For an art history class, you write an essay comparing two paintings by Willem de Kooning. For an engineering class project, you design a model of a bridge and give an in-class presentation explaining the structures and forces involved, which you illustrate with slides. For a psychology assignment, you interview several people who’ve suffered foreclosures on their homes in recent years about how the experience affected them and how they’ve tried to cope with the resulting stress — and then create an online text weaving together a slideshow of photos of the people outside their former homes, a graph of foreclosure rates, video and audio clips from the interviews, and your own insights.

All of these writing tasks require you to incorporate and sometimes to create visuals and sound. Many kinds of visuals can be included in print documents: photos, diagrams, graphs, charts, and more. And with writing that’s delivered online or as a spoken presentation, your choices expand to include audio and video, voice-over narration, and links to other materials.

Visuals and sound aren’t always appropriate, however, or even possible — so think carefully before you set out to include them. But they can help you make a point in ways that words alone cannot. Election polling results are easier to see in a bar graph than the same information would be in a paragraph; an audio clip can make a written analysis of an opera easier to understand. This chapter provides some tips for using visuals and incorporating sound in your writing.

**Considering the Rhetorical Situation**

Use visuals that are appropriate for your audience, purpose, and the rest of your **Rhetorical Situation**. If you’re trying to persuade voters in your
town to back a proposal on an issue they don’t know or care much about, for example, you might use dramatic pictures just to get their attention. But when it’s important to come across as thoughtful and objective, maybe you need a more subdued look — or to make your points with written words alone. A newspaper article on housing prices might include a bar graph or line graph and also some photos. A report on the same topic for an economics class would probably have graphs with no photos; a community website might have graphs, links to related sites, and a video interview with a home owner.

In your academic writing, especially, be careful that any visuals you use support your main point — and don’t just serve to decorate the text. (Therefore, avoid clip art, which is primarily intended as decoration.) Images should support what you say elsewhere with written words and add information that words alone can’t provide as clearly or easily.

**Using Visuals**

Photos, videos, tables, pie charts, bar graphs: these are many kinds of visuals you could use.

An essay discussing the work of Willem de Kooning might contrast one of his more representational works (such as the one on the left) with one that’s more abstract (right).
Photographs. Photos can support an argument, illustrate narratives and processes, present other points of view, and help readers “place” your information in time and space. You may use photos you take yourself, or you can download photos and other images from the internet — within limits. Most downloadable photos are copyrighted, meaning that you can use them without obtaining permission from the copyright owner only if you are doing so for academic purposes, to fulfill an assignment. If you are going to publish your text, either in print or on the web, you must have permission. Consider, too, the file size of digital images; large files can clog readers’ email in-boxes, take a long time to display on their screens, or be hard for you to upload in the first place, so you may have to compress an image or reduce its resolution (which can diminish its sharpness).

Videos. If you’re writing online, you can include video clips for readers to play. If you’re using a video already available online, such as on YouTube, you can show the opening image with an arrow for readers to click on to start the video, or you can simply copy the video’s URL and paste it into your text as a link. In either case, you need to introduce the video in your text with a signal phrase. As with any other source, you need to provide an in-text citation and full documentation.

If you want to include a video you made yourself, you can edit it using such programs as iMovie or Windows Movie Maker. Once you’re ready to insert it into your document, the easiest way is to first upload it to YouTube, choosing the Private setting so only those you authorize may view it, and then create a link in your document.

Graphs, charts, and tables. Statistical and other numerical information is often best presented in graphs, charts, and tables. If you can’t find the right one for your purpose, you can create your own, as long as it’s based on sound data from reliable sources. To do so, you can use various spreadsheet programs or online chart and graph generators.

In any case, remember to follow basic design principles: be consistent, label all parts clearly, and keep the design simple, so readers can focus on the information and not be distracted by a needlessly complex design. In particular, use color and contrast wisely to emphasize what's
Line graphs are a good way of showing changes in data over time. Each line here represents a different social networking site. Plotting the lines together allows readers to compare the data at different points in time. Be sure to label the x and y axes and limit the number of lines to four at the most.

Bar graphs are useful for comparing quantitative data, measurements of how much or how many. The bars can be horizontal or vertical. This graph shows IKEA’s earnings between 2000 and 2011. Some software offers 3-D and other special effects, but simple graphs are often easier to read.

Pie charts can be used to show how a whole is divided into parts or how parts of a whole relate to one another. The segments in a pie should always add up to 100 percent, and each segment should be clearly labeled.

Tables are useful for displaying numerical information concisely, especially when several items are being compared. Presenting information in columns and rows permits readers to find data and identify relationships among them.

Diagrams and flowcharts are ways of showing relationships and processes. This diagram shows how carbon moves between the Earth and its atmosphere. Flowcharts can be made using widely available templates; diagrams, on the other hand, can range from simple drawings to works of art. Some simple flowcharts may be found in the Genre chapters (for example, p. 252).
most significant. Choose **COLORS** that are easy to distinguish from one another — and that remain so if the graph or chart is printed out in black and white. (Using gradations of color from light to dark will show in black and white.) Some common kinds of graphs, charts, and tables are shown on the facing page.

**SOME TIPS FOR USING VISUALS**

- Position images as close as possible to the discussion to which they relate. In *Microsoft Word*, simply position your cursor where you want to insert an image; click Picture on the Insert tab; choose the appropriate image from your files; and click Insert. You may then need to adjust the way the text flows or wraps around the image: in the Page Layout tab, choose the appropriate option in Wrap Text.

- In academic writing, number all images, using separate sequences of numbers for figures (photos, graphs, diagrams, video clips, and drawings) and tables: Fig. 1, Fig. 2; Table 1, Table 2.

- Explain in your written text whatever information you present in an image — don’t expect it to speak for itself. Refer to the image before it appears, identifying it and summarizing its point. For example: “As Table 1 shows, Italy’s economic growth rate has been declining for thirty years.”

- Provide a title or caption for each image to identify it and explain its significance for your text. For example: “Table 1: Italy’s Economic Growth Rate, 1985–2015.”

- Label the parts of visuals clearly to ensure that your audience will understand what they show. For example, label each section of a pie chart to show what it represents.

- Cite the source of any images you don’t create yourself. You need not document visuals you create, based on data from your own experimental or field research, but if you use data from a source to create a graph or chart, **CITE THE SOURCE** of the data.

- In general, you may use visuals created by someone else in your academic writing as long as you include full **DOCUMENTATION**. If you post your writing online, however, you must first obtain permission from the copyright owner.
Audio clips, podcasts, and other sound files can serve various useful purposes in online writing. Music, for example, can create a mood for your text, giving your audience hints about how to interpret the meaning of your words and images or what emotional response you’re evoking. Other types of sound effects — such as background conversations, passing traffic, birdsongs, crowd noise at sports events — can provide a sense of immediacy, of being part of the scene or event you’re describing. Spoken words can serve as the primary way you present an online text or as an enhancement of or even a counterpoint to a written text. (And if your audience includes visually impaired people, an audio track can allow or help them to follow the text.)

The Library of Congress is a good source for online recordings of music, speeches, and radio broadcasts.
You can download or link to various spoken texts online, or you can record voice and music as podcasts using programs such as GarageBand and Audacity. Remember to provide an in-text citation and full documentation of any sound material you obtain from another source.

Adding Links

If you're writing an online text in which you want to include images, video, or sound material available on the web, it's often easier and more effective to create links to them within the text than to embed them by copying and pasting. Such links allow readers to see the materials' original context and to explore it if they wish.

The example below shows a blog post from the Archives of American Art with links to additional detail and documentation.

John Singer Sargent

This lively caricature from the Francis Davis Millet and Millet family papers features an artist fervently painting his subject, just in the background. Most likely it is John Singer Sargent at work on his painting Carnation, Lily, Lily, Rose. His posture and the expression on his face suggest an exuberance that matches the action of the paint dripping and splashing as it prepares to meet the canvas with energetic strokes.

Caricature of an artist painting vigorously, ca. 1885-1886. Francis Davis Millet and Millet family papers, Archives of American Art, Smithsonian Institution.
SOME TIPS FOR CREATING LINKS

- Indicate links with underlining and color (most often blue), and introduce them with a **SIGNAL PHRASE**.
- Don't include your own punctuation in a link. In the example on page 613, the period is not part of the link.
- Try to avoid having a link open in a new browser window. Readers expect links to open in the same window.

**Editing Carefully — and Ethically**

You may want to edit a photograph, cropping to show only part of it or using Photoshop or similar programs to enhance the colors or otherwise alter it. Similarly, you may want to edit a video, podcast, or other audio file to shorten it or remove irrelevant parts. If you are considering making a change of this kind, however, be sure not to do so in a way that misrepresents the content. If you alter a photo, be sure the image still represents the subject accurately; if you alter a recording of a speech or interview, be sure the edited version maintains the speaker's intent. Whenever you alter an image, a video, or a sound recording, tell your readers how you have changed it.

The same goes of editing charts and graphs. Changing the scale on a bar graph, for example, can change the effect of the comparison, making the quantities being compared seem very similar or very different, as shown in the two bar graphs of identical data in Figures 1 and 2.

Because of the different fund-raising goals implied by the graphs ($800 or $5,000) and the different increments of the dollars raised ($200 or $1,000), the graphs send very different messages, though the dollars raised by each fund-raiser remain the same. Just as you shouldn't edit a quotation or a photograph in a way that might misrepresent its meaning, you should not present statistical data in a way that could mislead readers.
Fig. 1. Fund-raising results for the class gift.

Fig. 2. Fund-raising results for the class gift.