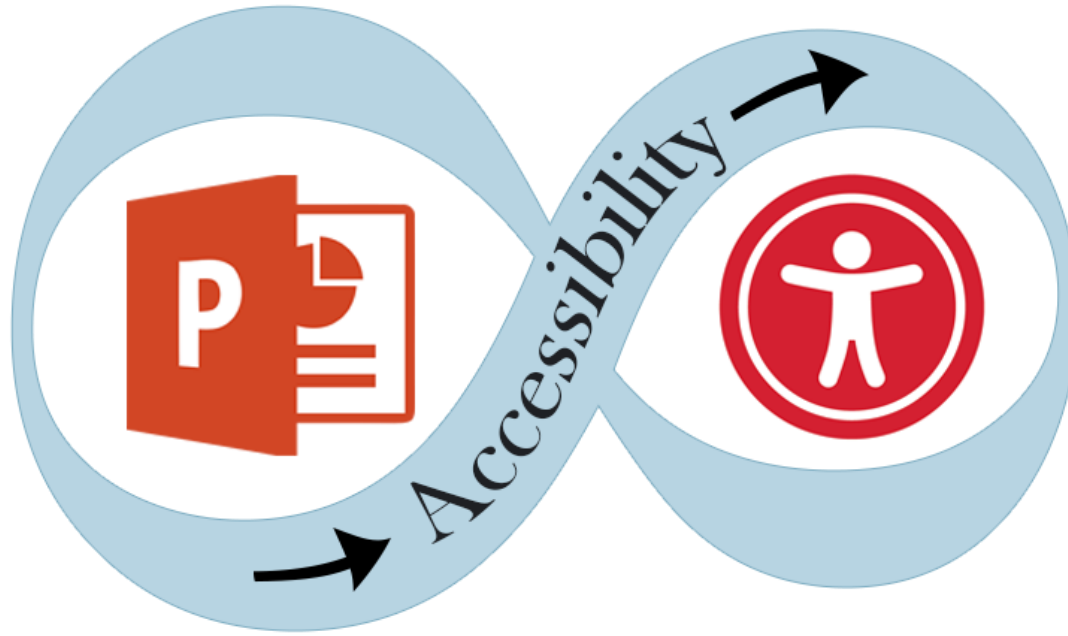


# PowerPoint Accessibility



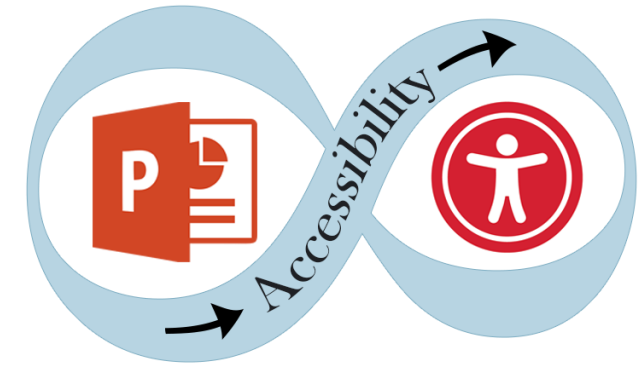
A11y

Mac



# Creating Accessible PowerPoint Topics

- Readability
- Slide Layouts
- Slide Reading Order
- Outline View
- Alternative Text
- Captioning Videos
- Link Text
- Color
- Tables
- Accessibility Tips
- Accessibility Checker
- Converting to PDF



A11y



# What are Screen Readers

**Screen readers** are a form of assistive technology (AT) software that ***enables access*** to a computer, and all the things a computer does, by attempting to identify and interpret what is being displayed on the computer screen using ***text-to-speech***. Screen readers can only access and process **live text** (fully editable or selectable text).

- **Provides access** to someone who is visually impaired, mobility or has a learning disability to access text on the screen.
- Offers same level of **independence** and privacy as anyone else.



# Types of screen readers



Screen reader program for Microsoft Windows that allows blind and visually impaired users to read the screen either with a text-to-speech output or by a refreshable Braille display. [NVDA screen reader](#) can be **downloaded free of charge** by anyone.



Provides auditory descriptions of each onscreen element using gestures, a keyboard, or a braille display.



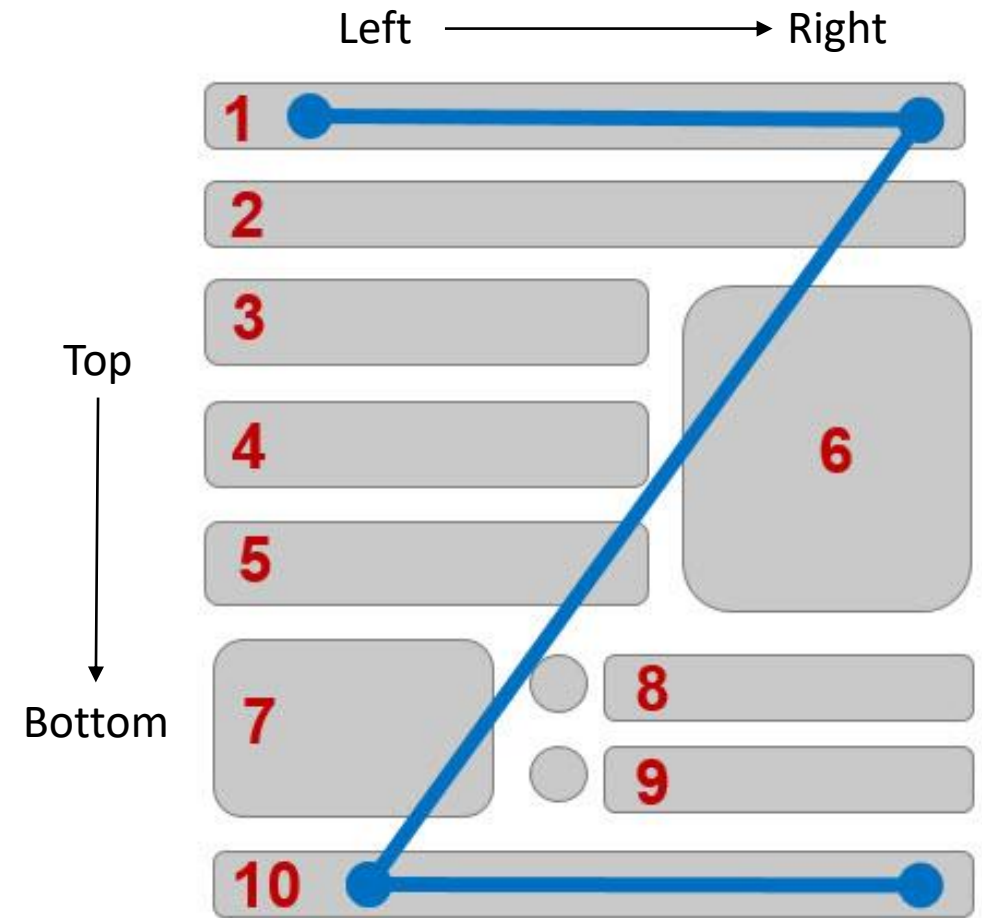
Adds spoken, audible, and vibration feedback to your device.



Screen magnifier for Microsoft Windows that allows you to see and hear everything on the computer.

# How Do Screen Readers Work?

- Screen readers read line-by-line from left-to-right and top-to-bottom.
- Screen readers start at the top of a document or website and read any text including alternative text for images, graphics or charts.
- Screen readers navigate a document or website using the keyboard **without** a mouse. **Tab** key: jump from link to link, **Enter**: select a link, **arrow** keys: navigate a document or website.
- Reading order is important for users with visual challenges. The users can become confused if the document (content, tables, images or charts) is poorly organized or out of order.



# Click vs Select

Screen readers and physical or mobility limitation users navigate a document or website using the keyboard **without** a mouse. The word “Click” is not inclusive of people who can’t use the mouse. Use the word “Select” to write step-by-step instructions.



## “Click” or “Click on” Example

- Go to YouTube video player
- Click on Settings gear icon
- Click on Subtitles/CC
- Click on Options to Customize
- Click on Caption Style

## • Use “Select” Example (Recommend)

- Go to YouTube video player
- Select Settings gear icon
- Select Subtitles/CC
- Select Options to Customize
- Select Caption Style



# Captioning Videos

Per federal and state law, and CSU policy, instructional media (e.g., videos, captured lectures, recorded presentations) must have captions. This includes instructional media used in classrooms, posted on websites or shared in Canvas.

- All students who are enrolled in a course must be able to access the content in the course.
- **Faculty:** Funding is available to help faculty generate captions and transcripts for instructional media. Materials should be submitted **at least six weeks** in advance of their use in instruction.
- **Staff:** For CSUN staff who do not provide classroom material, there is a cost through chargeback. For information on the chargeback, email [ncod@csun.edu](mailto:ncod@csun.edu).



[csun.edu/captioning](http://csun.edu/captioning)



# Readability

Serif	Sans-Serif
Abc	Abc

- Slide Titles are meaningful and unique
- Maximum 6 to 8 lines of text per slide
- Minimum font size 24 points or above
- Tables, Charts and Graphs on own slide
- Sans-Serif fonts are more suited to electronic formats (*Arial, Calibri, Verdana or Franklin Gothic Book*)
- Capitalization for the heading is fine **not** the entire paragraph. Most people have difficulty to read it if all text is capitalized.
- Avoid underlining text. Underlining is interpreted by screen readers and people with low vision as linked text.
- Avoid Transitions and Animations



# Mysterious Dash or Hyphen

Screen readers do not know what the – symbol represents (minus, hyphen, en dash or em dash) so screen readers **will not** read it. *It is always a good practice to spell the word and any abbreviations or make a reference to your abbreviation when used for the first time.*

For examples:

- May 8<sup>th</sup>, 2022 from 3:30 - 5:00pm. The screen reader reads three, thirty five. Recommend May 8<sup>th</sup>, 2022 from 3:30 **to** 5:00pm.
- Final exams May 14 - 20, 2022, screen reader reads May 1420, 2022. Recommend May 14 **to** 20, 2022.
- Homework assignment pages 200 – 281 for tonight’s reading material. Recommend pages 200 **to** 281.
- The fiscal year 2015-2016. Recommend The fiscal year **from** 2015 **to** 2016.
- Grading scale 95 - 100%, screen reader reads 95100%. Recommend 95 **to** 100%.
  - ❖ A + , screen reader reads A+. Recommend A **plus**.
  - ❖ A – , screen reader reads A. Recommend A **minus**.
  - ❖ Recommend to spell the word plus or minus for consistency purpose.



Minor changes can have a big effect on maintaining clarity for students using assistive technology.

# Slide Layouts



## Accessibility Tips

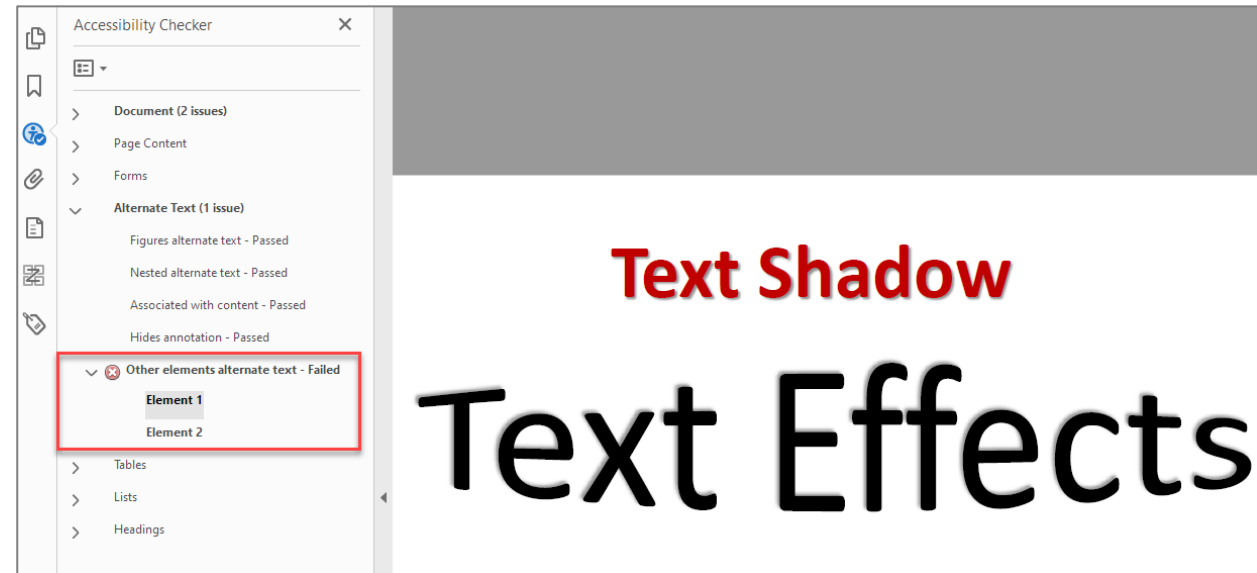
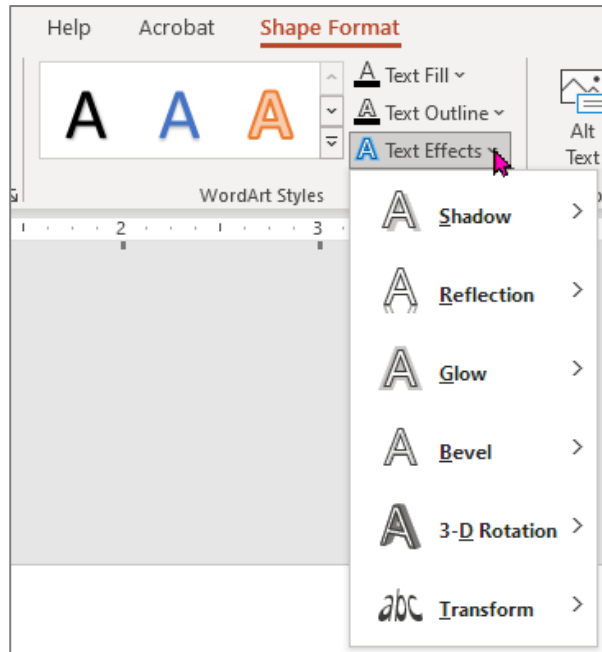
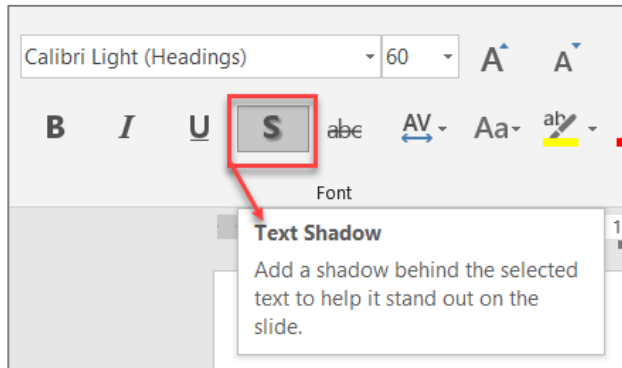
- Simple themes, pre-defined slide layout templates
- Slides with unique titles
- Default bulleted and numbered lists
- Avoid themes with drop shadows on design, colors or text
- Avoid text boxes (inaccessible)



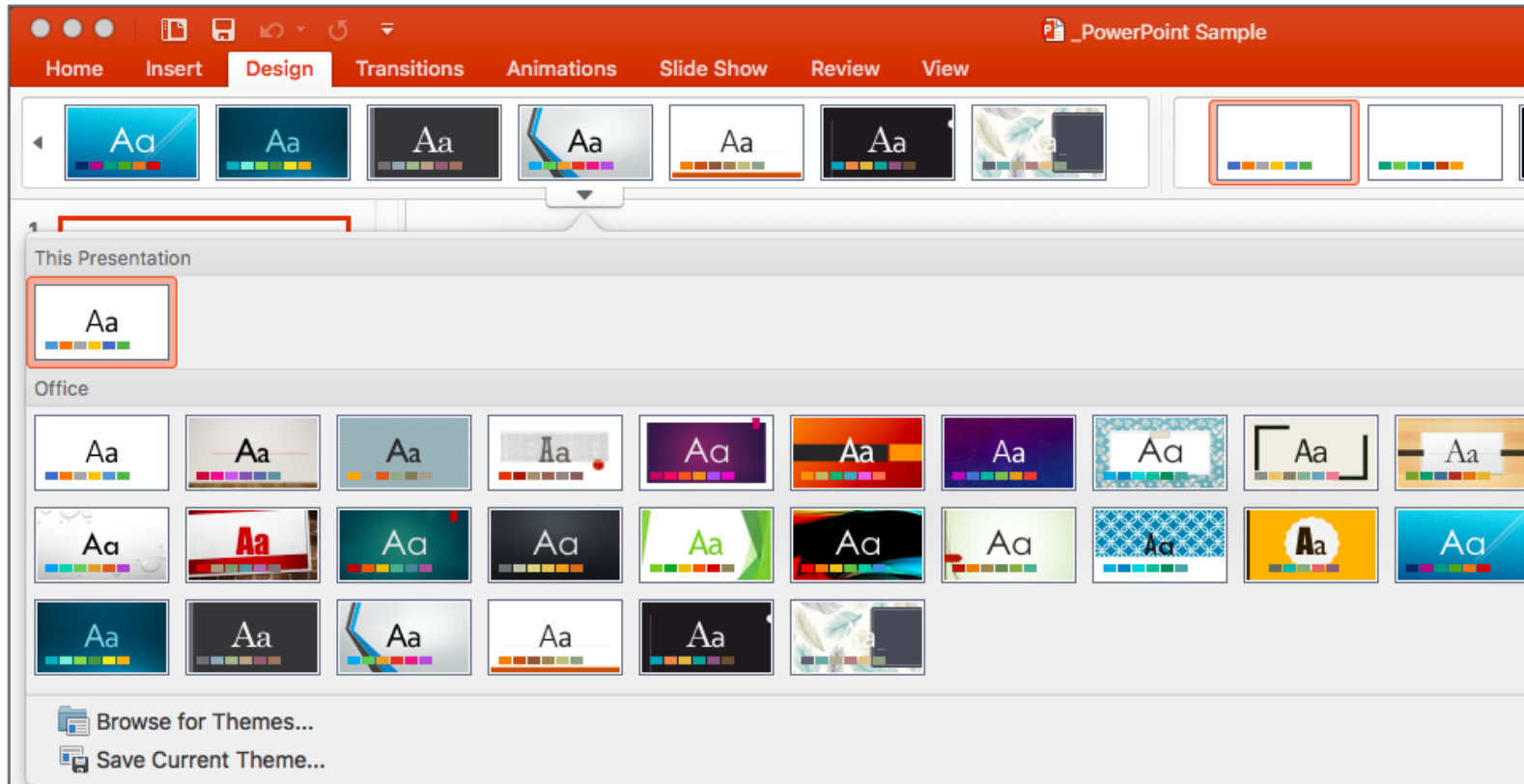
# Text Shadow and Text Effects Font Styles

**Avoid** using Text Shadow and Text Effects font styles because PDF accessibility checker report an error “**Other elements alternate text – failed.**” due to two layers

- 1) actual text
- 2) image of text shadow



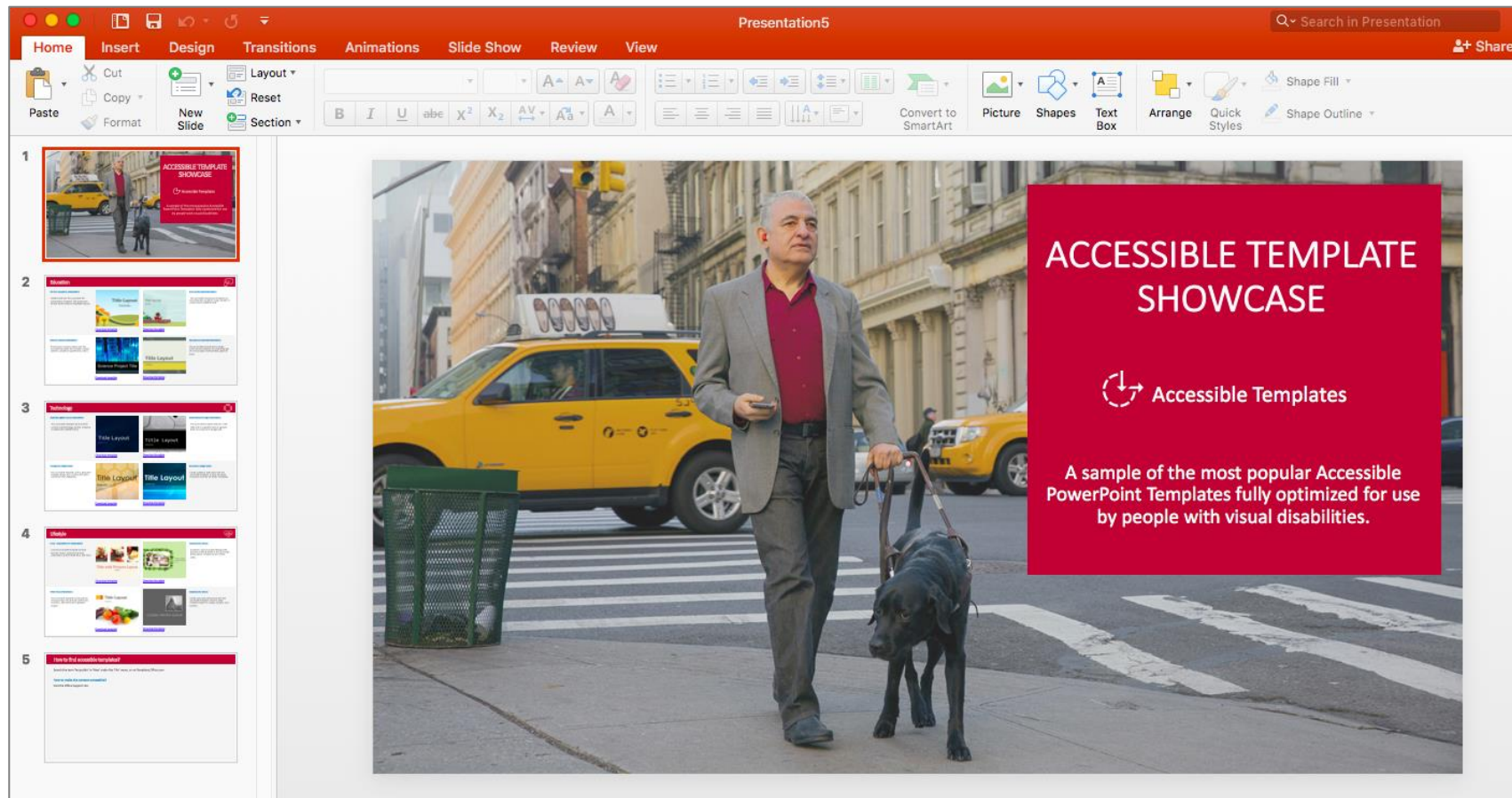
# Slide Designs – may *not* be accessible



The themes come with default background and foreground colors and fonts may be difficult for some viewers to see it. The Accessibility Checker in PowerPoint does not check for color contrast. **Use simple and light background with dark text or dark background with white text is the best approach.**

# Microsoft – Accessible Template Showcase

(Check color contrast, etc.)



[Microsoft Accessible Template Website](https://microsoft.com/accessibility/templates)



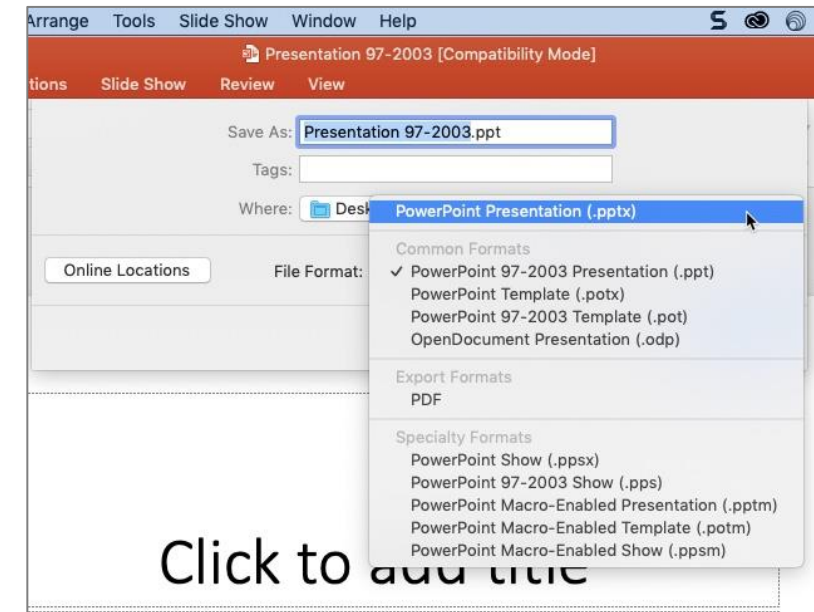
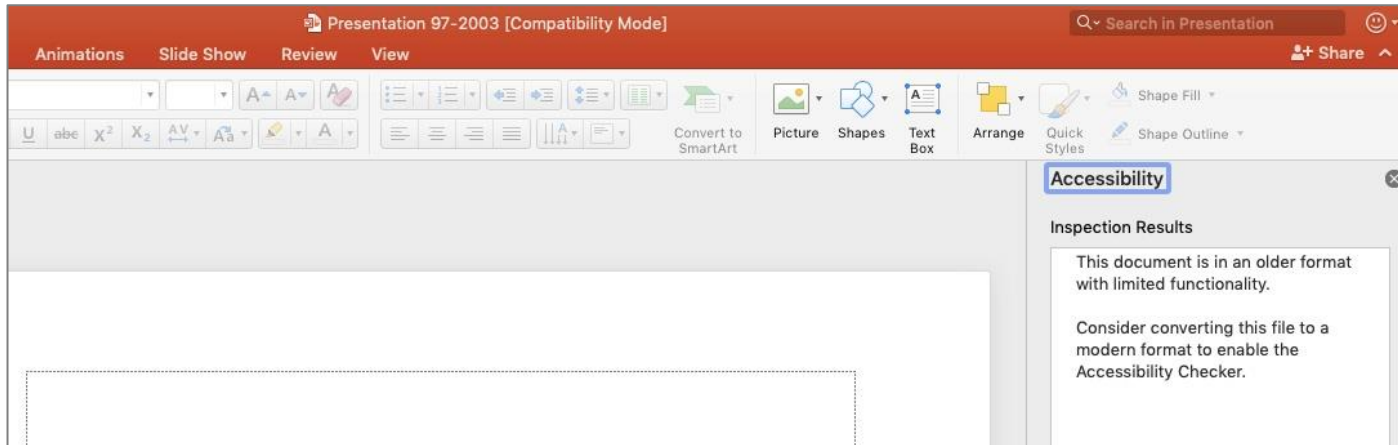


# Microsoft Presentation 97 - 2003

If you encounter [**Compatibility Mode**] and unable to use PowerPoint **Accessibility Checker**, that's because older version like Presentation 97-2003 don't have Accessibility Checker features available.

- **For Mac:** Review tab, Check Accessibility

Go to **File** Tab, select **Save As, File Format: Select PowerPoint Presentation (.pptx)** Presentation 2016 or Office 365 has Accessibility Checker features. Run **Accessibility Checker** again.



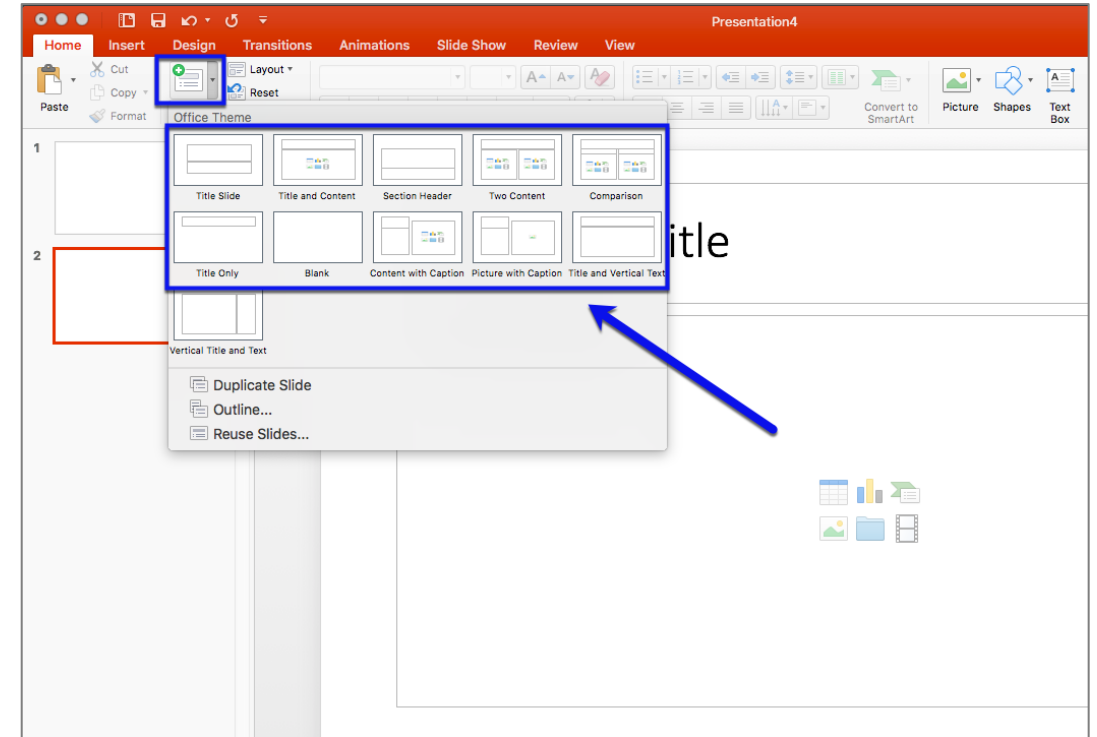
**All CSUN faculty, staff, and students can install the Microsoft Office 365 on up to five personal devices for FREE.**

- Faculty and staff <https://www.csun.edu/it/download-office>
- Students: <https://www.csun.edu/it/students>



# Built-in slide layouts (unique title)

- PowerPoint does not use headings instead using slide title. Every slide should have a unique title. [Assistive technology users such as screen readers navigate by slide title.](#)
- Using the default slide layouts is the first step making your presentation accessible. [Screen readers may ignore items like text boxes that are added to the pages and will not appear in Outline View. It is important to use default slide layouts.](#)
  1. Go to “Home” tab
  2. “New Slide”
  3. “Office Theme”



# Same Slide Titles

If the same slide title spreads in multiple slides, use this method

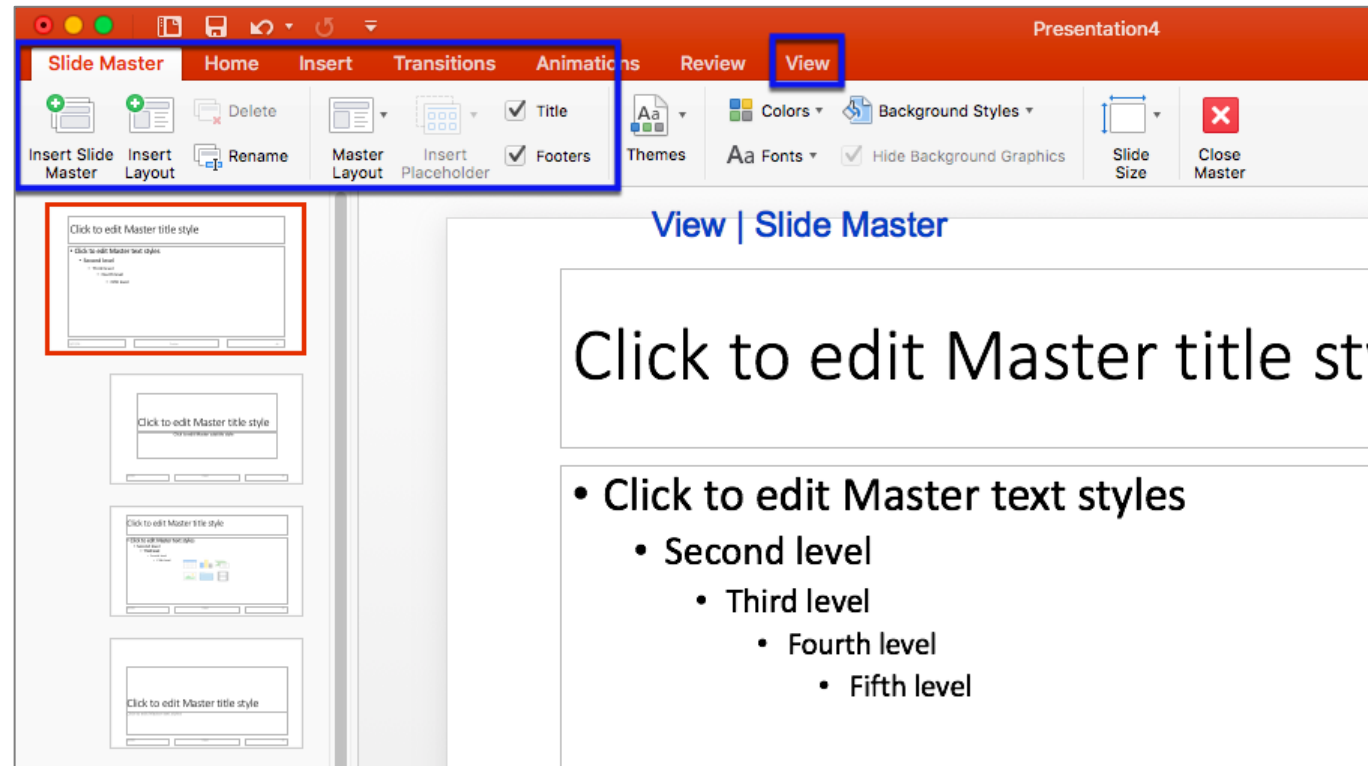
- Title, 1 of 3, Title, 2 of 3, Title, 3 of 3
- Title – Part I, Title – Part II
- Title – 1, Title – 2

Accessibility Checker will indicate “Duplicate Slide Title” and recommend to fix duplicate slide titles. “Every slide should have a unique title so those who cannot view the slide can still easily navigate to information.”



# Slide Master Layouts aka Templates

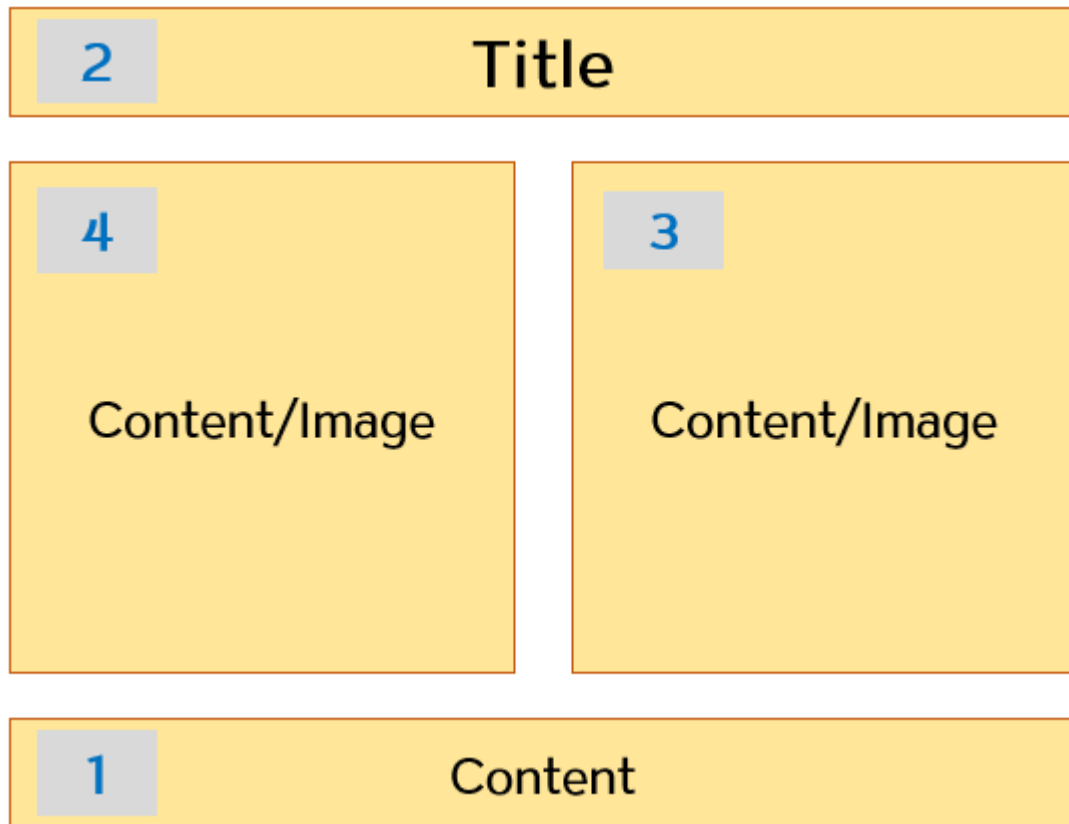
- Master slides control the look of your entire presentation, including colors, fonts, backgrounds, effects, and just about everything else.
- If you need to add another box of text that is not in Slide Layout, use Slide Master to **Insert Placeholder** options.
- You can insert a shape or a logo on a slide master, and it will show up on **all** your slides automatically.
- Add Alt Text to describe an image or logo.
- Verify **Slide Reading Order**.



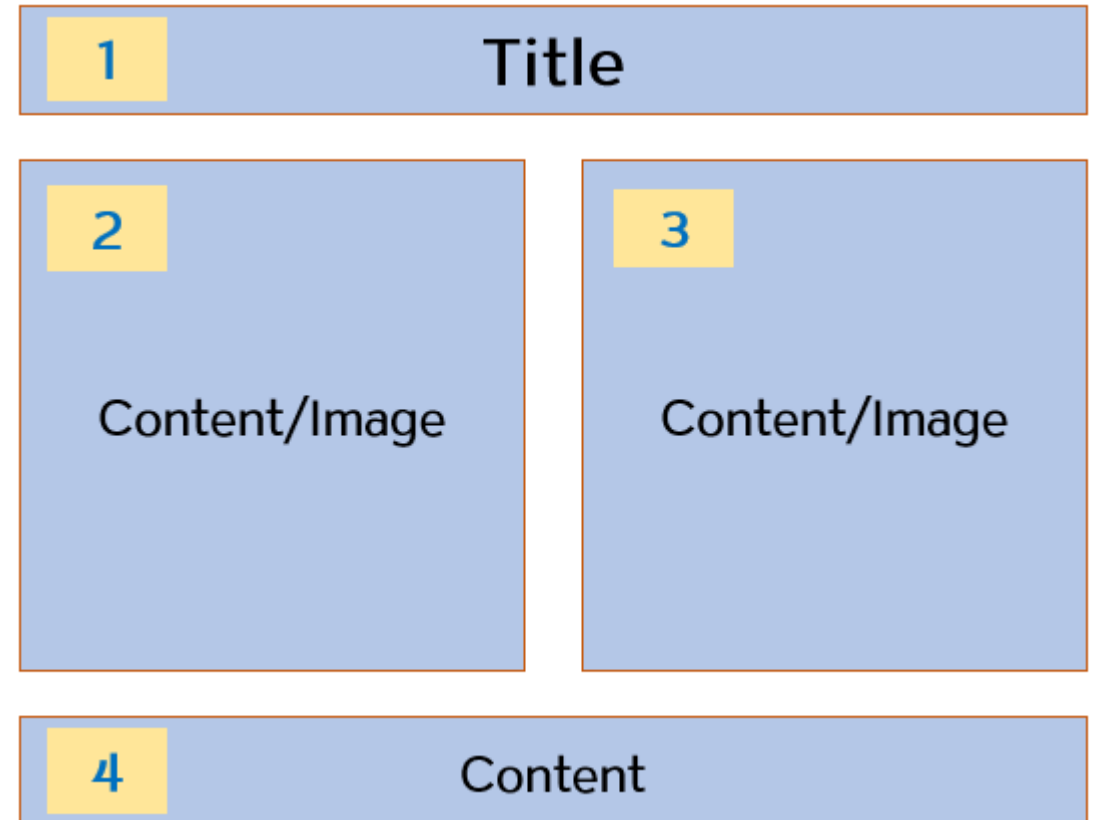
# Slide Reading Order, 1 of 2

The order of slides content determines how the content will be presented to screen reader users, and other users of assistive technology. Verify reading order in the [Slide Master layouts](#).

## Slide with **Incorrect** Read Order



## Slide with **Correct** Read Order



# Slide Reading Order, 2 of 2

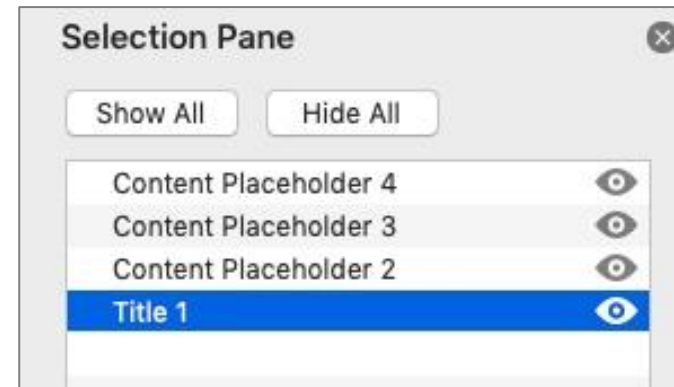
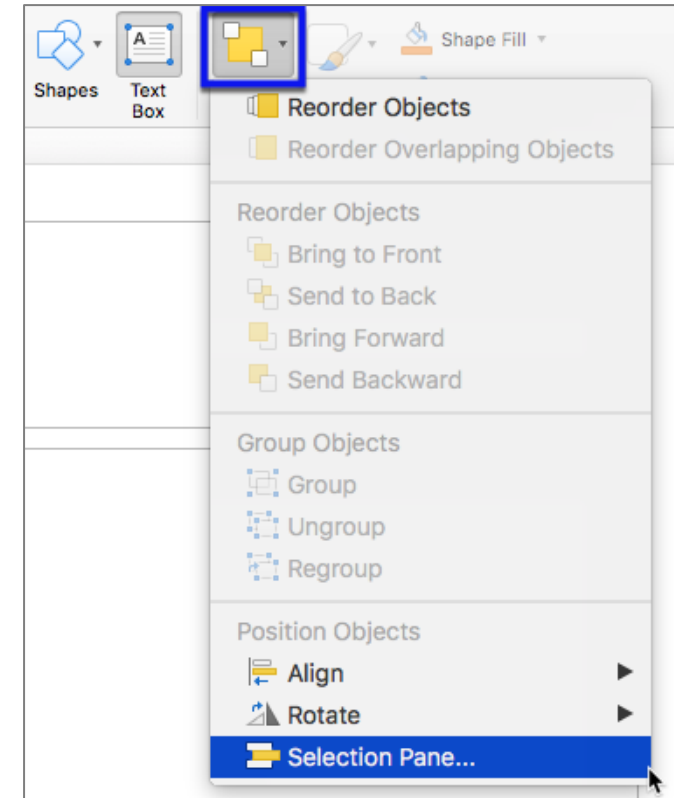
Verify in the **Slide Master layouts**.

To check or fixing reading order of a slide, select *Home > Arrange > Selection Pane*.

Reading order is shown in reverse, ***bottom to top***. Click and drag or use the arrow buttons to change reading order.

*When the screen reader reads this slide, it reads the objects in the reverse order listed in the **Selection** pane.*

**Important:** The **Title** should always be read first as heading title.  
*Assistive technology users such as screen readers navigate by slide title.*



# The Reading Order

The PowerPoint reading order reads the objects in the reverse order listed in the **Selection** pane from **bottom to top**.

The screenshot shows a PowerPoint slide titled "Slide Reading Order, 1 of 2". The slide content includes a title, two content/image boxes, and a content box. The Selection pane on the right lists objects from bottom to top: Title 1, Content Placeholder 2, Content Placeholder 3, Picture 6, Content Placeholder 4, and Picture 7. A red arrow points upwards in the Selection pane, indicating the reverse reading order.

**Slide Reading Order, 1 of 2**

The order of slides content determines how the content will be presented to screen reader users, and other users of assistive technology. Verify reading order in the [Slide Master layouts](#).

Slide with <b>Incorrect</b> Read Order	Slide with <b>Correct</b> Read Order
<div>2 Title</div> <div>4 Content/Image</div> <div>3 Content/Image</div> <div>1 Content</div>	<div>1 Title</div> <div>2 Content/Image</div> <div>3 Content/Image</div> <div>4 Content</div>

When exporting to PDF, the tags reading order reads from **top to bottom**. It's **very important** to ensure the slides reading order follow the PowerPoint's reading order in the correct order for the PDF to export correct reading order.

The screenshot shows a PowerPoint slide titled "Slide Reading Order, 1 of 2". The slide content includes a title, two content/image boxes, and a content box. The Selection pane on the left lists objects from top to bottom: Picture 7, Content Placeholder 4, Picture 6, Content Placeholder 3, Content Placeholder 2, and Title 1. A red arrow points downwards in the Selection pane, indicating the top-to-bottom reading order.

**Slide Reading Order, 1 of 2**

The order of slides content determines how the content will be presented to screen reader users, and other users of assistive technology. Verify reading order in the [Slide Master layouts](#).

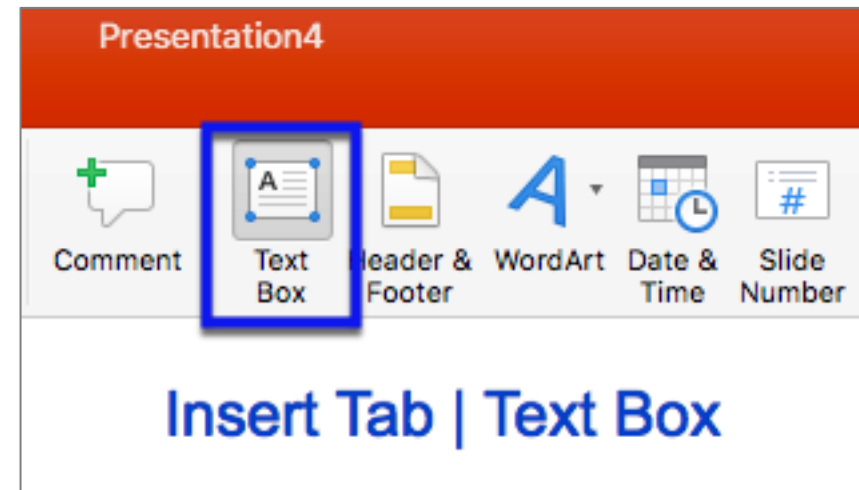
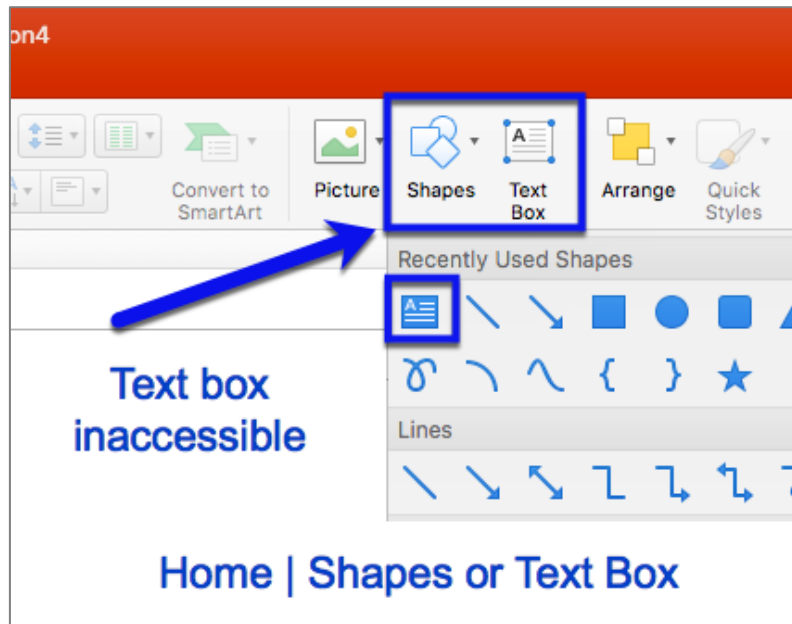
Slide with <b>Incorrect</b> Read Order	Slide with <b>Correct</b> Read Order
<div>2 Title</div> <div>4 Content/Image</div> <div>3 Content/Image</div> <div>1 Content</div>	<div>1 Title</div> <div>2 Content/Image</div> <div>3 Content/Image</div> <div>4 Content</div>





# Text boxes **in**accessible

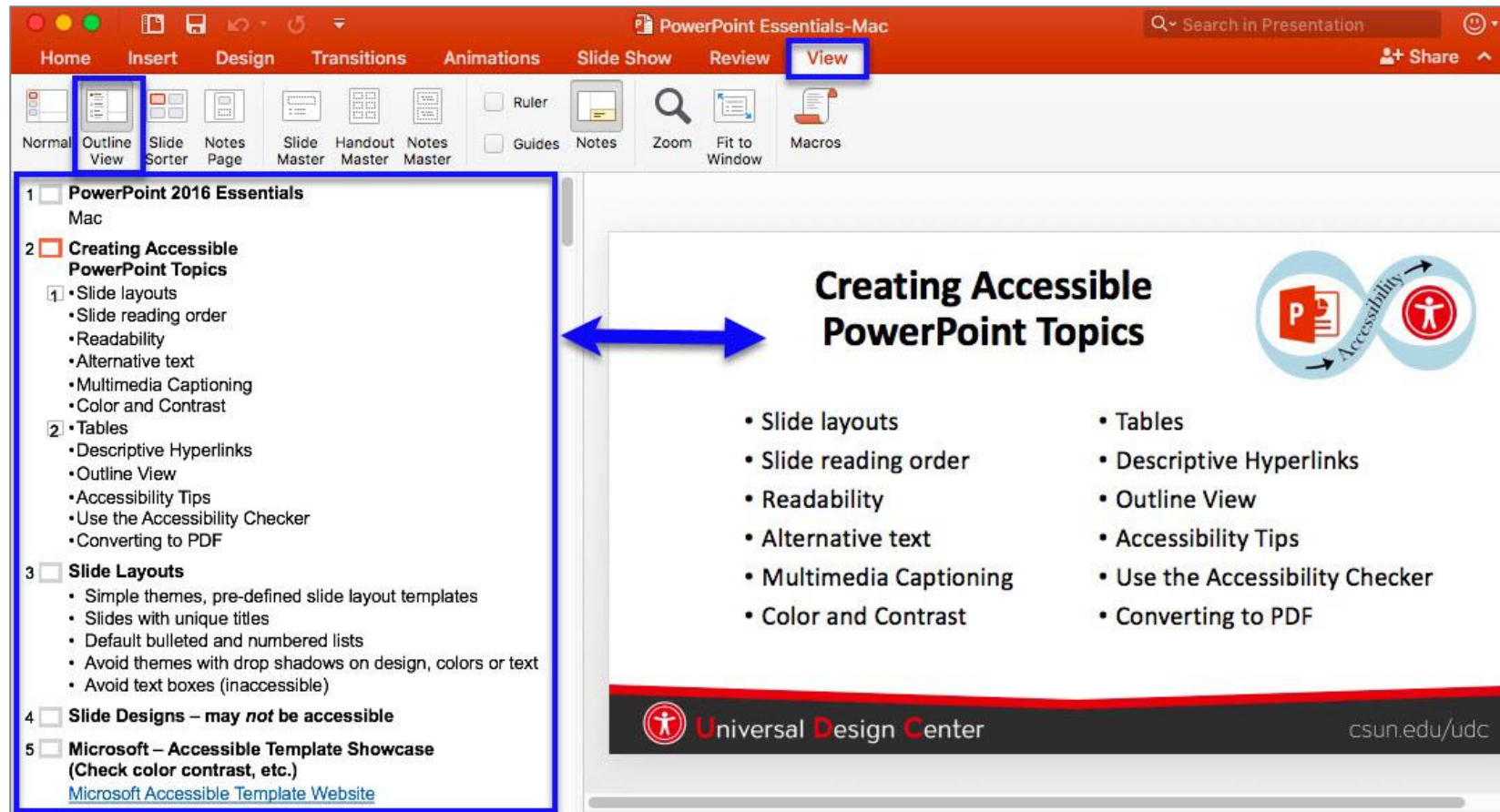
- Screen readers **may ignore** items like text in text boxes that are added to the slides.
- Text in text boxes **do not** show up in **Outline View**.
- Best approach is to use built-in slide layouts.



# Outline View, 1 of 2

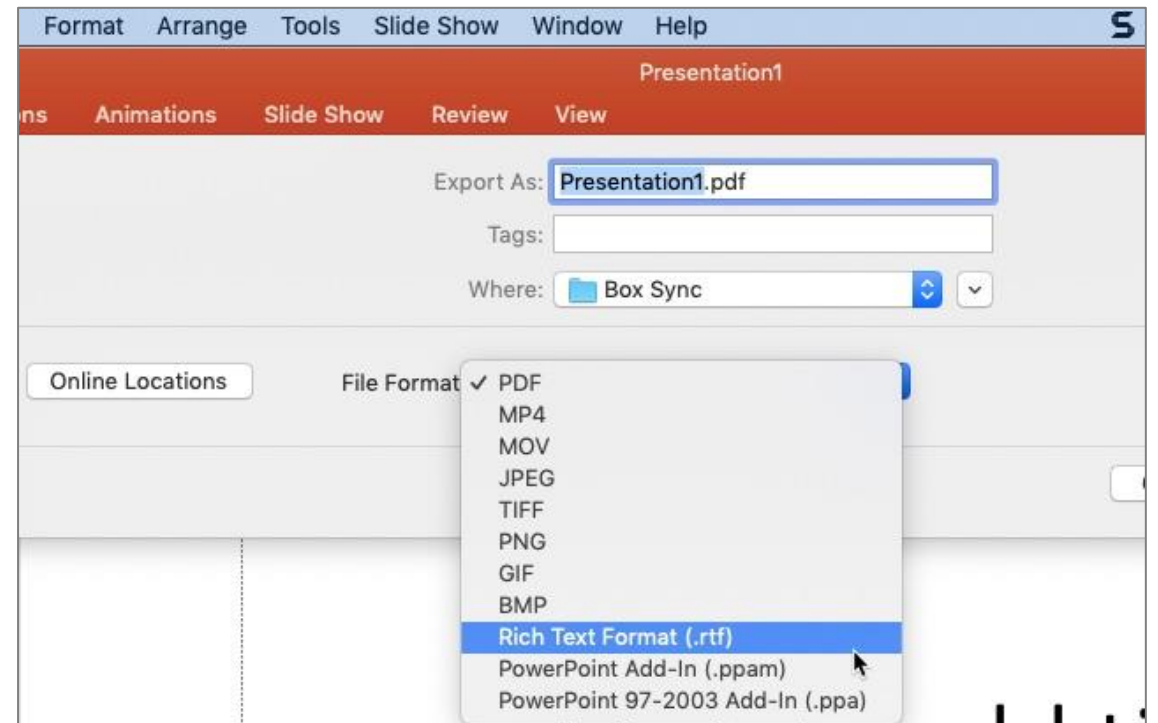
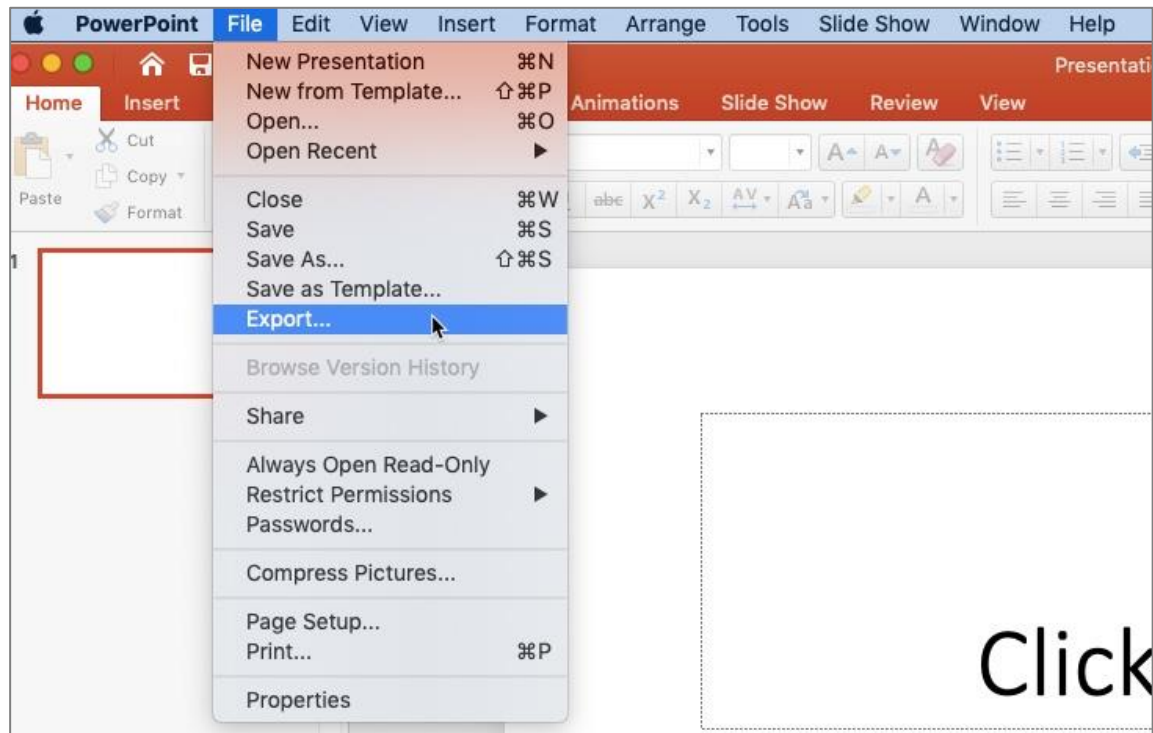
Use Outline View for a quick check of text accessibility and the read order in an entire slideshow.

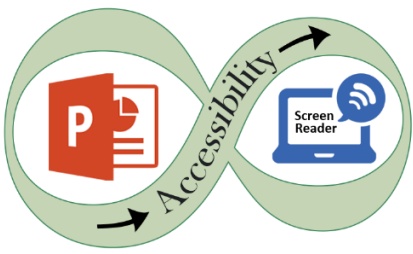
**View tab > Outline View**



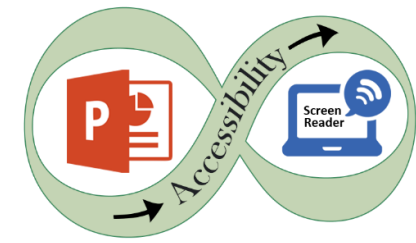
# Outline View, 2 of 2

Outline provides text accessibility when someone needs an alternate format such as **braille or large print** of the presentation. When save the presentation as an Outline/Rich Text Format (RTF), the outline content will export to Word Document with accessible text structure. Using the built-in slide layouts will **save you time**.





# Outline View tips



- Use Outline View for a quick check of text accessibility and the read order.
- To ensure that the Title and body text are identified correctly in each slide, choose the Outline view. In this Outline View the text and the order in which it will be read by a screen reader can be seen.
- Text can also be changed directly in the Outline view. Notice that tables, graphics and pictures **will not** show in Outline view.
- Any text not in pre-existing **Slide Layouts** (text placed in text boxes that are manually added to the slide) or in the 'notes' section **will not** appear in the Outline view.
- Screen readers **may ignore** items like text in text boxes that are added to the pages.



# Image Alternative or Alt Text



*Screen readers and other AT announce that it's an "image" or "graphic", then read the alt text: "Three plants going through transformation with text quote Accessibility user-friendly document for CSUN student success."*

- The purpose of **Alt Text** is to allow low vision or blind users who use text-to-speech assistive technologies (AT), such as screen readers, to understand the purpose of graphic images. Sighted users usually don't see alt text unless they use AT.
- Screen readers and other AT **can't** convert images into texts. So, when writing alt text, consider the following for images:
  - Describe the content and the purpose of the image clearly and concisely, in a phrase or a sentence or two. Keep alt text short 200 characters or less.
  - Image with text (for example, the CSUN wordmark) should include the words on the image.
  - "Image of...", "Photo of..." is not needed because screen readers and other AT announce that it's an "image" or "graphic".
  - When completing the alt text, use proper punctuation such as periods to indicate the end of the alt text. Without proper punctuation, some screen readers will run the alt text into the body text that follows and cause confusion to the user.
  - Don't insert hyperlinks in alt text because they are not clickable and can't create descriptive link text.



# How to Describe Images?



A stair chase leading up to an entryway is painted yellow with bold black text that reads museums are now.



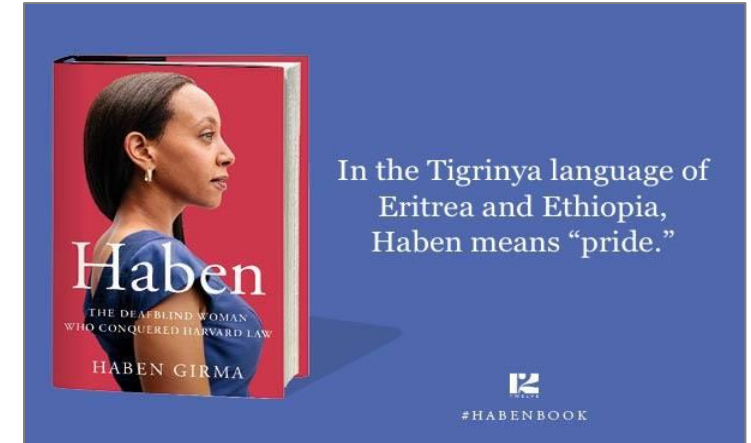
A hand reaches out of a computer screen giving the hand gesture for stop. The screen reads 'access denied!'



Michelle Obama claps and Barack waves.



Student holds a diploma hardcover up in the air during CSUN commencement. Caption text "and together, as Matadors, we will move mountains."



On the left is the book cover for Haben The Deafblind Woman Who Conquered Harvard Law, and on the right is the quote: "In the Tigrinya language of Eritrea and Ethiopia, Haben means 'pride.'"

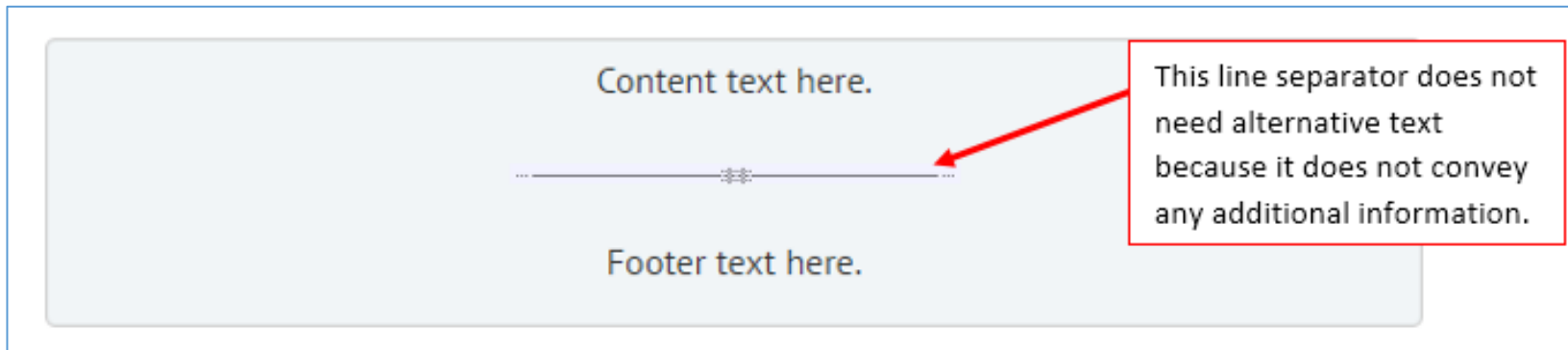
## More examples of How to Describe Images

- [Document Learning Tools: Describing images](#)
- [How to Describe Images](#) (Art, Chemistry, Diagrams, Flow Charts, Formatting & Layout, Graphs, Maps, Mathematics, Page Layout, Tables, Text-only images)
- [Periodic Table of the Elements](#)
- [UDC Best Practices for Describing Images](#)



# What are Decorative Images?

- Conveys no information; does not provide meaningful information.
- Purely for visual effect.
- The horizontal line that divided the two sections.
- Line border image used as part of page design.
- Decorative images do not require a text alternative.
- **Decorative images, lines, borders, or shapes ignore by assistive technologies, such as screen readers.**



**Alt Text** ▼ ✕

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

*(1-2 sentences recommended)*

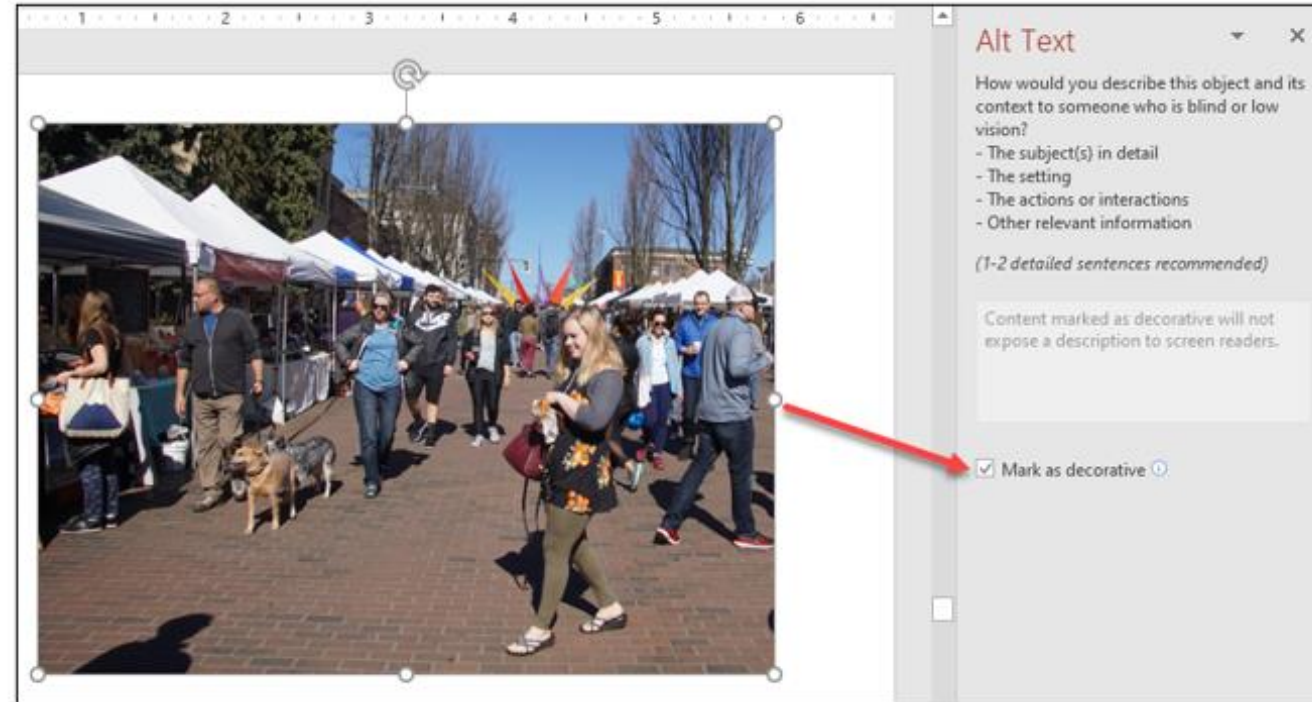
Content marked as decorative will not expose a description to screen readers.

Generate a description for me

☒ Mark as decorative

# Image Captions

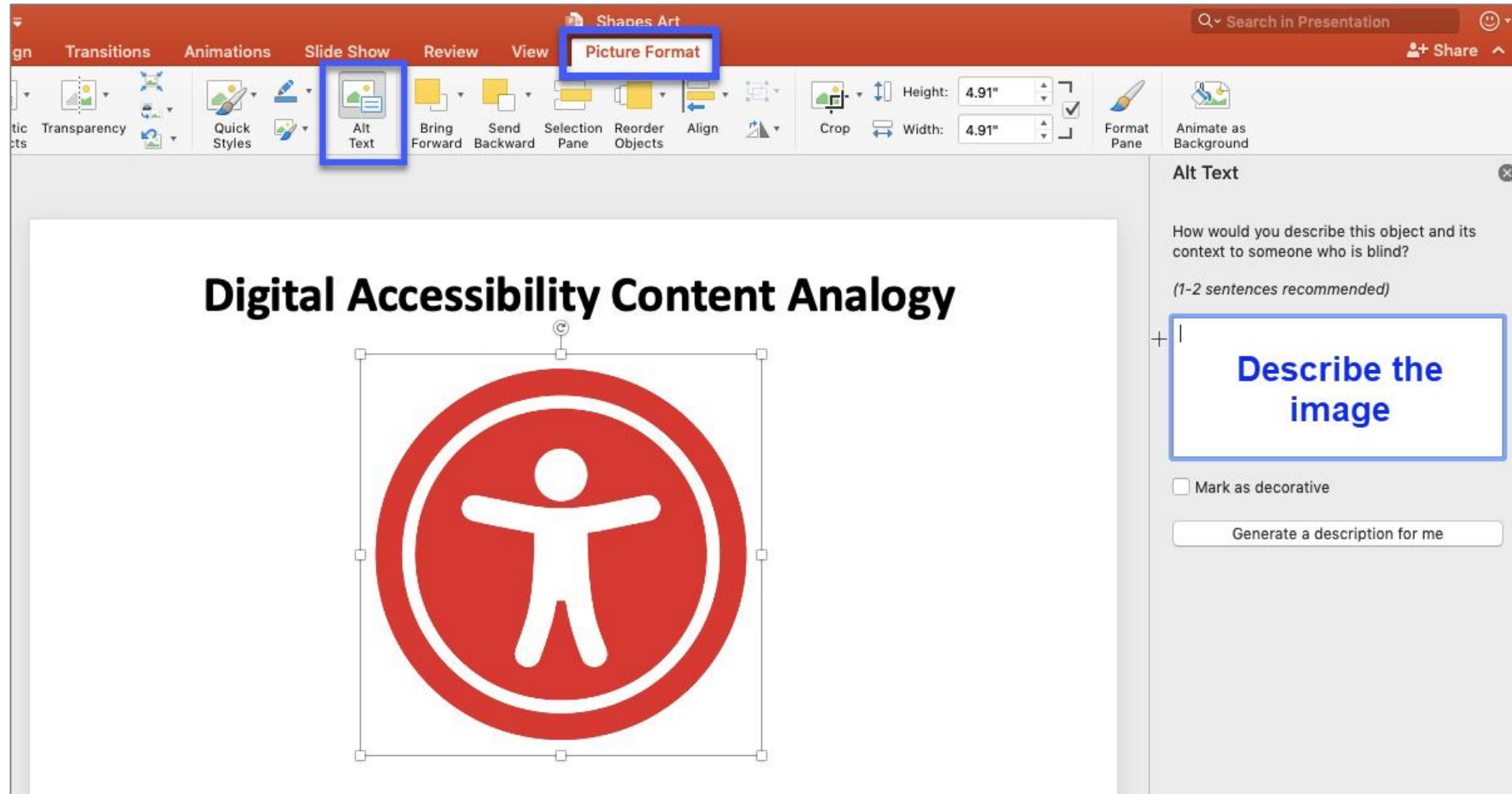
- Captions are universal and accessible for everyone.
- Captions are read and visible to all users whether they use assistive technologies (AT) or not.
- Captions and alt text have different purposes.
  - **Captions** convey what's visible in the image.
  - **Alt text** describes the visual aspect of the image and should be brief.
- If captions and alt text are similar in their descriptions, alt text can be “**Mark as decorative**” to be ignored by the screen readers.
- **Don't repeat** the image's caption as the alt text. People don't need to hear the same information twice.



A crowd of people are walking and shopping at an outdoor market.

Alt text: Mark as decorative

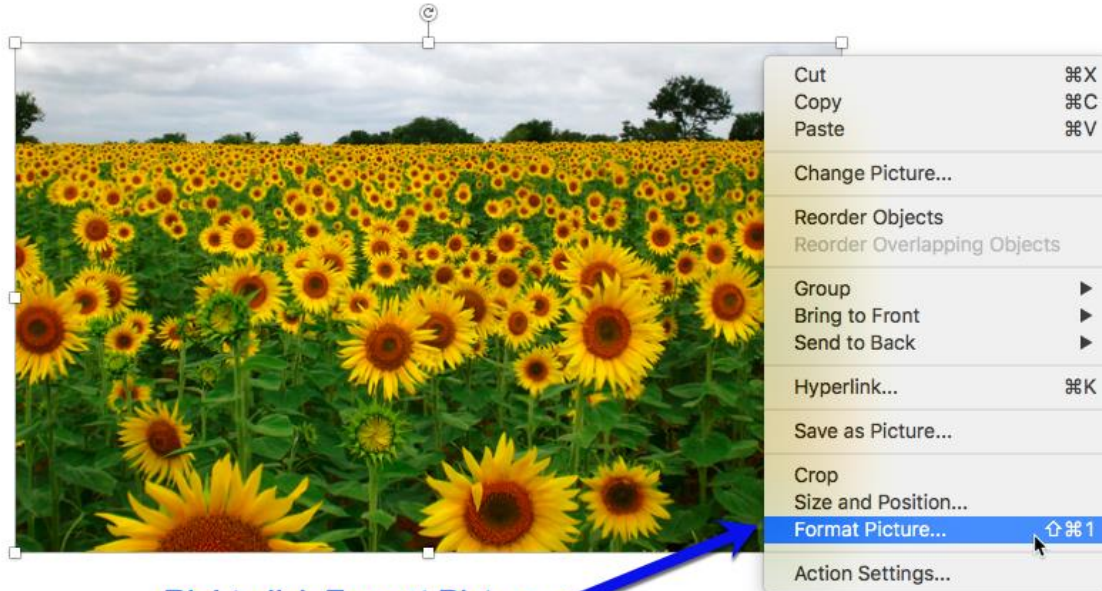
# Adding Alt Text for Office 365



Select the image, **Picture Format** tab, select “**Alt Text**”

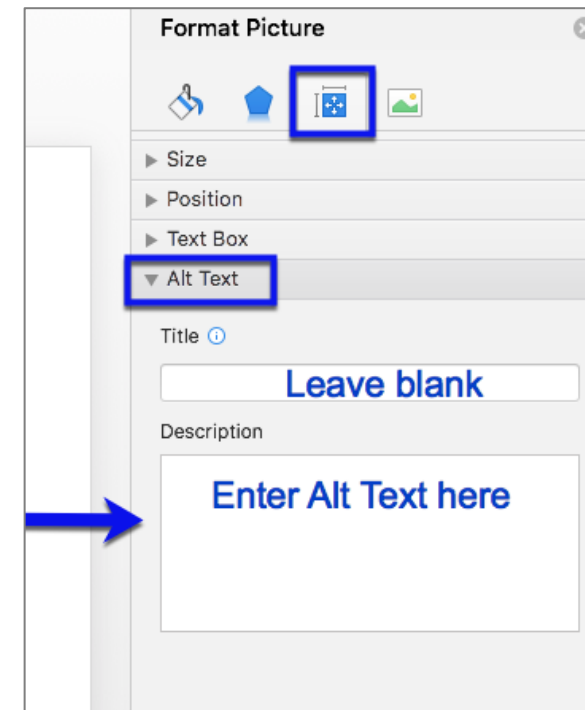
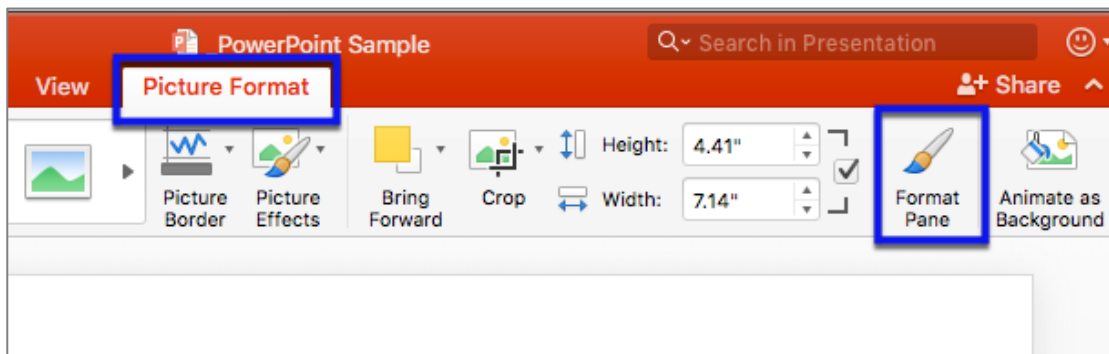
# Alt Text for Office 2016

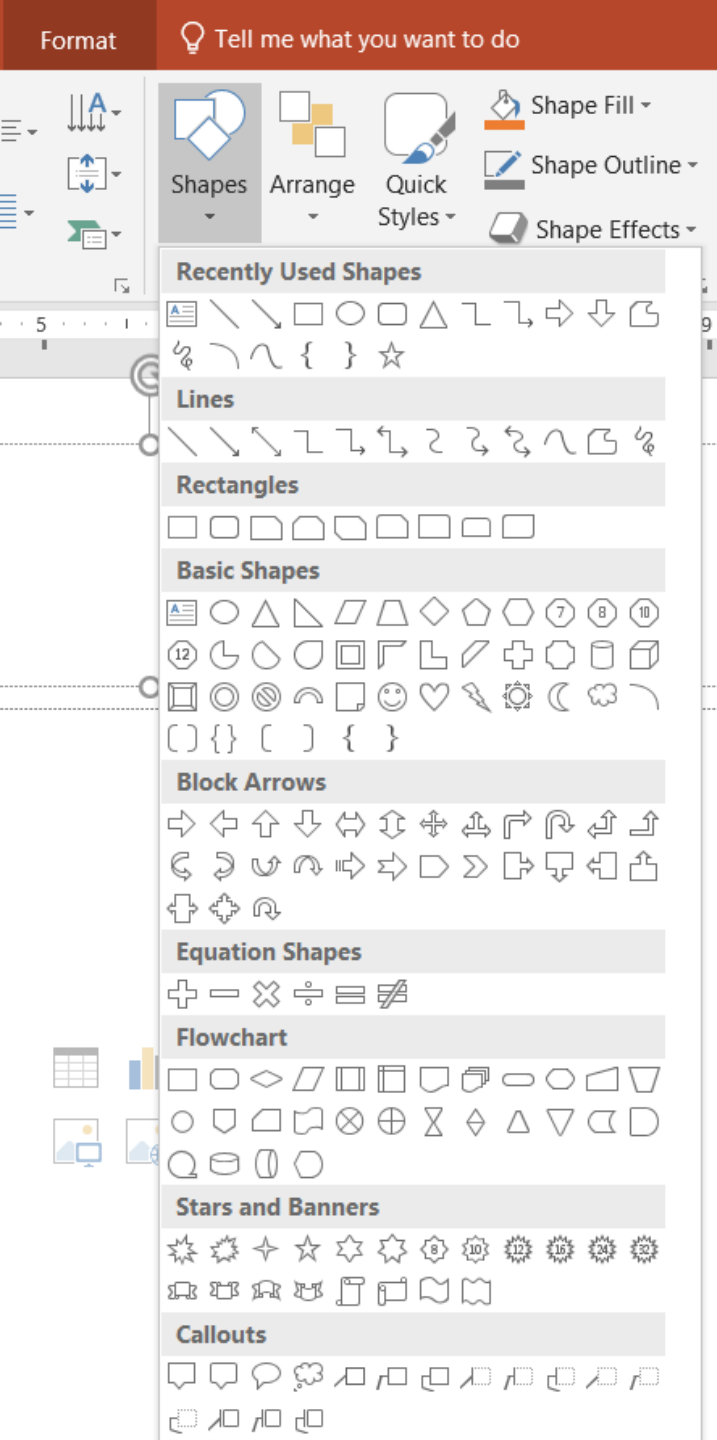
## About Sunflowers



**Option 1:** Mouse right-click **Format Picture**

**Option 2:** Select a picture, **Picture Format** tab, **Format Pane**, **Alt Text**

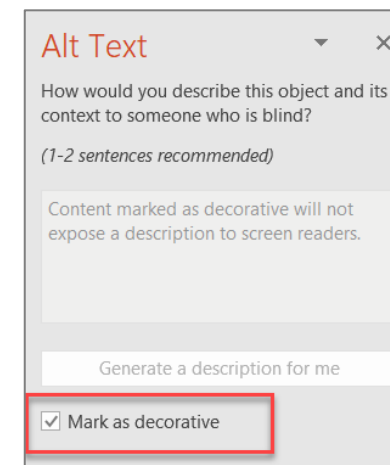
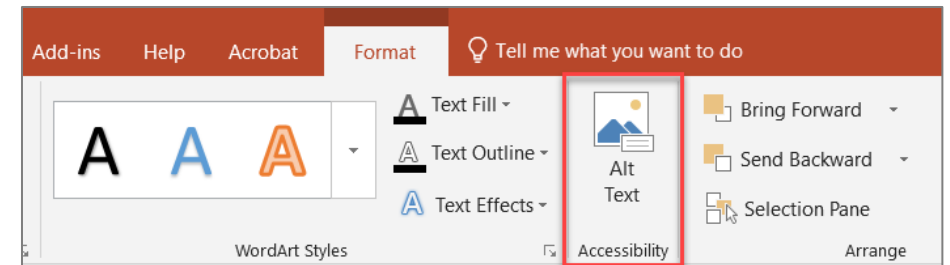
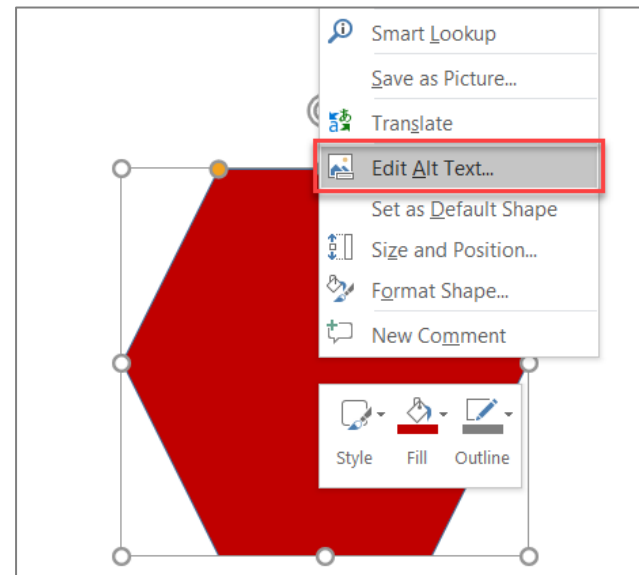




# Shapes

All SHAPES mark as decorative to ignore by the screen readers.

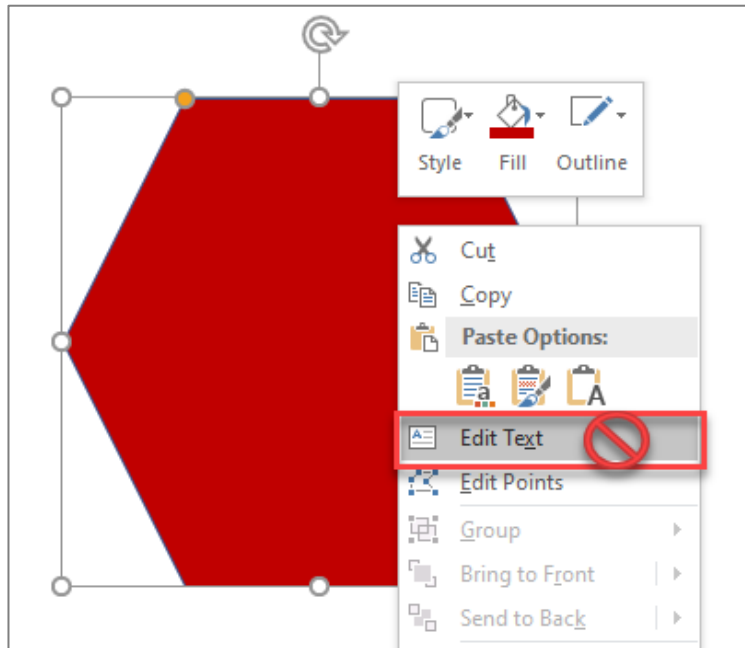
- Draw the shape under Drawing group
- Select the shape, right-click to select Edit Alt Text or Format tab
- Select the checkbox “Mark as decorative”





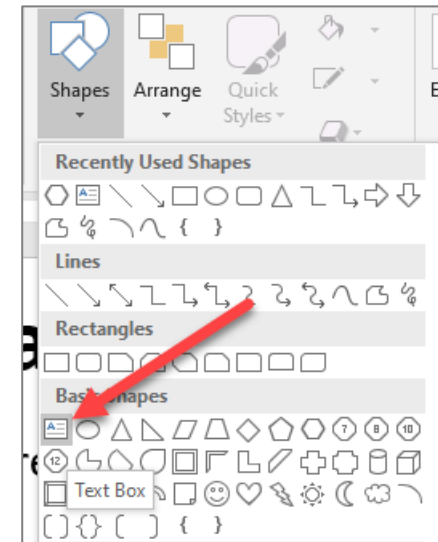
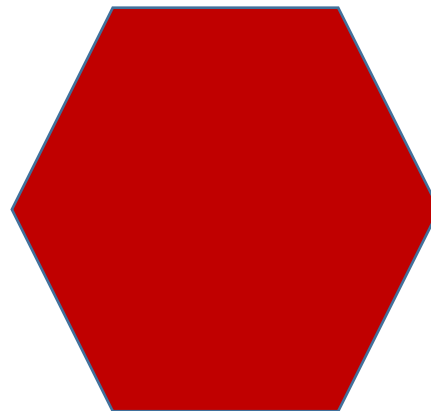
# Text on top of the shape – two layers

**Don't combine** the shape and Edit Text in one layer then mark as decorative. Screen reader will ignore the text entirely.



## Create two separate layers:

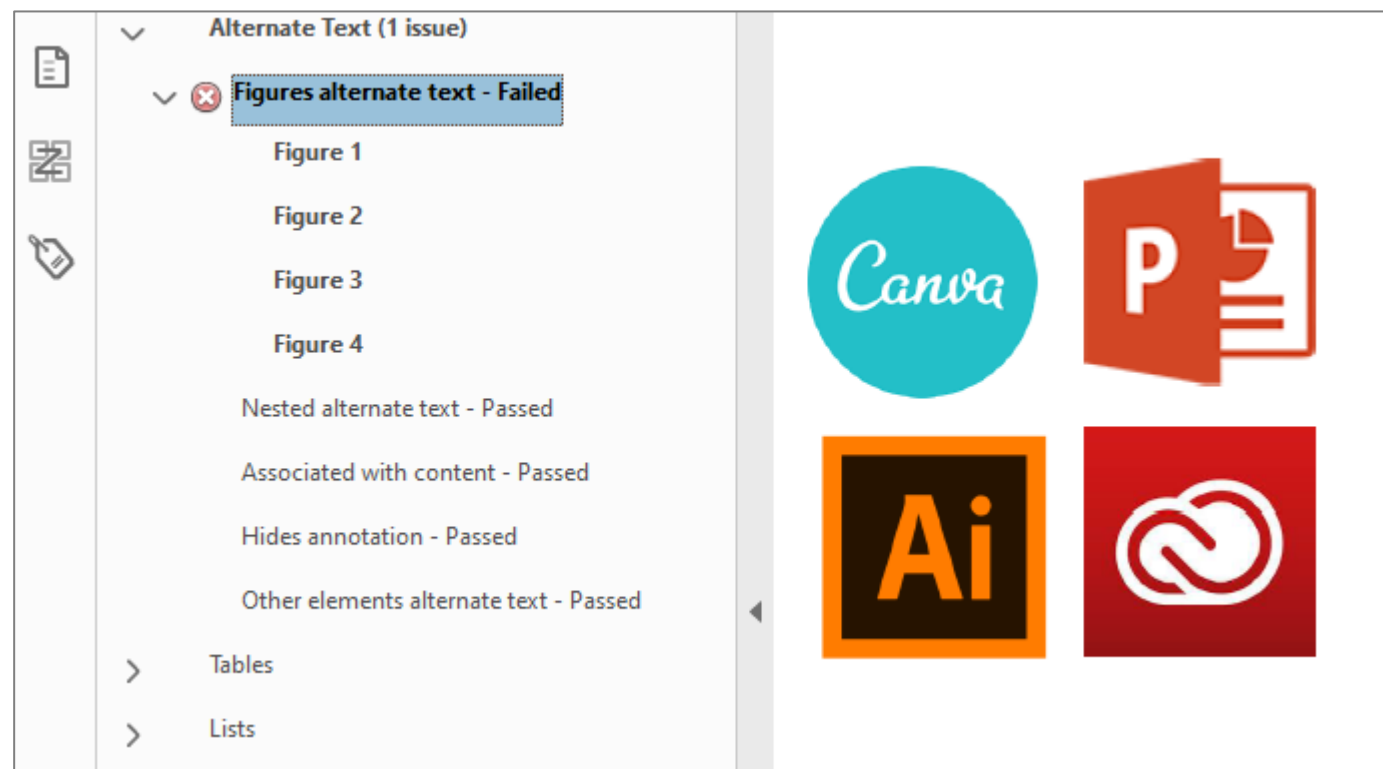
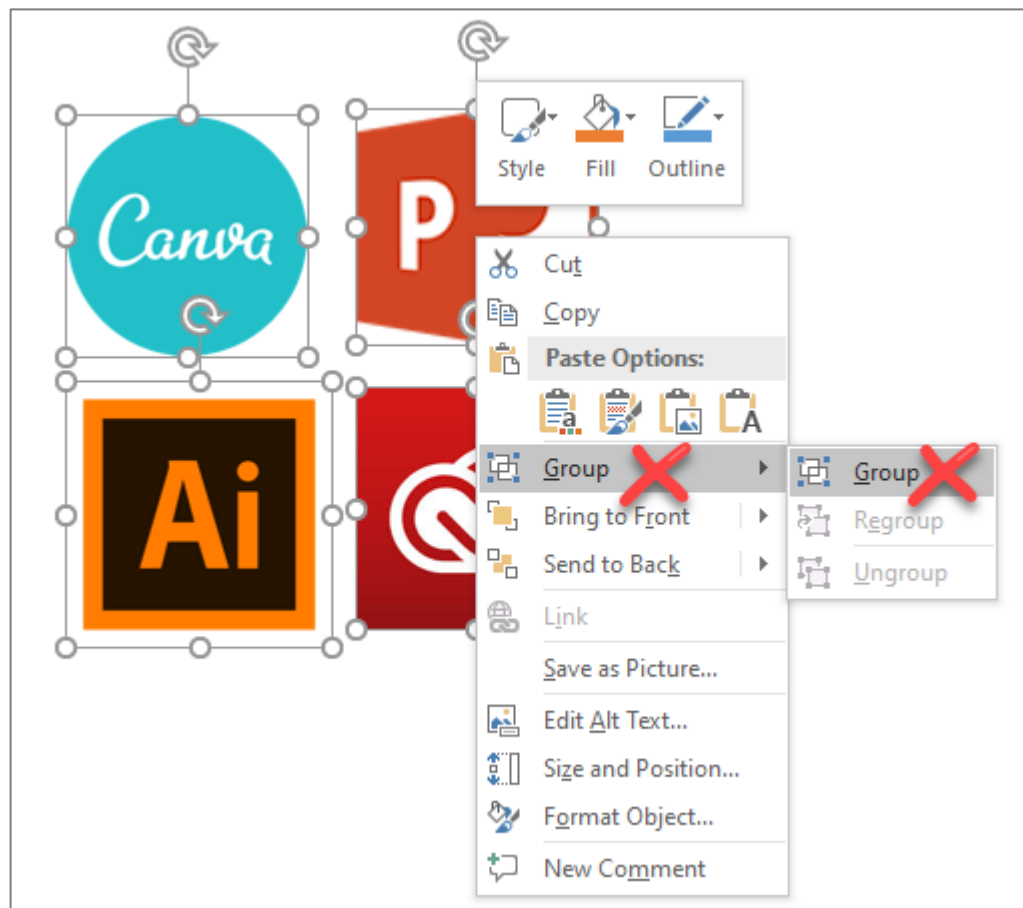
- Layer #1: select the shape, right-click to select Alt Text, mark as decorative
- Layer #2: Select Text box, type your text
- Move text box on top of the shape as overlay
- **Do not group** two layers together then mark as decorative. PDF accessibility checker reports “Figures alternative text-Failed.”



# Group images or objects

**DO NOT** group images or objects together then adding alternative text (alt text) at once. PDF accessibility checker reports “Figures alternate text – Failed.”

Alt text or mark as decorative image/object individually.



# Descriptive Link Text, 1 of 2

## Not Accessible – vague and redundant

### CSUN News

#### CSUN Honors Four Exceptional Graduate Students for Thesis and Project Work

CSUN's Division of Academic Affairs has selected four exceptional CSUN graduate students as the winners of the 2020 Distinguished Thesis/Graduate Project Competition, with each receiving a \$1,000 award and recognition from the university. [Read more.](#)

#### CSUN Team to Tap into Power of Inouye Telescope to Study Sun's Atmosphere

With the aid of a telescope in Hawaii, a team of professors at California State University, Northridge hope to solve some of the mysteries found in the sun's atmosphere, information that could help us better understand the impact of solar flares, as well as what is happening with other stars in our solar system. [Read more.](#)

#### Minimizing the COVID Slide During the Summer

In response to the COVID-19 pandemic, schools across the nation transitioned to meeting online. Given the abruptness of the transition and lack of preparation parents had in becoming in-home teachers' aides, many parents and educators are worried about a "COVID slide" or "COVID slowdown," where students fail to retain any new information learned before and during the pandemic — as well as over the summer, when students are not in school. [Click here](#)

**Screen readers read:** "Read more, **link**" "Read more, **link**" "Click here, **link**"

## Accessible – descriptive and unique

### CSUN News

#### CSUN Honors Four Exceptional Graduate Students for Thesis and Project Work

CSUN's Division of Academic Affairs has selected four exceptional CSUN graduate students as the winners of the 2020 Distinguished Thesis/Graduate Project Competition, with each receiving a \$1,000 award and recognition from the university. [Learn more about CSUN's Four Exceptional Graduate Students.](#)

#### CSUN Team to Tap into Power of Inouye Telescope to Study Sun's Atmosphere

With the aid of a telescope in Hawaii, a team of professors at California State University, Northridge hope to solve some of the mysteries found in the sun's atmosphere, information that could help us better understand the impact of solar flares, as well as what is happening with other stars in our solar system. [Continue reading about CSUN's Astronomy Team.](#)

#### Minimizing the COVID Slide During the Summer

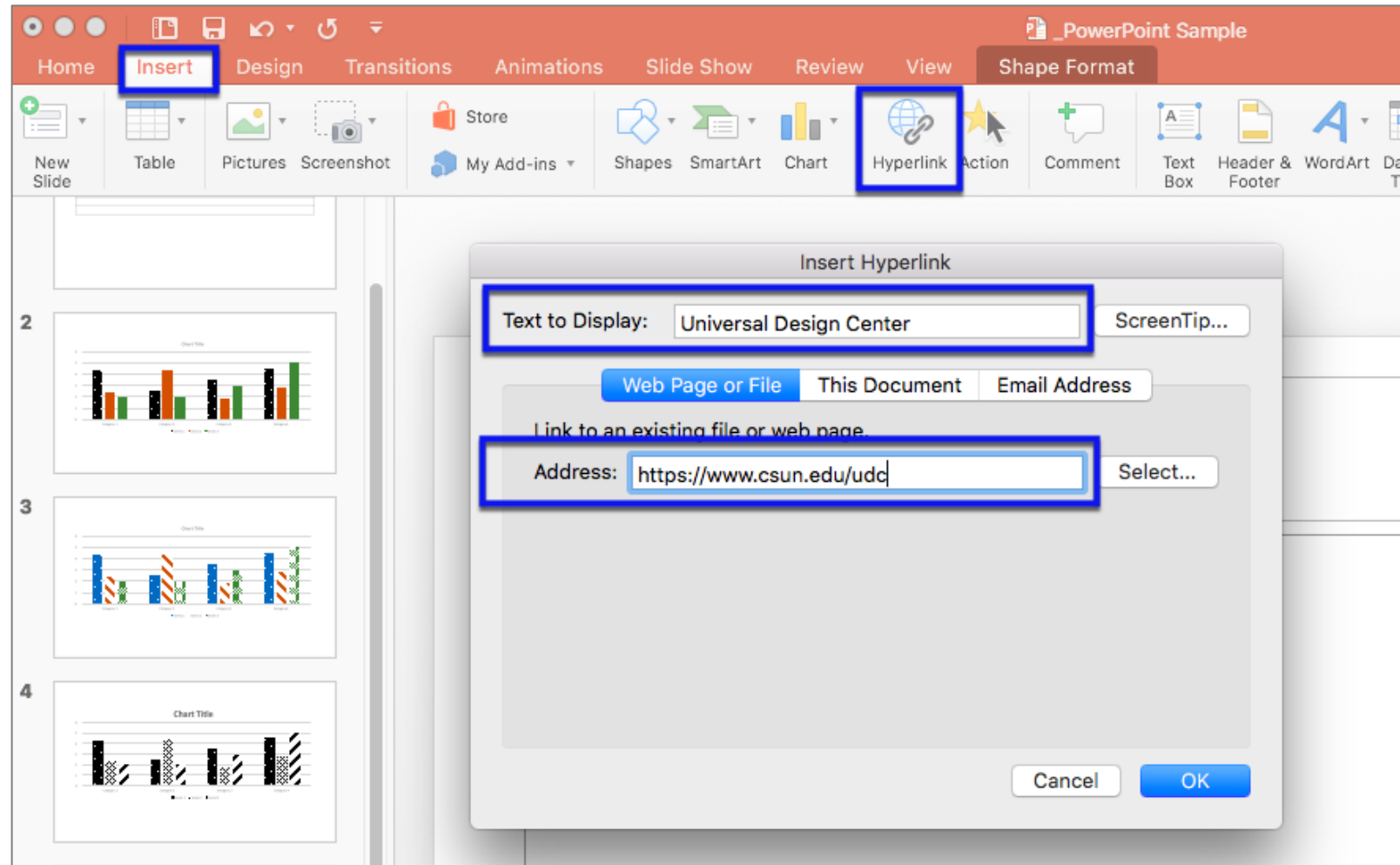
In response to the COVID-19 pandemic, schools across the nation transitioned to meeting online. Given the abruptness of the transition and lack of preparation parents had in becoming in-home teachers' aides, many parents and educators are worried about a "COVID slide" or "COVID slowdown," where students fail to retain any new information learned before and during the pandemic — as well as over the summer, when students are not in school. [Learn more about the "COVID Slide".](#)

**Screen readers read:** The content and link text then announce the word "**link**"

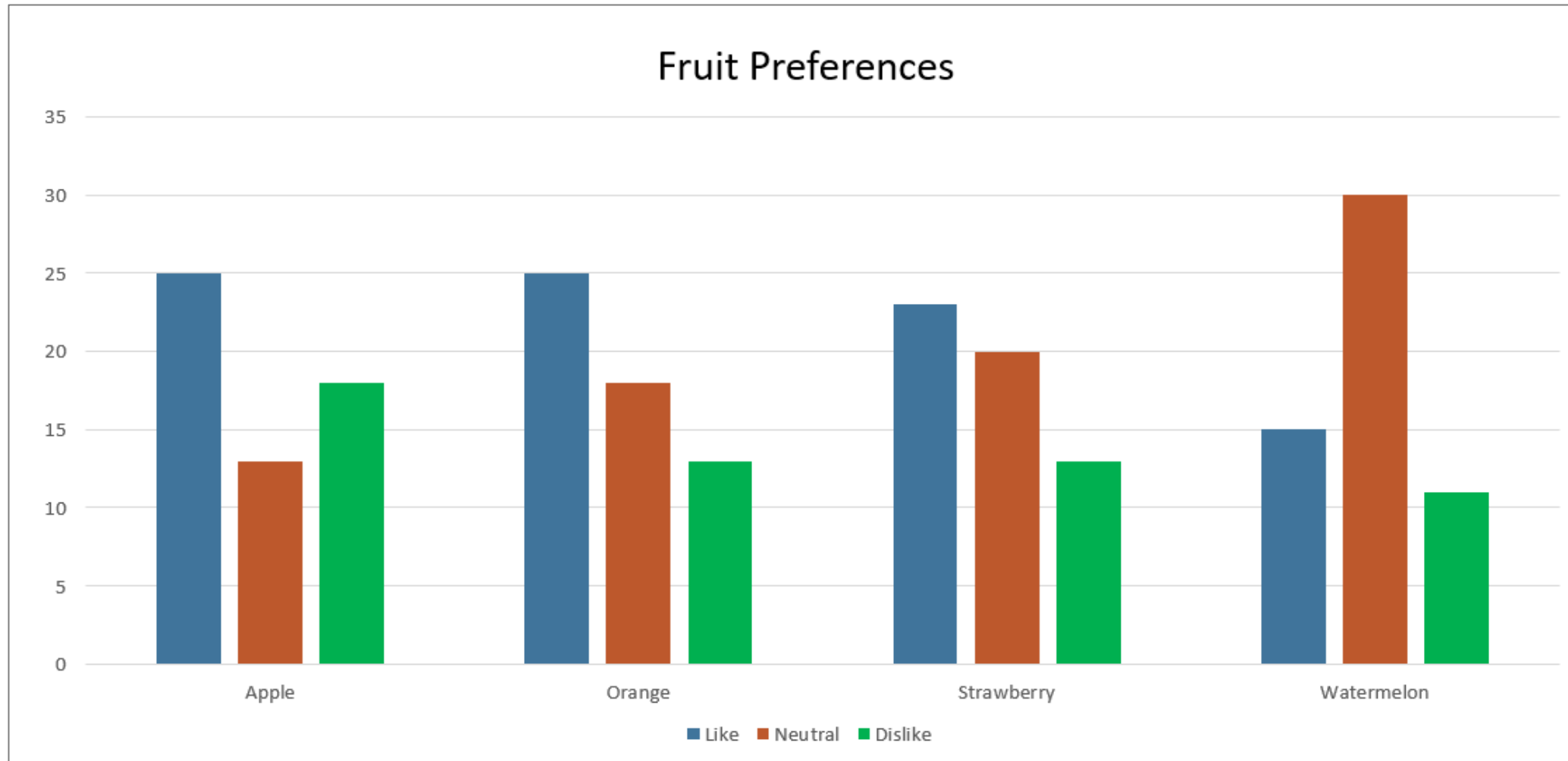
Full URL text <https://www.csun.edu/universal-design-center>

(raw URL may not make sense to screen reader users or others, so make the link text descriptive i.e. [Universal Design Center](#))

# Descriptive Link Text, 2 of 2

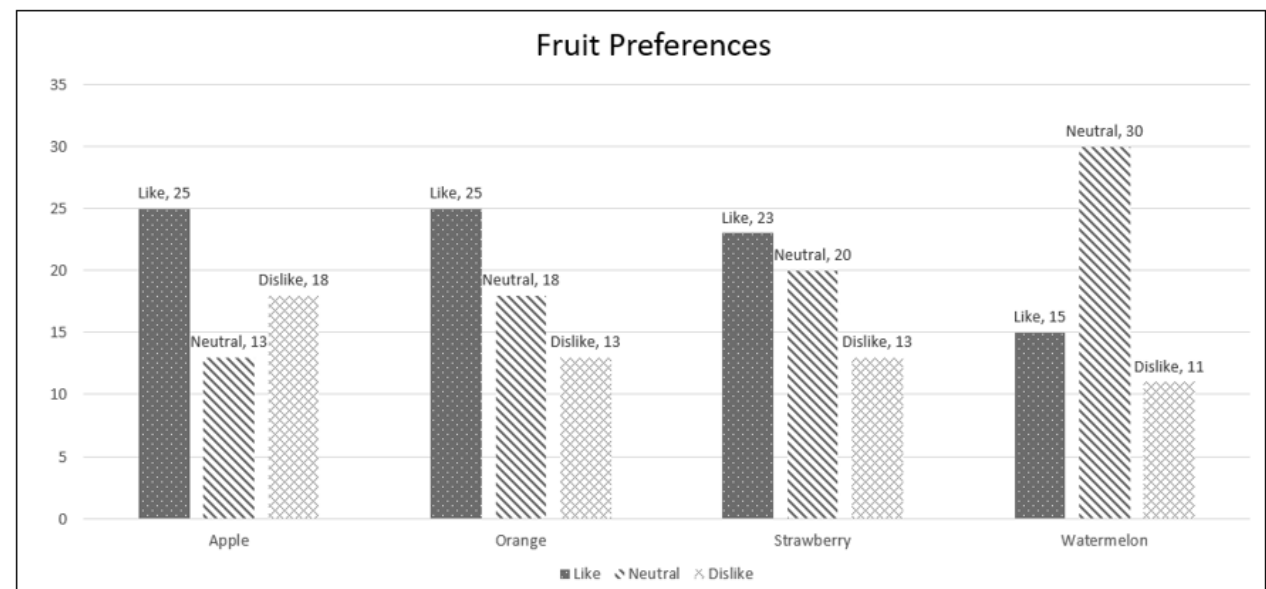
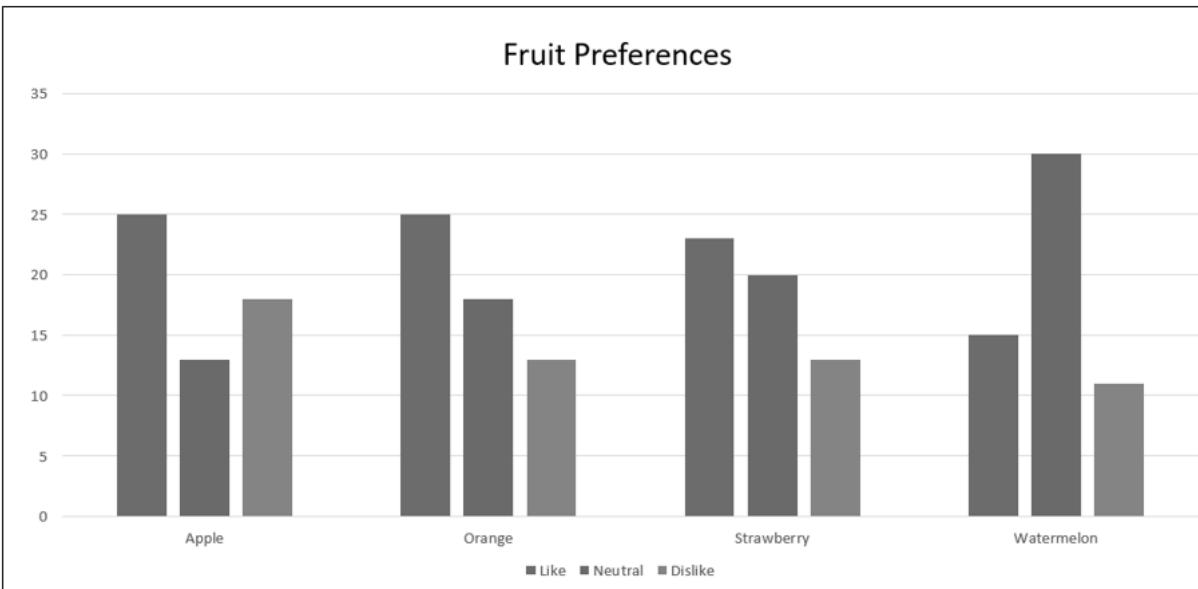
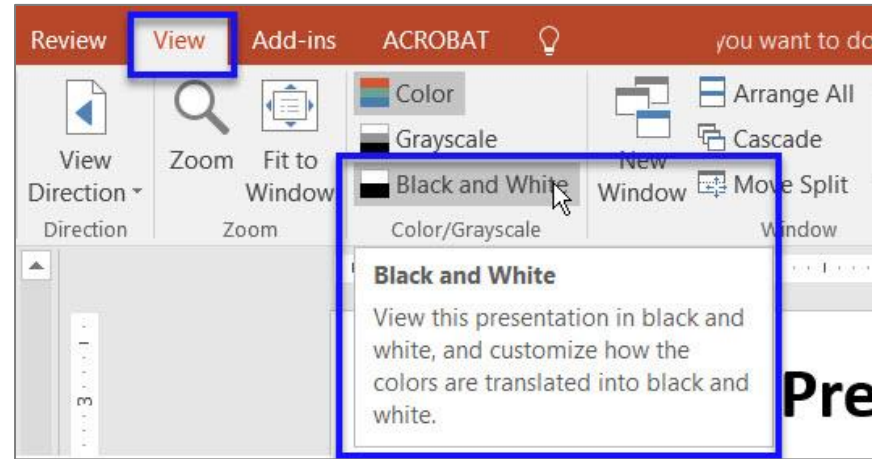


# Why Color Coding is **Not** Accessible?



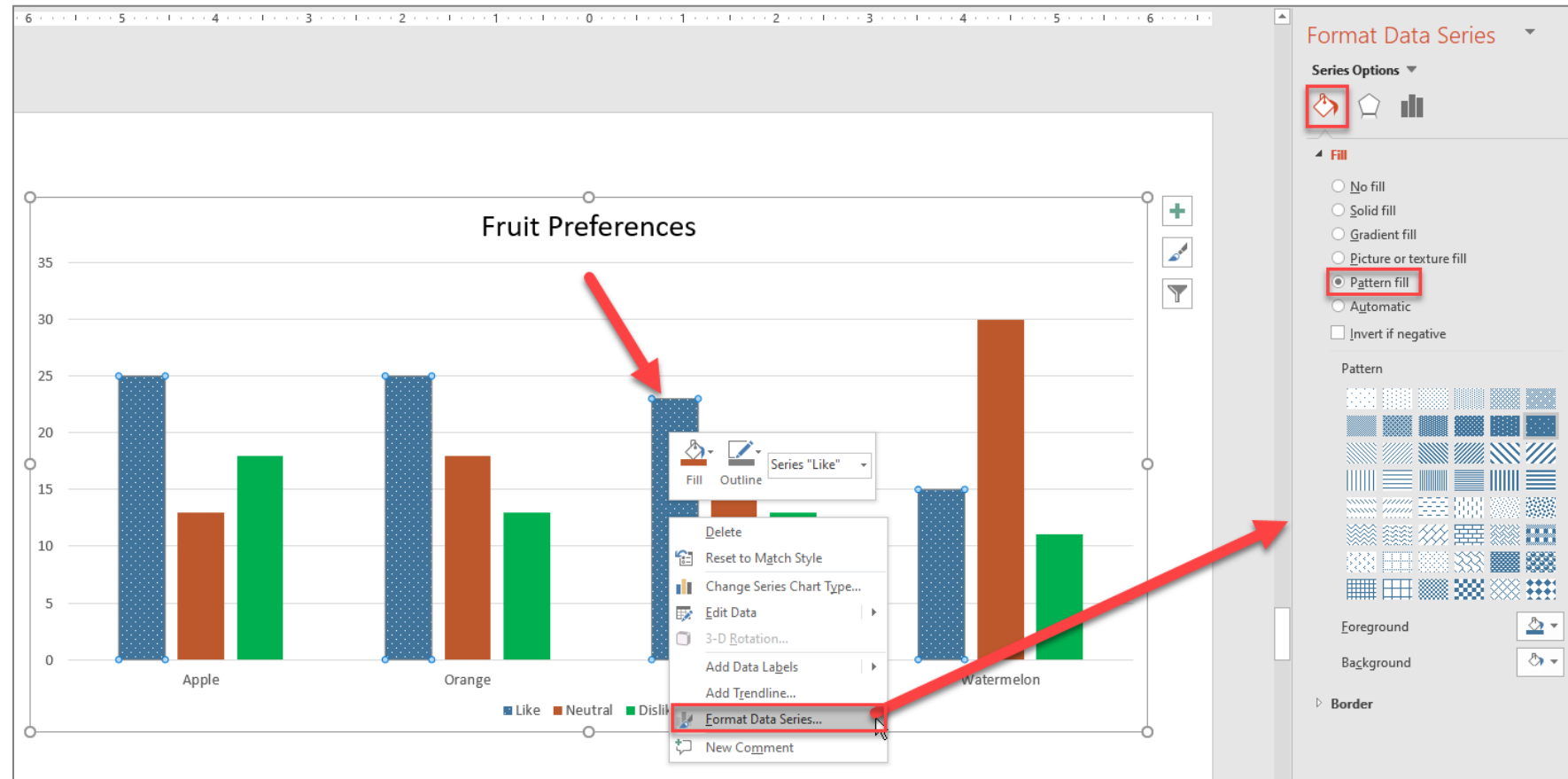


# View Presentation in Black & White

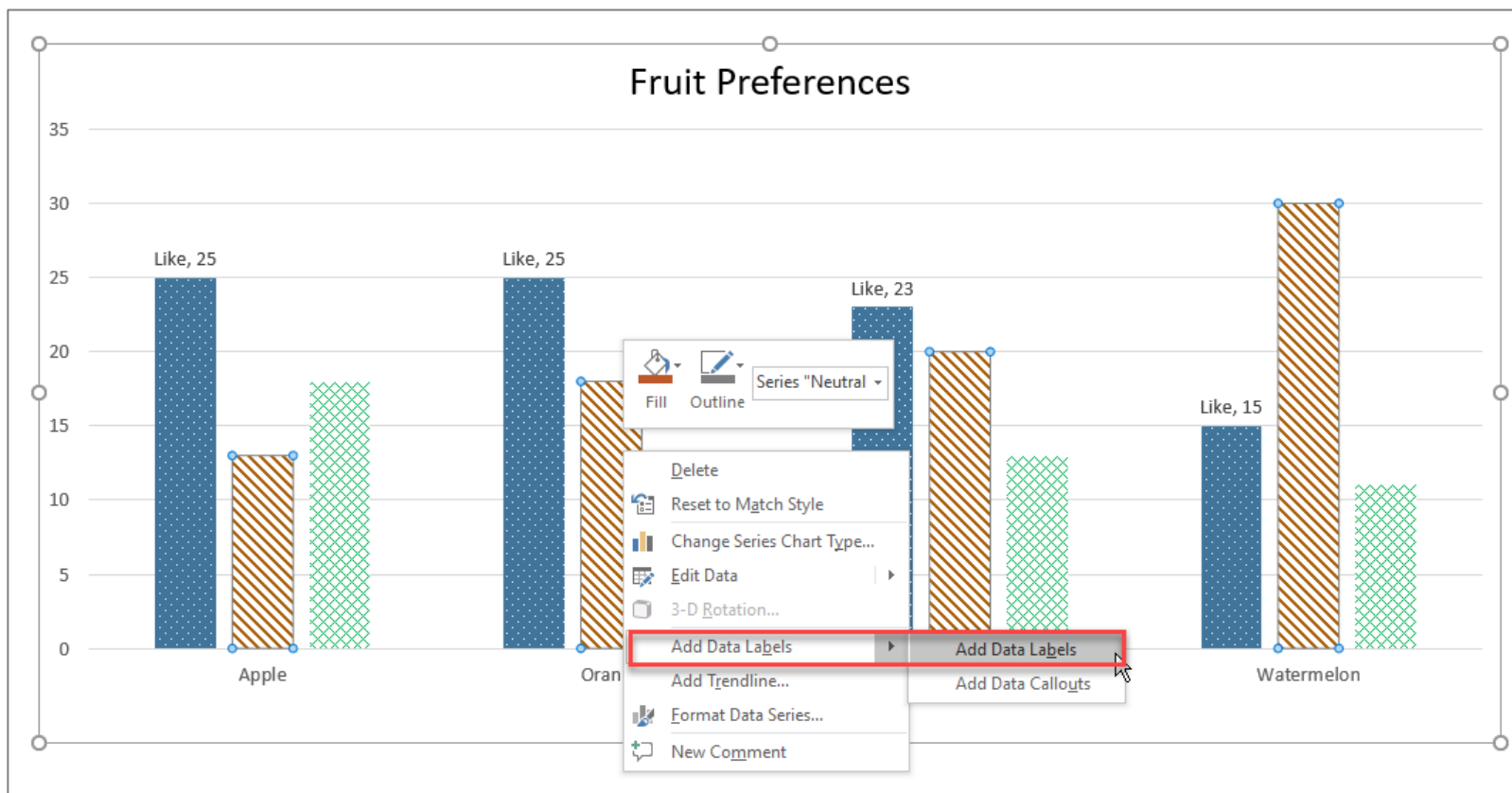


# Pattern Fill – Format Data Series, Fill & Line

- Select 1 of 3 bars
- Option 1: Mouse right-click to select **Format Data Series**
- Option 2: **Format** tab, select **Format Selection**
- **Fill & Line** icon
- **Pattern Fill & Select Pattern** type
- Repeat for each bar with a different pattern type



# Add Data Labels



- Select 1 of 3 bars
- Option 1: Mouse right-click to select **Add Data Labels, Add Data Labels**
  - Right-click again to select **Format Data Labels**
  - On right pane, select **Series Name**
- Option 2: **Design** tab, select **Add Chart Element, Data Labels**
  - Under **Data Labels**, select **More Data Label Options**
  - On right pane, select **Series Name**
- Repeat for each bar

**Format Data Labels**

**Label Options** | Text Options

**Label Options**

Label Contains

- ☐ Value From Cells
- ☒ **Series Name**
- ☐ Category Name
- ☒ **Value**
- ☒ Show Leader Lines
- ☐ Legend key

Separator: ,

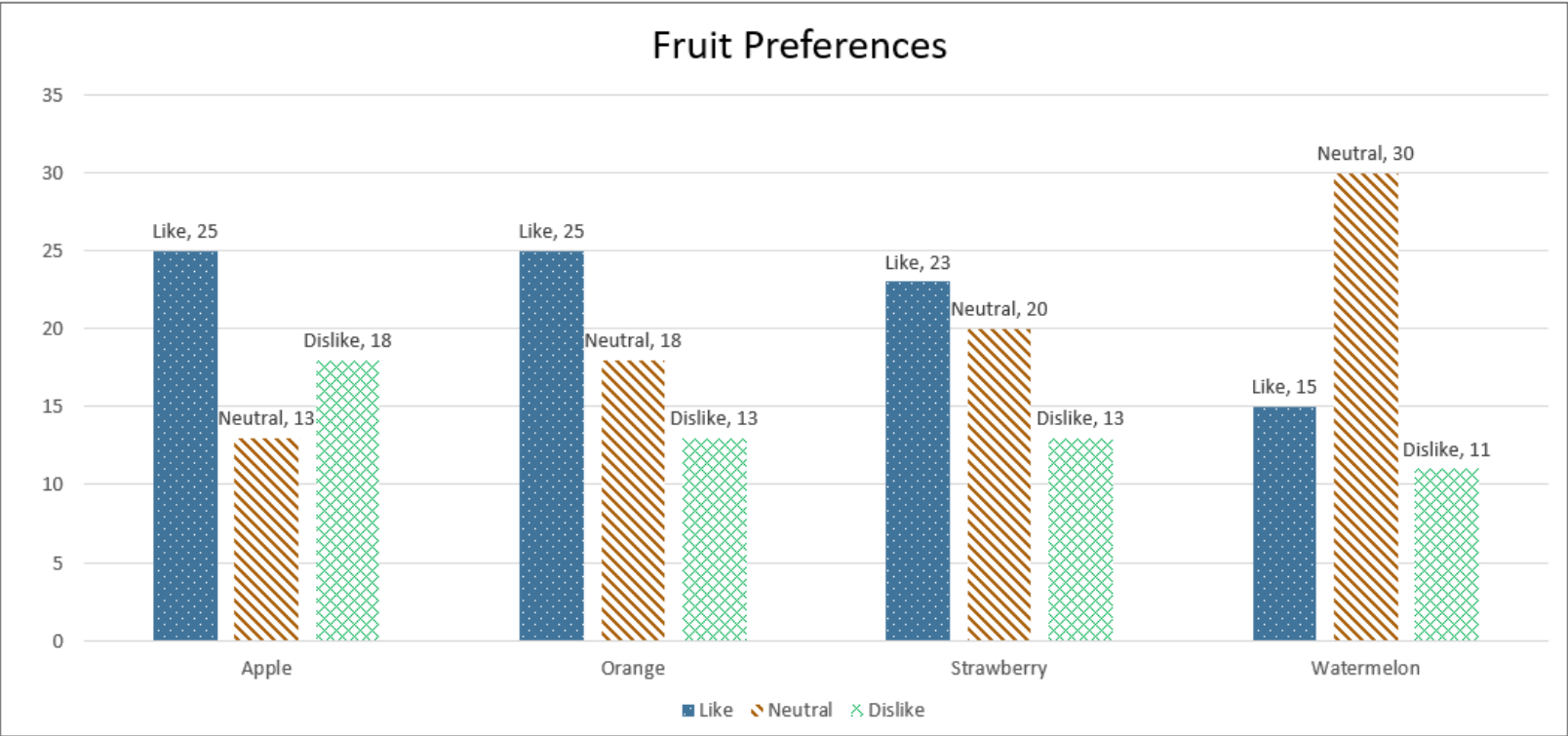
[Reset Label Text](#)

Label Position

- ☐ Center
- ☐ Inside End
- ☐ Inside Base
- ☒ **Outside End**

Number

# Pattern Fill, Data Labels, Tabular Info

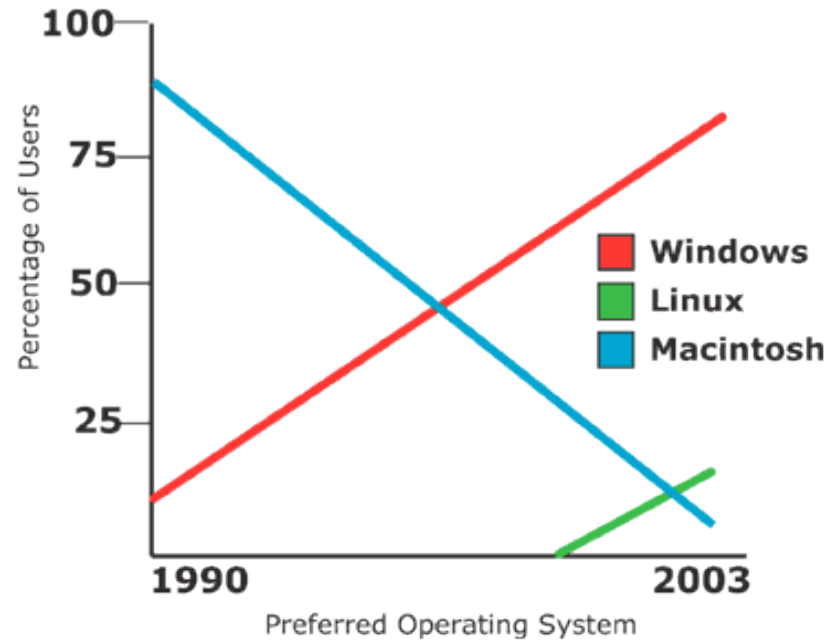


-	Like	Neutral	Dislike
Apple	25	13	18
Orange	25	18	13
Strawberry	23	20	13
Watermelon	15	30	11

Text descriptions for charts in tabular format

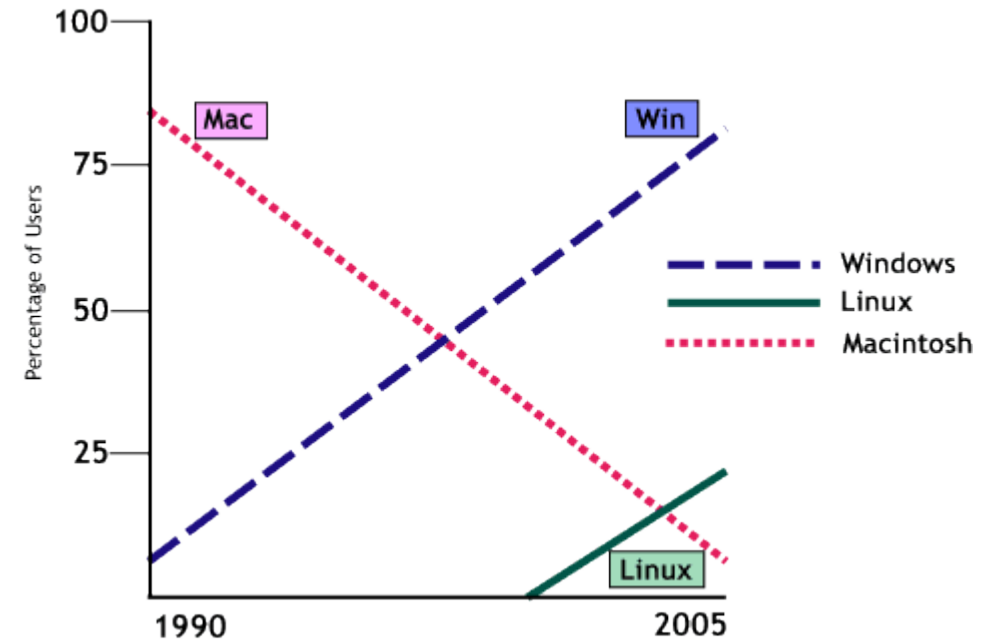
Charts, graphs and maps use visuals to convey complex images to users. But since they are images, these media provide serious accessibility issues to colorblind users and users of screen readers. See the examples on this page for details on how to make charts more accessible. Visit [Charts & Accessibility by Penn State](#)

# Line Charts



Inaccessible Line Chart

This is an inaccessible line chart based on the data in the table comparing percentage of Mac and Windows users in 1990 and 2003. In grayscale, these colors are virtually identical and may not be recognized by colorblind users.



Accessible Line Chart

This chart replaces three solid lines with one solid line and two dotted lines, with labels for each. For line charts, changing the style of the graph lines and adding labels increases usability. [Charts & Accessibility by Penn State](http://www.chartsandaccessibility.com/).





# Provide descriptions if using color to convey meaning

**Example 1:** Inaccessible color highlights in red

May 11 to 17, 2019

**Example 1:** Accessible with a description

May 11 to 17, 2019\* (final exams)

**Example 2:** Inaccessible table

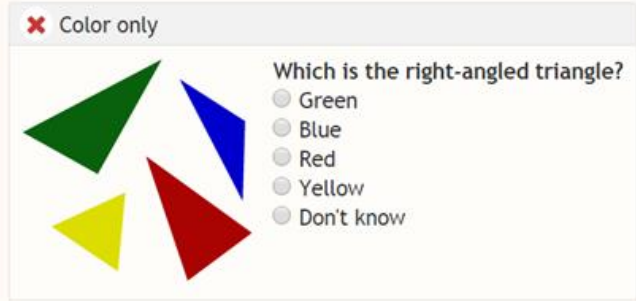
	Assignments (overdue in red)	
	Introduction	
	Chapter 1	

**Example 2:** Accessible table

	Assignments	Overdue	
	Introduction	Yes	
	Chapter 1	No	

**Example 3:** Inaccessible color shape

Example: Refer to something using color alone

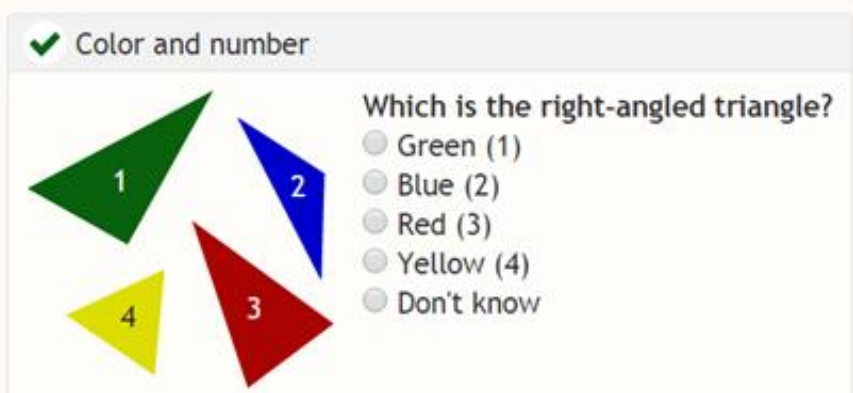


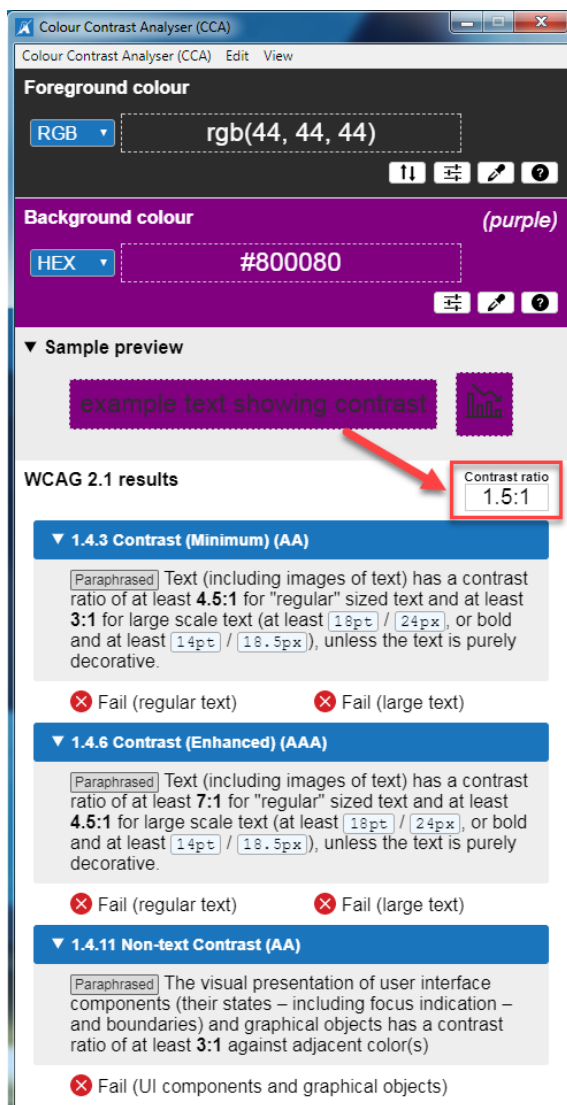
Color identical may not be recognized by colorblind users

Example: Refer to something using color alone

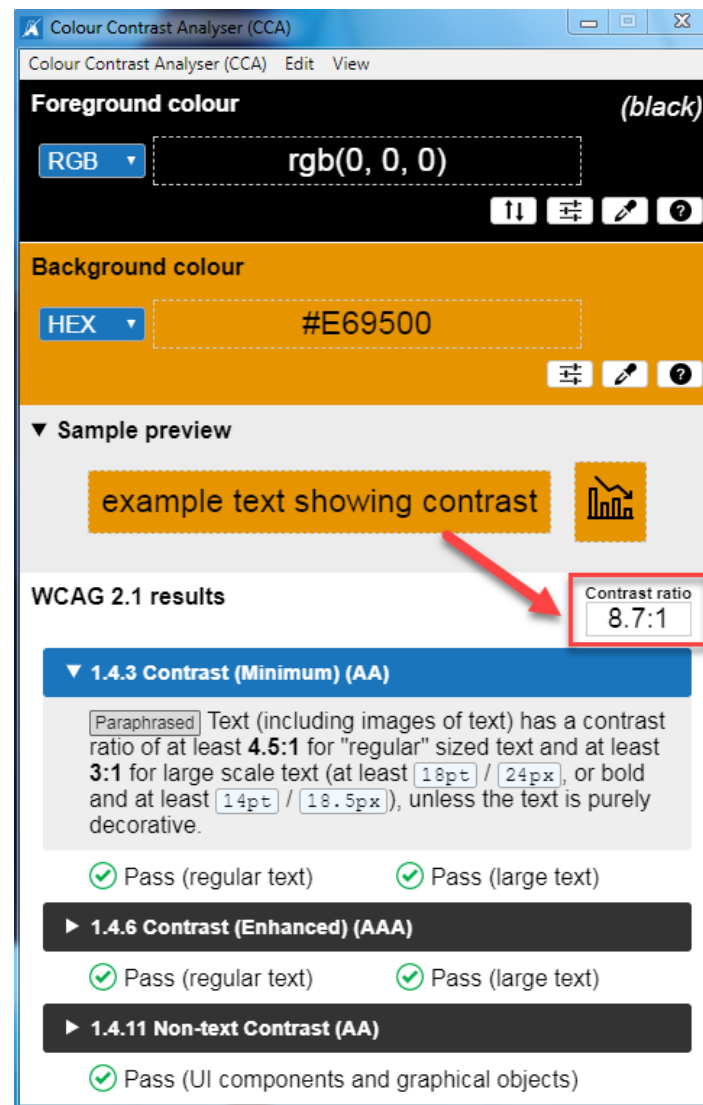


**Example 3:** Accessible color and number





People who have low vision or colorblind could encounter some difficulty distinguishing text color from a background color if the contrast is insufficient contrast ratio 1.5:1.



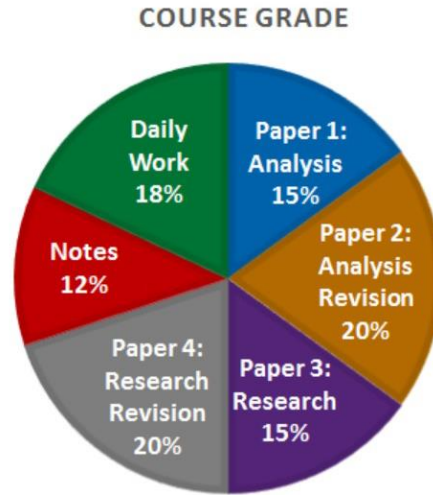
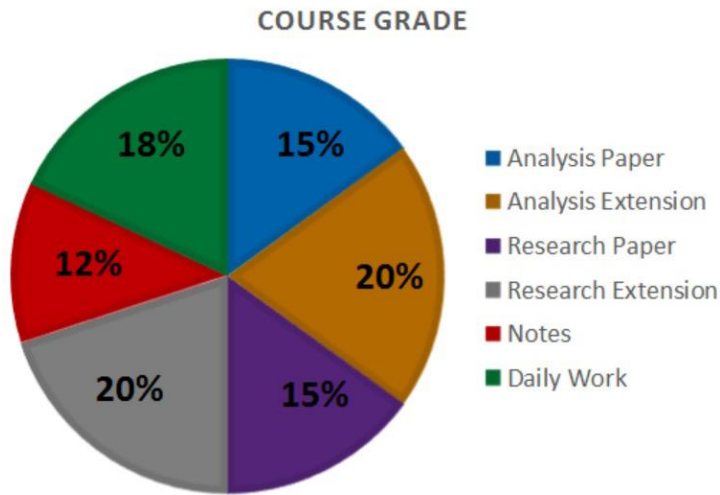
This example has a great color contrast ratio of 8.7:1. The contrast is sufficient for those who have color deficiencies

# Check Color Contrast

Bad Examples	Good Examples
Red on black is bad	Yellow on black is good
Blue on orange is bad	Black on orange is ok
Red on green is bad	White on green is good
Grey on purple is bad	Aqua on purple is ok

- Download [Colour Contrast Analyser](#) onto your computer (PC/Mac) to ensure accessible contrast or use an online contrast checker from [WebAIM](#).
- WCAG Level AA requires a contrast ratio of at least **4.5:1** for regular sized text (12 or 14 pt. font) and **3:1** for large text (18 pt. font).
- [Coblis Color Blindness Simulator](#)

# How to View Grayscale Document?

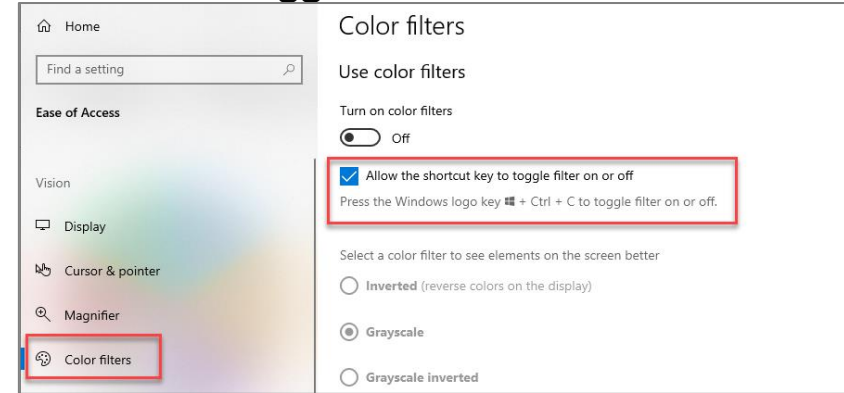


[Image courtesy of Accessible Syllabus](#)

- Information and charts should never be conveyed through color alone.
- Color may not be recognized by colorblind users.
- Provide text descriptions for charts and graphics.
- [Charts & Accessibility by Penn State](#)

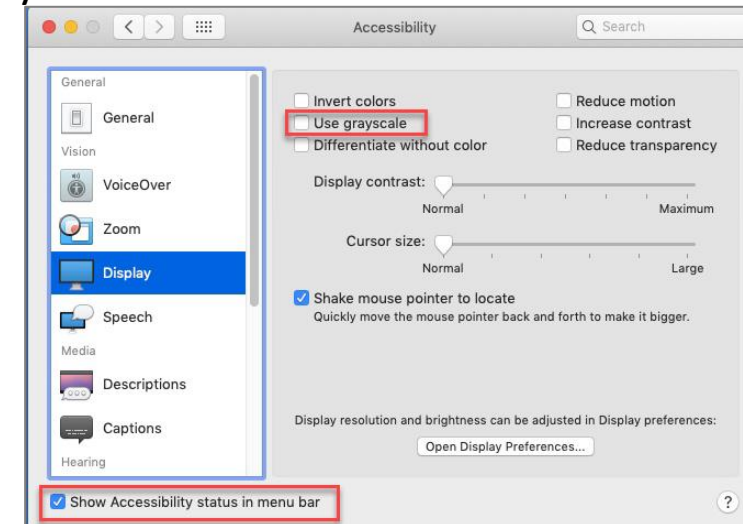
## To use color filters on **Windows**:

- Select **Start > Settings > Ease of Access > Color filters**.
- Switch on the toggle under **Turn on color filters**.



## • To use color filters on **Mac**:

- On your Mac, choose **Apple menu > System Preferences**, select **Accessibility**, select **Display**, select "Use grayscale"

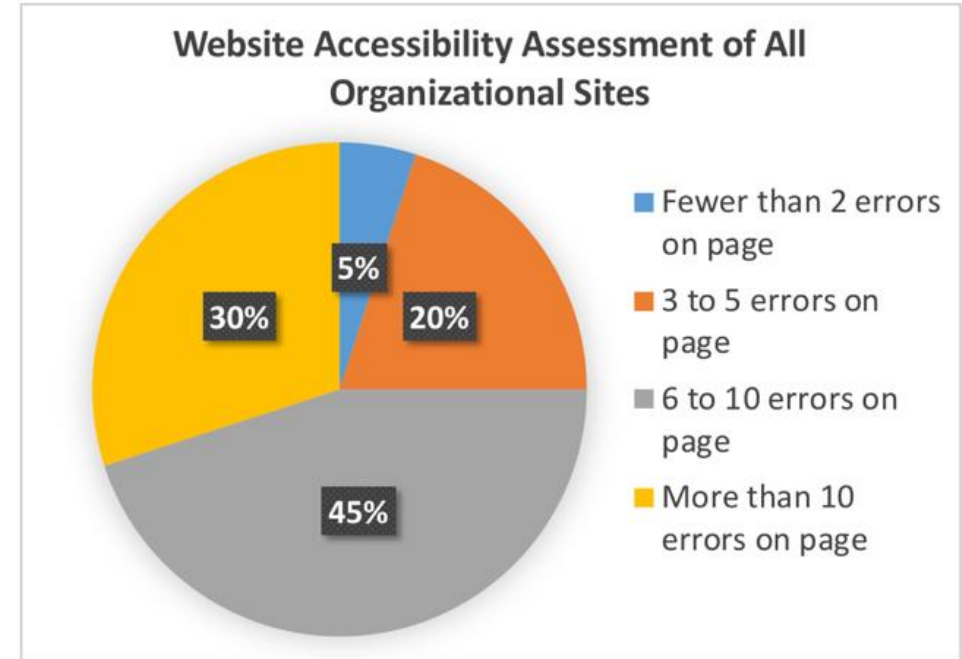
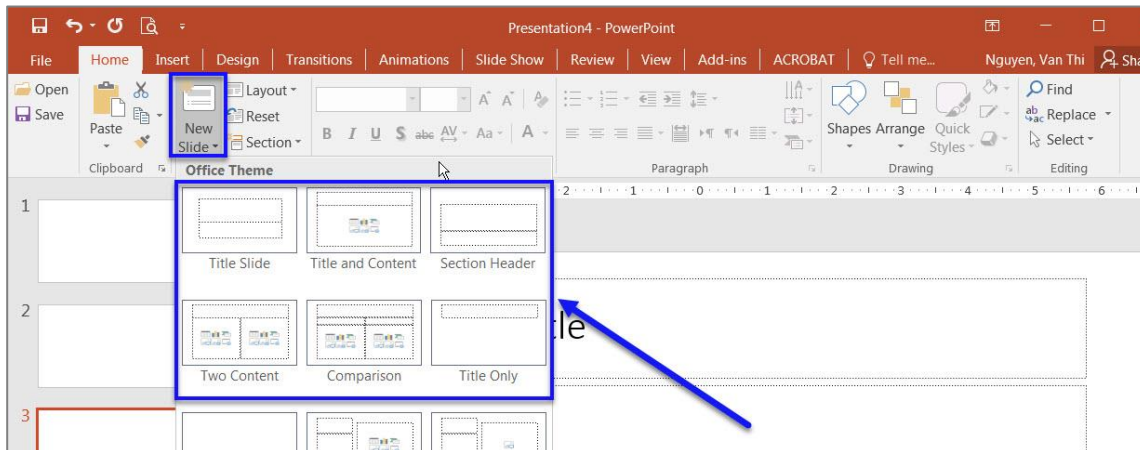


# Complex Images/Graphics/Charts

PowerPoint **does not** have **Insert Caption** feature like in MS Word, use one of built-in slide layouts to provide a longer description.

Some images, such as graphs, charts or informative illustrations require fairly lengthy explanations to make them accessible.

Provide a brief alt text description of the image and a longer description within the slide. This may be helpful for others as well since some people have difficulty understanding charts and graphs. *Credit to [Explore Access](#)*



**Example of Option 1**

Chart 1. Website Accessibility Assessment of All Organizational Charts. Findings from the assessment indicate the following: 5% of organizational websites had fewer than 2 errors on the home page; 20% had 3 to 5 errors; 45% had 6 to 10 errors; and 30% had more than 10 errors on the home page.



# Tables

## Use PowerPoint's built-in functionality to create Tables

- Tables are read from left to right, top to bottom.
- Simple Data Tables only.
- Provide Title (i.e. Caption) and Summary before the Table.
- Specify Header Row

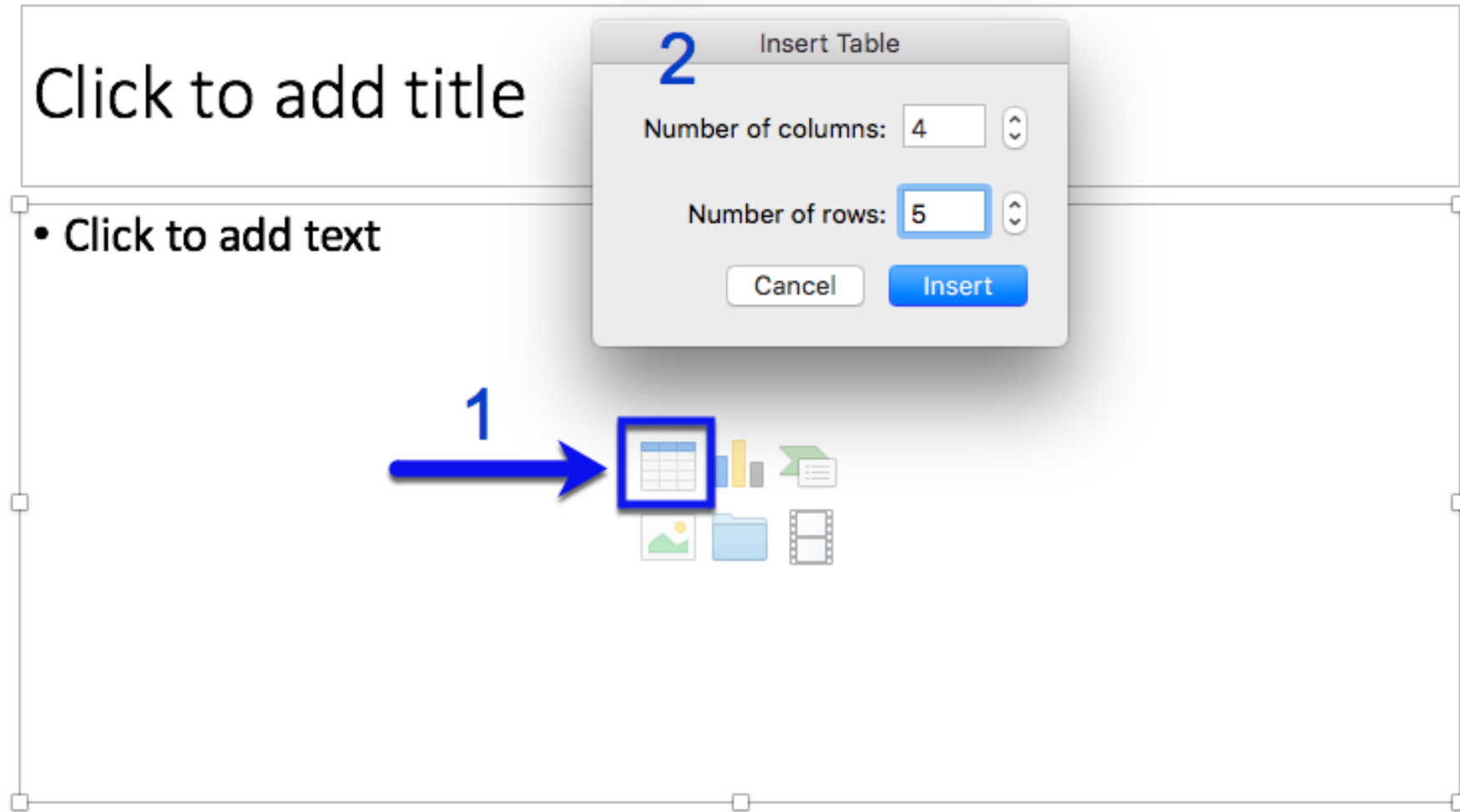
## Not Accessible

- Do not create table using the Draw Table Tool.
- Never use for layout.
- Avoid merged, split, or blank cells.
- The complex a table (merging cells, nesting multiple headings under one, adding blank lines, etc.) the worse it will be for accessibility.
- Sample of [Simple Tables vs. Complex Tables](#) by Penn State.

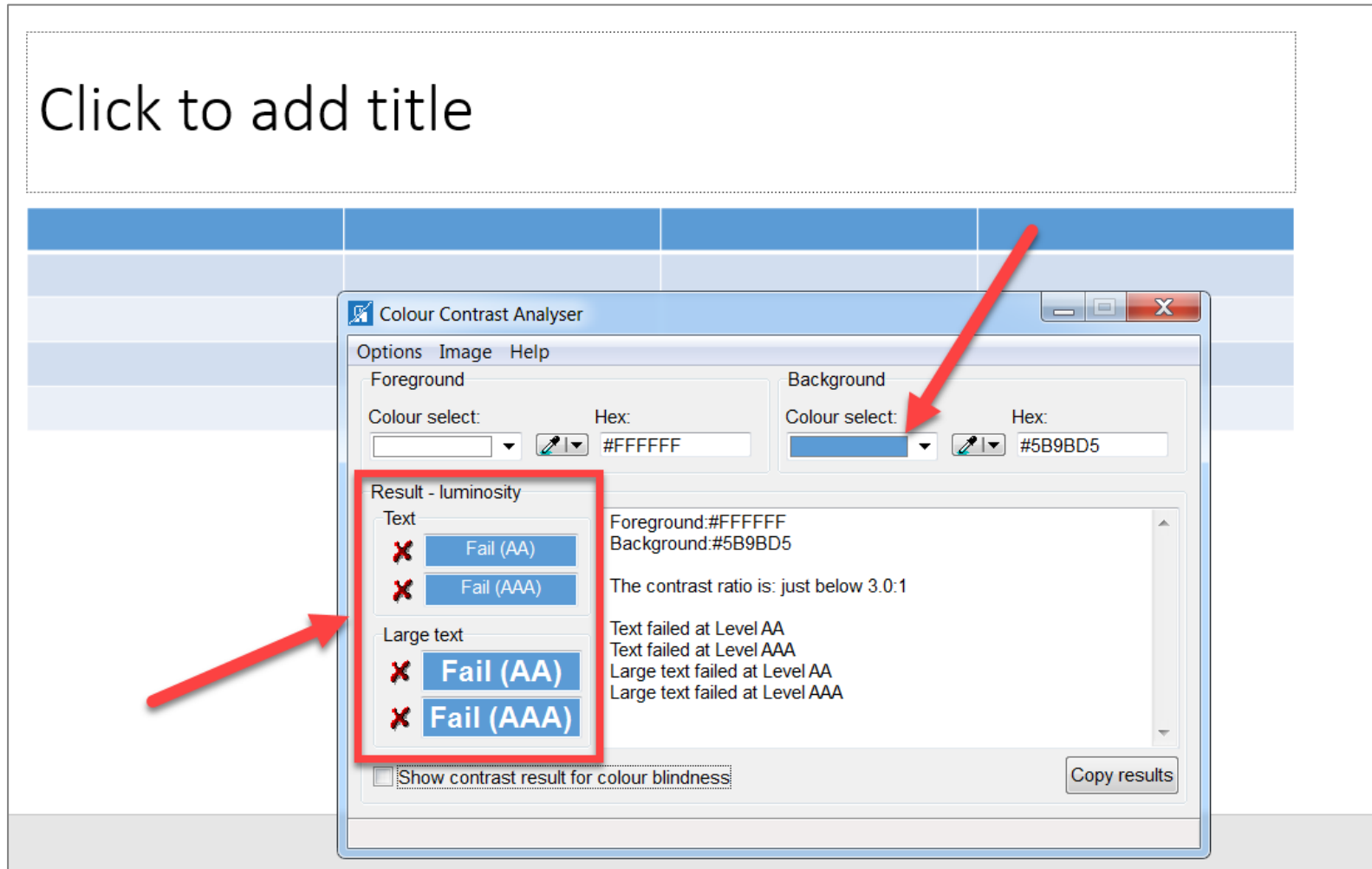




# Table – Insert Table

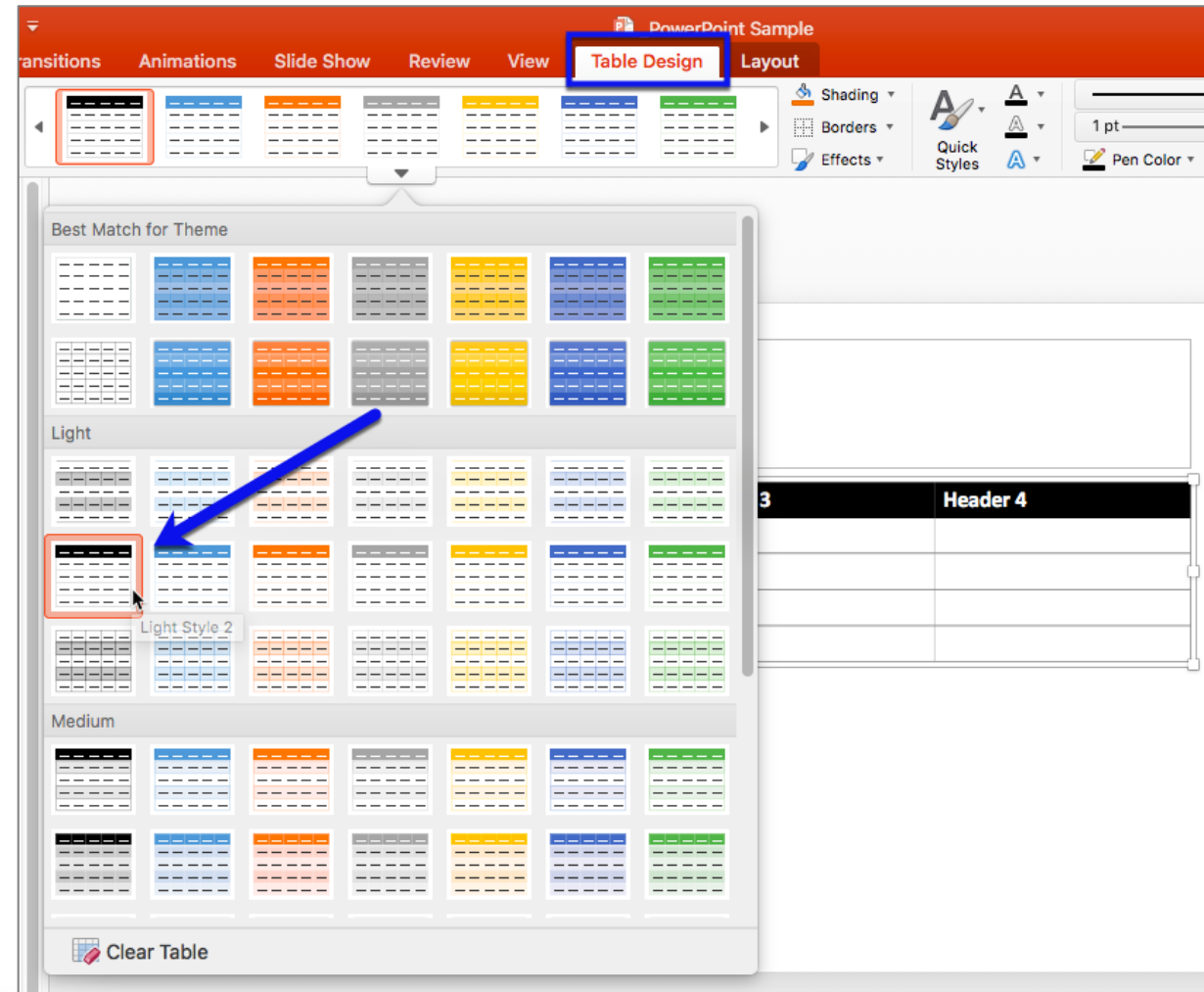


# Default Color Scheme **NOT** Accessible

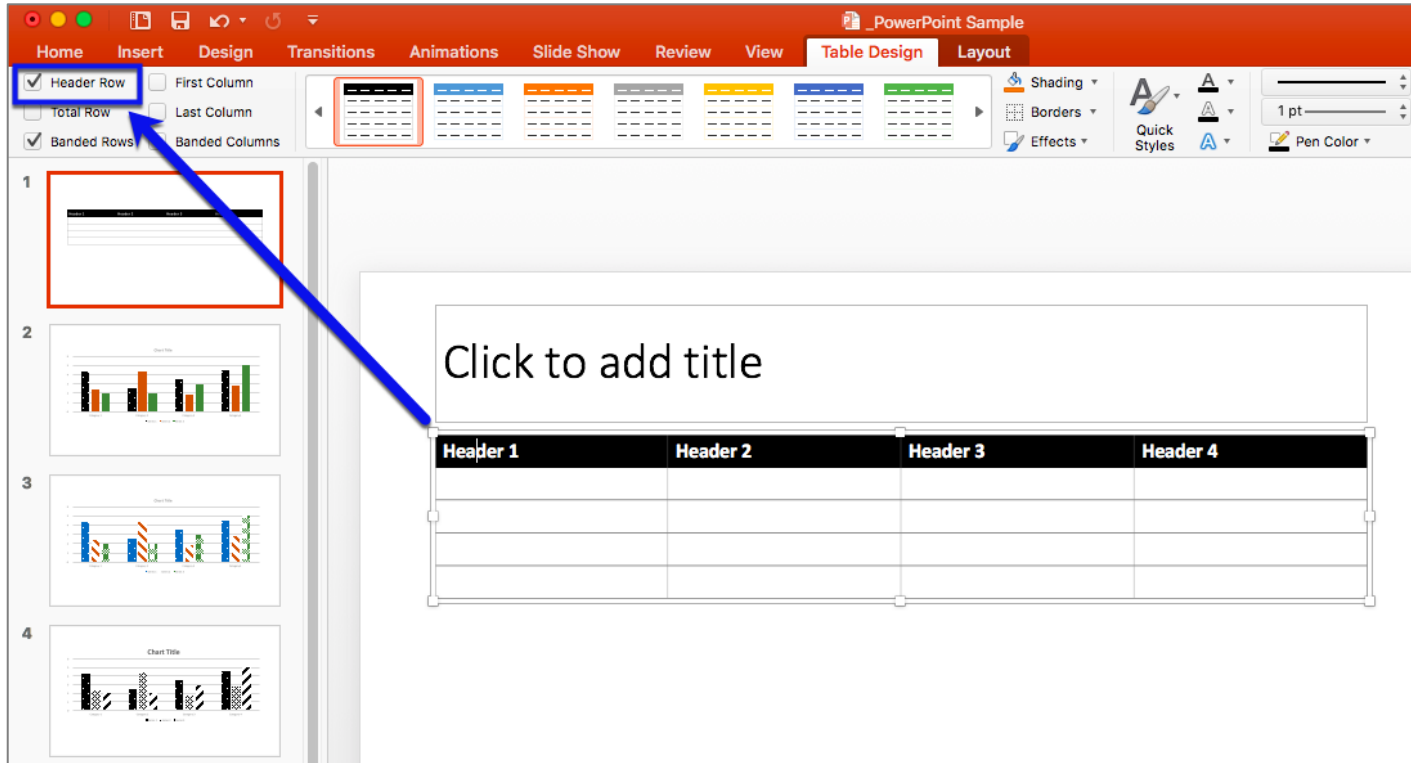


# Select Table, Design to Expand Table Styles

## Select Accessible Color Scheme



# Select Table – Design, Header Row



- Header Row means column headers
- First Column means row headers

## Header Row (Column Headers)

Fruit	2018	2017	2016
Orange	\$1,900	\$2,400	\$1,500
Strawberry	\$800	\$600	\$1,000
Avocado	\$2,000	\$1,500	\$3,000

## Header Row and First Column

Fruit	2018	2017	2016
Orange	\$1,900	\$2,400	\$1,500
Strawberry	\$800	\$600	\$1,000
Avocado	\$2,000	\$1,500	\$3,000

# Table Color

Avoid using color as the only means to convey information. For example, in the table below, the complete and incomplete items may appear the same to someone who is color blind:

Project	Due Date	Completed
Project 1	March 15, 2020	X
Project 2	April 15, 2020	X
Project 3	May 15, 2020	X

A better option would be to provide another way of conveying information not just color alone:

Project	Due Date	Completed
Project 1	March 15, 2020	N or No
Project 2	April 15, 2020	Y or Yes
Project 3	May 15, 2020	Y or Yes



Videos embedded in PowerPoint are currently inaccessible; consider adding a link to the video on YouTube™/Vimeo



[Apple – Accessibility - Sady](#)





# Animations and Transitions

Avoid animation and automatic slide transitions:

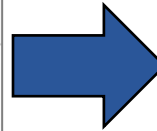
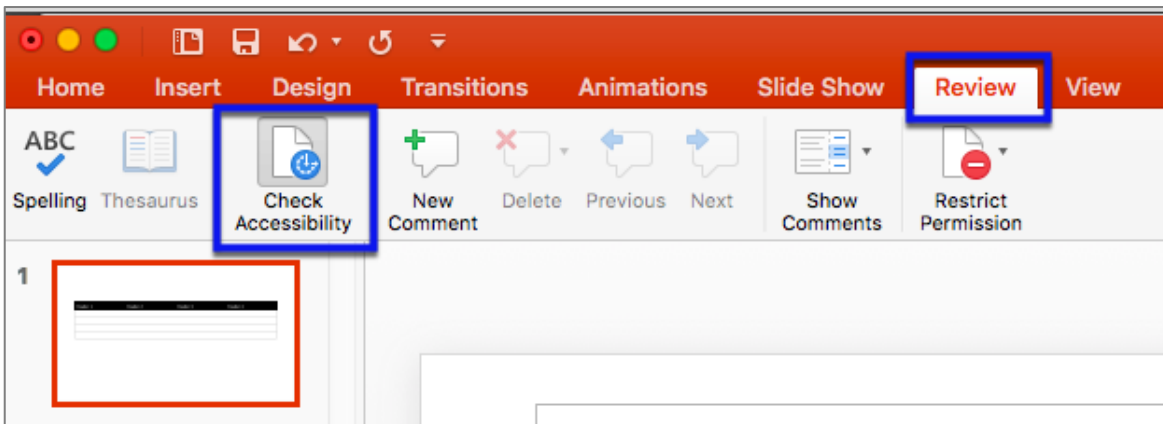
- Can be distracting
- Can cause screen readers to re-read slides
- Can read parts of the slide out of order, and/or
- May not give users enough time to read the slide content

distraction  
distraction  
distraction  
distraction

It's recommended that any transitions you add to your slides are done using the "**on click**" option, versus timing the animations and transitions. This allows the user/viewer to control the speed at which they view the content and progress through the slides.



# PowerPoint Accessibility Checker



The accessibility checker will identify certain accessibility issues:

- Duplicate slide titles
- Headings that are not in logical order
- Images with no alt text
- Tables have the header box checked
- Tables that have merged cells or with empty cells



# Check for Issues, Check Accessibility

Always use PowerPoint's built-in Accessibility Checker

Repair Errors, Warnings and Tips

The screenshot displays the Microsoft PowerPoint interface with the 'Review' tab selected. The 'Check Accessibility' button in the ribbon is highlighted with a blue box. The main slide area shows a title placeholder and a table with four headers. The right-hand pane displays the 'Accessibility Checker' results, listing errors such as 'Missing alt text' and 'Missing slide title', and warnings like 'Table has blank rows or columns'. A blue arrow points from the title placeholder to the 'Missing alt text' error, and another blue arrow points from the table to the 'Table has blank rows or columns' warning.

**Accessibility Checker** **Format Shape**

**Inspection Results**

- ▼ **Errors**
  - ▼ **Missing alt text**
    - Content Placeholder 1 (Slide...
    - Content Placeholder 5 (Slide...
    - Content Placeholder 5 (Slide...
    - Content Placeholder 5 (Slide...
    - Content Placeholder 3 (Slide...
  - ▼ **Missing slide title**
    - Slide 1
    - Slide 2
    - Slide 3
    - Slide 4
    - Slide 6
- ▼ **Warnings**
  - ▼ **Table has blank rows or columns**
    - Content Placeholder 1 - 4 Ro...

**Why fix?**  
Alternative text for images and other objects is very important for people who can't see the screen. Screen readers read alt text aloud, so it's the only information many have about the image. Good alt text helps them understand the

# Accessibility Tips

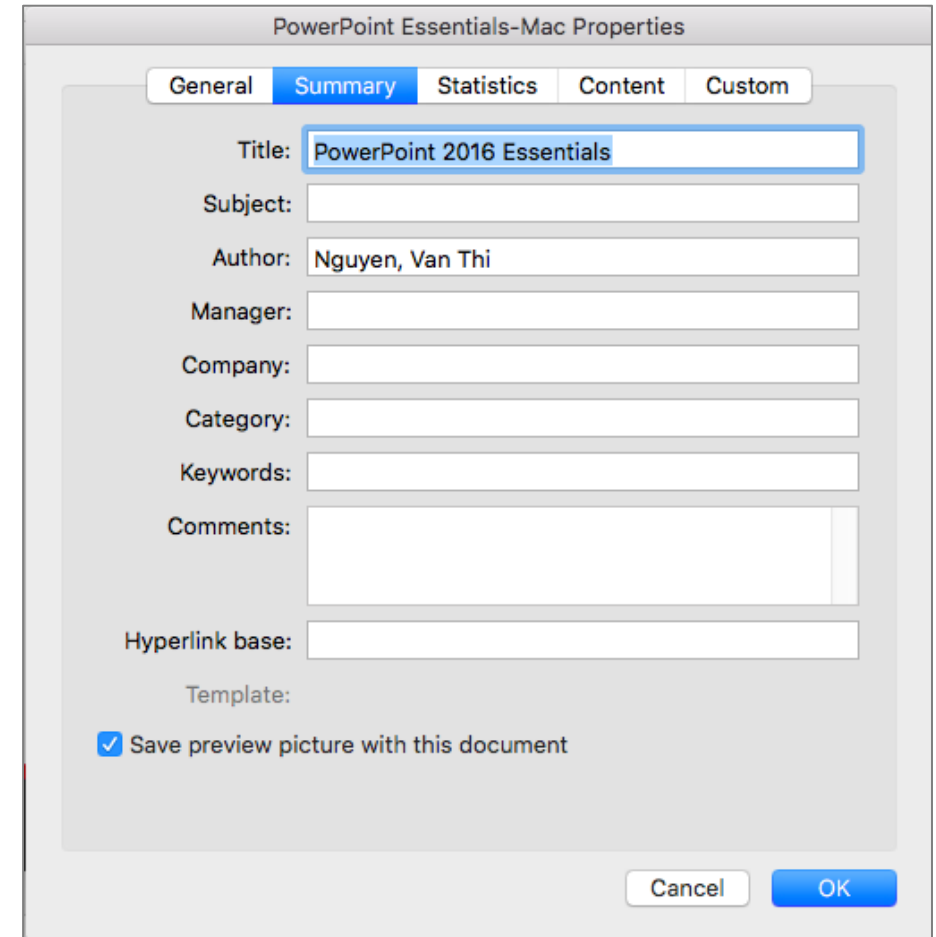
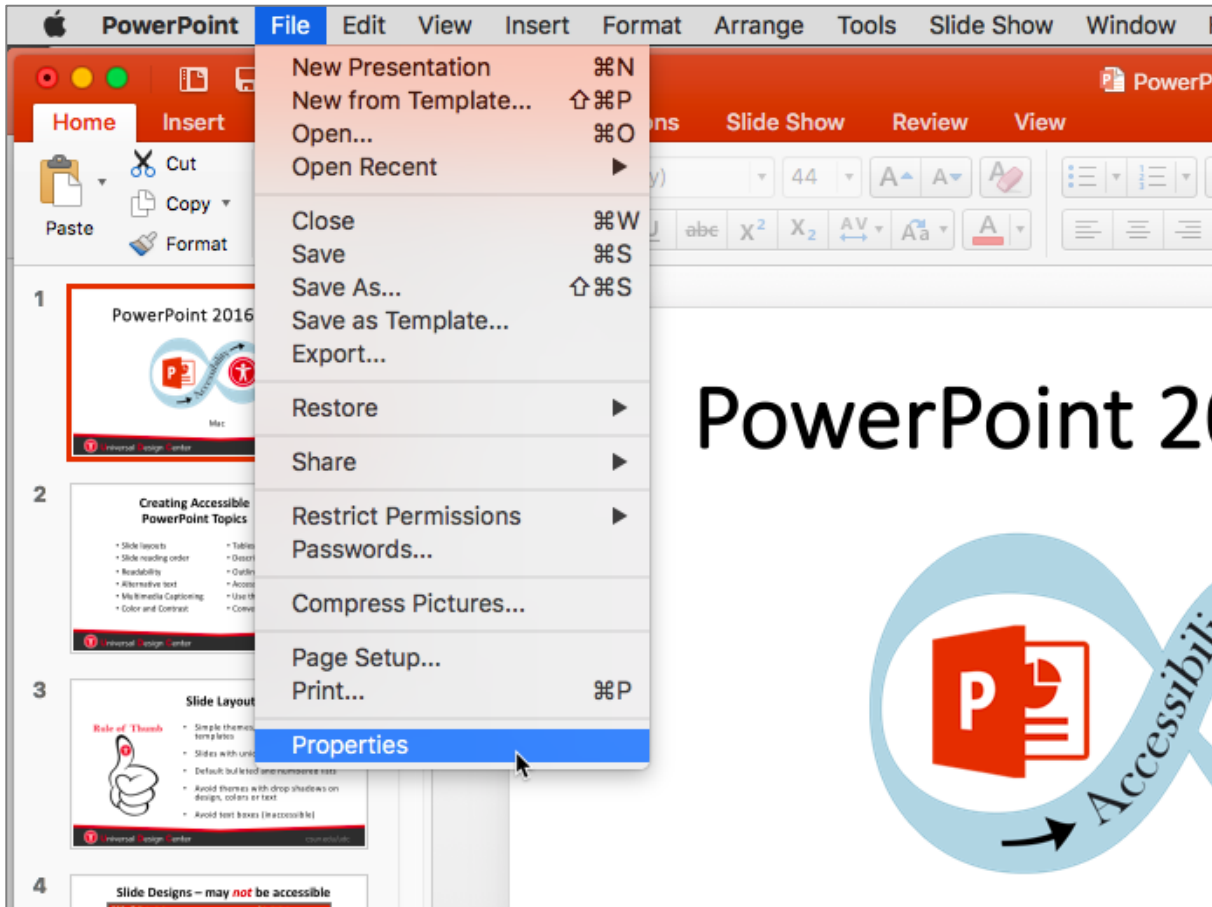


- Use simple language.
- Ensure font size sufficient.
- Provide sufficient contrast between the text and the background.
- Do not use color as the only way to convey meaning or communicating information.
- Avoid automatic slide transitions
- Use simple slide transitions when possible.

- Do not put accessibility information like alternative text in the **Notes** Pane.
- Ensure video files have captions and audio descriptions.
- Ensure audio files have transcripts.
- Player controls for videos embedded in PowerPoint are currently inaccessible; consider adding a link to the video on YouTube™/Vimeo.

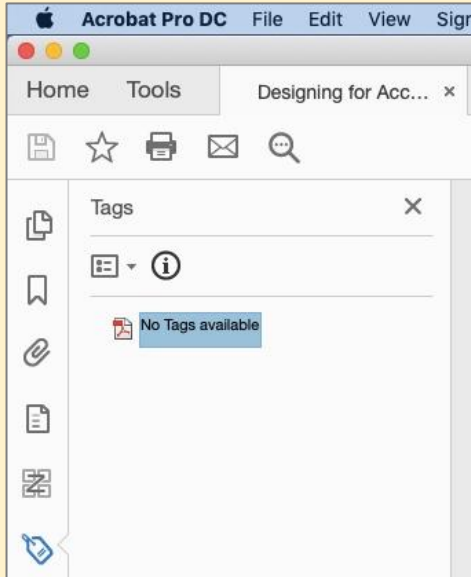


# File, Properties, Title



# Mac: Converting to PDF

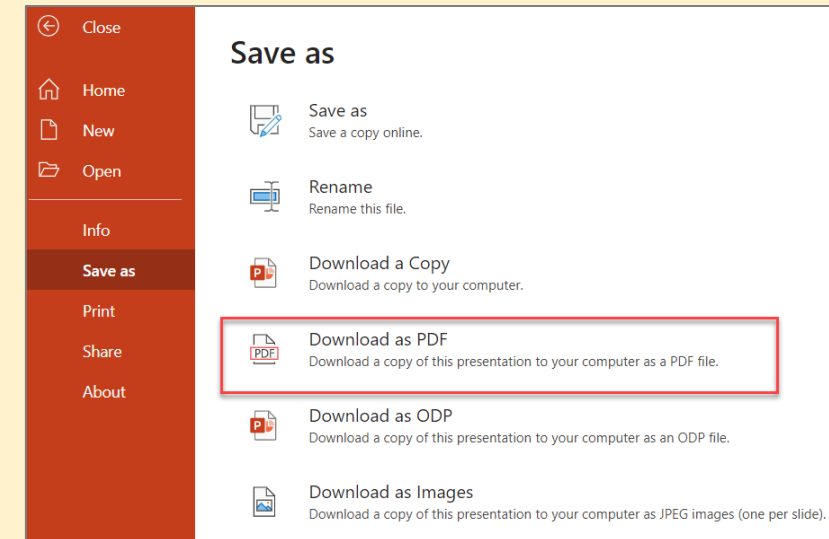
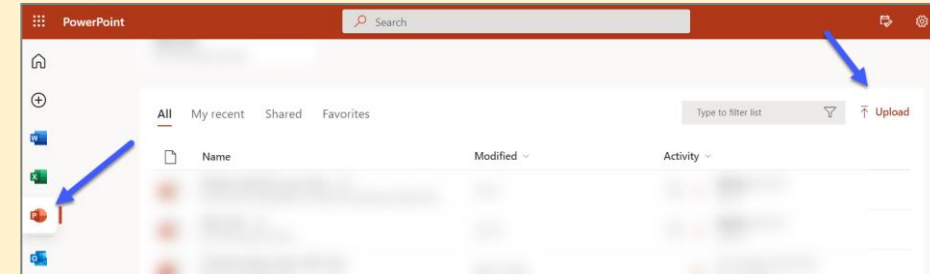
**Unfortunately**, Mac PowerPoint Desktop Software Save as PDF doesn't import PDF tags structure "No Tags available".



The alternative way to export PDFs with tags is by logging into Microsoft Office 365 online.

1. Go to [MyCSUN Portal](#)
2. Select Microsoft Office 365
3. Select PowerPoint tab on left side
4. Upload your PowerPoint file
5. Select **File** menu
6. **Save as, Download as PDF** button
7. Download button (save on your desktop)
8. Open the PDF file from Adobe Acrobat Pro
9. Run Accessibility Check

Learn more about [PDF Accessibility](#)

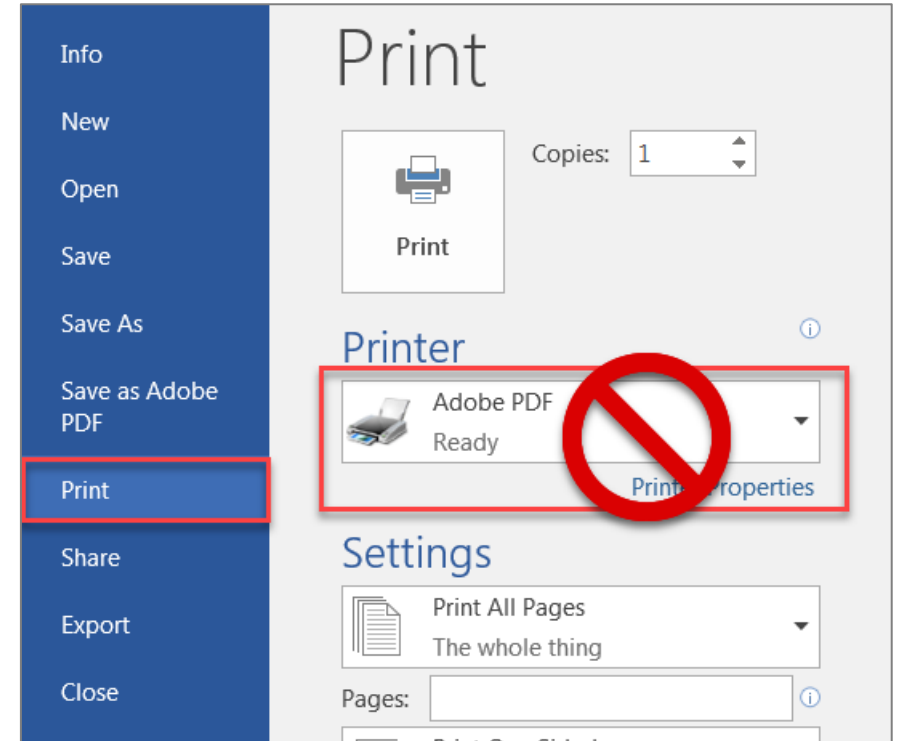




# Never Choose Print to PDF Option

**Never** choose a "Print" to PDF option in Office, or in any other program. A screen reader user may still be able to access the text of a PDF created in this way, but heading structure, alternative text, a logical reading order, and any other tag structure will be **lost**.

Use either **Save As** or **Export to PDF**.



# Adobe Creative Cloud for Faculty & Staff



- Adobe Creative Cloud software is now available for use (at no additional charge) on all faculty and staff university-owned computers, labs and classroom devices, and for all students.
- Please note that this deployment of Adobe software is not available for use on personally-owned faculty and staff devices at this time.
- Learn more about [Adobe Creative Cloud for Faculty & Staff](#)
- ***Adobe Reader*** is for viewing, printing, signing, sharing, and annotating PDFs. *Adobe Reader doesn't have Accessibility checking tool.*



**Adobe Acrobat DC**



# How can we help you make a **difference**?



## Universal Design Center Offers

- Online, self-paced training
- In-person training each semester
- Consultations
- Tools and Services

