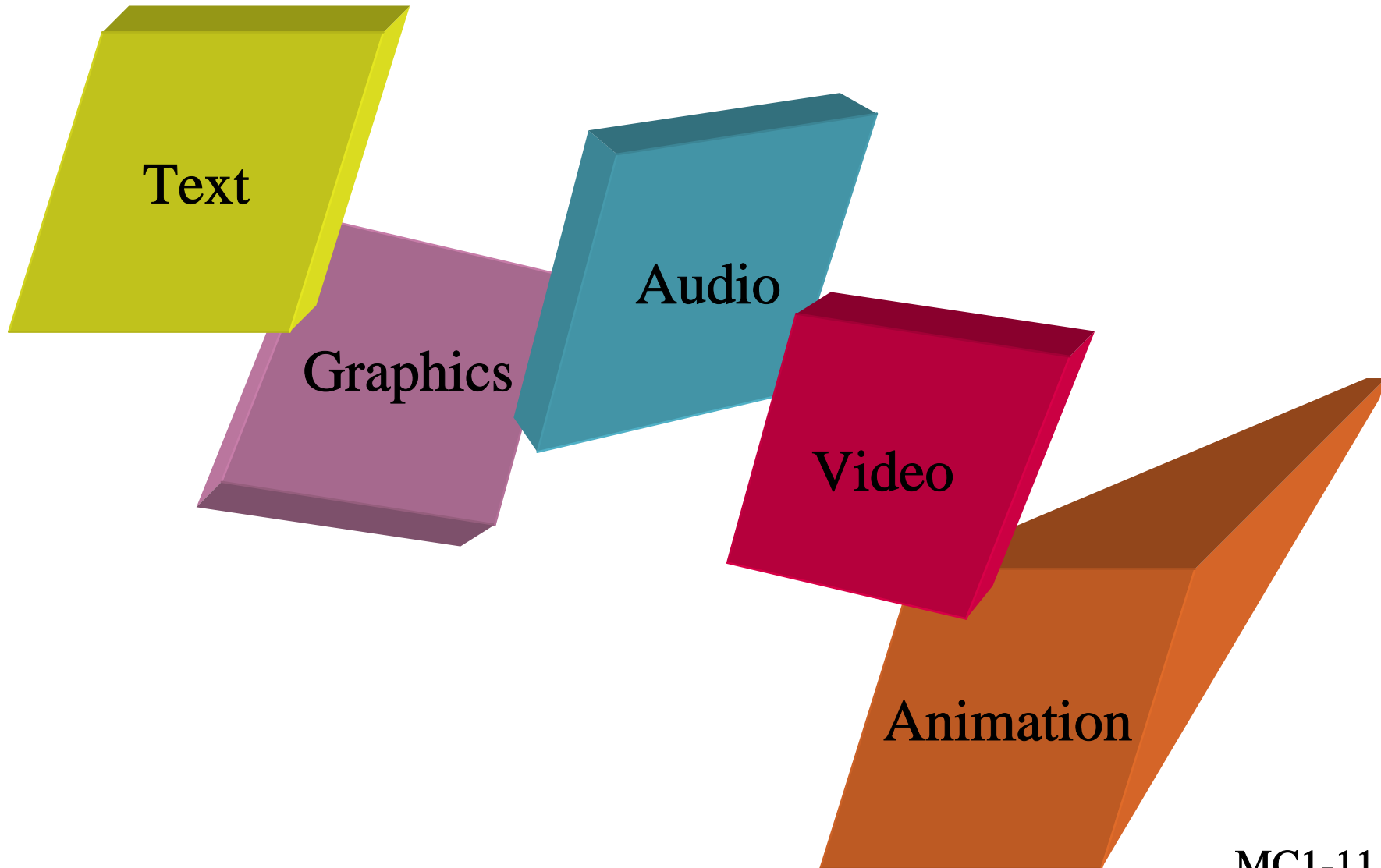


Technology: Media Categories



Media Categories/Features

Text

Words, sentences, and paragraphs all are examples of text. This handout, for example, consists of text. *Text processing* refers to the ability to manipulate words, lines, and pages. Typically, the term *text* refers to text stored as ASCII (that is, without any formatting). Objects that are *not* text include graphics, numbers (if they're not stored as ASCII characters), and program code.

<http://www.webopedia.com/TERM/t/text.html>

What are your experiences with text? How might you and/or your students use various fonts (e.g., *Apple Chicanery*, **COPPERPLATE GOTHIC BOLD**, **Sand**), font sizes

(e.g., 12-point, **22-point**, 8-point) and font styles (e.g., regular, *italics*, **bold**, or ***bold italics***) to create special effects of mood or design for work involved in the lessons? List a couple of ideas that come to mind.

Graphics

Graphics pertain to any computer or program that allows a computer to display and/or manipulate pictures. For example, laser printers and plotters are graphics devices because they permit the computer to output pictures. A graphics monitor is usually used to display pictures. A graphics board (or graphics card as it is sometimes called) is a printed circuit that, when installed in a computer, allows the computer to display pictures.

Many software applications include graphics components and, thus, are said to support graphics. For instance, word processors support graphics by letting users draw or import pictures that are available in clip art or perhaps downloaded from the Internet. Some database management systems and spreadsheet programs (like Excel that is included on your laptops) support graphics because they let you display data as graphs or charts. Such applications are often referred to as business graphics, but they could just as easily be called education graphics because of their widespread use in the classroom.

The following graphics applications have potential for technology integration.

- Paint programs allow the user to create rough freehand drawings. The images are stored as bit maps and can easily be edited.
- Illustration/design programs support more advanced features than paint programs, particularly for drawing curved lines. The images are usually stored in vector-based formats. Illustration/design programs are often called draw programs.
- Presentation graphics software can be used to create bar graphs, pie charts, graphics, and other types of images for presentations and reports. The charts can be based on data imported from spreadsheet applications.
- Animations software allows you to chain and sequence a series of images to simulate movement. Each image can be thought of as a frame in a movie.
- Computer-aided design (or CAD for short) software gives architects, and engineers, and others the ability to draft designs.
- Desktop publishing provides a full set of word-processing features and provides the user with the ability to use text and graphics to write newsletters, advertisements, books, and so forth.

For the most part, applications that support graphics require a powerful central processing unit (CPU) and a large amount of memory. Many graphics applications (e.g., computer animation systems) require more computing power than is available on personal computers and will run only on powerful workstations or specially designed graphics computers. This is true of all three-dimensional computer graphics applications.

In addition to the CPU and memory, graphics software requires a graphics monitor and support for one of the many graphics standards. Most personal computer (PC) programs, for instance, require visual graphics adaptor (VGA) graphics. If your computer does not have built-in support for a specific graphics system, you can achieve the same results using a video adapter card.

The quality of most graphics devices is determined by their resolution (i.e., how many points per square inch they can represent) and their color capabilities.

Graphics:

- Enhance the overall look of a piece
- Express more than text
- Can be created using various tools

adapted from <http://www.webopedia.com/TERM/G/graphics.html>

How might you integrate graphics into a lesson plan?

Audio

Audio is another name for sound, whether it is synthesized or digitized, that allows for playback with a computer. The most typical file formats are .WAV for Windows and .AU for Unix for both Macs and Windows machines with the right players. When thinking about integrating audio into lesson plans, consider the following:

- Sound can be used to establish rhythm or mood.
- Speech provides the impression of "being there."
- Sound files can be easily transmitted via the Internet
- Sound can be recorded into a microphone or from tape or cassette player, onto a PC.

adapted from <http://www.uncg.edu/irc/mm/terms/terms.htm#A>

Can you think of any ways that audio can be used to enhance your students' work?

Video

A video is a recording produced with a video recorder (camcorder) or some other device that captures full motion. Video also refers to recording, manipulating, and displaying moving images and text on a television or computer monitor. A video adapter is used to send signals to the display device.

adapted from <http://www.webopedia.com/TERM/v/video.html>

- Pictures "paint a thousand words"
- Motion pictures "paint a million"
- Digital video easier to transmit than analog video

Video has great potential for use in your lessons. Think about a lesson you are teaching now. How could video enhance the learning process?

Animation

A simulation of movement created by displaying a series of pictures, or frames. A cartoon on television is one example of animation. Animation on computers is one of the chief ingredients of multimedia presentations. There are many software applications that allow you to create animations that you can display on a computer monitor.

There is difference between animation and video. Whereas video takes continuous motion and breaks it up into discrete frames, animation starts with independent pictures and puts them together to form the illusion of continuous motion.

adapted from *<http://www.webopedia.com/TERM/a/animation.html>*

Animation is a complex medium and is often one of the last technologies to be integrated into lessons (unless the animation is an animated film). What are some examples of animation that you might have readily available for technology integration?

Tools to Help Students Evaluate Photographs, Art, and Film

Photographs

Photographers capture images that convey specific meanings. Photographers use Elements of Design and film techniques (e.g., camera angles and shots) to create a mood, capture an idea, and develop their message.

Evaluating Photographs

You are an art critic at work in a big museum. Your job is to analyze and examine the collection of photographs on display at the museum. Use the following questions to help you analyze a photo in the collection. Write your critique in paragraph form on a separate page.

1. What did you title this photo?
2. How did the photo create a feeling or mood?
3. What is the main subject in the photo? How can you tell?
4. How did colors impact you? How did they make you feel? Consider hue (shade or tint).
5. What story does this photo tell?
6. How did the photographer use camera shots and angles to convey a message?
7. What do you like most about this photo?

Evaluating Art: Sensory Qualities that Appeal to Our Senses

COLOR: Hue, value, intensity of pigment

1. What color is used the most?
2. How many different colors have been used?
3. Is the general coloring in the painting primary/secondary; warm/cool?
4. How many different shades or tints of one color do you see?
5. Do the colors tell the time of day or the season?

6. Are there more light or more dark colors in the picture? Which stand out the most?
7. Point out where colors are repeated within the picture. What does this suggest?
8. Does the artist use color to show distance?
9. Did the artist use color to make something in particular stand out? How? (Point out and ask why they think the artist did this.)
10. Does the color used on a particular shape or surface make the surface look flat, rounded, or appear to have more than one side?
11. How do the colors affect the mood of the painting: sunny/stormy; happy/sad?

LINE: Series of connected points that are continuous

1. What kinds of line do you see in the picture, straight or curved?
2. Where do you see straight lines? Curved lines? Do you see any other kinds of lines?
3. Are most of the lines in the picture vertical, horizontal, or diagonal? Point these out.
4. Do you see thick or thin lines? Long or short lines?
5. Are the lines deep/bold, jagged/smooth, or continuous/broken?
6. What kind of line stands out the most in the picture?
7. Do you see repeated lines? (Repetition of thick, thin, horizontal, curvy, or any kind of line.)

TEXTURE: The actual and/or visual feel of a surface

1. Do you see lots of different textures within this particular picture? (Compare several different textures with the picture.)
2. Does the texture look thick/thin, bumpy/even, coarse/fine, hard/soft, light/heavy, rough/smooth? Why?
3. Do you see anything that would feel sharp, prickly, soft, rippled, etc.?
4. Why did the artist use different textures for different things?
5. Does the artist use color or line to show texture? How?

SHAPE: Area enclosed by outline: organic (curved), geometric (angled)

1. Are most of the shapes organic (natural or curved) or geometric (angular or straight)?
2. Are most of the shapes large or small? Round, square, triangular, open, closed?
3. What other shapes do you find in the picture? (Ovals, circles, squares, triangles, others?)
4. What shape is repeated most throughout the picture?
5. Do you see any shapes that overlap?

SPACE: The relative position of two and three-dimensional objects in distance and levels to each other

1. Is the picture full or empty? What takes up the most space in the picture, the subject matter or the background space?
2. How does the artist depict objects in the foreground? Large/small, high/low, near/far? In the background?
3. Is there more space or more subject matter in the picture? (Why did the artist leave so much space around the figure or the object?)

BALANCE: Real or imagined equality of opposing or contrasting elements; symmetry or asymmetry

1. Is this picture well balanced?
2. Is it symmetrical or asymmetrical?
3. Which side of the picture has the most detail? Does this make the picture look unbalanced? Why? What is in the very center of the picture?
4. How did the artist balance the picture? Color, shape, line, space, repetition?

Evaluating Art: Structure Or Organizational Properties of a Work of Art

BALANCE: Real or imagined equality of opposing or contrasting elements; symmetry or asymmetry

1. Is this picture well balanced?
2. Is it symmetrical or asymmetrical?
3. Which side of the picture has the most detail? Does this make the picture look unbalanced? Why? What is in the very center of the picture?

4. How did the artist balance the picture? Color, shape, line, space, repetition?

RHYTHM: Look or feel of movement achieved by repetition of elements

1. What elements do you see repeated in this picture? Color, line, shape, texture? Name each.
2. What shapes are repeated? Which are repeated more, the dark shapes or the light shapes?
3. Do you see any repetition of lines?

THEME AND VARIATION: Motif or subject matter; recurring dominant element and its changes

1. What is the subject (main idea) of the pictures?
2. Does the title of this picture relate to it? If so, what did the artist do to show this?
3. If an artist of today painted this picture, would it look the same? If not, how would it be different?
4. Did the artist use a particular color as his or her theme?

PROPORTION AND CONTRAST: Comparison of relationships and differences in elements

1. What is the most important part of the picture? How does the artist make it stand out? In his/her use of color? Value? Space? Line? Texture?
2. Which object(s) is the most important, the one(s) in the foreground or background?

Evaluating Film: Camera Angles

Directors of film and video use the position of the camera (angles) to create visual meanings and messages (e.g., expressing viewpoints).

1. Most scenes are photographed from eye level, roughly 5-6 feet off the ground—approximately the way an actual observer might view a scene. Usually these directors attempt to capture the clearest view of an object. Most all directors use some eye-level shots.
2. Bird's eye view is photographing a scene from directly overhead. The people photographed seem insignificant. Directors whose themes revolve around the idea of fate tend to favor high angles.
3. High angle-camera is generally placed on a crane. Gives the viewer a sense of a general overview. High angles reduce the height of the objects photographed and usually include the

ground or floor as background. The importance of setting or environment is increased. High angles reduce the importance of the subject.

4. Low angles have the opposite effect of high. They increase a short actor's height. Motion is speeded up, and in scenes of violence, low angles capture a sense of confusion. Low angles heighten the importance of a subject. A person photographed from below inspires fear, awe, and respect.
5. Oblique angle involves a lateral tilt of the camera. The angle is sometimes used for point-of-view shots. Oblique angles suggest tension, transition, and movement.

Evaluating Film: Camera Shots

Directors use shots or sections of uninterrupted film to establish control over space and time. This control helps create visual meanings for audiences to interpret.

A shot is a section of a film that has been exposed without interruption by a single running of the camera. Within a single shot there is no time or space discontinuity. Shots are categorized by:

- the size or relative proportion of the object being filmed;
- the angle of the camera in relation to the object;
- the purpose of the shot; and
- the type of camera movement involved in the shot.

The following are the most common shots:

- Big or Extreme close-up (BCU/ECU)-A small detail of the subject or object fills the screen. As related to a human subject: a shot of part of the face only.
- Bridging shot- A shot used to cover any break in continuity or jump in time.
- Medium close-up (MCU)- The medium close-up reveals slightly more of its subject than a close-up. A medium close-up of a human subject frames the person from the shoulders upward and also includes glimpses of one or two other details, such as part of the setting or a prop.
- Close-up (CU)- The camera appears very close to the subject, so that when the image is projected, most of the screen will be filled with a face and its expression, a hand, a foot, or some relatively small part of a larger whole.
- Dolly, Follow, Tracking, or Trucking-The camera is in motion on a dolly or truck; it can move in closer to the subject or follow it as it moves.

- Establishing or Master shot- A shot that includes all the important action of a specific scene. This is often a long shot. The same scene is usually explored with closer shots and from a variety of different angles after the master shot has been presented.
- Extreme close-up (ECU)- See big close-up above.
- Full shot- A shot that reveals all or almost all of a subject and the surroundings.
- Head or Eye Level- Camera positioned at eye level of subject.
- High Angle- Camera position is above subject, directed down at the subject.
- Long Shot (LS)- The camera is or seems to be at a great distance from the subject being filmed.
- Low Angle- Camera position is below subject, directed up towards the subject.
- Medium Shot (MS)- A shot which includes most of a subject and some of the subject's surroundings. With the example of a human subject, a medium shot is at least waist high.
- Moving- Produced when the camera moves toward or away from a fixed object at the same or different rate of speed and upward or downward with respect to the object.
- Pan-The camera moves along a horizontal plane.
- Tilt-The camera moves along a vertical plane.
- Zoom- A shot involving the movement of a zoom lens (a lens that gives the illusion of movement toward or away from the subject without moving the camera) in order to change the relative proportions of the subject.

(Teaching Viewing and Representing Texas Essential Knowledge and Skills in the English Language Arts Curriculum, TCRLA, 2000, UTCRLA, 2002))

Glossary of Art /Visual Terms

- advertise- Call attention to something by emphasizing qualities to influence an audience.
- animation- Cartoon-like movies with separate pictures drawn by artists.
- balance- A planned arrangement in which the parts appear equally important.
- center of interest- The main thing noticed.
- cold colors- Colors—such as dark blue, green, purple—which evoke harsh images.
- color- A phenomenon of light that may be described in terms of hue and lightness for light sources.
- complementary colors- Colors that are opposite each other on the color wheel (e.g., orange and blue).
- contour- The outer edge of a shape.
- cool colors- Colors—such as light blue or green—which suggest calm, serenity.
- cut-away illustration- A detailed drawing that shows how the parts of an object fit together.
- design- A plan for arranging parts or elements of a piece.
- elements of design- Parts of a visual piece that are planned by the artist including line, color, shape, space, texture, value.
- graphic design- The planned lettering and artwork for posters, books and other materials.
- hot colors- Colors—such as reds, bright yellow, orange—which symbolize power and are attention-getting.
- hue- The name for a color (e.g., blue, red, yellow).
- impact- The effect of a message.
- layout- A detailed plan for viewing.
- logo- A visual symbol for a club, group or business.
- monochromatic- The use of several values of one color (e.g., pink, red and maroon).
- negative space or shape- A space or shape which surrounds a line or shape.

neutral colors- Colors such as black, white, gray, and brown.

pattern- Lines, colors or shapes that are repeated in a planned way.

pose- A specific or special way to sit or stand.

primary colors- The colors from which all other colors can be made: red, blue and yellow.

principles of design- Guides to plan relationships among visual elements in a visual piece:
balance, pattern, proportion, rhythm, unity and variety.

proportion- The size, amount, or location of something as compared to something else.

recede- To appear as if moving away from the viewer.

rhythm- Repeated visual elements that remind you of rhythms in music.

secondary colors- Colors produced by mixing two primary colors: violet, orange, and green.

shade- Adding black to a color to form a darker color or hue.

shadow- A darkened area with little light.

stipple- Small dots used to create a fine texture.

symbol- Lines, colors, shapes, or words with a special meaning.

texture- The way an object feels or looks like it feels when it is touched.

tint- A color mixed with white, creating a light value (e.g., pink is a tint of red).

translucent- A surface that allows light to pass through yet does not allow for clear viewing.

transparent- A see-through surface.

unity- The quality of having all the elements of a visual piece look as if they belong together.

view- Parts of a scene or object seen from a certain position.

warm colors- Colors, such as varieties of yellow, orange, and red, which remind people of warm things.

(UTCRLA, 2002)