

## TYPE TREATMENTS

### Copy or Caption Starter

A change in font, point size, or style at the beginning of a copy or caption block. A staff sometimes chooses to use a dingbat or symbol as the copy or caption starter.

.....

### Dropped initial

A larger letter embedded in the copy.

.....

### Pulled quote

Words "pulled" from the text and displayed as a quotation in a larger typeface. A pulled quote is usually embedded in the copy, and a change in font or color emphasizes the statement. A staff will often text-wrap the copy around a pulled quote.

.....

### Raised initial

A larger letter which extends above the copy block. Dropped and raised initial letters can pull the reader into the copy.

.....

### Serif and Sans Serif typefaces

Serifs are short strokes that extend from major strokes of a letterform (some of them are circled on the word "serif" in the example to the right). Sans serif fonts do not have these strokes.

.....

### Reverse type

White type on a black or color background. Be aware: reverse type works better in larger point sizes and with sans serif fonts. Six-, eight-, and ten-point type can be very difficult to read in reverse. Serif fonts are typically more difficult to read as reversed type.

.....

### Typeweaving

Using more than one font, color or size in a headline design. At times, it requires that each word or set of words has its own text block so the designer can arrange the words to create the desired effect.

## EXAMPLE

**Simply changing the font** on the first few words of a paragraph or caption can pull the audience away from the pictures and into the text.

.....

**H**ere is an example of a dropped initial letter. The letter sits inside the block of type, and the top of the letter lines up with the top of the line of type.

.....

**"A staff will often text wrap the copy around a pulled quote."**

.....

**T**his is an example of a raised initial letter. The letter rises extends above the copy. Some designers prefer to use a large initial word.

.....

**Serif**  
**Sans Serif**

.....

**Reverse type works better in 12-point and larger, and with sans serif fonts.**

Smaller type and serif fonts do not work as well when reversed.

all about type • all about design • all about  
**YEARBOOK**

all about type  
all about graphics  
all about design  
**YEARBOOK**

## • • GRAPHICS NOTEBOOK • •

### Assignment

*Goal • • To identify examples of graphic elements and type treatments in newspapers and magazines*

*Goal • • To analyze elements for their usefulness in yearbook design*

*Directions • • Look through magazines to find examples of graphic elements and type treatments. Cut out these examples, glue them to clean pieces of paper, analyze the examples for all of their elements and put all of your examples into a notebook or portfolio.*

To receive full credit, you must find and analyze **three** examples of each of the following:

- Headlines with different type treatments
- Copy blocks with different type treatments
- Screens in black or in spot color
- Pulled quotes with different type treatments

When you are looking for your examples, be sure to notice the following characteristics:

- Use of spot color
- Increased leading (line spacing)
- Reverse type
- Use of screens (in black or another color)
- Use of rule lines as lines or as boxes
- Use of more than one font, size or color in a headline package
- Use of more than one font or font style in a copy block

When you analyze the examples, write two or three sentences about each example. You should include the following information:

- Identify all of the elements that apply - font, leading, rule line, reverse, spot color and screens.
- Describe what you like about it. Why does it catch your eye?
- Explain how you might use it in one of your designs.

To earn a grade of "A"

- Notebook must include a total of 12 examples - three each of headline packages, copy blocks, screens and pulled quotes.
- Notebook must be neat and well-organized.
- The notebook must have a decorated cover.
- Each example must have two to three sentences of analysis.
- All elements must be accurately described and analyzed.

To earn a grade of "B"

- The notebook has all of the characteristics of an "A," but it is missing one example or two examples have been incorrectly identified.

To earn a grade of "C"

The notebook has one of the following weaknesses:

- The notebook is disorganized.
- The notebook lacks a cover.
- The notebook is missing two examples.
- Three or four examples have been incorrectly identified.

## • • INCORPORATING GRAPHIC ELEMENTS and TYPE • •

### Assignment

*Goal • • To incorporate at least one graphic element and one type treatment into a column design*

*Directions • • Design a 10-column layout with a horizontal or a vertical dominant photograph. Be sure to include a copy block with a headline, five to seven candid photos and a caption for each photo. As you work on your design, use the checklist below to guide you. You may design your layout on paper or on the computer.*

For this design, you will add at least one graphic element and one type treatment to your spread. If you are designing on paper, be sure to draw in the type treatment so that it is obvious to your audience.

#### Checklist for Photos

- The layout includes a dominant photo. The dominant is two to two-and-a-half times larger than any other photo on the spread. The dominant may or may not cross the gutter.
- The layout includes five to seven candid photos.
- Photos vary in shape and size. No two photos are the same.
- If a photo bleeds, it extends to the outside edge of the bleed line.

#### Checklist for Copy and Captions

- The copy and the headline package are placed together in one of the corners of the spread.
- The copy block is broken into columns.
- Every photo has a caption.
- Every caption is placed next to, above or below the photo it describes.
- Every caption is placed to the outside of the spread. No caption is trapped between two or more photos.
- No more than two captions are stacked on top of one another.
- Each caption is one column in width.

#### Checklist for White Space

- One pica separates all elements on the spread, maintaining the internal margin.
- The external margin is maintained.
- Any extra white space is left to the corners of the spread.

#### Checklist for Graphic Elements and Type Treatments

- At least one graphic element and one type treatment are included on the spread.
- Graphic elements and type treatments do not distract; they add unity to the spread.

# • • GRID DESIGN • •

## Fact Sheet

Goal • • To introduce the principles of grid design

Goal • • To compare and contrast traditional column and grid design

Column design and grid design are similar in one fundamental way: the designer establishes a series of invisible guidelines on the spread and positions all elements within those guides. In traditional column design, a designer will have three, four or five columns per page. In grid design, a designer can work within eight, ten or even twelve grids per page, creating more design flexibility.

Grid design has three distinct advantages

- 1 It allows for more possible photo shapes and sizes.
- 2 It is easy to add alternative copy coverage.
- 3 It allows for the use of planned white space within a spread.

Look at the examples from Northwest Missouri State University - Maryville, Mo:



- The dropped initial that starts the copy sits in a grid by itself.
- Each column of copy is four grids wide.
- Each of the pictures in the three-picture package is two grids wide.
- The grids also create numerous points for the text to line up - the copy and the headline as well as the student's name and the byline.



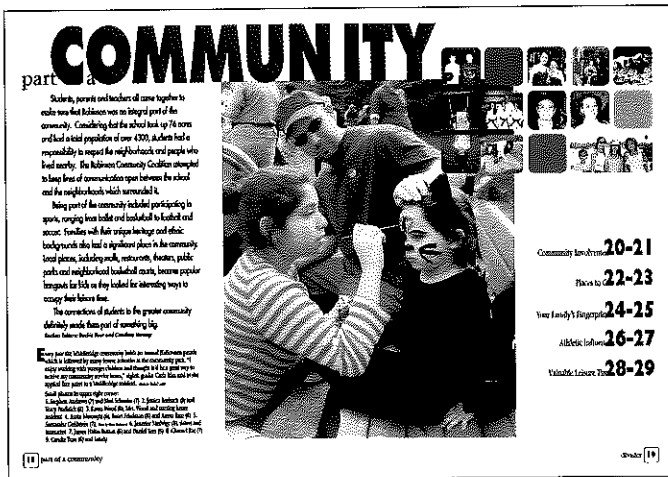
- The headline package is centered over the copy, and the copy is one grid wider than the headline on both sides.
- Each column of copy is five grids wide.
- The candid photo below the copy is wider than a column of copy, but the caption is narrower than the copy.
- Grids of white space also separate the copy and headline from the candid on the left page.

## USING WHITE SPACE IN GRID DESIGN

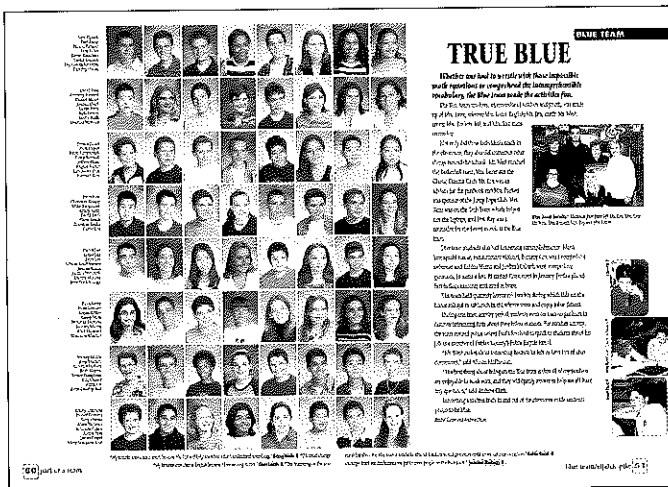
Because grids are very narrow, grid design provides a new layout option: rails. A rail is a single grid containing one or more elements and white space. A dropped letter, mug shots, captions, pulled quotes or secondary coverage may be placed in a rail. Other elements, such as candid photos, headlines or secondary headlines may extend into a rail. For emphasis, a rail may be left empty.

When a rail is placed between two significant elements, such as the copy and the dominant photo, the rail separates the two. Even if the rail contains a caption for the dominant, the white space above and below the caption will visually isolate, or separate, the photo from the copy.

Look at the examples from Robinson Middle School – Fairfax, Va.:



- For this Ads/Index divider, the copy and group caption for the spread are separated from the dominant photo with a rail of white space.
- At the top of the spread, the headline “part of a COMMUNITY” extends across the spread and the white space.
- On the right page, another rail of white space isolates the section’s table of contents from the rest of the spread.



- The copy and the candid photos are separated from the portraits with a rail of white space.
- The copy wraps around the group shot of the teachers for that team.
- The three-picture package is also separated from the copy with a rail of white space.
- The spread is unified by the quotes that run along the bottom of the spread.

## SETTING UP YOUR GRIDS

To set up your grids in PageMaker, go to Layout > Column Guides. Indicate the number of columns (or grids) you want and the one pica space between them. In InDesign, go to Layout > Margins and Columns. Indicate the number of columns (or grids) you want and one pica gutter between them.

To set up your grids on a Roughing It sheet, first establish the gutter margin. Then, mark each grid for the exact width, leaving a pica of space between each grid.

Size 9 (9x12 inches)  
24 grids: 3 picas wide  
20 grids: 4 picas wide  
16 grids: 5 picas wide

Size 8 (8 ½ x 11 inches)  
24 grids: 3 picas wide  
18 grids: 4 picas wide  
16 grids: 5 picas wide

Size 7 (7 ¾ x 10 ½ inches)  
22 grids: 3 picas wide  
16 grids: 4 picas wide  
14 grids: 5 picas wide

## • • STUDENT CHECKLIST for GRID DESIGN • •

### Assignment

Goal • • *To design a spread using grids instead of columns*

Directions • • *Design a grid layout with a horizontal or a vertical dominant photograph. You may choose the width of your grids: three picas, four picas or five picas. Be sure to include a copy block with a headline, five to seven candid photos and a caption for each photo. All elements on the spread should be separated by either a one-pica internal margin or by a rail of white space. As you work on your design, use the checklist below to guide you. You may design your layout on paper or on the computer.*

#### Checklist for Photos

- The layout includes a dominant photo. The dominant is two to two-and-a-half times larger than any other photo on the spread. The dominant may or may not cross the gutter.
- The layout includes five to seven candid photos.
- Photos vary in shape and size. No two photos are the same.
- If a photo bleeds, it extends to the outside edge of the bleed line.

#### Checklist for Copy and Captions

- The copy and the headline package are placed together in one of the corners of the spread.
- Every photo has a caption.
- Every caption is placed next to, above or below the photo it describes.
- No more than two captions are stacked on top of one another.
- Captions have a consistent width.

#### Checklist for Grids

- The grids are used in such a way that they allow elements to be a variety of widths.
- Every element fills the width of the grids.

#### Checklist for White Space

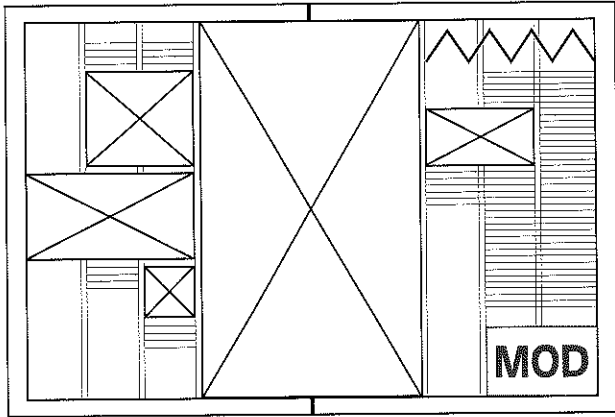
- Either a one-pica internal margin or a rail of white space separates all elements on the spread.
- A rail of white space separates or isolates two major elements on the spread.
- Additional white space is placed to the outside of the spread.
- The external margin is maintained.

## • • MODULAR DESIGN • •

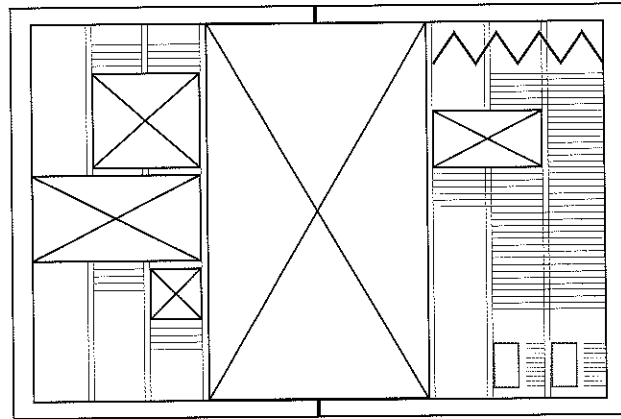
### Fact Sheet

Goal • • To demonstrate the possibilities of modular design

Modular design is an easy way to incorporate alternative coverage, such as top ten lists, personal profiles picture packages, into grid design. The alternative coverage is referred to as a module or mod. To incorporate mods into your designs, substitute a mod where you would normally put a photo. Look at the layouts below:



This layout is designed with grids, and the space for the mod is marked.



This layout includes the module. On one layout, it might be quotes and headshots. On another layout, it might be a top ten list.

Modular design has several advantages over column and grid design

- Modular design prevents visual redundancy. Most staffs design one or two spreads per section and then flip the layouts horizontally and vertically to create additional layouts. Modular design can break the designer out of that rut by providing more options.
- It allows a yearbook staff to modify the content of the spread according to the subject matter. For example, in the Student Life section, the fashion spread demands more pictures and quote boxes that compare and contrast student opinions. On the other hand, the spirit week or homecoming spread requires a list of the homecoming court participants as well as candid photos of students demonstrating their school spirit. Mods allow the yearbook staff to match the content of the spread to its design.
- With mods, more students can be featured on a single spread. Instead of five to seven candid photos per spread, a modular spread can have a dominant photo as well as several quotes with headshots, candid photo packages with captions, and a personal profile with a candid. Mods can help a staff include 10 to 15 students per spread, making it easier to cover every student in the yearbook.

### • • TYPES OF MODULES

- He said/she said
- Top ten
- Quote box
- Q and A
- Candid photo package
- Photo package with group caption
- Survey/poll
- Quiz with answers
- Quotes with headshots
- Chart/graph/bar graph
- Diagram
- Map
- Checklist
- Step-by-step guide
- Timeline
- Personal profile
- First-person narrative
- Interview story

Look at mod examples from East Lansing High School - East Lansing, Mich.:

### Beyond the Wall

- Highlights a popular store in downtown East Lansing called Beyond the Wall
- Includes a list of facts about the store, a quote from a student who shops there, and a candid and caption of a student at the store
- Covers two students

**beyond the wall**

**location:** downtown East Lansing

**hours:** 11 a.m. to 8 p.m. Monday through Saturday  
11 a.m. to 6 p.m. Sunday


**offerings:** posters in all different sizes of subjects including movies, art, photography, music, animals and novelties along with postcards, frames and key chains

**prices:** 16" by 20" posters for \$10, the most popular being anything by Dalí, Scarface and novelty posters; oversized subway posters for \$15 and frames ranging from \$15 to \$35

**deals:** buy one, get one free and two for \$10 specials on selected 16" by 20" posters and packages of 20 random postcards for \$2.

**"I really like the set up because you can look at the posters at your own leisurely pace. The people that work there are really nice and helpful. You can just tell them what you are looking for and they know exactly where it is located!"**  
*Junior Anna Ha*

**"If I am ever looking for a poster, I have always been able to find it at Beyond the Wall,"** senior Emma Morris said. She checks out the selection of key chains which include pictures of musicians or paintings or movies.



### "I want that job!"

- Headline and secondary headline introduce the topic - getting a job - and hint at the interview question
- Features three students - one senior and two juniors - who have different ideas about how to nail a job interview

**"I want that job!"**

**A 20-minute interview can determine your temporary income, your schedule and experience for future jobs. Students offer their best advice on how to nail the job by using the interview.**

**"To ace a job interview, you have to dress nicely. If you put forth a good impression, you're set. Be on time for the interview so they know you're responsible. Be confident when they ask you questions but not cocky. Look at the interviewer when he asks you questions so you don't look nervous. If something went wrong in the interview and you didn't get the job, try different ways to put forth your best aspects!"**  
*Senior Beniam Habermantam*

**"Act polite at job interviews. Say please and thank you and shake hands when introducing yourself. If you look decent, you give interviewers a good impression of yourself. If you have prior experience, take a resume with you to show how much you've done. Answer questions with detail but try not to bore the interviewers with too much information!"**  
*Junior Chloe Demell*

**"The most important thing at a job interview is to act confident. Even if you don't know what you're doing, act like you do. Be as outgoing as possible towards the interviewer to talk yourself up. The more they know about you, the better. Have a resume with you and look really organized!"**  
*Junior Ryne Green*

### Step by Step: Toy Drive

- Lists the four steps the Key Club took to organize and carry out a toy drive for Health Services in Lansing
- Includes four candid photos
- A group caption describes the action in each of the candid photos
- While the caption does not name the students, the candid photos include at least four different Key Club members

**STEP-BY-STEP**

**TOY DRIVE**



**Busy Little Elves:** 1. Have a meeting with Key Club to organize the details. Decide who will work tables at lunch, who will buy toys and who will donate them. 2. Sit at the table in the foyer during both lunches to collect donations from students and staff. 3. Take the \$200 of monetary donations and purchase 75 more toys at a store. 4. Take all of the toys, a total of 90, to Health Services in Lansing. Health services then hosts a party where it donates the toys to Lansing-area foster kids.



## • • DESIGNING MODS • •

### Assignment

Goal • • To design multiple mods

Directions • • Below you will find two lists: one of mods and one of sizes. You will choose five types and five sizes to design five modules. You can design these five modules on a single spread. If you are working on paper, please use pictures and text from magazines to paste-up your mods. If you are working on the computer, please place dummy text and pictures. Be sure to incorporate various graphic elements and type treatments to create visual interest.

Types of Modules	Sizes (in picas WxH)
He said/she said	16x48 (long vertical)
Top ten	48x16 (long horizontal)
Quote box	48x8 (skinny horizontal)
Q and A	12x18
Two-photo package with captions	18x12
Three-photo package with captions	22x30
Four-photo package with captions	30x22
Photo package with group caption	16x30
Survey/poll	30x16
Quiz with answers	
Quotes with headshots	
Chart/graph/bar graph	
Map	
Checklist	
Step-by-step guide	
Timeline	
Personal profile	

#### To earn a grade of "A"

- Project includes five different mods in five different sizes
- Each mod has dummy text and photos
- Mods reflect student's knowledge of graphic elements
- Student has shown attention to detail

#### To earn a grade of "B"

The project has one of the following weaknesses:

- One mod is missing
- One or more mods does not include dummy text and photos
- Student has designed two mods of the same type or the same size
- Student has not incorporated graphic elements into the mods

#### To earn a grade of "C"

The project has two of the following weaknesses:

- One or more mods are missing
- One or more mods does not include dummy text and photos
- Student has designed two mods of the same type or the same size
- Student has not incorporated graphic elements into the mods
- Student has not shown an attention to detail

## • • INCORPORATING MODS into DESIGN • •

### Assignment

*Goal • • To design a spread with one or more mods*

*Directions • • Design a grid layout with a horizontal or a vertical dominant photograph. Be sure to include a copy block with a headline, five or more candid photos, captions and at least one mod. All elements on the spread should be separated by either a one-pica internal margin or by a rail of white space. As you work on your design, use the checklist below to guide you. You may design your layout on paper or on the computer.*

#### Checklist for Photos

- The layout includes a dominant photo. The dominant is two to two-and-a-half times larger than any other photo on the spread. The dominant may or may not cross the gutter.
- The layout includes five or more candid photos.
- Photos vary in shapes and sizes. Photos within a mod photo package may be the same size and shape as necessary for the design.

#### Checklist for Copy and Captions

- The copy and the headline package are placed together in one of the corners of the spread.
- Every photo has a caption. Photos in mod packages may have a single caption, but the photos must be clearly labeled.
- Captions are placed next to, above or below the photo(s) described.
- No more than two captions are stacked on top of one another.
- Captions have a consistent width and style.

#### Checklist for Grids

- The grids are used in such a way that they allow elements to be a variety of widths.
- Every element fills the width of the grids.

#### Checklist for White Space

- Either a one-pica internal margin or a rail of white space separates all elements on the spread.
- A rail of white space separates or isolates two major elements on the spread.
- Additional white space is placed to the outside of the spread.
- The external margin is maintained.

#### Checklist for Mods

- Each mod is designed as a package.
- Each mod is separated from the other elements on the spread by a one-pica internal margin or a rail of white space.
- Any graphic elements or type treatments used in the mods are incorporated into the remaining elements on the spread.

## • • VOCABULARY for PHOTOGRAPHY • •

### Handout

*Goal • • To introduce the vocabulary for photography*

### Candid photo

An action photo that tells a story or captures a moment. With the exception of group pictures or individual mug shots, yearbook photos are candid photos.

### Center of interest

The subject of a photo.

### Cropping

Marking a photo to indicate which area of the picture you would like reproduced in the yearbook.

### Dominant photo

The largest, most dynamic photo on a spread. Typically, the dominant photo is two to two-and-a-half times larger than any other photo on the spread.

### Framing

To surround or frame the center of interest with another object (for example, a doorway) to attract the audience's attention to the primary subject of the photo.

### Leading lines

Lines the eye follows in a photograph, particularly lines running from the foreground to the background.

### Photo composition

The arrangement of objects in a photograph.

### Scaleograph

The photo cropping tool used by graphic arts professionals.

## • • HANDLING YOUR CAMERA • •

### Handout

*Goal • • To provide students with reference materials for handling a single-lens-reflex camera*

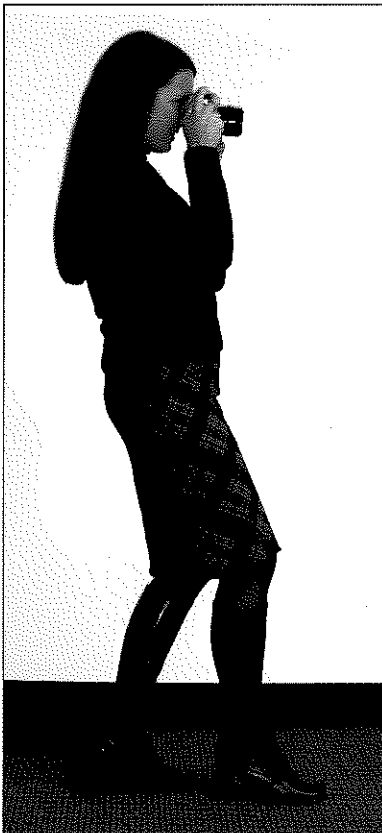
If many of your photos are blurry, camera movement may be to blame. Using a tripod is the best way to avoid camera movement. When a tripod is not available, you can steady the camera on a table, chair or desk. If that is not possible, find something to lean on.

### Follow these directions for holding your camera

- Adjust the neckstrap so the camera hangs at a comfortable height.
- Stand with your knees slightly bent.
- Put your weight on one foot and use the other foot for balance. The balance foot should be slightly ahead of the other foot.
- Keep your elbows close against your chest to form a natural tripod.
- Cradle the camera firmly in your left hand, and focus with the left thumb and middle finger, freeing the right hand for manipulating the shutter and other controls.
- Hold the camera tightly against your head.

### When you are ready to shoot a picture, follow these directions

- Inhale deeply. Let out a little air, shoot, then finish exhaling.
- Gently squeeze the shutter. Do not punch it down or jab at it.



With your weight on one foot, stand with your knees bent slightly. Keep your elbows close to your chest.



Your left hand is responsible for cradling the camera and focusing. Your right hand squeezes the shutter.



Hold the camera close to your head. Use your index finger to squeeze the shutter.

## • • LIGHTING • •

### Handout

Goal • • *To demonstrate the different types of light*

Goal • • *To provide guidelines for using different types of light*

Light is to the photographer what color is to the painter. You need light to “paint” the image, so you should be concerned about how light can make your image more interesting.

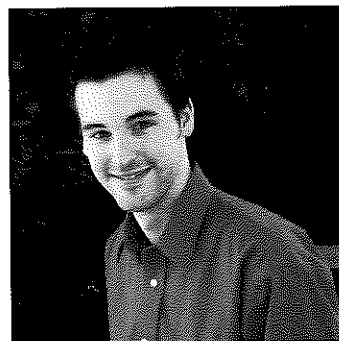


#### Direct Sunlight

Open sun in the middle of the day can create unflattering shadows and highlights on the face, as in the photograph to the left.

#### Using Direct Sun

Move the subject into the shade or use flash outdoors to fill in the shadows on the face.



#### Indirect Sunlight

The indirect sunlight found in the shade of a tree or in a doorway will soften the shadows on the face, as in the photograph to the left.

#### Using Indirect Sunlight

Find a spot where both the subject of the photo and the background are in shade. A sunny background will make your subject too dark.



#### Hazy or Cloudy Sun

A hazy or cloudy day will provide diffuse sunlight, so there will be an even distribution of light without harsh shadows, as in the photograph to the left.

#### Using Hazy or Cloudy Sun

Take advantage of soft light. Your subjects won't be squinting.



#### Backlight

Place the sun behind the subject, so the subject creates its own shade. Backlight solves the problem of squinting eyes, as in the photograph to the left.

#### Using Backlight

Shooting directly into light can be difficult, so take several photos and use a light meter if one is available.

# • • PHOTO SELECTION • •

## Handout

Goal • • To choose photos for a yearbook spread

Photo selection refers to the process of choosing photos for a yearbook spread. This process begins when the glossy prints arrive in the yearbook room or when the digital images are downloaded from the camera to the computer. To make photo selection easier, sort the photos as they are taken.

### Step 1

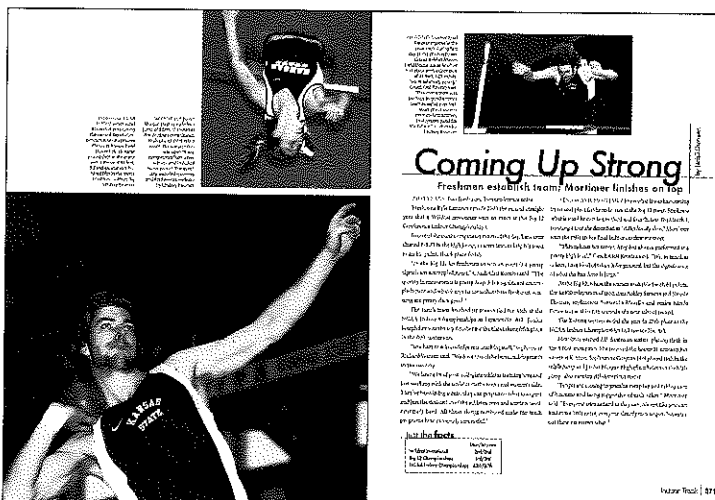
Throw away any pictures that:

- are out of focus
- are too dark or too light
- have technical imperfections
- do not tell a story
- lack a strong center of interest

### Step 2

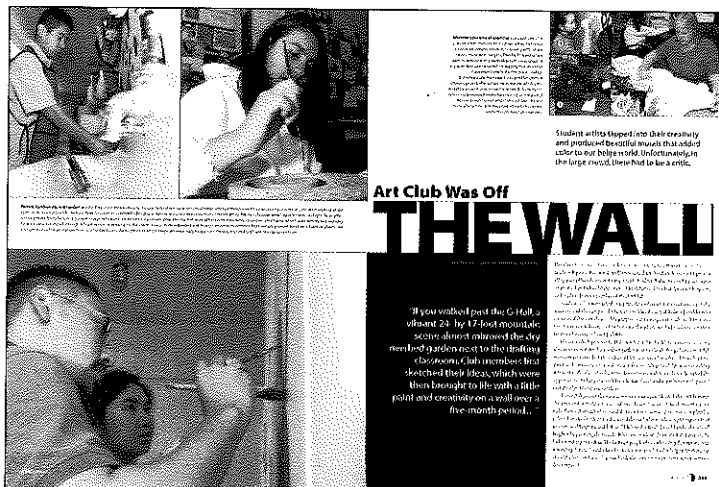
Keep photos that display a clear center of interest, especially if those photos capture an interesting angle.

Now, examine the photos in the examples below:



Kansas State University - Manhattan, Kan.

- The dominant photo: The athlete is a clear center of interest, and the photo is cropped according to the rule of thirds. The athlete's eyes direct the audience's attention to the headline on the facing page.
- The action of every photo faces the gutter, drawing the audience into the spread.



Downey High School - Downey, Calif.

- The dominant photo: The action is captured from a unique angle, and the center of interest faces the gutter and the headline on the opposing page.
- The action in the two candids on the left page leads the audience to the gutter and the copy.
- The candids are closely cropped with very little wasted space, and yet, no one's arms or legs have been cropped out.

## • • CROPPING with a SCALEOGRAPH • •

### Handout

Goal • • *To crop a photo correctly using a Scaleograph*

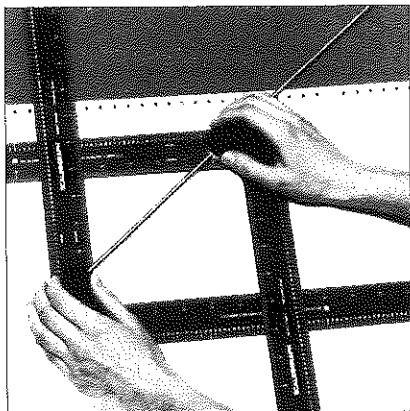
When you crop a photo, you decide which area of the picture you want to reproduce in the yearbook. You crop your photo to reflect the same shape as the picture block on your layout. The plant can then enlarge or reduce your cropped photo to fit on the layout.

Your Kit includes a Scaleograph and cropping pencils. The Scaleograph is the photo cropper used by nearly all graphic arts professionals. Use the cropping pencils provided to make your cropping marks. Please do not use another kind of pencil - the marks from the cropping pencil can be cleaned off by the plant so they will not appear on the final printed photo.

### CROPPING from YOUR LAYOUT to the PHOTO

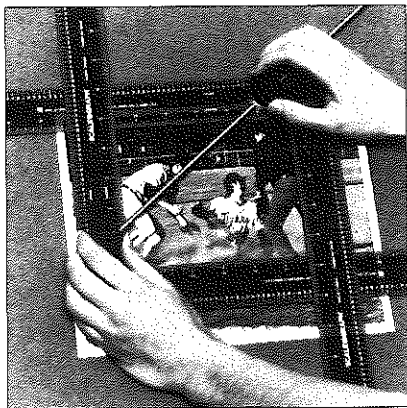
#### Step 1

Loosen locking caps on the Scaleograph so the L's move freely. Place the Scaleograph on the Making It Final form or on the printout of your PageMaster layout, aligning inside edges of the L's with a specific picture area. Tighten the locking caps.



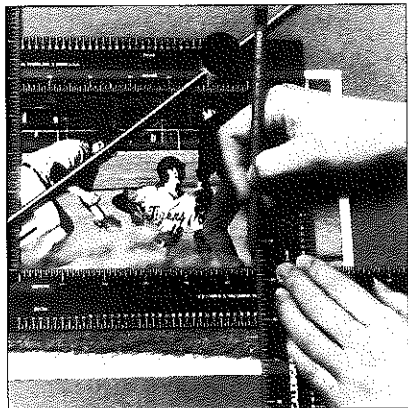
#### Step 2

Pick up the Scaleograph and place it on the photo you want to crop. Slide the upper L of the Scaleograph along the diagonal bar until you have enclosed the area of the photo you want to reproduce.



#### Step 3

Using the inside corners of the Scaleograph as guides, make 90 degree crop marks with the cropping pencil. Make the crop marks gently, so you will not damage your photograph.



## • • PHOTO COMPOSITION • •

### Handout

*Goal • • To learn basic principles of photo composition*

In yearbook, photography tends to be candid photography - all of the photos are action shots that tell a story or capture a moment. Yearbook photographers avoid posed photos where the subjects are mugging for the camera, for example, students grinning with their arms draped across one another's shoulders.

In taking candid photos, photographers use the elements of photo composition to make their photos more visually appealing to their audience. In formal terms, photo composition is the study of the arrangement of objects in a photograph. Look at the examples below:

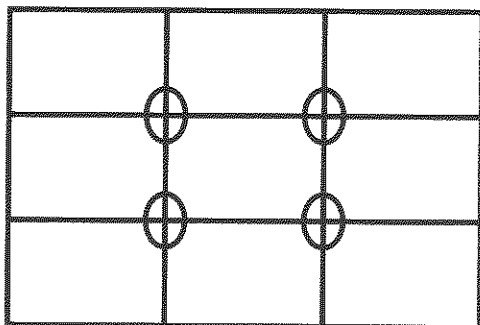


*Kansas State University - Manhattan, Kan.*

### Center of Interest

To have a dramatic impact on the audience, the center of interest should be obvious. Even with a photograph of a large crowd at a sporting event, there should be only one subject of the photo.

- *The pole vaulter is the center of interest, while the spectators are out of focus in the background.*



### Rule of Thirds

You can balance your photographs by using the rule of thirds - the circles to the right indicate the visual hotspots. Position the camera so the center of interest lands on one of those areas to create a more visually exciting photograph.



*Kansas State University - Manhattan, Kan.*

### Angle

Photographers can make their photos more appealing by choosing a unique angle. A low angle can isolate your center of interest with a background of sky or ceiling while a high angle can provide the audience with a different perspective.

- *The dominant photo for a personal profile spread, this high angle gives the audience a look at the subject's dorm room.*



## Framing

A frame can be made up of either objects or people that surround or “frame” the center of interest. For example, if a student is standing in a doorway, the door frame acts as a frame to draw attention to the center of interest.

- *The three players frame the fourth, making him the center of interest.*



*Center High School - Antelope, Calif.*

## Leading Lines

The eye follows leading lines to the center of interest, especially from the foreground to the background. A road, a chalk line on an athletic field or painted lines on a track, all act as leading lines.

- *The white trim on the building acts as a leading line to the student on the platform.*



*East Lansing High School - East Lansing, Mich.*

## Peak of Emotion

Photographers take pictures that tell great stories when they take them at the peak of emotion - at the moment when something happens. The peak of emotion is often the reaction to the event.

- *The first baseman tags the runner out, and the peak of emotion is evident in the expression on the runner's face - frustration and disappointment.*



*Lawrence High School - Lawrence, Kan.*

## THREE TIPS for TAKING GREAT PHOTOGRAPHS

- 1** Pick a good subject. Look for interesting or expressive people.
- 2** Move in close. Many beginning photographers take pictures from too far away. Zero in on your center of interest by moving closer. Look through your view finder to see if the center of interest fills the frame. If not, move even closer.
- 3** Wait for something to happen. Be patient. At a football game, wait for the coach's reaction to a fumble. At a band competition, wait for the announcement of the first-place winner, then shoot a band member's reaction.

# • • PHOTO COMPOSITION • •

## Worksheet

Goal • • *To recognize principles of photo composition in yearbook photographs*

Directions • • *Explain how the principles of photo composition apply to each photo.*



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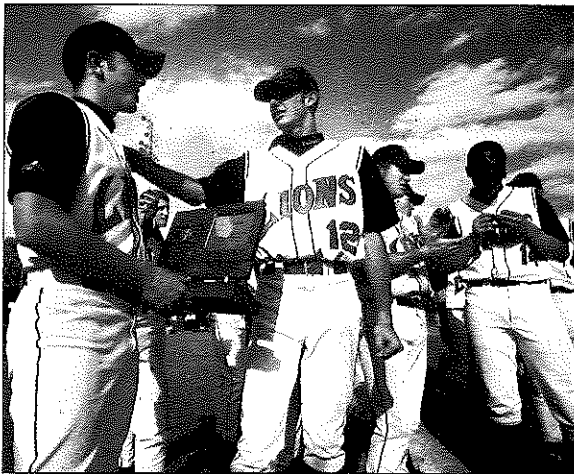
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*Munster High School - Munster, Ind.*



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*Lawrence High School - Lawrence, Kan.*



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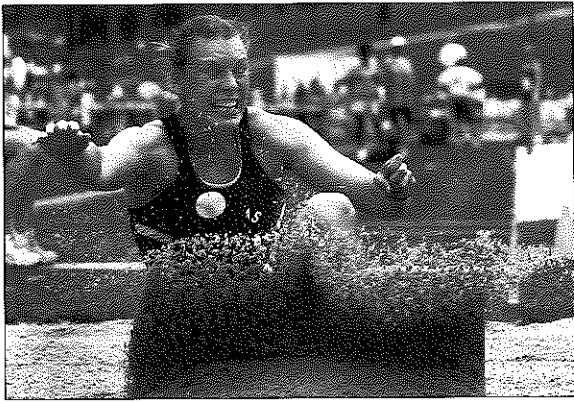
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*West Henderson High School - Hendersonville, N.C.*



*Kansas State University - Manhattan, Kan.*

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*Downey High School - Downey, Calif.*

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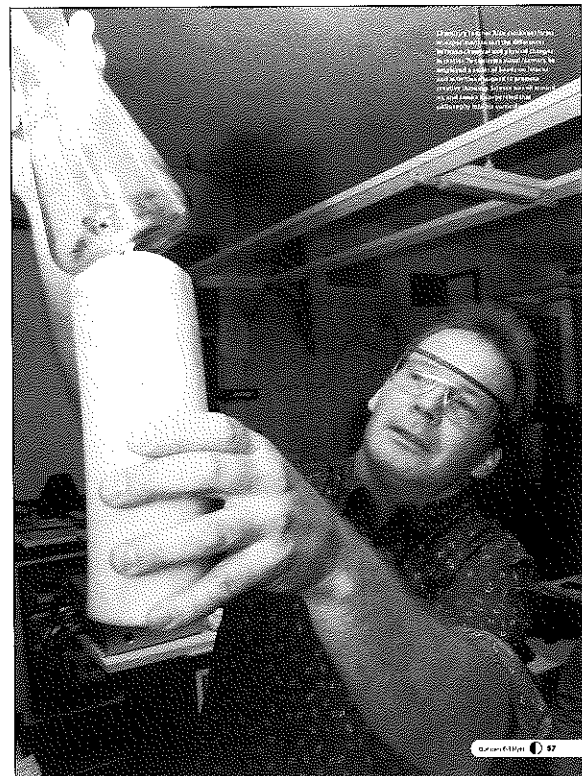
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*Downey High School - Downey, Calif.*

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# • • DIGITAL CAMERA BASICS • •

## Handout

*Goal • • To explain the basics of a digital camera: pixels and resolution, viewfinder vs. LCD, compression, memory and removable media, and optical or digital zoom.*

## How a Digital Camera Works

A digital camera is more a computer than an optical device. Instead of film, digital cameras capture images using light-sensitive computer chips. The most common is a charge-coupled device (CCD). When the shutter opens and light strikes the CCD, temporary electronic charges to the CCD are recorded on internal or removable memory.

## Pixels and Resolution

The heart of the camera is the CCD, and the larger it is physically, the better the quality of the image. Like a pointillist painting, digital images are made up of tiny squares of color called pixels (derived from “picture” and “element”). CCDs are sized, or rated, in megapixels (less than 1.0 up to 3.0 and higher).

Resolution is the number of pixels per linear inch. In digital photography, always remember that resolution rules. The higher the resolution (the more pixels per inch) the better, or crisper, the picture. The amount of detail that a digital camera can capture is called the resolution, and it is measured in pixels. The more pixels a camera has, the more detail it can capture. The more detail, the more a picture can be enlarged before it becomes grainy and starts to look out of focus.

DIGITAL CAMERA REFERENCE CHART			
	PIXELS PER INCH	RESOLUTION (DOTS PER INCH)	IMAGE SIZE IN INCHES
NOT RECOMMENDED	640 x 480	300 dpi 250 dpi	2.1 x 1.6 2.5 x 1.9
	1024 x 768	300 dpi 250 dpi	3.4 x 2.5 4.1 x 3.0
	1 MEGAPIXEL 1152 x 864	300 dpi 250 dpi	3.8 x 2.9 4.6 x 3.4
	1280 x 960	300 dpi 250 dpi	4.3 x 3.2 5.1 x 3.8
GOOD	2 MEGAPIXELS 1600 x 1200	300 dpi 250 dpi	5.3 x 4.0 6.4 x 4.8
BEST	3 MEGAPIXELS 1984 x 1488	300 dpi 250 dpi	6.6 x 5 7.9 x 5.9
	5 MEGAPIXELS 2560 x 1920	300 dpi 250 dpi	8.5 x 6.4 10.2 x 7.7

## Viewfinder vs. LCD (liquid-crystal display)

Most cameras today offer a viewfinder and a separate color liquid crystal display (LCD). Using the viewfinder or the LCD is a toss-up: The image in the LCD is the same image that is captured on the CCD, except that the resolution is lower.

Taking the picture using the LCD is a little tricky. The camera must be held a few inches away in order to see the shot, which requires steady hands. The LCD is also difficult to use in bright light, and it drains the batteries.

On the other hand, the LCD displays a menu for changing the camera settings, as well as viewing and deleting images. If an image isn't just right, delete it and try again – forget the hassle of downloading bad pictures.

## Compression

Digital cameras compress image files when saving them in memory. By compressing images, more pictures can be stored, but some image data or quality is lost.

Most digital cameras store a picture in JPEG format, which compresses the image. Higher-end cameras may also support TIFF format, which does not compress. While TIFF images require a lot of memory, the advantage is that no data is lost.

Experiment by taking the same picture using different file formats. Then, open the images on the computer (with image-editing software) and compare the file sizes and image quality. Before going out for the afternoon with camera in hand, know what format to select and how many pictures can be stored in memory.

## Memory/Removable media

For serious picture taking, invest in a camera that uses removable memory cards. Cameras that use floppy disks use more power and are bulkier, and floppies don't hold much data. Memory cards, on the other hand, are available from 8MB to 128MB and higher. As long as there are extra cards for back-up, running out of space isn't a problem. Just pop in a new card when the first one fills up.

The most common memory cards are SmartMedia® and CompactFlash® (Type I and Type II). SmartMedia is a bit less expensive than CompactFlash, but the largest capacity is 64MB. CompactFlash Type I media can store more than 100 high-resolution pictures on a single 128MB card. Type II cards come as large as 224MB.

## Zooming: Optical or Digital

Low-end cameras have fixed-focal-length lenses like cheap disposable film cameras - meaning the lens always covers the same angle of view and the only way to change the framing is to move closer to the subject. Some digitals may feature the option to adjust the focus to three different distances: macro for an extreme close-up, portrait and landscape.

A zoom lens is the best option for the yearbook photographer. When zooming in, the focal length (distance between the lens and the image sensor, or CCD) increases. When zooming out, the focal length decreases. A camera with a zoom lens offers the ability to shoot at any focal length along the zoom range.

The most common zoom for a digital camera is 3X - some smaller models have only a 2X and some larger, more expensive models offer a 10X zoom. Be sure to carefully consider the options available: buying a camera with 3X zoom only to find out later that a 10X zoom is what's really needed for close-up action on the football field can be a big problem.

Don't be fooled by the term "digital zoom." A digital zoom just crops the image by taking pixels from the center of the image sensor and "interpolates" them to make a full-size image. It's the same as cropping a picture and then blowing it up. A digital zoom may create a grainy or fuzzy image. Be sure to purchase a camera with an optical zoom, a true zoom lens.

## • • TROUBLESHOOTING with a DIGITAL CAMERA • •

Handout

Goal • • To help students troubleshoot problems with a digital camera

### CARRY EXTRA BATTERIES AT ALL TIMES

Every function and feature of a digital camera requires power. Digital cameras drain batteries in very little time. Be sure to have several extra sets of batteries at all times when shooting pictures.

Many cameras use regular AA alkaline batteries (a set of four), while others use AA lithium batteries. There are also models that use 6-volt batteries. NiCad (nickel cadmium) are the most familiar rechargeable batteries, but they're not the best for digital cameras. Instead, purchase NiMH (nickel metal hydride) batteries – some cameras come with a set as well as a charger.

Remember to remove the camera's batteries when storing the camera away for any extended period of time – a school break, summer vacation, the early weeks of fall when school is just getting going.

Remove the memory card and transfer any images to the computer before removing the batteries!

### TAKE CARE OF YOUR MEMORY CARDS

Don't touch the contact areas – the gold part at the top of a SmartMedia card and the connector on the bottom of a CompactFlash card. Also, SmartMedia cards aren't for pockets. They are flexible – but bending the cards is not recommended.

### RESOLVING IMAGE PROBLEMS

#### Blotchy, jagged images

Prints that look grainy or have a jagged appearance are referred to as having the “digital measles.” Try using a lower compression setting for images that look jagged or blotchy. On the other hand, too little resolution – or too few pixels – can result in blotchy-looking pictures.

#### Grainy images

Increase the lighting by lowering the ISO setting or adjusting the exposure using the exposure value compensation option.

#### Yellowish whites

Digital cameras use a process called white balancing. It's automatic on most cameras, but some offer manual controls: daylight/sunny, cloudy, fluorescent, tungsten (incandescent, or household, lighting) and flash. Play around with these controls to find out what works best in each situation, so that skin tones and objects that are bright white come out as close to reality as possible. If these adjustments aren't available, often colors can be adjusted at the image-editing stage.

#### Blurred action

Try the continuous-capture option (also referred to as a burst option) available with higher-end cameras. Press the shutter button once, and the camera records a series of images – when the button is released, the camera processes and stores the image. Unfortunately, in this mode most cameras only shoot low resolution pictures and the flash is disabled. If using a camera without burst mode, practice stopping action with the following:

- Get ready early – anticipate the action ahead of time and lock in focus and exposure before it happens. (Aim the camera at a subject the same distance away and press the shutter button halfway down.)
- Use fill flash to activate a faster shutter speed, or switch to shutter-priority autoexposure and select the highest speed.



Lined writing area with horizontal lines for text.

