Student Learning Activity Package
for
Technology Education

A. System Title: <u>Communications</u>   Grade Level: ____

Concept: <u>Printing Processes §38§</u>

Course Title: _____

B. Activity Title: <u>Layout Package</u>

C. Length of time to complete the activity; Maximum 45 minute class periods _7_ ; Minimum 45 minute class periods _5_ .

D. Introduction

The graphic arts industry continues to grow — more than one billion dollars are paid out annually in salaries. Gross receipts in the graphic arts climb at the rate of more than 350 million dollars a year. The need for persons skilled in graphic arts techniques grows with the industry.

Job opportunities in the preparation of material for the graphic arts camera increase daily. Not only are more and more newspapers, daily and weekly, "going offset," but many letterpress publications find it economical to paste-up display and advertising pages using cold type methods. Design flexibility is a key feature of paste-up. This flexibility is particularly suitable to supermarket and drugstore advertisements. Business publications, technical reports, magazines, and many others use camera copy preparation techniques.

These exercises are intended to allow the student to explore paste-up techniques further. "We learn by doing" has been so often repeated that it has become a cliche — but it is still a useful educational concept. Exciting and well paid job opportunities exist for those individuals that are interested in and develop skills in graphics layout work.

4

E ACTIVITY OBJECTIVES:

1. EXPLORE PASTE UP AND LAYOUT TECHNIQUES
2. RECOGNIZE TYPICAL SIZES AND ~~STYLES~~ STYLES OF TYPE USED IN VISUAL COMMUNICATION
3. DEVELOP AN ~~AN~~ AWARENESS OF HOW PROPER LAYOUT IS VITAL TO EFFECTIVE WRITTEN COMMUNICATION

F.   Activity Procedure

Classification of Typefaces

Proper combination of type styles; correct spacing of type
elements; relation of type style to printed material;
readability and legibility.

All of the type styles in use today fall into one of the
broad, general classifications listed on this next page.
It is convenient to be able to identify types in these
classes so that they may be used and mixed harmoniously.

1.   Square Serif Letters

As shown at the side, types with
serifs were patterned after early
stonecutter letters. The strokes
are approximately uniform in
weight and have straight, unbracketed
serifs.

Italic

Roman Sample

Sans Serif

Square Serif

Script Sample

𝔗𝔢𝔵𝔱 𝔖𝔞𝔪𝔭𝔩𝔢

2.   Italic Letters

Designed by Aldius Manutius in 1501,
these letters are close fitting and
slanting. They may be used to con-
trast with Roman type forms, though
large masses set in italic are hard
to read.

3.   Text Letters

At the side is an example of a text
letter. Note the angular letter forms
which are suggestive of the medieval
scribes. These are used largely in
social printing.

4. Roman Type

These are easily read types which are traditional in character.
The letters are formed with heavy strokes and contrasting light
elements. They are easily read when set in large masses.

5. Sans Serif Letters

This is an example of a popular contemporary type style. The
letters have no serifs and reflect simplicity and strength,
stripped of all unnecessary adornment.

6. Script Letters

The sample illustrates a type group which denotes a hand
lettered or written effect. This style of lettering adds
contrast and color to a printed piece.

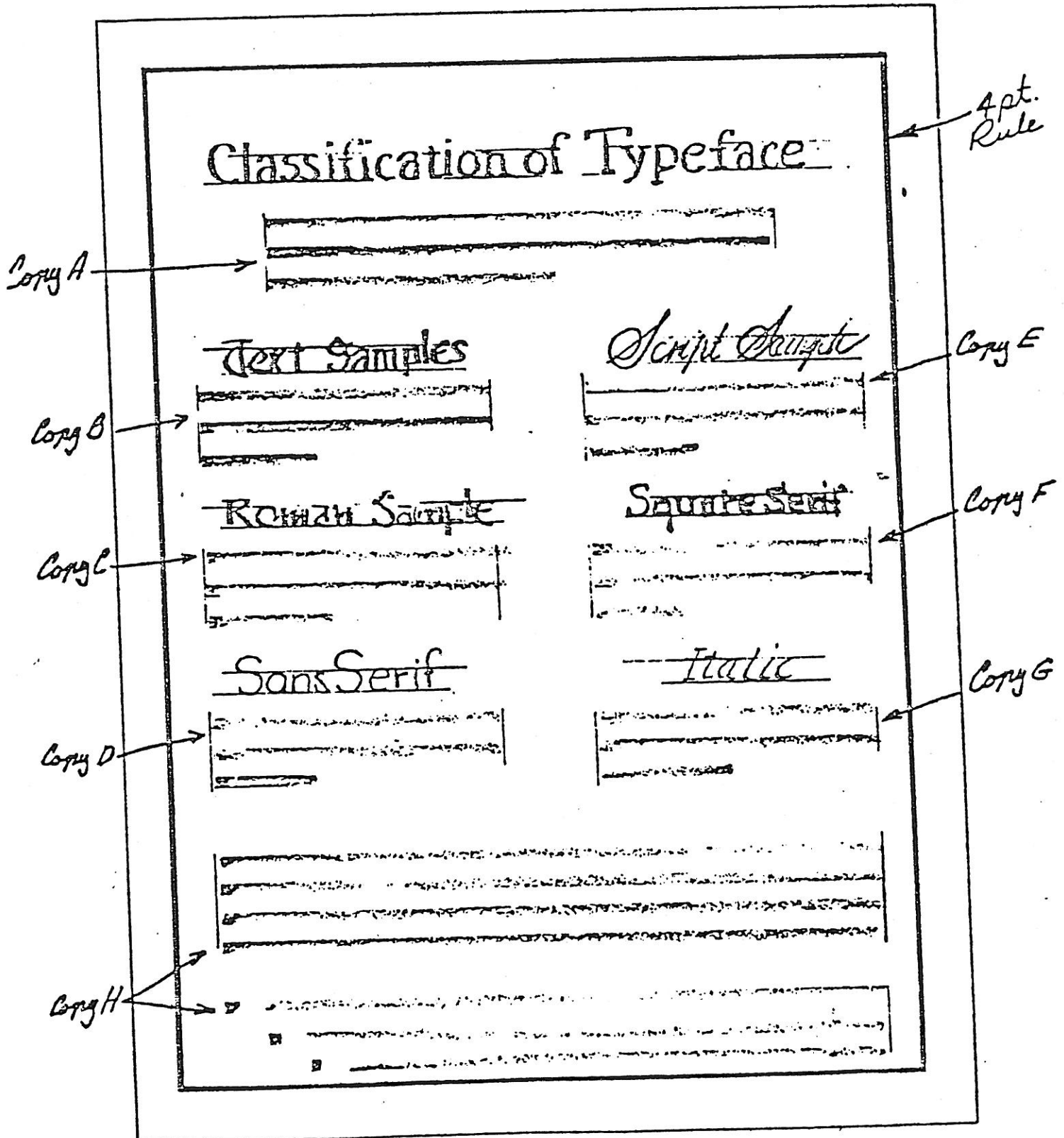## Classifying Typefaces

Introduction: Most type styles in use today fall into six
    major classes. These are text, script, roman, sans
    serif, square serif, and italic. An awareness of
    these classes will be of help to anyone designing,
    specifying, or planning printing jobs.

Words to Know: text, script, roman, sans serif, italic,
    square serif, modern type, oldstyle, ascender, descender.

Procedures & Details:

    1. Outline a paper area of 8-1/2" x 11", and an image
       area of 7-1/2" x 10".

    2. Rule a 4-point border around the paste-up as shown
       on the next page.

    3. Paste down all the type specimens in the positions
       indicated.

    4. Paste down the body copy on the reproduction proofs
       where indicated.

    5. Cover the finished paste-up with a protective cover.

Classification of Typeface

4 pt. Rule

Copy A

Text Samples

Copy B

Roman Sample

Copy C

Sans Serif

Copy D

Script Script

Copy E

Square Serif

Copy F

Italic

Copy G

Copy H

The Point System

Introduction: Knowledge of the printer's point system is important in understanding and handling paste-ups. This system is the accepted standard of communicating dimensions in the printing industry. It should be learned as one of the preliminary steps to any work in the graphic arts. This project will familiarize the student with the point system and enable him to understand it.

The printer's point system consists of the following measurements:

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1 point*      = 1/72 inch
1 nonpareil = 1/12 inch or 6 points
1 pica        = 1/6 inch or 12 points
6 picas      = 1 inch or 72 points
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Newspaper advertisements are measured in agate lines which are 5-1/2 points high.

Words to Know: point, nonpareil, pica, agate line, line gauge, print trimmer, lead, slug

Procedures & Details:

1. Outline a paper area 9" x 12" and an image area of 8-1/2" x 11" on a piece of illustration board.

2. Using the line gauge, trim seven squares of paper to the exact dimensions specified on the next page.

3. Paste these down in the positions shown, and cover the completed paste-up with a protective cover.

DIMENSIONS

6 picas X 30 picas

8 picas X 20 picas

5 picas

X

40 non-
pareils

15 picas X
140 agate
lines

144 points x
72 points

48 points
X
72 points
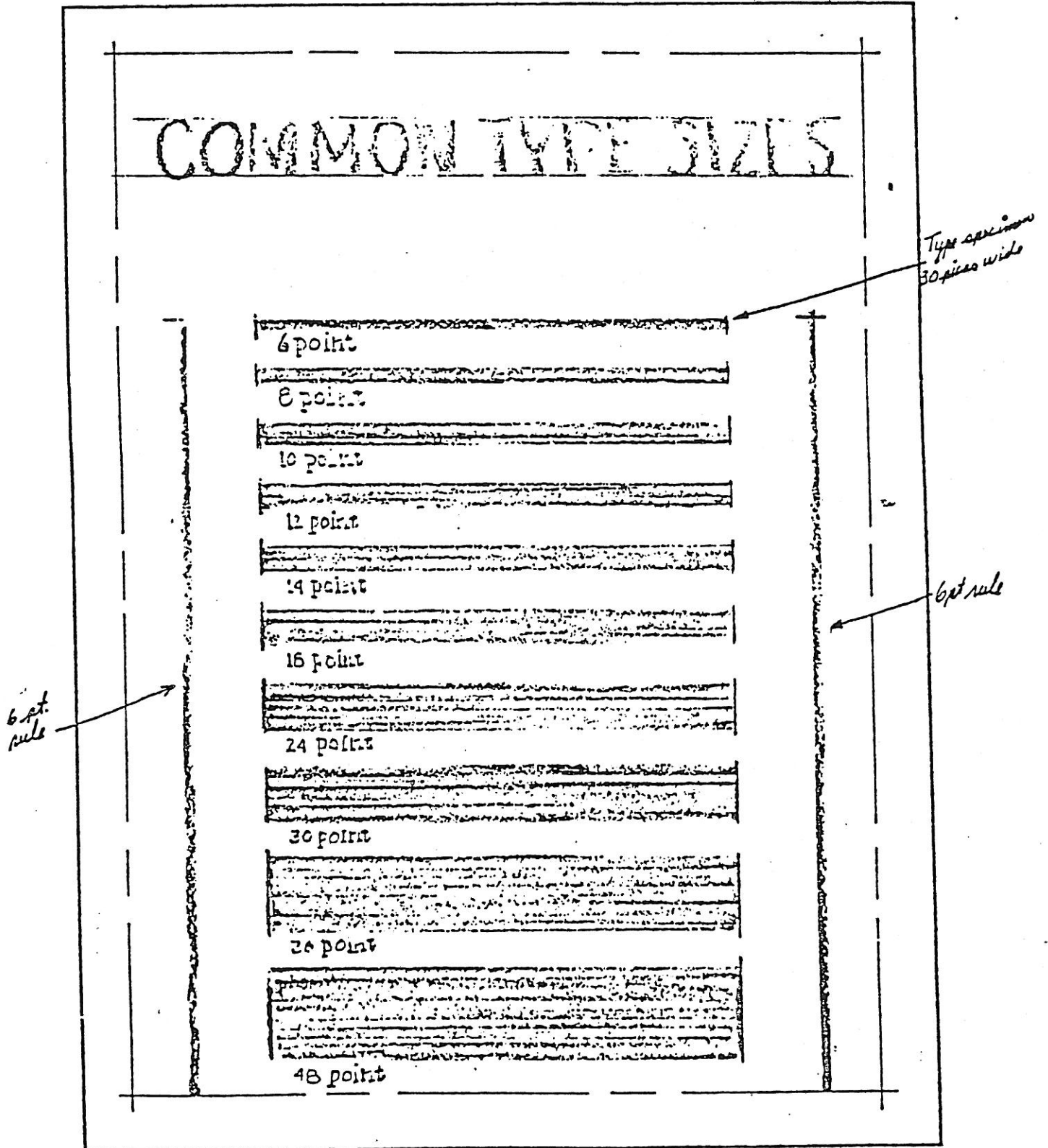
22½ picas by 27½ picas
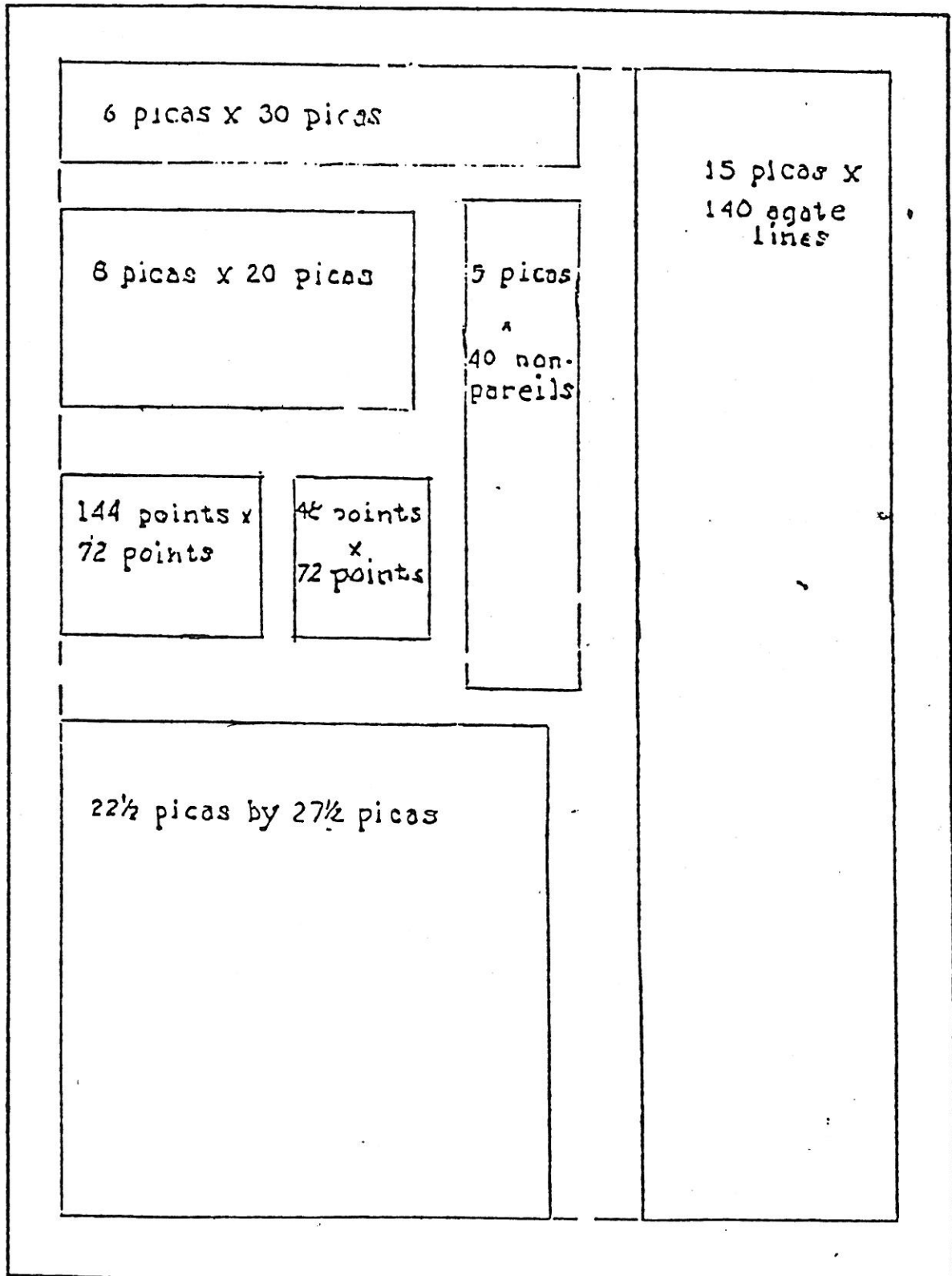
Common Type Sizes

Introduction: It is particularly helpful for the offset or letterpress craftsman to be able to identify and visualize common type sizes. The paste-up person should also become familiar with those that are in wide use today. This lesson will expose the student to these sizes, and will also help him/her develop hand lettering and ruling skills.

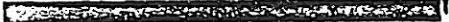Words to Know: non pareil, pica type, agate line, brevier, long primer, line gauge.

Procedure & Details:

1. Outline a paper area of 8-1/2" x 11" and an image area of 7-1/2" x 10" on a piece of illustration board.

2. Hand letter (with speedball pen) the words, "Common Type Sizes," in black India ink, as shown on the next page.

3. Draw two 6-point rules, 8" long as shown (use the ruling pen).

4. Obtain and paste down specimens of 6, 8, 10, 12, 14, 18, 24, 30, 36, and 48 point type as indicated on the rough layout. These may be obtained from magazines, newspapers, brochures, or any other clearly printed source.

5. Label each specimen using a small tip Speedball pen.

6. Be sure to consider carefully the available margins and white space. Allow ample margin around and space between each specimen.

7. Cover the finished paste-up with a protective cover.

COMMON TYPE SIZES

Type specimen
30 picas wide

6 point

8 point

10 point

12 point

14 point

16 point

24 points

30 point

36 point

48 point

6 pt. rule

6 pt rule

Note that the letters in each point size are smaller than the size given. Point size always designates the body of the type on which the character sits. There is always some shoulder and therefore the characters measure somewhat smaller than the point size.

How is one to assess and evaluate a type face	6 point
How is one to assess and evaluate a type	8 point
How is one to assess and evaluate	10 point
How is one to assess and	12 point
Redevelopment is a word much used	14 point
However it is neither in this	18 point
The name of quality	24 point
Overland Touring	30 point
Magazine of the	36 point
Periscoping	48 point
Metropolis of	60 point
Geographical	72 point

Making a Simple Paste-Up

Introduction: The purpose of this lesson is to learn how
to use basic paste-up tools and to develop elementary
paste-up skills. This lesson also develops the stu-
dent's ability to evaluate space.

After completing this project, the student should be
able to choose the correct size and style of typefact
for a standard business card, letterhead, and envelope
combination.

Normally, the letterhead, envelope, and business card use
progressively smaller type sizes. The letterhead uses
the largest type, the matching envelope is smaller, and
the business card uses an even smaller type size.
However, there is a tendency today to use the same size
type on both the envelope and the business card.

Words to Know: harmony, paste-up, image area, reproduction
proof, rough layout, align.

Procedure & Details:

1. Obtain a piece of illustration board, 8-1/2" > 11".

2. Outline the paper area in blue pencil, in the
    positions shown on the next page. These areas should
    be the following sizes:

    Business Card 2" x 3-1/2"
    Letterhead 8-1/2" x 11"
    Envelope 3-5/8" x 6-1/2"

3. Within the above areas, outline an image area which
    will allow for sufficient margin around all copy.

4. Trim the proof carefully to within 1/16" of the image.

5. Select a harmonious grouping of type sizes from among
    those included.

6. Paste-up all types as shown on the rough layout. It
    is essential that the finished paste-up be carefully
    done, all lines of type pasted down parallel, and
    aligned in a satisfactory manner.

Arrangement of three jobs on
8-1/2" x 11" paste-up
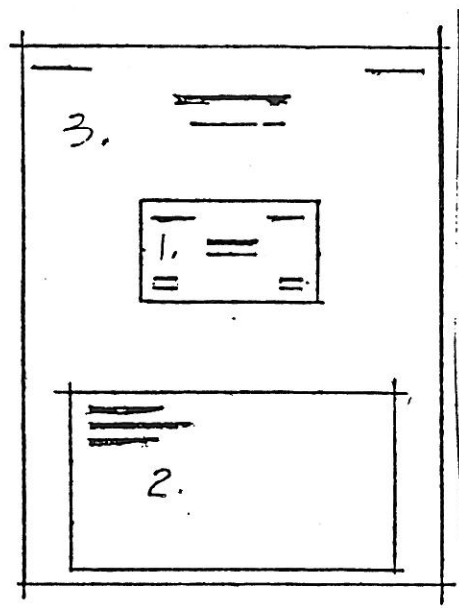
1. Rough layout for
    business card

2. Rough layout for
    envelope

3. Rough layout for letterhead

STEVENS PRINTING CO.

STEVENS PRINTING CO.

STEVENS PRINTING CO.

STEVENS PRINTING CO.

STEVENS PRINTING CO.

STEVENS PRINTING CO.

Offset
Letterpress
Telephone
123-4567

12345 MAIN STREET
LOS ANGELES, CALIF. 90029

Offset
Letterpress
Telephone
123-4567

12345 MAIN STREET
LOS ANGELES, CALIF. 90029

Offset
Letterpress
Telephone
123-4567

12345 MAIN STREET
LOS ANGELES, CALIF. 90029

12345 Main Street
Los Angeles, Calif. 90029
Offset
Letterpress
James Stevens
Sales Dept.
12345 Main Street
Los Angeles, Calif. 90029

12345 Main Street
Los Angeles, Calif. 90029
Offset
Letterpress
James Stevens
Sales Dept.
12345 Main Street
Los Angeles, Calif. 90029

12345 Main Street
Los Angeles, Calif. 90029
Offset
Letterpress
James Stevens
Sales Dept.
12345 Main Street
Los Angeles, Calif. 90029

Learning to Use White Space
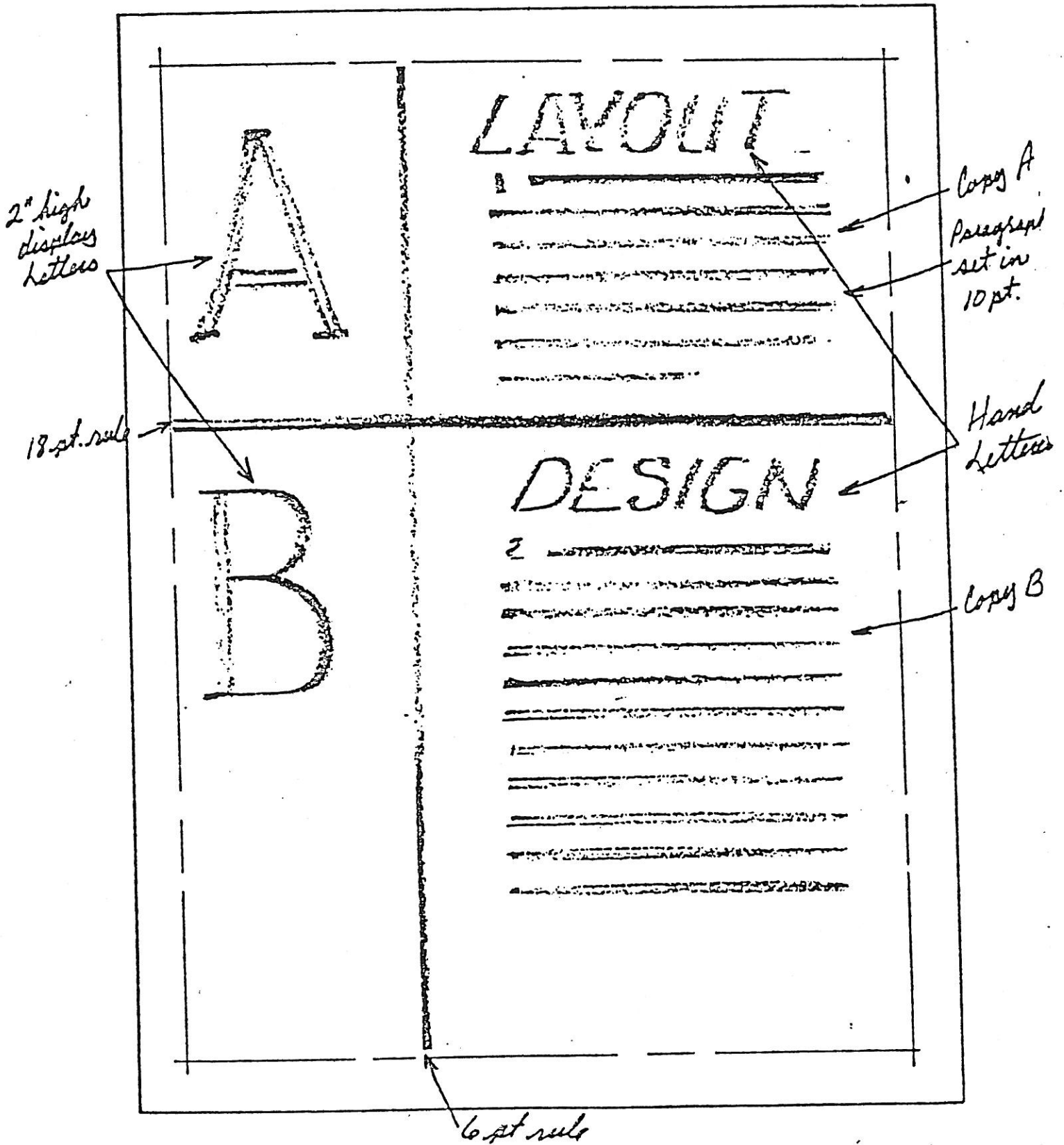
Introduction: Any printed piece has two complimentary design
             aspects: The printed areas, and the non-printed areas.
             They are both subject to the designer's manipulation. The
             non-printed areas are often referred to as white space,
             or negative space. It is necessary for the printing
             designer to be aware of the importance of white space,
             since it affects the readability, appearance, and
             effectiveness of the design. This lesson presents a
             design problem in using white space effectively. When
             planning the paste-up, an effort should be made to judge
             spatial relationships and make optimum use of white space.

Words to Know: negative space, white space.

Procedure & Details:

    1. Outline a 9" x 12" paper area on an illustration
        board.

    2. Plan and then outline a pleasing image area for
        the 9" x 12" size paper.

    3. Hand letter, in black India ink, the two display
        words "Layout" and "Design" approximately 60 points
        high.

    4. Using the ruling pen, rule an 18-point and a 6-point
        solid rule as shown on the next page.

    5. Paste down the two paragraphs of copy, as shown in
        the rough layout. The widths of these paragraphs
        bear an important relationship to the negative or
        white space areas.

    6. Position the two large display letters. Plan the
        white space areas around each letter.

    7. Cover the finished paste-up with a protective cover.

2" high
display
Letters

18 pt. rule

LAYOUT

DESIGN

A

B

Copy A
Paragraph
set in
10 pt.

Hand
Letters

Copy B

6 pt rule

COPY A - A good layout is the essential first step in planning and producing a printed piece. It serves as a guide for others working on the job, from the estimating department to the bindery department. The effort invested in the careful planning and laying out of a job will be repaid many times. It provides a place in which to explore designs before work is actually begun on the printed price. A layout may be changed, redesigned or improved, without incurring any production expenses. Costs rise sharply when type has to be reset, or printing or printing plates remade.

COPY B - A design should be based upon some logical principle, plan or order which lends itself to artistic appreciation. The subtleties which form the basis for much contemporary design are often unobserved by those schooled in the strict confines of traditional design philosophy. Therefore the successful design need not conform to the rigidities of formal balance. It does mean that all parts of the design be integrated, or bear a relationship to one another. Therefore, artists and designers rely upon such devices as axis, pivot points, space relationships and type harmony in order to achieve a unity of elements in the design. Without some cohesive relationship, the design will appear as a disturbing assortment of pictures, type and illustrations.

Simple Cross-Rule Forms

Introduction: Preparing cross-rule forms by the letterpress method is done by either setting the form in type and cutting in rules, or by the use of a tabular broach machine. These and other methods, including linotype and Ludlow were satisfactory for letterpess printing. Since offset printing does not require metal type, the ruling pen has been finding increased use in preparing these types of forms.

The student should develop the ability to rule evenly spaced line of uniform thickness. This lesson emphasizes the need for uniformity of spacing between lines.

Words to Know: tabular broach, mortise

Procedure & Details:

1. Outline a paper area of 5-1/2" x 8-1/2" with an image area of 5" x 8".

2. Type COPY A and COPY B using a VariTyper or a standard typewriter. (You may substitute the heading from a readily available business form if you like.)

3. On a separate sheet of paper, rule out the form, as shown in the rough layout (next page).

4. Cut out a box and mortise in the column heads from behind with Scotch tape.

5. Carefully trim the right and left hand margins of the form to create a perfect alignment of the rules.

6. Paste the rule form down in position as shown in the rough layout.

7. Paste down the heading as shown.

8. Cover the finished art with a protective cover.

COPY A

Offset   Letterpress

YOUR NAME PRINTING CO.
Your Home Address
Your City and State
Your Phone

COPY B

Quantity   Description   Unit   Total

Offset   Letterpress

YOUR NAME PRINTING CO.
Your Home Address
Your City and State
Your Phone

Quantity	Description	Unit	Total

Accurate hair-line rules

1/4" space between rules

1 pt. rules

Market Display Advertisement

Introduction: Grocery stores and supermarkets often use newspapers, leaflets, and direct mail pieces as promotional advertising. These ads include text in boxes, bordered copy, illustrations, and large display prices. Paste-ups for these jobs require that a large amount of copy and illustrations be placed in a relatively small area. To facilitate pasting up, it is often best to work oversize and then reduce down for final printing.

The secret in designing these jobs is careful planning and use of available space. Since much copy, illustrations boxes, and text must be placed in the ad, it is essential that each element be planned to fit exactly.

Before beginning the paste-up, the artist should execute a carefully done layout, indicating the position of all elements of copy. Then blue pencil guidelines should be drawn on the illustration board to locate each piece of copy, border, box, etc. Finally, the large display letters are pasted down, copy inserted into the boxes, and text and proofs pasted down.

Words to Know: display advertisement, bordered copy

Procedure & Details:

1. Outline a 7-1/2" x 10" image area on a piece of illustration board, 8-1/2" x 11".

2. Following a carefully prepared layout, rule in the appropriate guidelines for all boxes, borders, rules, etc., in light blue pencil.

3. Use black India ink to draw rules and boxes. Apply pressure sensitive tape for bordered boxes.

4. Trim proofs and paste them into the boxes and other areas where text is to be placed. Paste large display lettering in place.

5. Cover the finished paste-up with a protective cover.

H. Evaluation Strategies

Student work is evaluated on the evaluation sheet provided for this "Layout Package." As you are working through the learning activity, use the evaluation sheet as a guide so that you complete the necessary activities. The point value is also given on each item so you can work and improve your grade in case you don't complete all of the information as is required.