
   E. Weather and natural resources
V. LANGUAGE ARTS

A. Role playing in relation to occupation
B. Interviews with good English
C. Newspaper reporting
D. Reading directions
E. Following directions
F. Promptness of assignments
G. Pleasing personality in public works
TRAVEL AND CAREERS.

Jobs in a Motel

Developed by:
Council Bluffs Teachers

Career Education Workshop
March 6-17, 1972
Motels

During the year or at the end of the year when studying a subject involving the topic of transportation, include the jobs in a motel and how it relates to transportation and travel.

A. To show the importance of a motel in traveling, you could use the following activities:

1. In math class, figure mileage and role play the job of cashier (actually making change using play money).

2. In English class write themes on jobs, outline the duties of jobs in a motel and/or have each student interview one of the workers in a motel and report to the class.

3. In social studies, develop map skills by having each student use maps to plan a vacation.

4. Discuss the personal responsibility of each job listed below:
   
   innkeeper
   bell boy
   chef
   maid
   dishwasher
   switchboard operator
   desk clerk
   clean-up man
   waiter
   cashier
   food director
   manager

B. Techniques you could use

1. Field trips to a motel
2. Role playing various jobs in a motel
3. Films or filmstrips about jobs in a motel
4. Student interviews of motel workers
5. Bring workers from a motel to speak to the class
6. Students research one occupation of a motel and write a report on it.
7. Make a model motel and place workers in areas where they work.
8. Have students write a play about a motel and put it on for a program for parents or other classes in the school.
10. Let students take pictures of workers during field trip. Then have students identify the pictures (mix them up).
Maids are Important!

This lady is a maid at a motel. She is very important to the success of a motel. She cleans the room. She changes the bed. She scrubs the bathroom walls, the sink, the toilet, the bathroom floor and the furniture. She vacuums the carpet and she makes sure there are clean towels, washcloths and drinking glasses. A room must be clean before the maid leaves. All day she cleans rooms. Her supervisor will check each room after it is cleaned. If the room is not cleaned well enough, the maid must go back and clean it again.
Howard Johnson's Motel

One of the many occupations in a motel is the maid. Here is a description of what a maid does. Other jobs found at Howard Johnson's Motel include:

1. Desk Clerk
2. Bartender
3. Manager
4. Secretary - she manages 55 apartments which are located directly behind the motel
5. Housekeeping Supervisor - she supervises all the maids
6. Maintenance Men
7. Person to keep the temperature of the pool regulated

For more information, contact Gus Pappas, Manager, at 328-3171. Perhaps you can arrange a field trip to the motel or have someone come in and talk to your class.
Name of Occupation ___________________ Business ___________________

1. How does this occupation relate to what I teach?

2. This occupation relates to areas checked below:
   - Math
   - Science
   - Art
   - Social Studies
   - Language Arts
   - P. E.
   - Music

3. I can incorporate this information into my classroom by:
   - Films
   - Field trip
   - Lecture
   - Group reports
   - Pictures & discussions
   - Records
   - Stories
1. What does a worker do?

2. How does he do it?

3. Why?

4. Where?

5. When? (Hrs., days)

6. Can skills transfer to other jobs? If yes, which ones?

7. Can skills transfer to other areas? Where?

8. 8-4 job job involving work after office hours

9. Physical ability needed:

10. Training:

11. Responsibility level: Administration do job & go home

12. Hours home with family