This vocational instructional module on the printers' system of measure is one of eight such modules designed to assist recently arrived Arab students, limited in English proficiency (LEP), in critical instructional areas in a comprehensive high school. Goal stated for this module is for the student enrolled in graphics courses to learn the printers' system of measure. Each module consists of these parts: title; program goal and performance objectives; a pronunciation key; a language page which offers the pronunciation, definition, and usage of key terms in English and in Arabic; a pretest; bilingual (English and Arabic) language (vocabulary and usage) activities; evaluation; pretest and activity answer sheets; and a list of supplementary materials and their location. For each of the four activities in this module the objective, a list of materials needed, procedure, and evaluation are provided in addition to the necessary activity sheets or pages.

(YLB)
FORDSON BILINGUAL DEMONSTRATION PROJECT

PRINTER'S SYSTEM OF MEASURE

نظام القياس عند الطباعين

برناج فوردسون النموذجي

الثنائي اللغة -
ABOUT THE PROJECT

The Fordson Arabic Bilingual Demonstration Project is designed to assist recently arrived Arab students, limited in English proficiency (LEP), to adapt to a large and comprehensive high school. The project consists of academic and vocational instructional modules, reading services to teachers and students, bilingual aide and resource services, computer and television modules, staff development activities, and home-community liaison.

ABOUT THE INSTRUCTIONAL MODULES

The modules were designed to assist LEP students in critical instructional areas throughout the school curriculum. These areas of focus were determined by a needs survey of the entire Fordson school community. Each module consists of seven parts: title, objectives, pretest, language (vocabulary and usage) activities, evaluation, and supplementary materials. Modules were translated, duplicated, and field tested.

ABOUT THE AUTHOR

Ray Pizzino did his undergraduate work at Wayne State University and his graduate work at the University of Michigan. Ray has worked for ten years in Dearborn in the Industrial Arts Department teaching Automotive, Printing, and Graphics. The major concepts of this unit were those defined as critical for beginning limited English proficiency students in Graphics.
CREDITS AND ACKNOWLEDGEMENTS:

Special Assistance:

Jean H. Miller, Ed.D. - Editor
Pat Coulter - Reading Consultant
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Christine Rajda - Typist
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Demonstration Staff:

Clark Burnett - ESL Instructor/Audio-Visual Consultant
Albert Harp - Bilingual Resource Coordinator
Fouad Moawad - Bilingual Instructor
Jim Petrie - Facilitator
Wafa Unis - Instructional Aide/Home Community Liaison
Issaaf Beydoun - Instructional Aide
Elham Hamdan - Instructional Aide
Karim Michael - Instructional Aide
Rihab Ahmad - Secretary

Dearborn Board of Education:

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Dr. Thomas McLennan - Superintendent
Dr. Fred Schrieber - Director, Division of Instructional Services
Mr. John Dutton - Coordinator, Project Development
Mr. Bill Letsche - Principal, Fordson High School

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graphic arts
printers system of measure

developed by:
ray pizzino
This bilingual module has been developed to assist limited English proficiency students in learning the Printers' System of Measure. The unit is designed for students enrolled in graphics courses.

GENERAL OBJECTIVE:
Using a line gauge, the student will be able to measure width and length of copy and line length in printers' terms.

SPECIFIC OBJECTIVES:
Given 2-6 examples of copy, the student within one week will:

1. Measure the width of various copy in inches, and convert it to picas and points with 100% accuracy.

2. Measure the depth (length) of various copy in inches, and convert it to picas and points with 100% accuracy.

3. Measure line length in inches, and convert it to picas and points with 100% accuracy.
PRETEST

DIRECTIONS: Write the answers to the following questions in the space provided.

1. 2 picas = ________ points.

2. 12 picas = ________ points.

3. 1 inch = ________ points.

4. 6 inches = ________ points.

5. 2 inches = ________ points.

6. 3 picas = ________ points.

7. 4 picas = ________ points.

8. 9 picas = ________ points.

9. 3 ½ inches = ________ points.

10. 1 ½ inches = ________ points.
PRONUNCIATION KEY

/a/ as in _Adam_  
/ä/ as in _cake_  
/e/ as in _let_  
/e/ as in _meet_  
/i/ as in _sit_  
/i/ as in _ice cream_  
/o/ as in _hot_  
/ö/ as in _Coke_  
/u/ as in _Seven Up_  
/ü/ as in _blue_  
/b/ as in _boy_  
/c equals /s/ as in _cents (10¢)_  
/k/ as in _cat_  
/d/ as in _day_  
/f/ as in _four_  
/g equals /g/ as in _go_  
/dz/ as in _page_  
/h/ as in _he_  
/j equals /dz/ as in _jail_  
/k/ as in _kick_  
/l/ as in _Cola_  

/m/ as in _man_  
/n/ as in _man_  
/p/ as in _Dr. Pepper_  
qu equals /kw/ as in _quit_  
/r/ as in _run_  
/s/ as in _sun_  
/t/ as in _ten_  
/v/ as in _van_  
/w/ as in _woman_  
/x/ as in _extra_  
/y/ as in _yet (sometimes /e/ as in _many_)_  
/z/ as in _zebra_  
/sh/ as in _shut_  
/ch/ as in _church_  
/ng/ as in _sing_  
/th/ (voiced) as in _this_  
/th/ (unvoiced) as in _thing_  
/oo equals /ü/ as in _food_  
/u/ as in _good_.
DIRECTIONS: Read, pronounce, spell, and use in a sentence the words listed below.

- copy (ko'pi)
- length (lenkth)
- line gauge (lìn gāj)
- line length (lìn lenkth)
- picas (pī' kas)
- points (points)
- width (width)

1. **copy**
   any furnished material, words and pictures to be printed
   The printer must always measure **copy** accurately.

2. **length**
   how long a thing is
   The **length** of a ruler is 12 inches.

3. **width**
   how wide a thing is
   The **width** of the river is 15 feet.
4. **line gauge**
   printers' ruler, calibrated in inches, picas, and half picas.
   The **line gauge** is used to measure copy.

5. **line length**
   the length of a line of type
   The line length of this copy is three inches.

6. **pica**
   printers' unit of measure
   1 pica equals 1/6 of an inch
   Six picas equal one inch.

7. **point**
   printers' unit of measure
   12 points equals 1 pica
   Seventy-two (72) points equal one inch.
To the student:

You are going to learn:
to convert inches to picas and points.

In order to do this you will be given:
a pencil and a line guage.

You will be doing the following:
reading and measuring the standard
printers' measures:

- 6 picas = 1 inch
- 12 points = 1 pica
- 72 points = 1 inch

We will know you can do this when:
you have completed the post-test
evaluation with 80% accuracy.
STUDENT ACTIVITY 1

DIRECTIONS:
On this worksheet you see several lines. Use your line gauge to measure each line, and write its length in inches, picas and points.

Example: __________ = 1 1/4 inches
__________ = 7 1/2 picas
__________ = 90 points

(1)
_______ = inch
_______ = pica
_______ = points

(2)
__________ = inch
__________ = picas
__________ = points

(3)
__________ = inch
__________ = picas
__________ = points
STUDENT ACTIVITY 1 (continued)

(4)

____ = inch
____ = picas
____ = points

(5)

__________ = inch
__________ = picas
__________ = points

(6)

____ = inch
____ = picas
____ = points
STUDENT ACTIVITY 2

OBJECTIVE:
Given examples, you will learn to identify copy, width of copy, length of copy and line length.

DIRECTIONS:
Study this example of length, width, line length, and copy.

The enclosed area above is the copy.

DEARBORN PUBLIC SCHOOLS
STUDENT ACTIVITY 2 (continued)

DIRECTIONS:

On the example below fill in the boxes with the correct terms.

1. [ ]
2. [ ]
3. [ ]
4. [ ]

The enclosed area above is the: [ ]

DEARBORN PUBLIC SCHOOLS
STUDENT ACTIVITY 3

DIRECTIONS:

Using a line gauge, measure the width of the copy in inches.

a. The width is _______ inches.
b. The width is _______ picas.
STUDENT ACTIVITY 4

DIRECTIONS:
Using a line gauge measure the length in picas.

a. The length is _______ picas.
b. The length is _______ inches.
STUDENT ACTIVITY 5

DIRECTIONS:
Using a line guage measure the line length in picas, points and inches.

a. The line length is _______ picas.
b. The line length is _______ points.
c. The line length is _______ inches.
EVALUATION

Use pretest for post-test evaluation.
OPTIONAL HOMEWORK ACTIVITY:

Have the students bring to class examples from newspapers or magazines copy of different advertisements, showing the various dimensions: width, length, line length.
STUDENT ACTIVITY 1

1. \(\frac{3}{4}\) inch
   4 1/2 picas
   54 points

2. 1 1/2 inch
   9 picas
   108 points

3. 2 inches
   12 picas
   144 points

4. 1/2 inch
   3 picas
   36 points

5. 2 1/4 inch
   13 1/2 picas
   162 points

6. 1/4 inch
   1 1/2 picas
   18 points

STUDENT ACTIVITY 2

1. width
2. length
3. line length
4. copy

STUDENT ACTIVITY 3

a. 3 1/4
b. 19 1/2

STUDENT ACTIVITY 4

1. a. 18
   b. 3

STUDENT ACTIVITY 5

1. a. 12
   b. 144
   c. 2

EVALUATION

1. 24
2. 2
3. 72
4. 36
5. 144
6. 1/2
7. 48
8. 1 1/2
9. 21
10. 108
SUPPLEMENTARY MATERIALS

Printing Layout and Design
by Delmar

Photo Offset Fundamentals
by John E. Cogoli

Overhead Transparency
(Student Activity 2)

Fordson Print Shop