



# How to Create Accessible Documents

# Presenter Info

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WYOMING  
**ACCESSIBLE  
EDUCATIONAL  
MATERIALS**

# Why Create Accessible Documents?

- ▶ Not all documents are created equal
- ▶ Students with print disabilities may need to access content in a different way
- ▶ Screen readers read content on the screen aloud, often use keyboard commands for navigation
- ▶ Students with neurodivergence may also benefit

MS Word

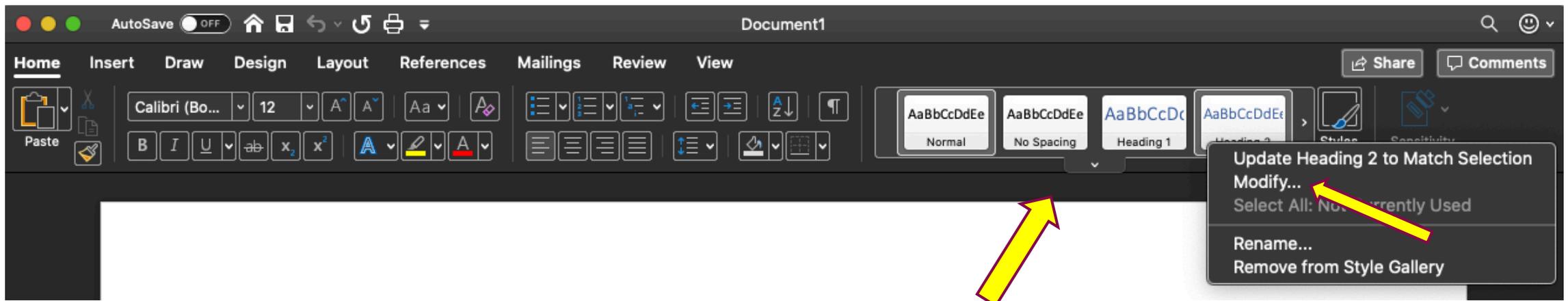


# Styles and Headings

- ▶ Styles are helpful for low vision, blind, or colorblind users
- ▶ Headings are necessary to navigate a page using a screen reader
  - ▶ By heading level
  - ▶ By jumping from heading to heading
- ▶ Use Headings in a hierarchical order
  - ▶ Heading 1 = main title
  - ▶ Heading 2 = major section title(s)
  - ▶ Heading 3 = subsection title(s)
  - ▶ And so on...
- ▶ Do not skip heading levels

# Headings

- ▶ “Headings” are located in “Home” ribbon in MS Word
  - ▶ Right click on a style and select “Modify...”
  - ▶ Here, you can adjust font type, size, spacing, color, and more.



# Formatting

- ▶ Do not use enter, tab, space, etc. for formatting
  - ▶ Screen readers may read each “enter”
- ▶ Use page breaks
- ▶ Use alignment options
  - ▶ Left aligned is generally easiest to read
  - ▶ Use center align for titles
  - ▶ Right aligned and justified text can be difficult to track

Tab   Tab   Tab   Tab   Tab   Tab   **“Tulips”**  
Enter  
Enter  
Enter  
Enter  
Enter  
Tulips come in many shapes and colors.

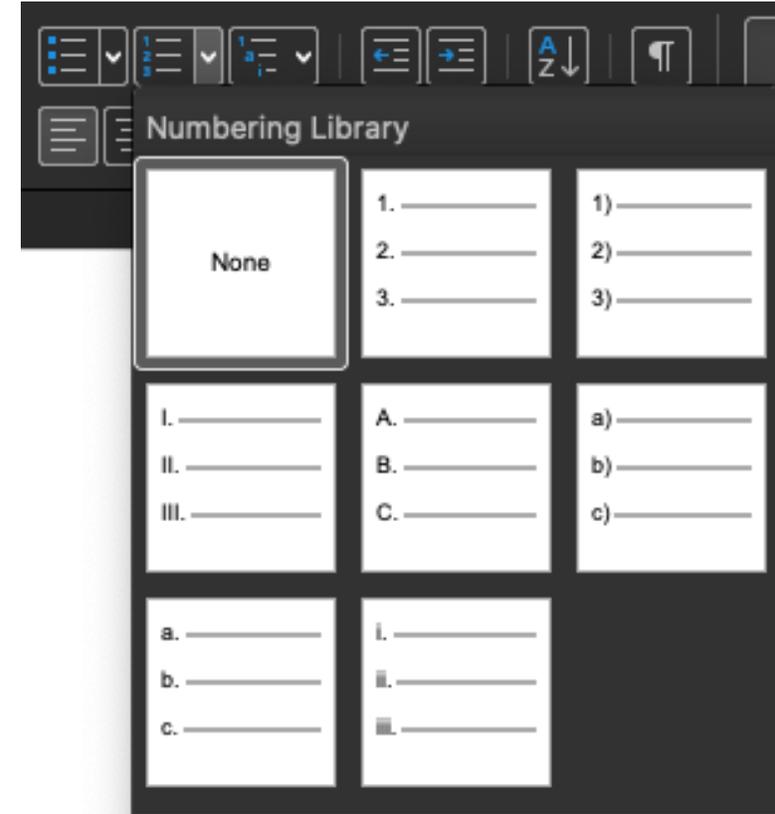
Tulips come in many shapes and colors. They can be red, orange, yellow, white, pink, or a combination of colors. They may have straight or ruffled petal edges.

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# Lists

- ▶ Use ordered or unordered lists to list information
- ▶ Ordered = numbered
- ▶ Unordered = bulleted
- ▶ Screen readers cannot read lists properly when:
  - ▶ indented
  - ▶ manually numbered, or
  - ▶ pictures or symbols are used as bullet points



# Descriptive Links

- ▶ Screen reader users can jump through links on a page
- ▶ Do not use link text that is hard to understand out of context, such as “click here”
- ▶ Use specific language to describe links
- ▶ Keep link text length to a minimum
- ▶ Example:
  - ▶  For more information on Dutch tulips, [click here](#).
  - ▶  Check out our website for more [information on Dutch tulips](#).

# Image Layout

- ▶ Images must be in line with text to be accessible
- ▶ Add Alt Text to your images (discussed in PowerPoint section)
- ▶ It can be helpful to include a description of the image in the text

## **Dutch Tulip Fields**

The Netherlands is known worldwide for its sprawling tulip fields.



Tulips come in many shapes, sizes, and colors.

# Other Considerations

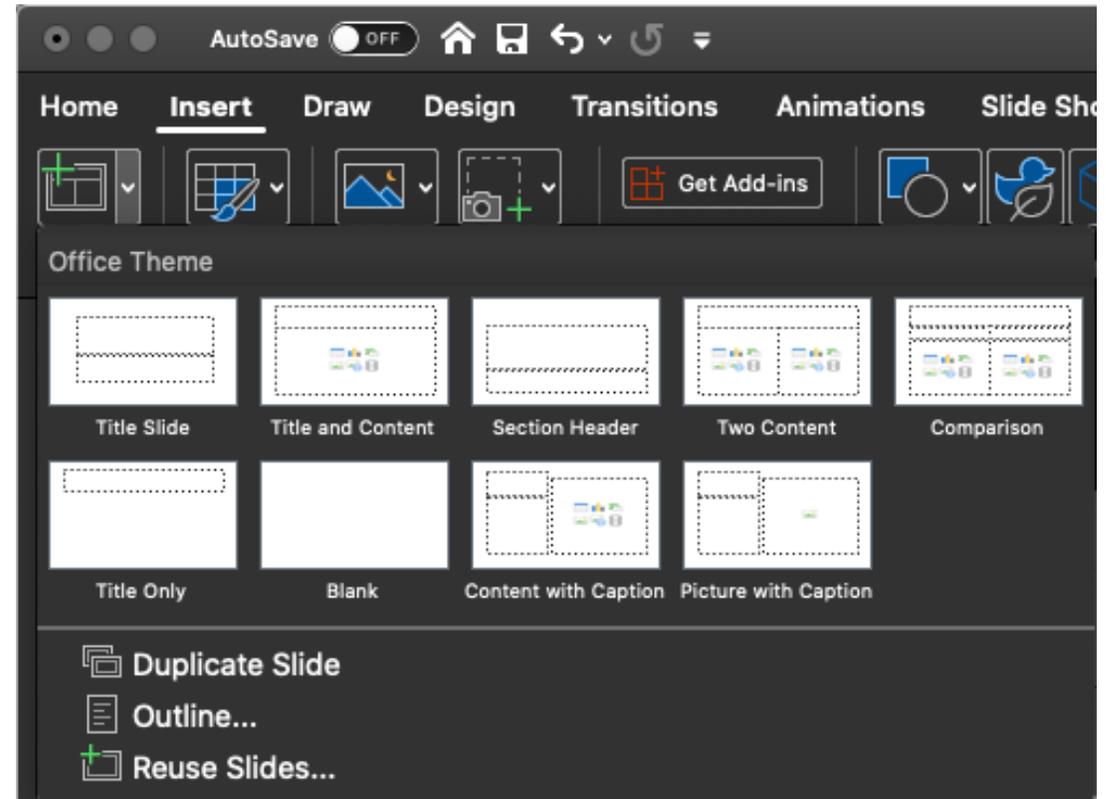
- ▶ Text boxes are not accessible in MS Word. Instead, use a table with a single row and column
- ▶ Headers and footers are not accessible, so do not put important information here
  - ▶ Include in the body of the text or on a reference page
- ▶ Consider font type and size
  - ▶ Sans-serif (Arial, Calibri, Helvetica)
  - ▶ Large print = 18 pt.+
- ▶ Use more than one visual identifier to differentiate text
  - ▶ *Color*, *italic*, **bold**, underline
- ▶ Do not use large chunks of italic, bold, underlined, or Caps Lock text

MS PowerPoint



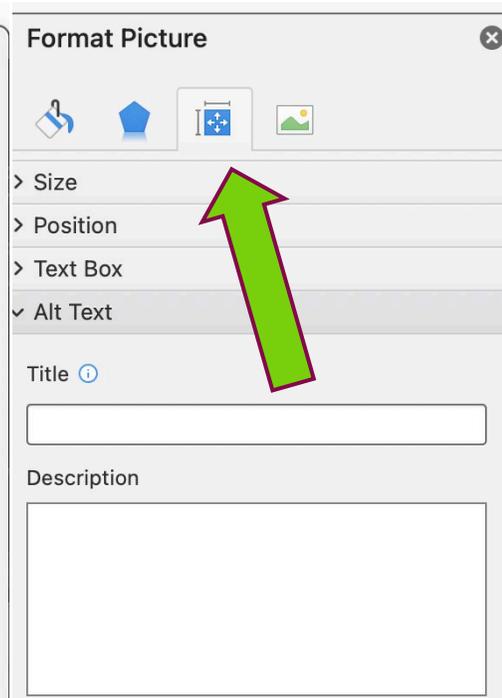
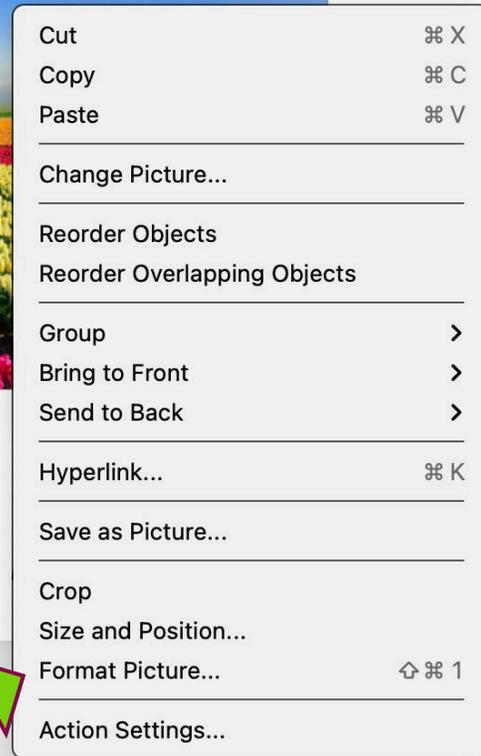
# Layouts

- ▶ Use Layouts
  - ▶ Found in “New Slide” under “Insert”
  - ▶ Title slide, section header, title and content, etc.
- ▶ Always add unique titles
- ▶ Ensure that text boxes do not cover content
- ▶ If altering layouts, you must select the order in which text boxes and images on a slide are read
  - ▶ go to “Home” tab > “Arrange” > “Selection Pane”

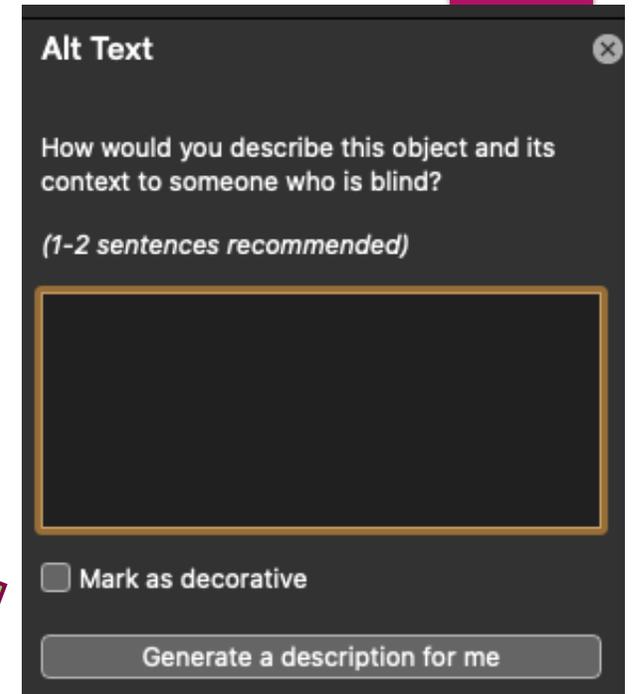


# Alternative Text (Alt Text)

- ▶ Alt Text provides a description of an image
- ▶ Don't rely on auto-generated Alt Text
- ▶ To add Alt Text:
  - ▶ Select the image
  - ▶ Right click
  - ▶ Select "Edit Alt Text..." or "Format Picture" > "Size and Properties"



- What is the purpose of the image?
  - Decorative
    - Needs very little to no description
    - Can check the box to mark as “decorative”
      - (\*\*This doesn't always work when converting to PDF, not available in some platforms/versions)
  - Informative
    - What information is important?
    - What is it?
    - Be clear, concise, accurate

A screenshot of a dark-themed 'Alt Text' dialog box. The title bar says 'Alt Text' with a close button. The main text asks 'How would you describe this object and its context to someone who is blind?' and suggests '(1-2 sentences recommended)'. There is a large empty text area for input. Below the text area is a checkbox labeled 'Mark as decorative' which is currently unchecked. At the bottom is a button labeled 'Generate a description for me'. A green arrow with a red outline points from the bottom of the text area towards the 'Mark as decorative' checkbox.

Alt Text

How would you describe this object and its context to someone who is blind?

(1-2 sentences recommended)

Mark as decorative

Generate a description for me

# Writing Alt Text

- Is the information in the image already described in the text?
- Use as few words as possible
- Be objective
  - Use facts
  - Describe what can be seen
  - Do not interpret images
- Use a logical sequence to describe images
- Do not begin with “image of...” or “picture of...”
  - May use “painting of...” or “diagram of...” if necessary for context or understanding
- Include any text in the image in Alt Text if important for meaning

## Pointers for Writing Alt Text

MS Excel



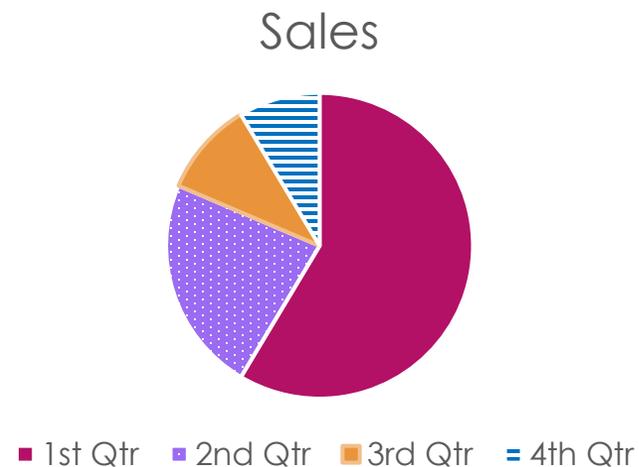
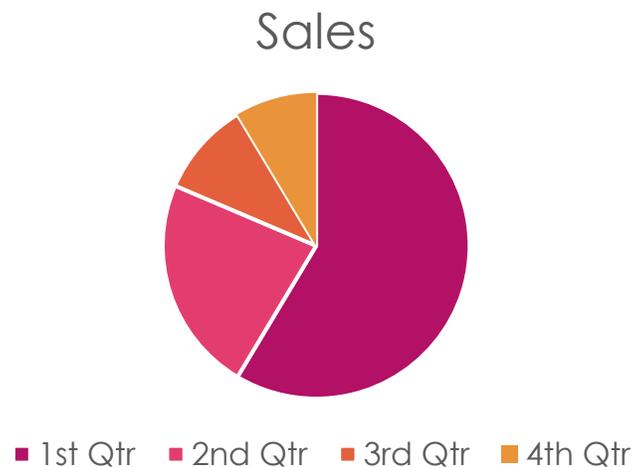
# Tables

- ▶ Keep tables simple
- ▶ Only use tables to present data
- ▶ Use column headers
  - ▶ Repeat headers if table spans across multiple pages
  - ▶ Do not break rows across pages
- ▶ Do not leave any cells blank
- ▶ Use lines to aid with tracking
- ▶ Give your table a descriptive title
- ▶ Be sure to add Alt Text to your table
  - ▶ Don't include all the information in the Alt Text- say something meaningful, such as the relationship between the data or what is significant about it

Miles walked	Time (mins.)
0.5	10
1	20
2	40

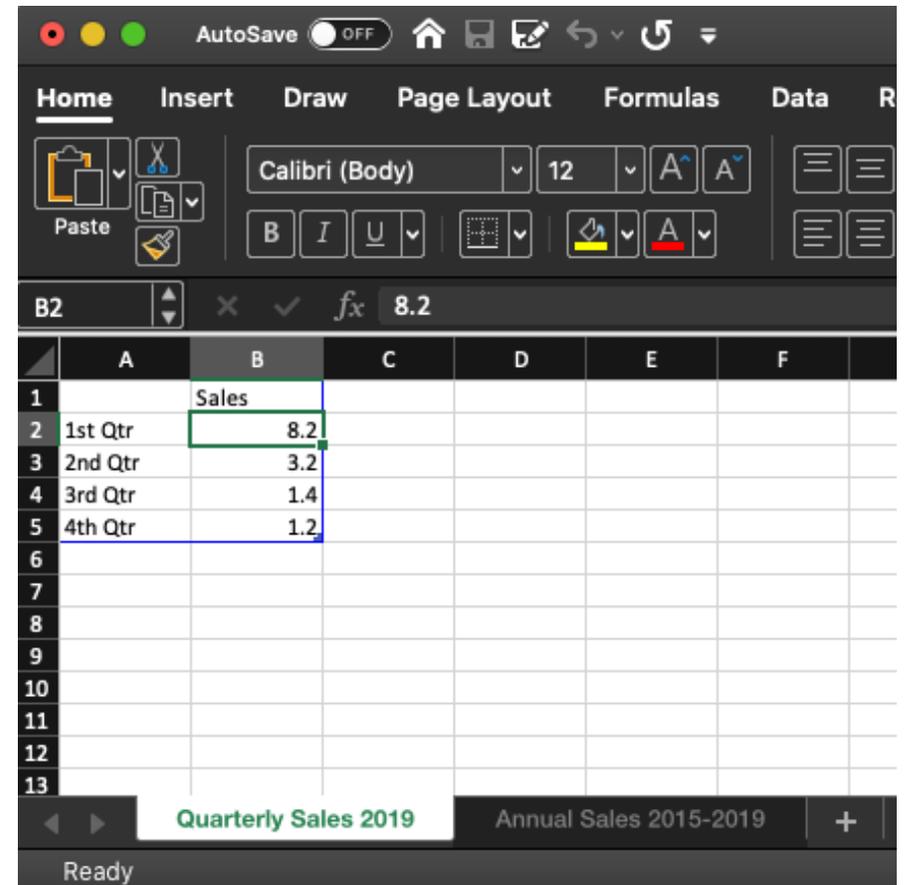
# Charts

- ▶ Select the border of the chart to add Alt Text
- ▶ Keep in mind that users may not be able to see the chart or differentiate colors on the chart



# Sheets

- ▶ Name your sheets within an Excel document with meaningful titles



Wrap Up

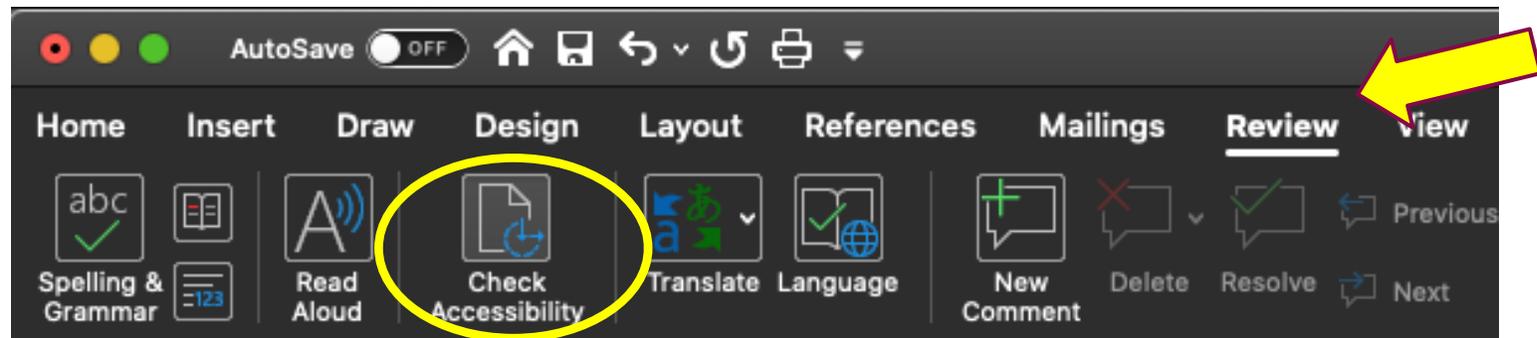


# Final Thoughts

- ▶ An accessibility ribbon can be added to Word, PowerPoint, and Excel
  - ▶ All features are available on existing ribbons, but this may be more streamlined
- ▶ In any document preparation, consider color contrast
  - ▶ Red/Green and Blue/Yellow are the most common types of colorblindness. When paired together, these colors are difficult to distinguish
- ▶ Most of these guidelines apply to all MS Office and other document creation programs
- ▶ The more accessible it is to begin with, the less work there will be later
- ▶ Can quickly convert Word docs to accessible PDFs with Adobe Acrobat
- ▶ Use Microsoft's built-in accessibility checker, or find free ones online

# MS Accessibility Checker

- ▶ Found under “Review” tab
- ▶ Highlights problems in the document
  - ▶ Errors = content that is extremely difficult to access
  - ▶ Warnings = content that is somewhat difficult to access
  - ▶ Tips = content that is relatively accessible, but could be organized better
- ▶ Gives explanations about why content is inaccessible, and suggestions to fix each error



## Dutch Tulips

Dutch tulips come in many shapes and colors. They typically bloom in March, though may be later depending on weather conditions during the season.



These are Rainbow Parrot Tulips

Notice that these tulips include various colors:

- Red
- Yellow
- Orange
- Pink
- Magenta

### Accessibility

#### Inspection Results

- ▼ Errors
  - ▼ Missing alternative text
    - Picture 2
  - ▼ Image or object not inline
    - Text Box 3
- ▼ Warnings
  - ▼ Hard-to-read text contrast
    - Dutch Tulips

#### Why Fix?

Text becomes difficult to read when its color is too similar to the color behind it. Increasing contrast makes text easier to read, especially when viewing documents in bright light.

#### Steps To Fix:

Increase contrast by changing the color of the font (Home tab) or by changing the page color (Design tab).

# References

- ▶ Rayius, P. (2019, November 20). Authoring Documents with Accessibility in Mind. *Accessing Higher Ground*. Talk presented at 2019 AHG conference, Westminster, CO.
- ▶ Iowa State University Extension and Outreach. (2019, June 24). *Accessibility for Digital Documents: Microsoft Office Training*. Iowa State University, Ames, IA.
- ▶ Beach, R. & Dietrich, G. (2019, November 20). *Writing Good Alt Text* [PowerPoint slides]. Retrieved from AHG conference website: [https://accessinghigherground.org/schedule-2019/#cs\\_2019-11-20](https://accessinghigherground.org/schedule-2019/#cs_2019-11-20)

# Reminders

- ▶ Please complete our short survey!
- ▶ Sign up for monthly DispATch email newsletter
  - ▶ <https://www.uwyo.edu/wind/watr/publications.html>
- ▶ Certificate of attendance upon request
- ▶ Join our next training on December 3, at 3:30pm
  - ▶ Ensuring Teacher Made and Accessed Materials are Accessible