This collection of reference guides will be available as a resource on the accessibility training website and distributed at the accessibility classroom training. They provide reminders of best practices.

Reference Guides

Accessible Materials Made Right:
Reference Guide for Text

Fonts

Choose your fonts and sizes with accessibility in mind. Sans-Serif fonts are recommended based on readability, ability to discern, and clear magnification. Examples of Sans Serif fonts are Arial, Verdana, and Helvetica. Tools like NexusFont are helpful in showing the visual differences between fonts that you are considering.

As a general guideline, recommended font sizes are:

- Around 12pt for body text in a document (9pt minimum for footnotes)
- 24pt or larger for the body text in presentation slides

Styles

Basics

Styles are predefined formatting instructions that can be used repeatedly throughout a document. They perform two major functions:

- Assign characteristics for visual formatting (font, color, shading, borders, etc.)
- Tag text with meaningful code (headings, emphasis, etc.)

Styles make it easy to modify future versions of your content since updating a style will update all text that is associated with that style.

Using styles is one of the most important things that you can do for accessibility purposes. They:

- Make it easier for people to read by providing visual structure and cues that differentiate sections and reveal the logical reading order of the document
- Provide the structure used by assistive technologies to navigate throughout the document
- Retain this structure when converted to PDF and HTML formats
- Allow for the easy creation of a Table of Contents

There are several types of styles, including:

- Title
- Subtitle
- Heading Levels
- Normal (Body)
- List Paragraph
- Quote
- Emphasis

Headings

Headings are the most common style that will be used in your documents. Headings should be:

- Short and concise
- Sequential and relational
    - The first heading in a document must be Heading 1
    - Subsequent headings should never be more than one level apart (ex. do not jump from Heading 2 to Heading 4)
    - Headings should "nest" in logical order

Thinking of notetaking/outline structure when using headings may be helpful:

- Title (Heading 1)
    - Chapter 1 (Heading 2)
        - Section 1 (Heading 3)
        - Section 2 (Heading 3)
    - Chapter 2 (Heading 2)
    - Chapter 3 (Heading 2)
        - Section 1 (Heading 3)
            - Subsection 1 (Heading 4)
            - Subsection 2 (Heading 4)
        - Section 2 (Heading 3)

There are two ways to use Heading 1 (H1) in document. I can be used to mark:

1. Title - If you use Heading Level 1 (H1) for your title, you may not use it again in the document.
2. Chapters/Sections - If you would like to use H1 to designate several sections in a long document, do not assign a heading level to the title of document. The title should be designated as a Normal or Title style and then the headings should begin at your first chapter or section and continue through the rest of the document.

Paragraphs

Styles should be used to format paragraph characteristics like line spacing and indents. You should not use several spaces to indent at the beginning of the paragraph or the enter key to provide space between headings and paragraphs.

Lists

Use the bulleted or numbered list formatting options when creating lists. Repeated use of the tab key and spacebar to create the illusion of a list will render navigation useless.

In general:

- Bulleted lists should be used when items are listed in no particular order.
- Numbered lists should be used when order or quantity of list items matter.

Hyperlinks

Hyperlinks must contain meaningful labels that inform navigation.

- Not meaningful – [Click Here](#)
- Meaningful – [Alt+Shift Lending Library](#)

If materials will be distributed in both electronic and print formats, you should include the meaningful hyperlink followed by the full URL (which should remain unlinked).

- [Alt+Shift Lending Library](#) (http://www.altshift.education/lending-library/)

Things to Avoid

- Justifying text
  - Justifying text can create irregular spaces between words and sentences making reading more challenging for some people
- Repeating blank characters, including using the spacebar to indent and the enter key to create space between lines
  - These blank characters are "read" by different forms of assistive technology and can create an unnecessary distraction their users
- Text boxes (outside outlines can be used to create the appearance of a text box)
  - Text boxes are not read by screen readers so all text inside of them is rendered invisible to individuals who cannot visually access the text
- Hyphenation at the end of a line
  - Words broken up by hyphenation will be read as two separate words by a screen reader
- Drop caps
  - The word will be broken up and read as two separate "words" by a screen reader. (For example, "The" would be read as "T" and "he".)

Accessible Materials Made Right:
Reference Guide for Layout

The Ultimate Goal

Remember, the purpose of digital content is to communicate information. Sometimes, we make information difficult for others to access due to design and layout decisions we make. Our goal should always be to communicate information as effectively as possible. That means that:

- The language is clear.
- The layout is as simple as possible for its intended purpose.
- Text is divided into manageable sections.
- White space is provided allowing the eye to rest.

Use of Colors

Information should never be differentiated by color alone. When this is done, screen readers and individuals with some forms of color blindness will not receive the message of your content.

Color contrast should always be considered when designing digital materials. Adequate contrast ratios between the text and the background are essential to clear and effective communication.

- Dark colors on white background are best.
- Minimum contrast ratio is 4.5:1 (for reference, black on white contrast is 21:1).
- Large text (≥14 point *and* bold, or ≥18 point) can be 3:1.
- When color is the only differentiating factor for links (ie. The link is not underlined) there must be a minimum ratio of 3:1 between the link color and the surrounding text color.
- Contrast ratios should always be tested using a color contrast checker. You cannot rely on personal experience or opinion.

Tables and Columns

To maintain true accessibility both tables and columns need to be used appropriately.

Columns

Columns should be used whenever appearance is the motivating factor and the information being communicated is not tabular data. Columns should always be made using the layout tools that are built into your program. Never use the spacebar or tab key to create the appearance of columns.

Tables

Tables should be used to display tabular data. Think of tabular data as information that would be recorded using header rows and/or columns. Here are a few things to keep in mind when creating tables:

- All tables should always:
    - Have a header row that is set to repeat across pages.
    - Be created using the "insert table" tool (do not draw a table).
- Never try to put *Headings* (H1, H2, H3, etc.) inside a table.
- Be sure to use a simple table structure:
    - Avoid merging or splitting cells (this can cause screen readers to read information in the row or column with the incorrect header information).
    - Avoid using blank cells to format your table.

Additional Resources

We have found The Paciello Group's [Colour Contrast Analyzer](https://www.paciellogroup.com/resources/contrastanalyser/) to be the most helpful contrast checker we have used.
(https://www.paciellogroup.com/resources/contrastanalyser/)

Accessible Materials Made Right:
Reference Guide for Images

Image Placement
The finished product will determine what options are available to you when choosing alignment and placement of your objects.

Word Processing Document
If the final product will remain a word processor document, images must always be placed in line with text. Images that are out of line with text, or floating, are rendered invisible to assistive technology tools, such as screen readers.

PDF
If the final product will be a Portable Document Format (PDF) file, objects may remain floating on a page, provided you do either one of the following:

- Assign appropriate Alt Text to the image or object in Word and then verify the object's location in both the tagged and reading order
- Artifact and remove the image tags in Acrobat Pro

What is Alternative Text?
Alternative Text (Alt Text) provides a linguistic description of visual content. It is read by screen readers and used to communicate an image's *content* and *function* to those who cannot see it.

What Needs Alt Text?
Every non-text element requires an Alt Text description. This includes:

- Pictures
- Clip Art
- Charts
- Tables
- Shapes
- SmartArt Graphics
- Groups
- Embedded Objects
- Video & Audio Files

Images that are purely decorative or used for layout purposes do not need an Alt Text description **if** the published document will be a PDF **and** the image tags will be "artifacted" and removed in Acrobat Pro.

Using Alt Text
When using Alt Text, consider the content and value of the picture in relationship to the document or resource. Knowing the context will help you determine what specific details are important to describe.

You should also consider what the specific function of the image is. Is the image decorative, informative, or functional (such as a link)? How, and whether, you describe each image using Alt Text depends on the functional value of the image. An Alt Text description may not be necessary if the image is purely decorative or if the information communicated by the image is already in the surrounding text.

Alt Text needs to provide clear and concise descriptions of the image's content and function. It should:

- Be accurate and succinct
- Not be redundant
- Not use the phrases "Image of…" or "Graphic off…"
    - Screen readers will automatically announce this information

Image Watermarks

Watermarks should be avoided for two main reasons:

- They are not read by screen readers (technically, they are images of text floating behind the document's text)
- They tend to decrease the contrast between the image or text and the background

It is better to include the information that the watermark is intended to communicate somewhere in the body of the document. For example, in a draft document, simply type "Draft" on the cover page instead of embedding draft watermark.

Additional Resources

For more information, please see the following websites:

- [The W3C Tutorial on Images](https://www.w3.org/WAI/tutorials/images/) (https://www.w3.org/WAI/tutorials/images/)
- [Poet Training Tool for Describing Images](https://diagram.herokuapp.com/training/index) (https://diagram.herokuapp.com/training/index)

Accessible Materials Made Right:
Reference Guide for Closed Captions

General Principles
Captions should be:
- Accurate – Do not attempt to paraphrase or correct grammar. Whenever possible captions should reflect exactly what was spoken or heard in the video.
- In Sync – Captions should be timed to appear as close as possible to the audio in the video.

Basic Captioning Rules
- Speakers can be introduced in multiple formats:
  - Two chevrons - >>
  - Two chevrons followed by the name and colon - >> James:
  - Brackets with name and colon inside – [James:]
- Background noises don't need captioning unless they are necessary for the caption reader to know about
- Spell words out instead of using symbols (the use of digits is the exception)
- Use brackets for content that isn't part of the speech – [inaudible], [laughter], [children playing], etc.

Additional Resources
For more information, please see the following websites:
- WebAIM Captions, Transcripts, and Auto Descriptions (http://webaim.org/techniques/captions/)
- The BBC Subtitle Guidelines (http://bbc.github.io/subtitle-guidelines/)
- CaptionSync's Transcription Guidelines for Captioning (https://support.automaticsync.com/hc/en-us/articles/202355665-Transcription-Guidelines-for-Captioning#1.4)
- Code of Good Subtitling Practice (https://www.esist.org/wp-content/uploads/2016/06/Code-of-Good-Subtitling-Practice.PDF.pdf)

Third-party caption services such as CaptionSync (http://www.automaticsync.com/captionsync/) and 3PlayMedia (http://www.3playmedia.com) cost about $3 per minute.

How to Caption in YouTube

1. Go to YouTube and Sign-In
2. Click on Upload
3. Upload your video (you can drag and drop the file if using the Chrome browser)
4. Change to Private if you don't want the video to be seen by the public
5. Click Done
6. Go to the Video Manager
7. Click on the Menu button (down arrow) and select Subtitles/CC
8. Click Add New Subtitles
9. Select English
10. Choose Transcribe and Auto-Sync
11. Play the video and type
12. Click Set Timings
13. Verify the accuracy of the captions and timing

How to Get YouTube Captions into PowerPoint

1. Go to YouTube
2. Click on your account icon in the upper right corner and select Creator Studio
3. Find your video and click Edit
4. Select Subtitles/CC
5. Click on the CC file you want to use
6. Click Actions and download .srt file
7. Go to the [Go Transcript Subtitle Convertor](https://gotranscript.com/subtitle-converter) (https://gotranscript.com/subtitle-converter) and upload the .srt file
8. Convert to TimedText 1.0 (.xml/.ttml)
9. Make sure the STAMP Add-In has already been installed in PowerPoint
10. Insert Video into PowerPoint (cancel out of the Caption Editor when it pops up)
11. Select the video and choose Playback in the Video Tools ribbon
12. Add Captions from a File
13. Choose your .xml file
14. Captions will automatically sync when you show the video in your presentation.
15. You can hide and show captions in the Playback tab

Accessible Materials Made Right:
Reference Guide for WCAG 2.0

What is WCAG 2.0

The Web Content Accessibility Guidelines Version 2.0 (WCAG 2.0) is an accessibility standard that was developed by individuals and organizations from around the world. WCAG 2.0 has 12 guidelines that fall beneath four principles (perceivable, operable, understandable, and robust). There are three levels of testable success criteria for each guideline (A, AA, and AAA).

In January 2017, the US government refreshed Section 508 of the Rehabilitation Act which, among other things, requires the digital content of federal agencies to conform to WCAG 2.0 level AA success criteria. Since public schools are recipients of federal funds, they must also meet these standards for their websites and digital content.

The Standards

Principle 1: Perceivable

Information and user interface components must be presentable to users in ways they can perceive.

1.1 - Text Alternatives

Provide text alternatives for any non-text content so that it can be changed into other forms people need, such as large print, braille, speech, symbols or simpler language.

1.2 - Time-based Media

Provide alternatives for time-based media.

1.3 - Adaptable

Create content that can be presented in different ways (for example simpler layout) without losing information and structure.

1.4 - Distinguishable

Make it easier for users to see and hear content including separating foreground from background.

Principle 2: Operable

User interface components and navigation must be operable.

2.1 - Keyboard Accessible

Make all functionality available from a keyboard.

2.2 - Enough Time

Provide users enough time to read and use content.

2.3 - Seizures

Do not design content in a way that is known to cause seizures.

2.4 - Navigable

Provide ways to help users navigate, find content, and determine where they are.

Principle 3: Understandable

Information and the operation of user interface must be understandable.

3.1 - Readable

Make text content readable and understandable.

3.2 - Predictable

Make Web pages appear and operate in predictable ways.

3.3 - Input Assistance

Help users avoid and correct mistakes.

Principle 4: Robust

Content must be robust enough that it can be interpreted reliably by a wide variety of user agents, including assistive technologies.

4.1 - Compatible

Maximize compatibility with current and future user agents, including assistive technologies.

Additional Resources

For more information, please see the following websites:

- WCAG Overview (https://www.w3.org/WAI/intro/wcag)
- How to Meet WCAG 2.0 (https://www.w3.org/WAI/WCAG20/quickref/)
- Techniques for WCAG 2.0 (https://www.w3.org/TR/WCAG20-TECHS/)
- Understanding WCAG 2.0 (https://www.w3.org/TR/UNDERSTANDING-WCAG20/)