



Access
Academy

Building Accessible Word Documents

May 5, 2021

Leanne Grillot

National Director of Outreach Services
American Printing House for the Blind

Access
Academy



Tai Tomasi

Director of Accessibility, Diversity and
Inclusion
American Printing House for the Blind

Access
Academy



Learning Objectives

- Learners will identify which fonts, colors and spacing in Word documents are best for people with low vision.
- Learners will distinguish between headings and styles and experiment with modifying a given document to be accessible for someone using a screen reader.
- Learners will identify what type of structure is needed to make a Word document accessible and how to add structure to documents.
- Learners will create accessible hyperlinks, tables and graphics placed in a Word document.
- Learners will identify how to check Word documents for accessibility and how to export them to PDF while keeping the accessibility.



VISUAL ACCOMMODATIONS

Access
Academy

Font

Sans serif fonts

- Arial
- Calibri
- Candara
- Corbel
- Tahoma
- Verdana

Size: at least 12 point

Emphasis:

- *Asterisks
- -Dashes
- “Quotes”
- Underlining

Contrast

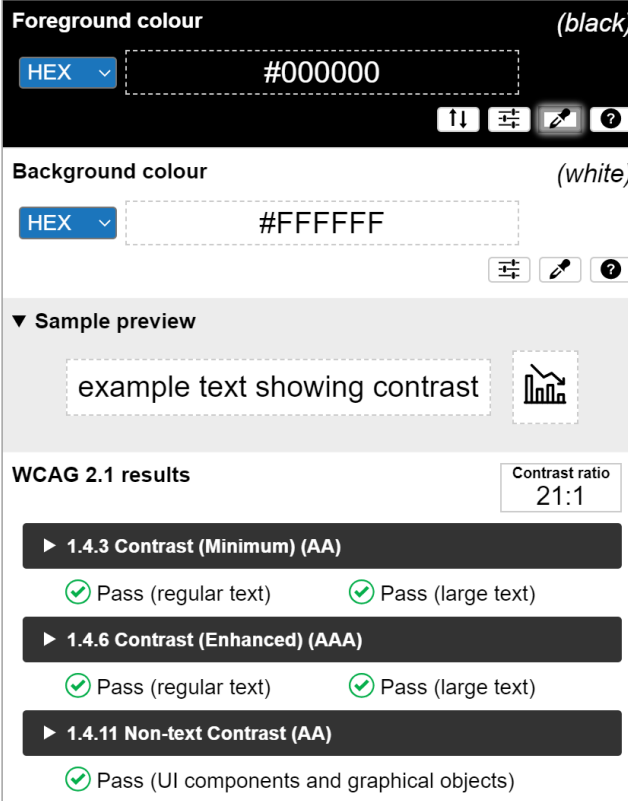
Plain background with black text

- Off white
- Cream
- Ivory
- Yellow
- Pink

- Look for high contrast between background and text
- Check your contrast with the free Colour Contrast Analyzer

Create a High Level of Color Contrast

- Ratio of 7:1 for normal text
- Ratio of 4.5:1 for large text
- Download for Windows and Mac
- Might need permissions



The screenshot displays a color contrast checker interface. At the top, the foreground color is set to black (#000000) and the background color is set to white (#FFFFFF). A sample preview shows the text "example text showing contrast" in black on a white background. Below the preview, the WCAG 2.1 results are shown, indicating a contrast ratio of 21:1. The results are categorized into three sections: 1.4.3 Contrast (Minimum) (AA), 1.4.6 Contrast (Enhanced) (AAA), and 1.4.11 Non-text Contrast (AA). Each section shows a green checkmark and the text "Pass (regular text)" and "Pass (large text)".

WCAG 2.1 results	Contrast ratio
1.4.3 Contrast (Minimum) (AA)	21:1
1.4.6 Contrast (Enhanced) (AAA)	
1.4.11 Non-text Contrast (AA)	

The Screen Reader Challenge

To see why creating accessible documents is important, check out this [3-minute video](#) of a screen reader going through accessible and inaccessible Word Documents. And [here is an example of a screen reader](#) going through an inaccessible PDF.

Spacing

Avoid:

- Blank spaces
- Blank lines

Use:

- Indentations
- Line spacing tool
- Styles
- Page breaks
- WYSIWIG (¶)

Examples from Microsoft

Division Annual Report

"This year has seen many changes in our procurement process. We have eliminated excess competition by firing all of the unhappy dogs. We have streamlined the process by channeling over 90% of the affection towards yours truly. This is excellent progress for our division."

- Pastel Bosken, AAP DC

Report highlights

This report is the first in a series of annual reports from the newly created Affection & Attention Procurement Division. This report details the two major accomplishments this year: (1) Steps taken to identify and 'retrain' (fire) unhappy dogs at the Agency, and (2) Steps taken to retrain those who have been hesitant to provide AA for guide dogs.

Contents

Division Annual Report

"This year has seen many changes in our procurement process. We have eliminated excess competition by firing all of the unhappy dogs. We have streamlined the process by channeling over 90% of the affection towards yours truly. This is excellent progress for our division."

- Pastel Bosken, AAP DC

Report highlights

This report is the first in a series of annual reports from the newly created Affection & Attention Procurement Division. This report details the two major accomplishments this year: (1) Steps taken to identify and 'retrain' (fire) unhappy dogs at the Agency; and (2) Steps taken to retrain those who have been hesitant to provide AA for guide dogs.

Contents

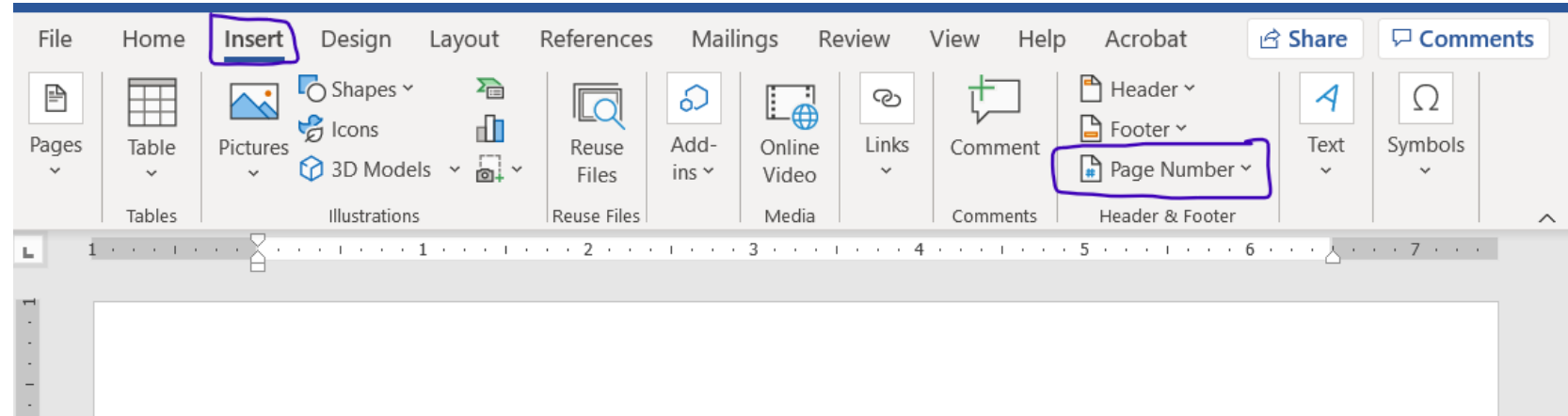
Spacing Tips

- White space creates luminance
- Indent 1 inch at margins
- Space 1.5 between lines
- Double space between paragraphs

- Use block paragraph style, no indents, aligned left
- Avoid floating objects by using text wrapping

Page Numbers

- Same font style and size as document text
- Top right corner preferred
- Margin of .075 inches
- Table on contents for long documents



HEADINGS



Access
Academy

Structure

- Use prescribed logical order
- First level should be Heading 1
- Limit yourself to 2 headings; 3 occasionally

- Organize information into small chunks
- Each heading including only a few paragraphs

Examples

Vegetables from Wikipedia (heading 1)

Brassicas (heading 2)

Brassica is a genus of plants in the mustard family (Brassicaceae). The members of the genus are informally known as cruciferous vegetables, cabbages, or mustard plants. Crops from this genus are sometimes called cole crops—derived from the Latin *caulis*, denoting the stem or stalk of a plant.

Tubers

Tubers are enlarged structures in some plant species used as storage organs for nutrients. They are used for the plant's perennation (survival of the winter or dry months), to provide energy and nutrients for regrowth during the next growing season, and as a means of asexual reproduction. Stem tubers form thickened rhizomes (underground stems) or stolons (horizontal connections between organisms). Common plant species with stem tubers include potato and yam. Some sources also treat modified lateral roots (root tubers) under the definition; these are found in sweet potatoes, cassava, and dahlias.

Leafy Greens

Leaf vegetables, also called leafy greens, salad greens, pot herbs, vegetable greens, or simply greens, are plant leaves eaten as a vegetable, sometimes accompanied by tender petioles and shoots. Although they come from a very wide variety of plants, most share a great deal with other leaf vegetables in nutrition and cooking methods.

Vegetables from Wikipedia (heading 1)

Brassicas (heading 3)

Brassica is a genus of plants in the mustard family (Brassicaceae). The members of the genus are informally known as cruciferous vegetables, cabbages, or mustard plants. Crops from this genus are sometimes called cole crops—derived from the Latin *caulis*, denoting the stem or stalk of a plant.

Tubers

Tubers are enlarged structures in some plant species used as storage organs for nutrients. They are used for the plant's perennation (survival of the winter or dry months), to provide energy and nutrients for regrowth during the next growing season, and as a means of asexual reproduction. Stem tubers form thickened rhizomes (underground stems) or stolons (horizontal connections between organisms). Common plant species with stem tubers include potato and yam. Some sources also treat modified lateral roots (root tubers) under the definition; these are found in sweet potatoes, cassava, and dahlias.

Leafy Greens

Leaf vegetables, also called leafy greens, salad greens, pot herbs, vegetable greens, or simply greens, are plant leaves eaten as a vegetable, sometimes accompanied by tender petioles and shoots. Although they come from a very wide variety of plants, most share a great deal with other leaf vegetables in nutrition and cooking methods.

Heading Suggestions

- Heading 1: 22-point font, centered, bold, upper- and lower-case letters
- Heading 2: 20-point font, aligned left, bold, upper- and lower-case letters

- Heading 3: 20-point font, aligned left, bold, underlined, upper- and lower-case letters
- Normal: at least 12-point font (18-point for large print), aligned left

Assigning Styles

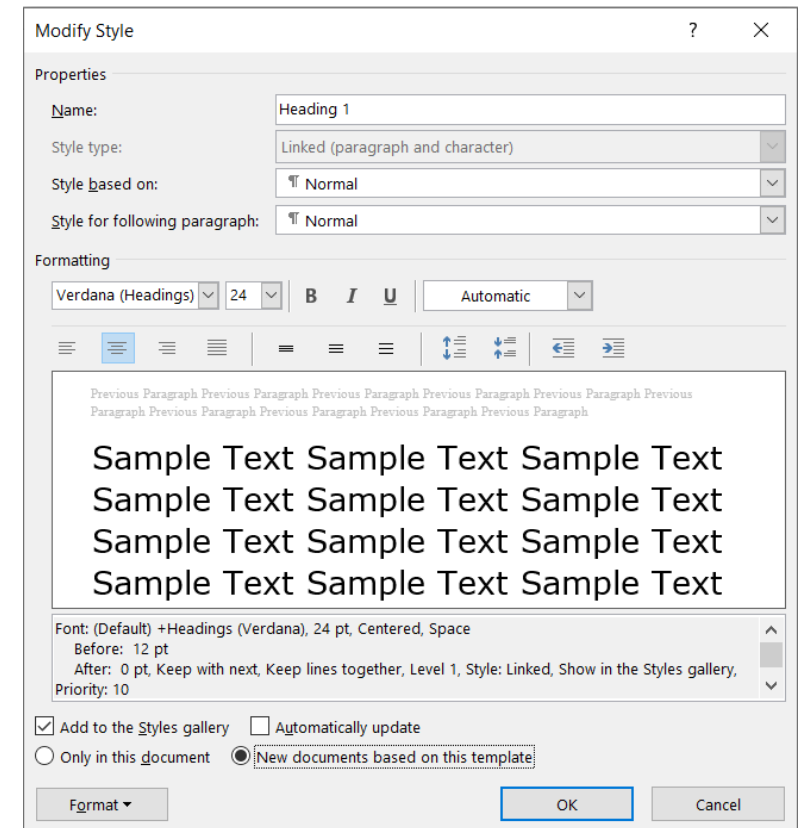
Simple Solution

- Type the text
- Select the text
- Select the heading style

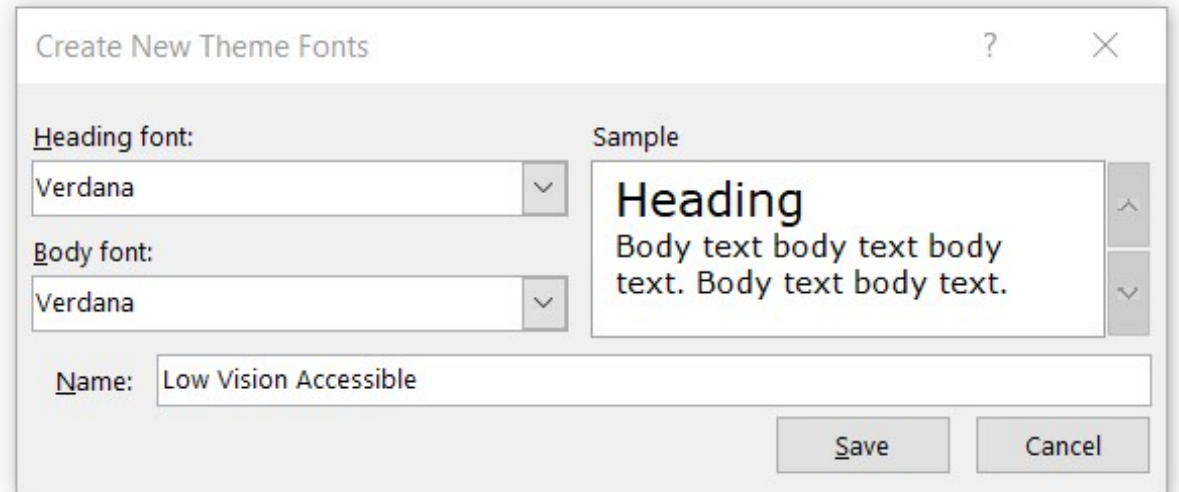
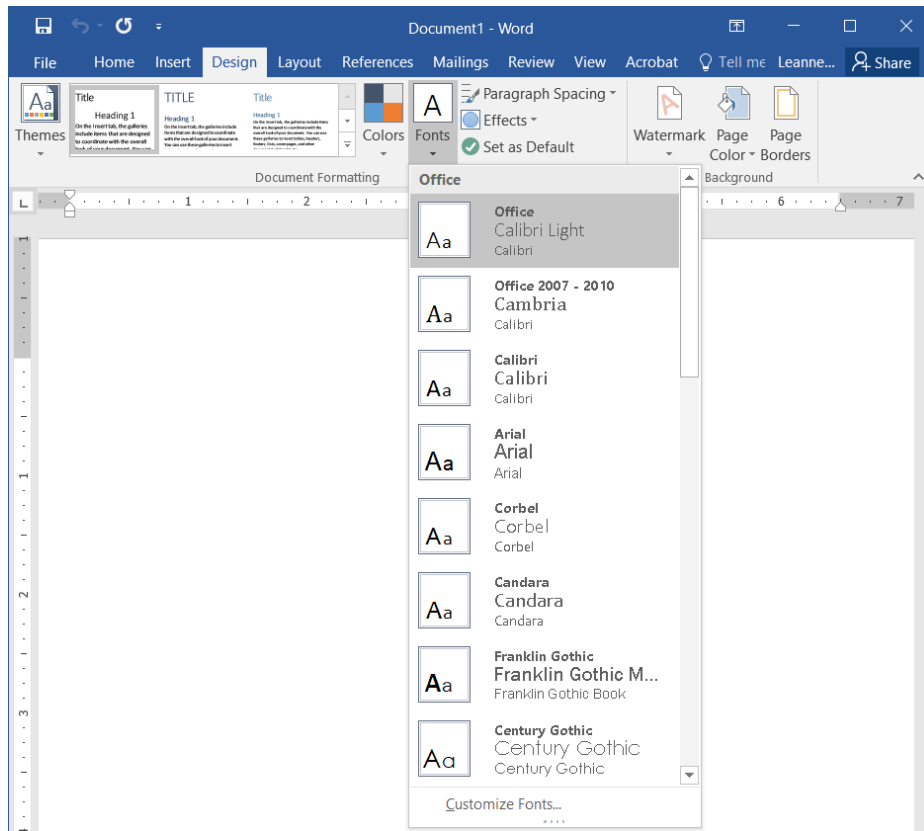
- Pros
 - Done on the fly
 - Worry about it later
 - Often what you receive
- Cons
 - Forget to do it later
 - More labor-intensive

Modifying Styles

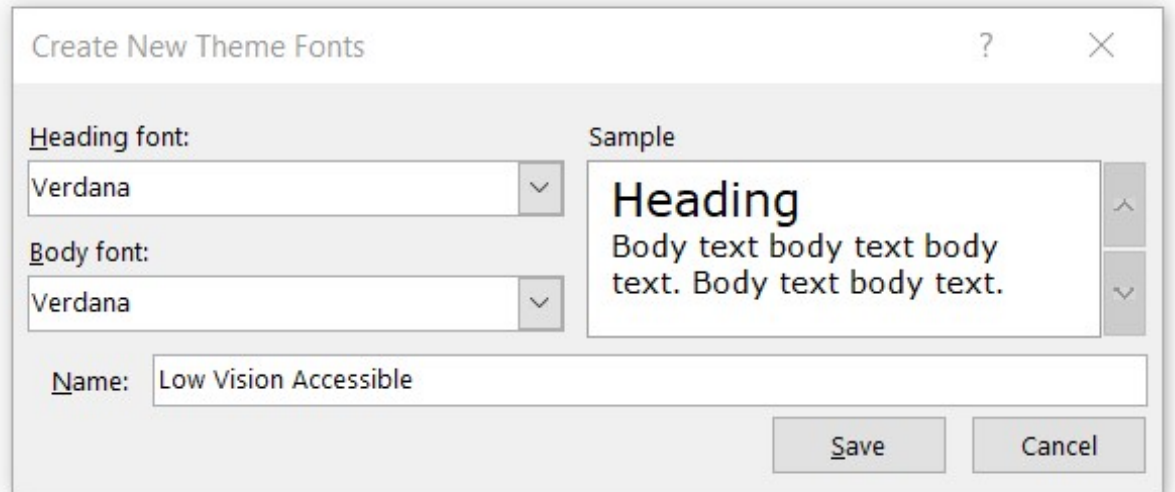
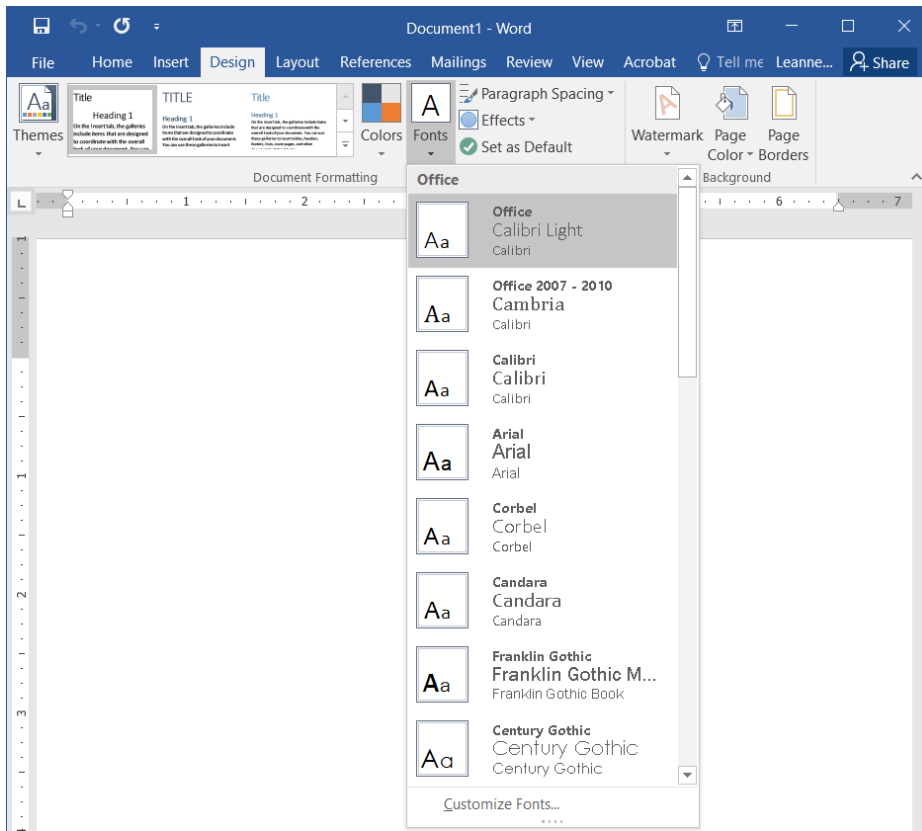
- Select the item you want to change (ex. Heading 1)
- Click Modify
- Make formatting changes
- Choose style applies to:
 - Current document
 - All future documents



Creating Styles

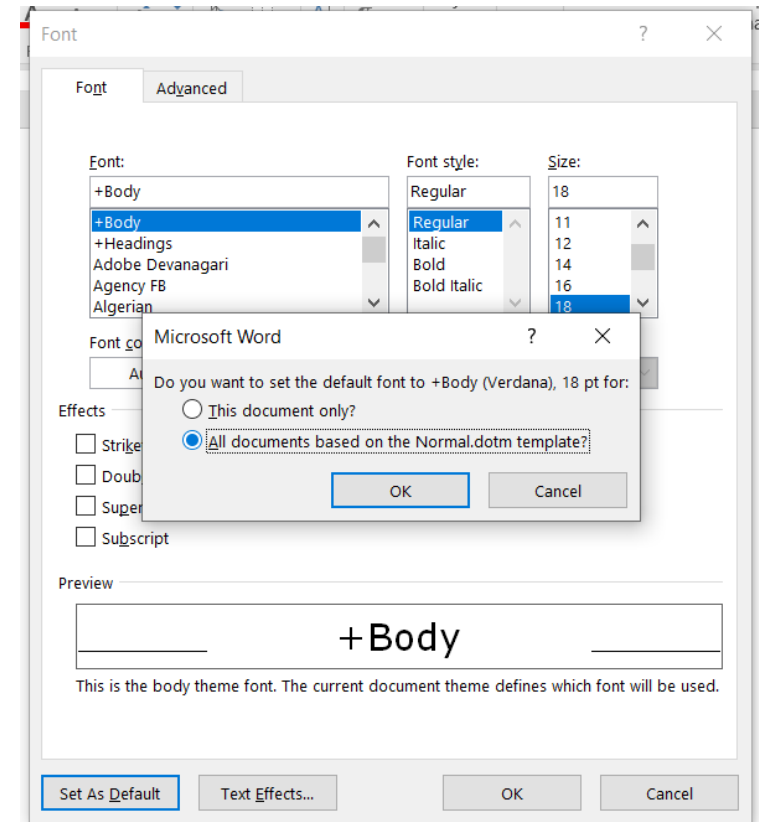


Permanently Change Font



Permanently Change Styles

- Documents you create have this as the default.
- Does not affect documents you receive from others.
- Does not affect documents you previously created.



DOCUMENT STRUCTURE



Access
Academy

Lists

- Use built-in List tools
- Break up and simplify content
- Use plain, round dots
- Use numbers, letters and Roman numerals

Do not use:

- Hyphens, characters or graphics as bullets
- Tab
- Tables
- Text boxes
- Spaces

Columns

Use:

- Page Layout
- To break-up and simplify content

Do not use:

- Tables
- Tabs
- Spaces
- Text boxes

Headers, Footers, and Watermarks

Use header or footer for:

- Letterhead logos
- Page numbers


Duplicate watermark at or near the start of main content.

- These are not automatically read with a screen reader.
- Do not place vital content in header or footer.

Tables

- Create using Table Insert
- Keep data tables simple
- Identify header row
- Place table in-line with text
- Keep tables to one page

- Leave no cell blank
- Complex tables are not accessible
- If more than one page, repeat column headings

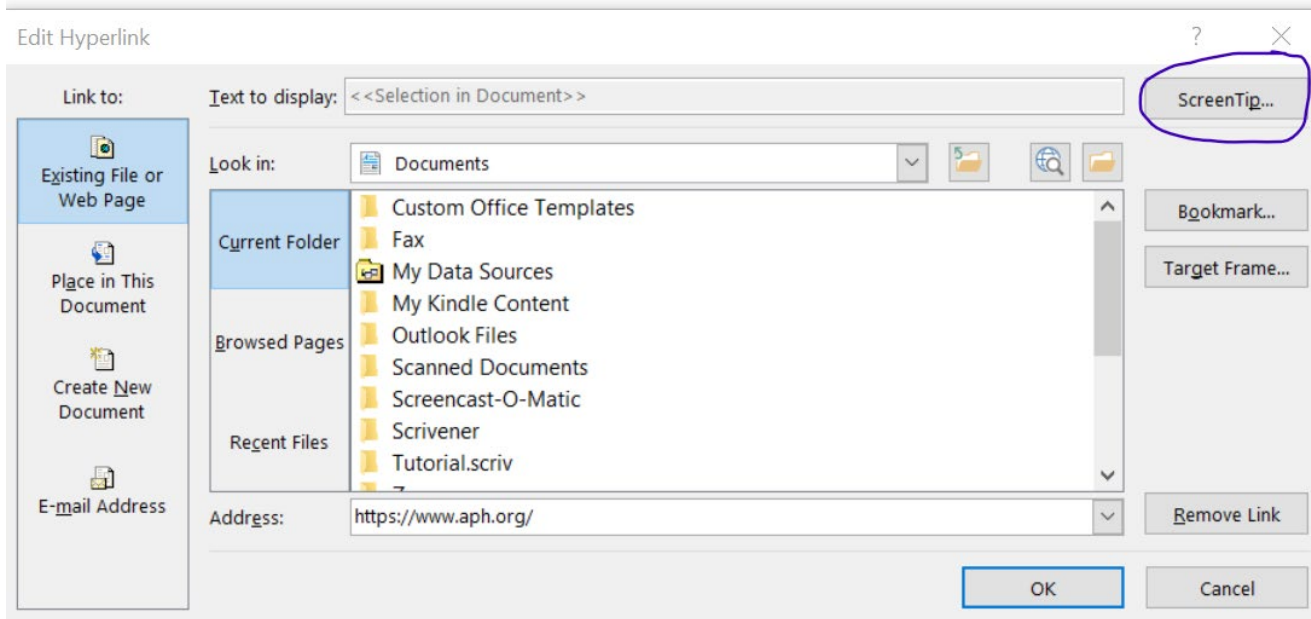


HYPERLINKS, ALTERNATE TEXT AND LANGUAGE

Access
Academy

Hyperlinks

[More about APH](#)



Find APH's main website with information about products, services, and other resources.
Ctrl+Click to follow link

[More about APH](#)

Alternate Text

- Short and simple
- Leave title field blank
- SmartArt graphics need alternate text
- Use Text Wrap Style when placing images

Instructional images essential to understanding content:

- Must provide additional information if not in the main text.
- If in the main text, use simple, less detailed alt text.

Language

- Foreign language documents
- Multiple languages in one document
- References that are in another language
- Select the text that is written in a different language
- Review>Language>Set Proofing Language
- Select the appropriate language

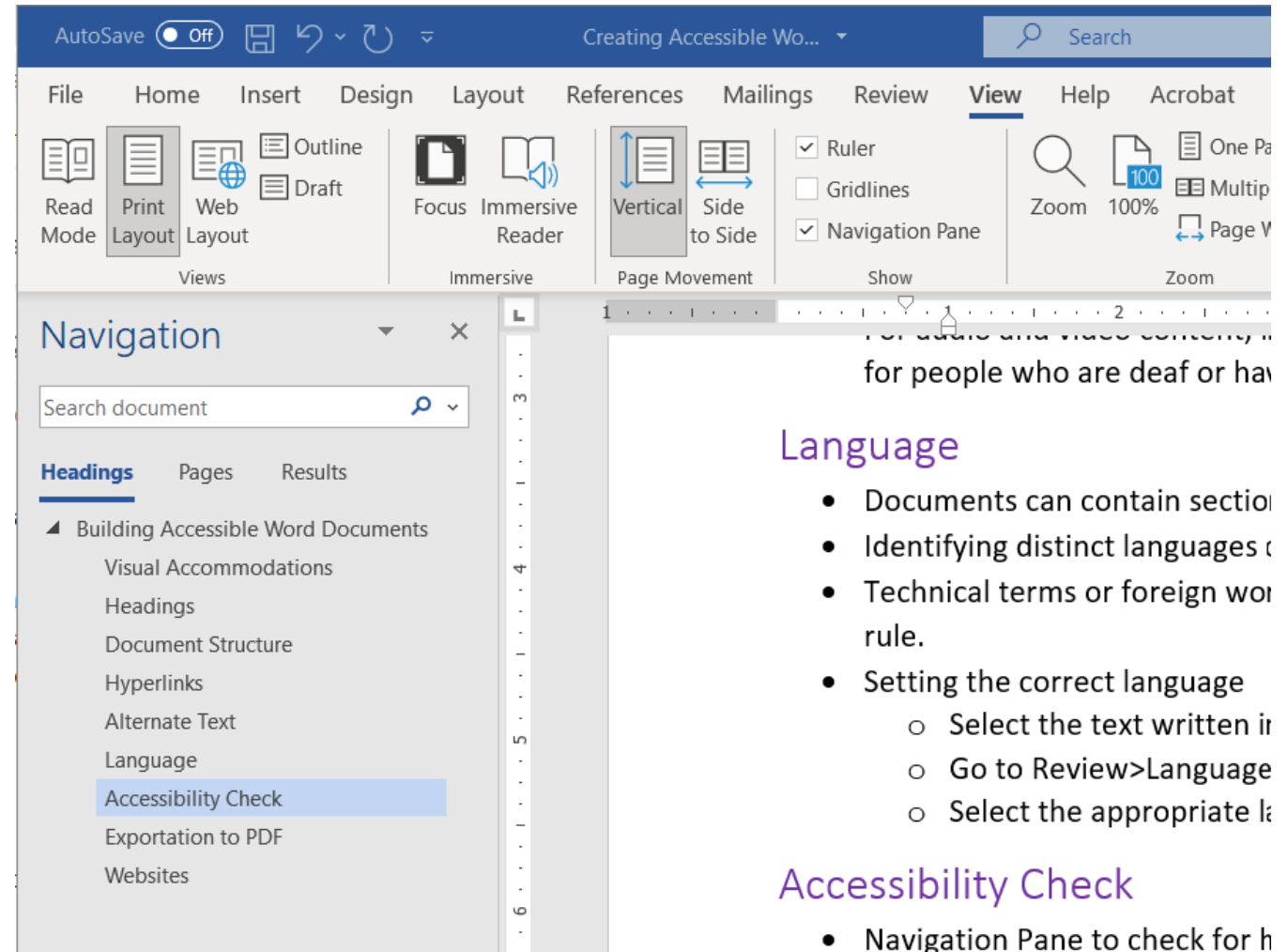


ACCESSIBILITY CHECK AND EXPORTATION

Access
Academy

Check Headings

- Navigation Pane
 - Control+F
 - View>Navigation Pane



The screenshot shows the Microsoft Word ribbon with the 'View' tab selected. The 'Navigation Pane' checkbox is checked. The 'Navigation' pane is open on the left, showing a search bar and a list of document sections. The 'Accessibility Check' option is highlighted in blue. The main document area shows a heading 'Language' in purple text.

Language

- Documents can contain sections of text written in different languages
- Identifying distinct languages correctly
- Technical terms or foreign words may not follow the standard spelling rule.
- Setting the correct language
 - Select the text written in the language
 - Go to Review>Language
 - Select the appropriate language

Accessibility Check

- Navigation Pane to check for headings

Properties

Fill out Properties

- Title
- Tags
- Comments

Properties ▾

Size	21.9KB
Pages	7
Words	1283
Total Editing Time	1905 Minutes
Title	Creating Accessible Word ...
Tags	Styles, Headings, Hyperlin...
Comments	Add comments

Accessibility

Check the document name:

- Simple
- Easy to remember
- Free of special characters

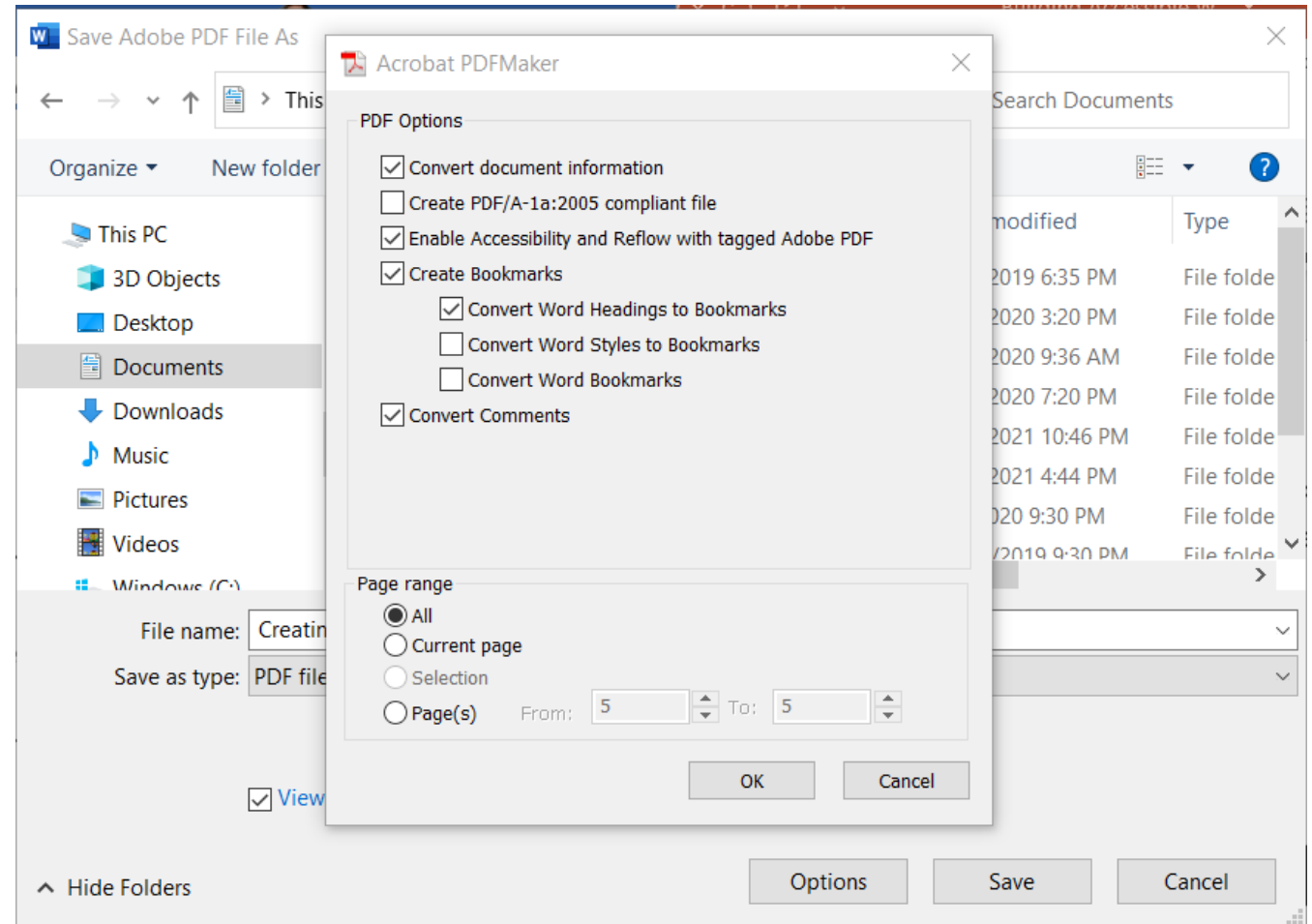
Check accessibility:

- File>Info>Check for Issues> Check Accessibility
- Not a robust system

Exportation

File>Save As>PDF

Select Options



References

- <https://aphaccessibility.com/checklist-for-ms-word-docs-home/>
- <https://webaim.org/techniques/word/>
- <https://www.hhs.gov/web/section-508/making-files-accessible/create-accessible-pdfs/step-2/index.html>
- <https://www.mtu.edu/accessibility/training/documents/microsoft-word/>
- <https://sbctc.instructure.com/courses/1578604/pages/creating-accessible-word-documents>

References, continued

- <https://www.wikihow.com/Create-Accessible-Word-Documents>
- <https://web.wsu.edu/creating-an-accessible-microsoft-word-document/>
- <https://support.microsoft.com/en-us/topic/make-your-word-documents-accessible-to-people-with-disabilities-d9bf3683-87ac-47ea-b91a-78dcacb3c66d>
- <https://www.washington.edu/accessibility/documents/word/>

CONTACT US

Building Accessible Word Documents

Leanne Grillot, lgrillot@aph.org

Tai Tomasi, ttomasi@aph.org



Access
Academy