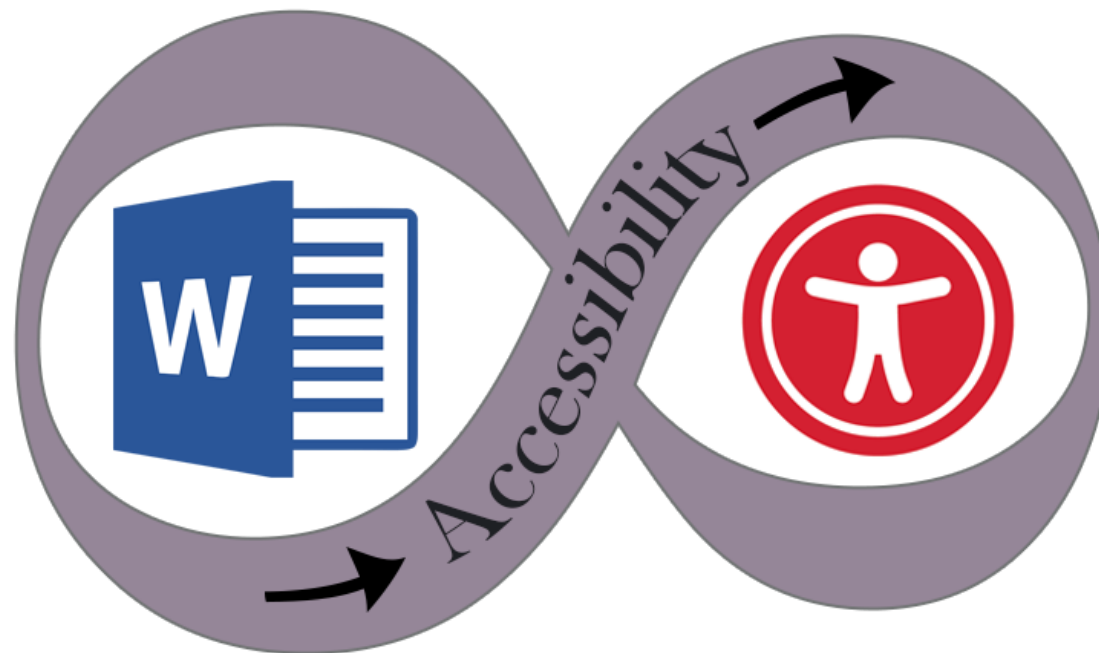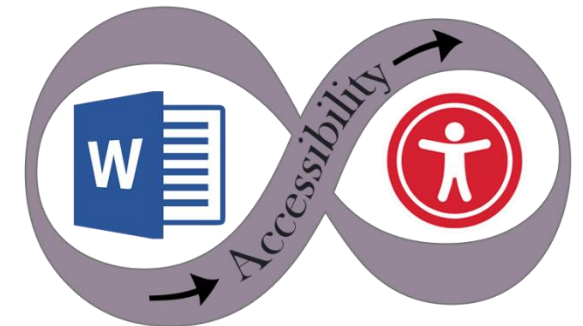# Word Accessibility

A11y

Mac

Building Accessible Documents

- Heading Styles

- Table of Contents

- Columns and Lists

- Extra Spaces & Tab Stops

- Paragraph Spacing

- Meaningful Link Text

- Images

- Captioning

- Tables

- Color Contrast

- Headers and Footers

- Accessibility Checker

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.

Left ⟶ Right

Top ↓ Bottom

1 2 3 4 5 6 7 8 9 10
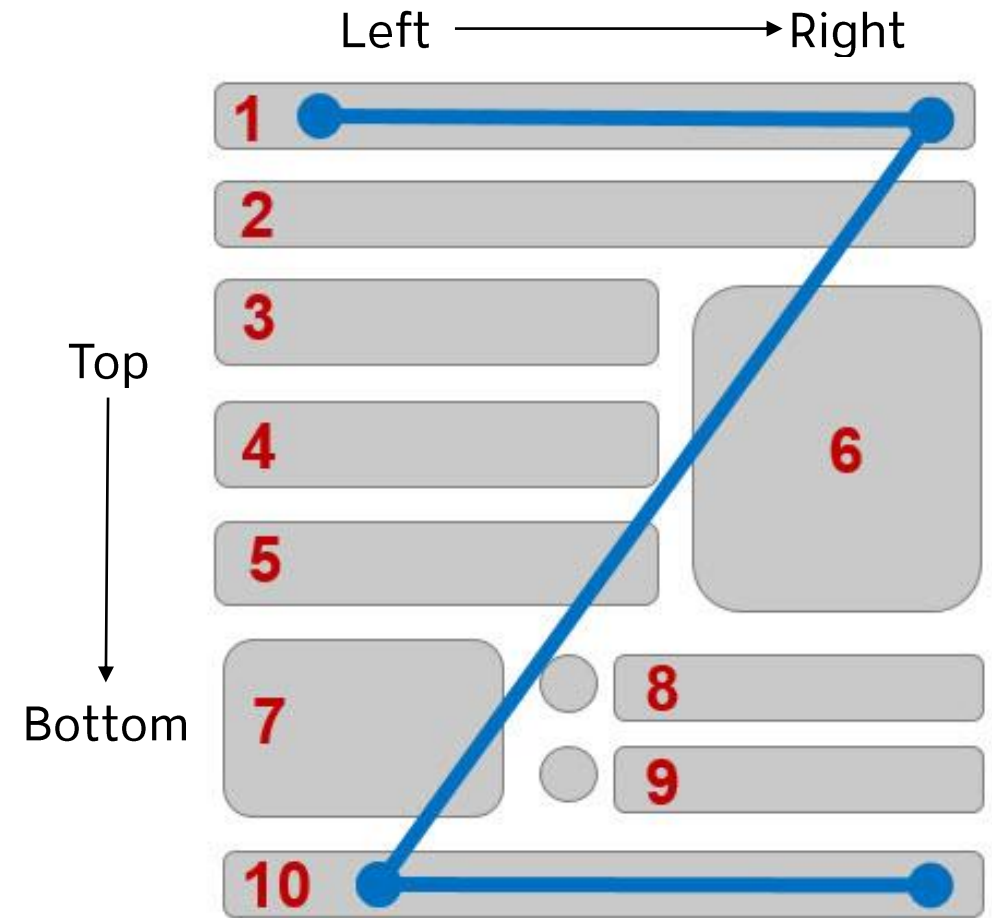
Click vs Select

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

Readability

- Divide large blocks of text into smaller sections

- Avoid overly complex sentences

- Provide adequate whitespace

- Use line or paragraph spacing (avoid Enter/Return for "blank" space)

- Avoid underlining text. Underlining is interpreted by screen readers and people with low vision as linked text.

- Font size between 12 to 18 point

- San-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 difficult to read it if all text capitalized.

Serif   Sans-Serif

Abc   Abc

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 8th, 2022 from 3:30 **-** 5:00pm. The screen reader reads three, thirty five. Recommend May 8th, 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.

Headings and Document Structure

Example 1: Reading long, dense text documents can be a daunting task for learners

As part of our commitment to excellence through diversity and inclusion, California State University, Northridge (CSUN) strives to ensure that campus communication and information technology is accessible to everyone. The California State University system statement on accessibility is articulated in California State University - Executive Order 1111, in accordance with both federal and state laws including the Americans with Disabilities Act of 1990 (ADA) and Section 508 of the U.S. Rehabilitation Act.

Need assistance or have a question not answered here? Please contact the Universal Design Center (UDC) at UDC@csun.edu or, during business hours (Monday through Friday, 8am to 5pm Pacific time), at (818) 677-5898.

In this context, "accessibility" means that people with disabilities have access – to facilities, to information and to technology.

"Universal design" takes this concept one step further, to ensure that everyone can perceive, understand, engage, navigate and interact regardless of ability or preference.

The UDC supports the campus community in their efforts to make it possible for individuals to learn, communicate, and share via information and communication technology. One way we do this is by assisting the campus community to ensure their information and communication technology is interoperable, usable and accessible, so that individual learning and processing styles and/or physical characteristics are not barriers to access.

The role of the UDC is to help CSUN implement business practices which enable the campus to meet policy standards under the Accessible Technology Initiative Coded Memoranda. What does this mean to me?

Everyone has a part in creating accessible and usable information. The responsibility of creating and maintaining accessible content falls to the entire campus community.

Example 2: Well-structured documents help readers organize and process texts

Universal Design Center — Heading 1

Accessibility Statement

As part of our commitment to excellence through diversity and inclusion, California State University, Northridge (CSUN) strives to ensure that campus communication and information technology is accessible to everyone. The California State University system statement on accessibility is articulated in California State University - Executive Order 1111, in accordance with both federal and state laws including the Americans with Disabilities Act of 1990 (ADA) and Section 508 of the U.S. Rehabilitation Act. — Normal paragraph

Need help? — Heading 3

Need assistance or have a question not answered here? Please contact the Universal Design Center (UDC) at UDC@csun.edu or, during business hours (Monday through Friday, 8am to 5pm Pacific time), at (818) 677-5898.

What is Accessibility? What is Universal Design? — Heading 2

In this context, "accessibility" means that people with disabilities have access – to facilities, to information and to technology. "Universal design" takes this concept one step further, to ensure that everyone can perceive, understand, engage, navigate and interact regardless of ability or preference.

Universal Design Center Mission

The UDC supports the campus community in their efforts to make it possible for individuals to learn, communicate, and share via information and communication technology. One way we do

Direct vs Styles Formatting
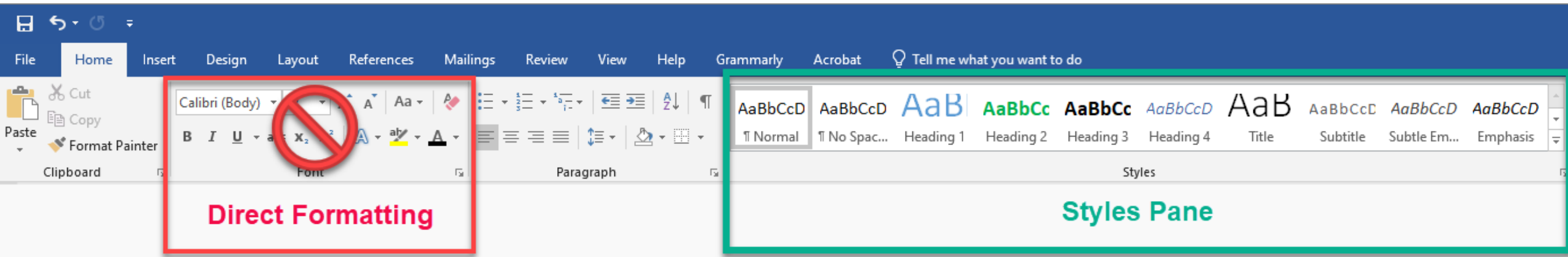
Direct Formatting

- Not accessible to any assistive technology such as screen readers

- Can't create a Table of Contents

- Can't create a navigation to different sections in a document
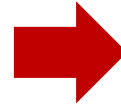
- **Huge barriers!**

Styles Pane Formatting

- Provide structure and make document accessible

- Easier to modify existing formatting

- Create and update a Table of Contents

- Quicker navigation to different sections in a document

- **Retain document structure when export to PDF**

- Accessible to any assistive technology like screen readers

- **Save time and save lives!**

Heading Styles

Heading Styles (Heading 1 through Heading 6) in a logical sequence. Do not skip heading levels i.e. Heading 2 to Heading 4, headings should be in order.)

- **Heading 1:** Document title or main content heading/title (just one time only). *Font size i.e. 20pt – 18pt.*
- **Heading 2:** Major section heading. *Font size 18pt – 16pt.*
- **Heading 3:** Sub-section of the Heading 2. *Font size 16pt – 14pt*
- **Heading 4:** Sub-section of the Heading 3, and so on, ending with Heading 6. *Font size 14pt – 12pt.*
- **Normal:** Text or Paragraph. *Font size 12pt or up.*
- **Title** in Word Style won't recognize when converting to a PDF. Start with **Heading 1** for the document title.
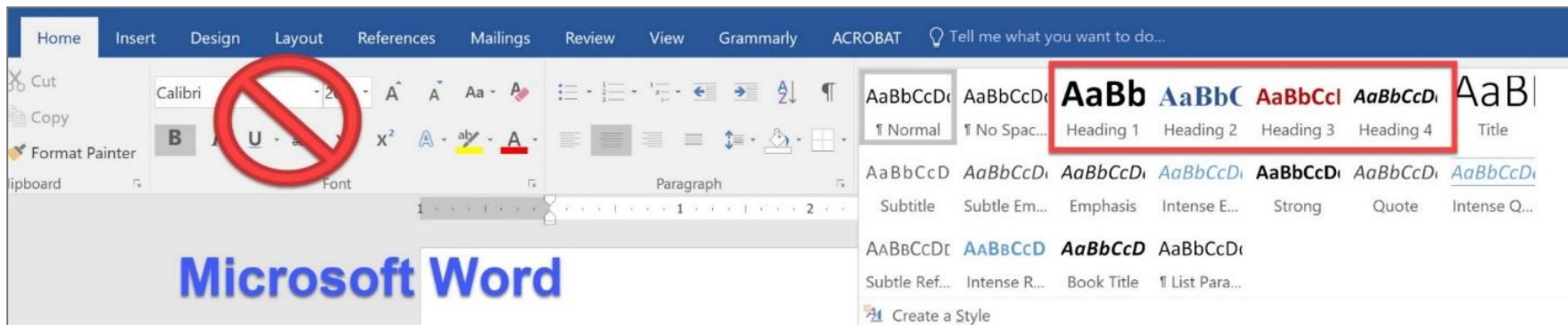
Headings are styles to give a document structure by category or topic.

Without headings, a person using assistive technology like a screen reader **cannot** navigate by sections, subsections, or scan section titles to understand the document structure.

Microsoft Word

Styles Pane

Heading and Paragraph

Avoid making the heading style and paragraph in one section because it would cause the Table of Contents to automatically populate the long list of titles.

Make sure the heading style is listed on a single line and add the main content below the heading style in a normal paragraph.
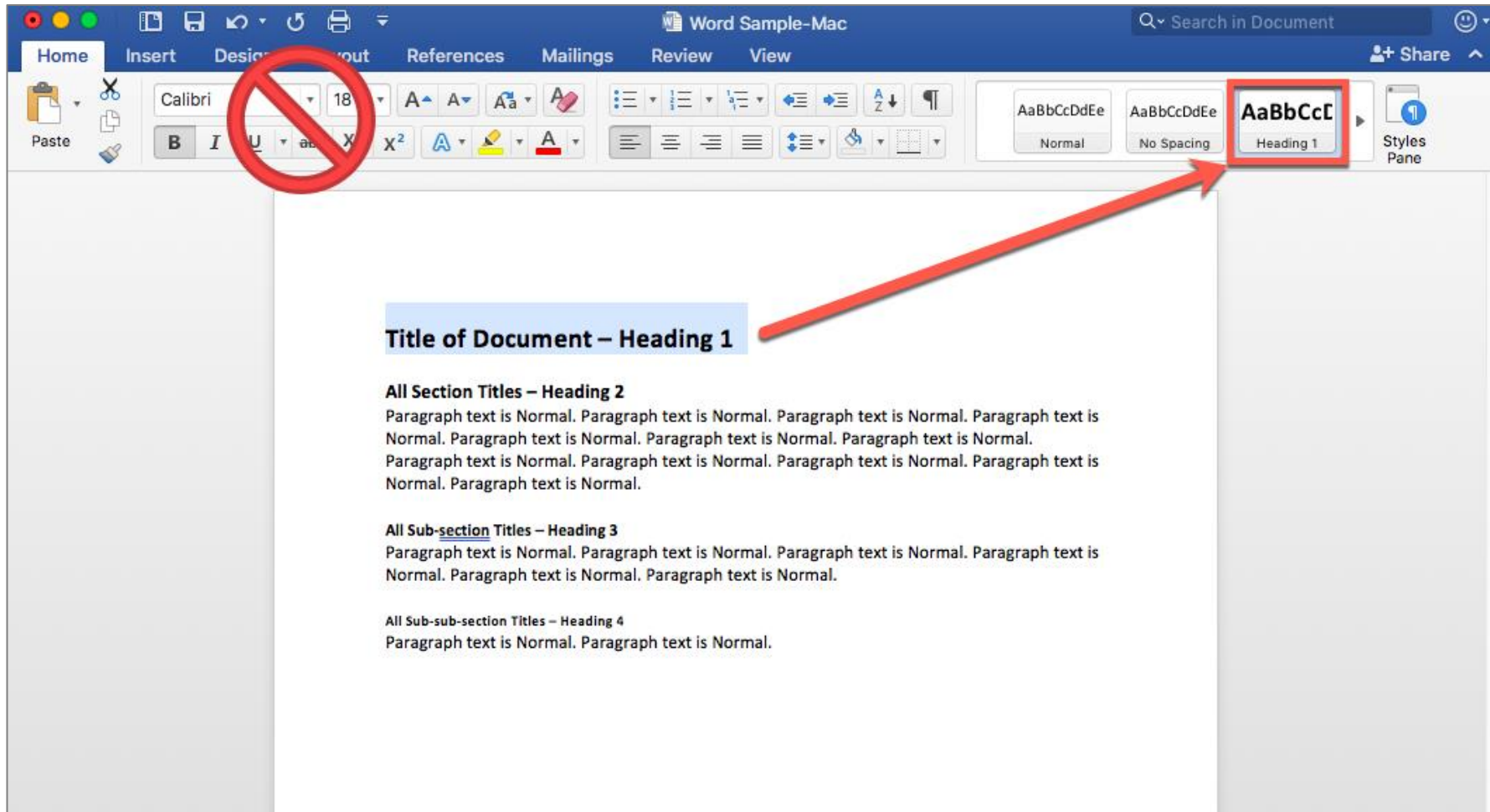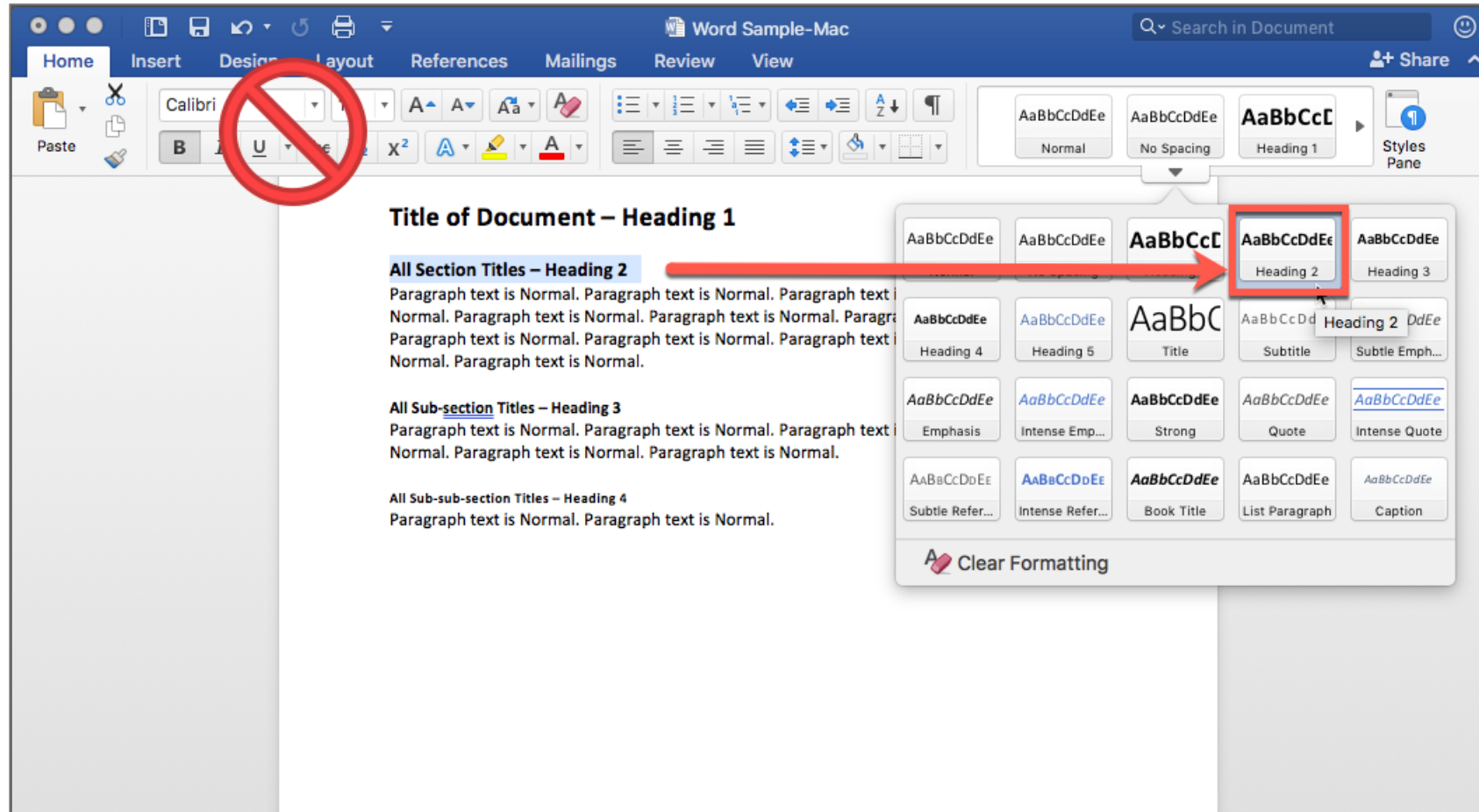
Heading 1 – Modify Style

- Modify heading styles to match your preference

- Repeat for Heading 2 to 6 Modify Style

Apply Heading 1 to Document Title

Apply Heading 2 to *all* Section Title

Repeat for Heading 3 Sub-section Titles, etc.

Update [Style Name] to Match Selection

If you have text in your document that already has a style applied, you can change the formatting of that text and apply it to the style in the **Styles Pane/Gallery**.

1. Select text in your document that has direct formatting style, such as **Heading 1**. For example, change the point size for the Heading 1 style from 30 points to 24 points.

2. On the **Home** tab, in the **Styles Pane** group, select **Heading 1** arrow down, select "**Update to Match Selection**."

3. All text with the style that you changed will automatically change to match the new style that you selected.
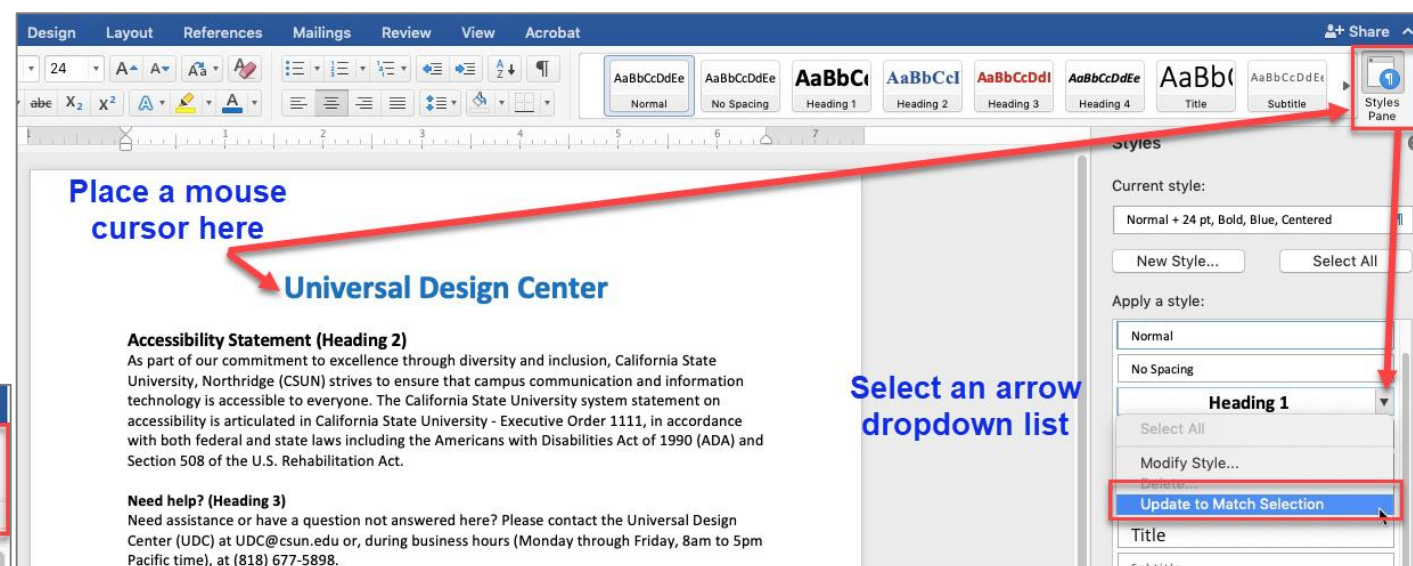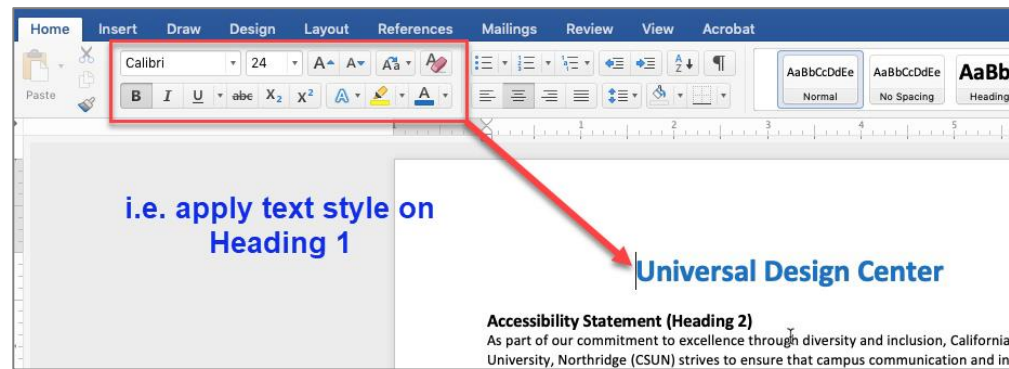
Heading Styles Spice Up with Background Color

OPTIONAL: Instead of plain heading styles, adding background color to spice up a new look. Be sure to check the **color contrast** is sufficient for those who have color deficiencies.

Select **Heading 2** background color using paint bucket icon then select **Update to Match Selection.**

Heading Styles with Border Line

Select **Heading 2** border line style, color and width then select **Update to Match Selection.**
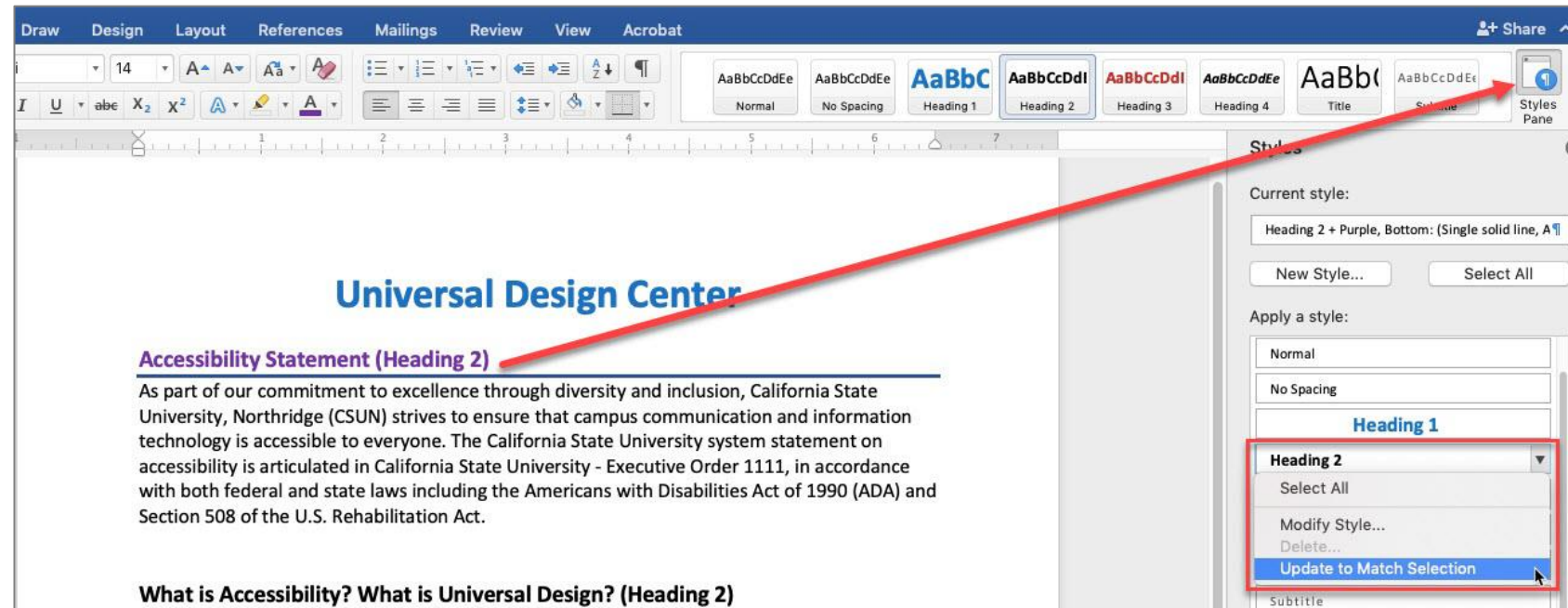
How to show all Styles Pane in Word?

Windows
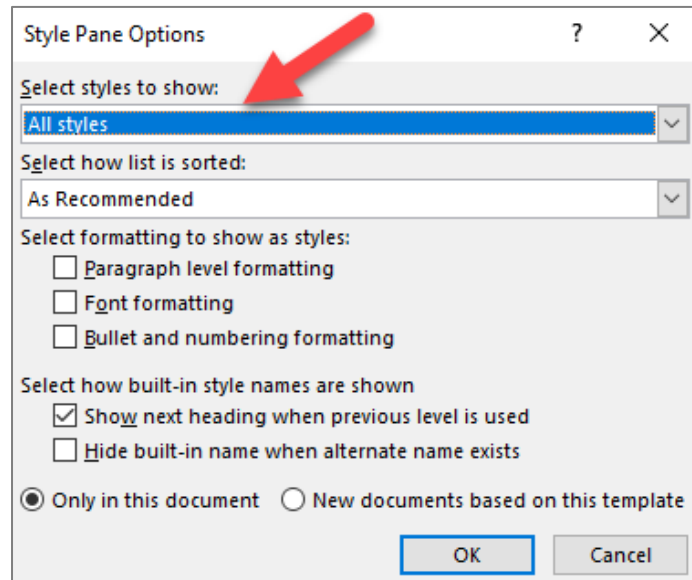
On the Home tab, select the **Styles** Dialog Box Launcher, and then select **Options**. Under **Select styles to show**, select **All styles**. **All styles** are displayed in the **Styles** task **pane**.
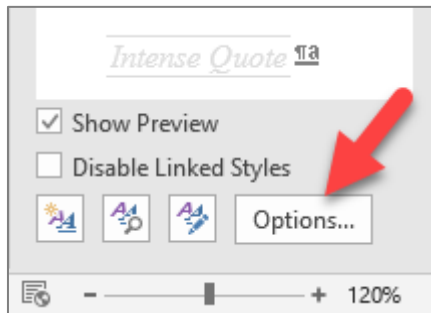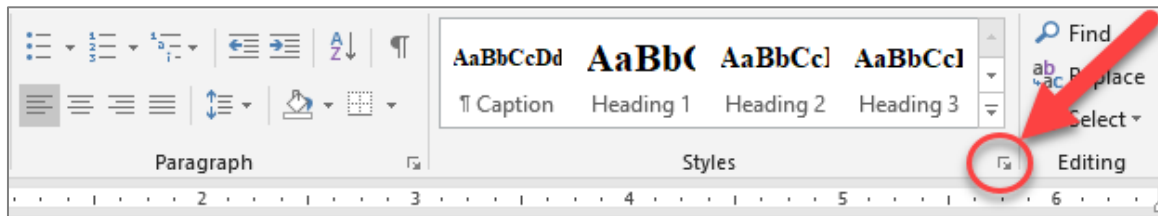
Mac

On the Home tab, select the **Styles Pane** box. Under **List**, select **All styles**.
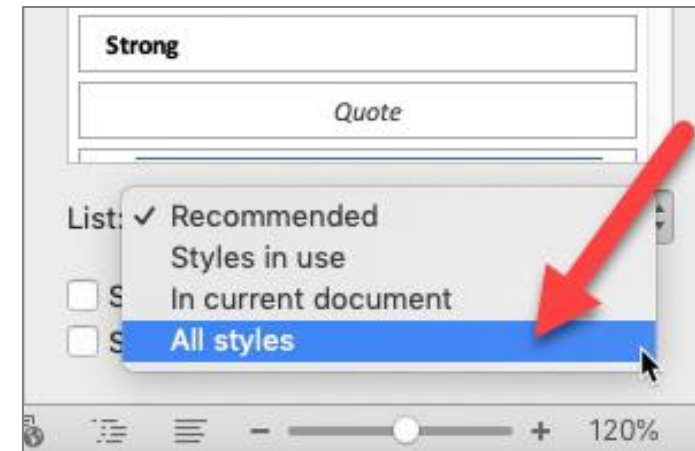
View – Navigation Pane

The quickest way to check a document's heading structure is to open the Navigation Pane

- View tab

- Select Navigation Pane

- Expanding the headings

Universal Design Center

Styles – Normal, Modify Style
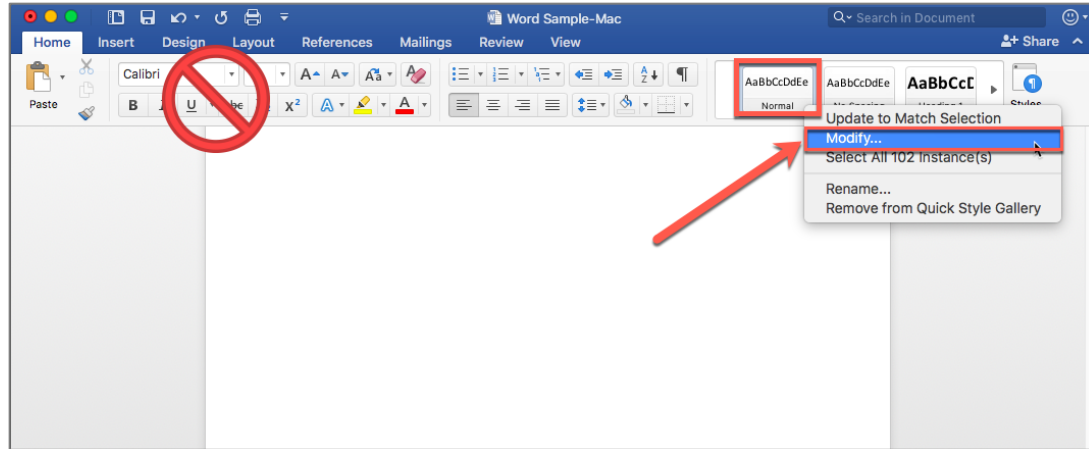
Normal style for paragraph
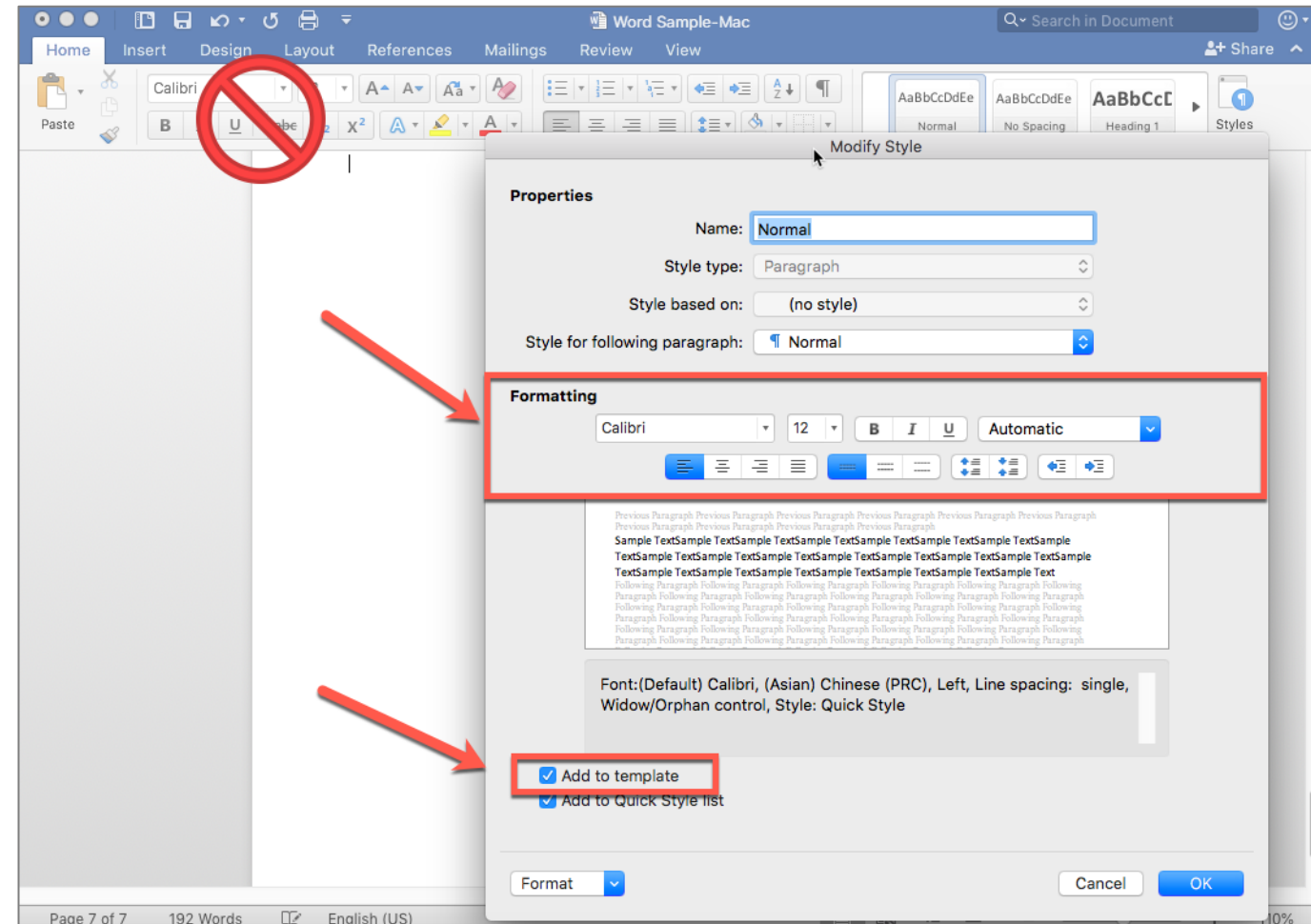
Styles for formatting

Bold and *Italics* icons in the "Font" block are ignored by screen readers.

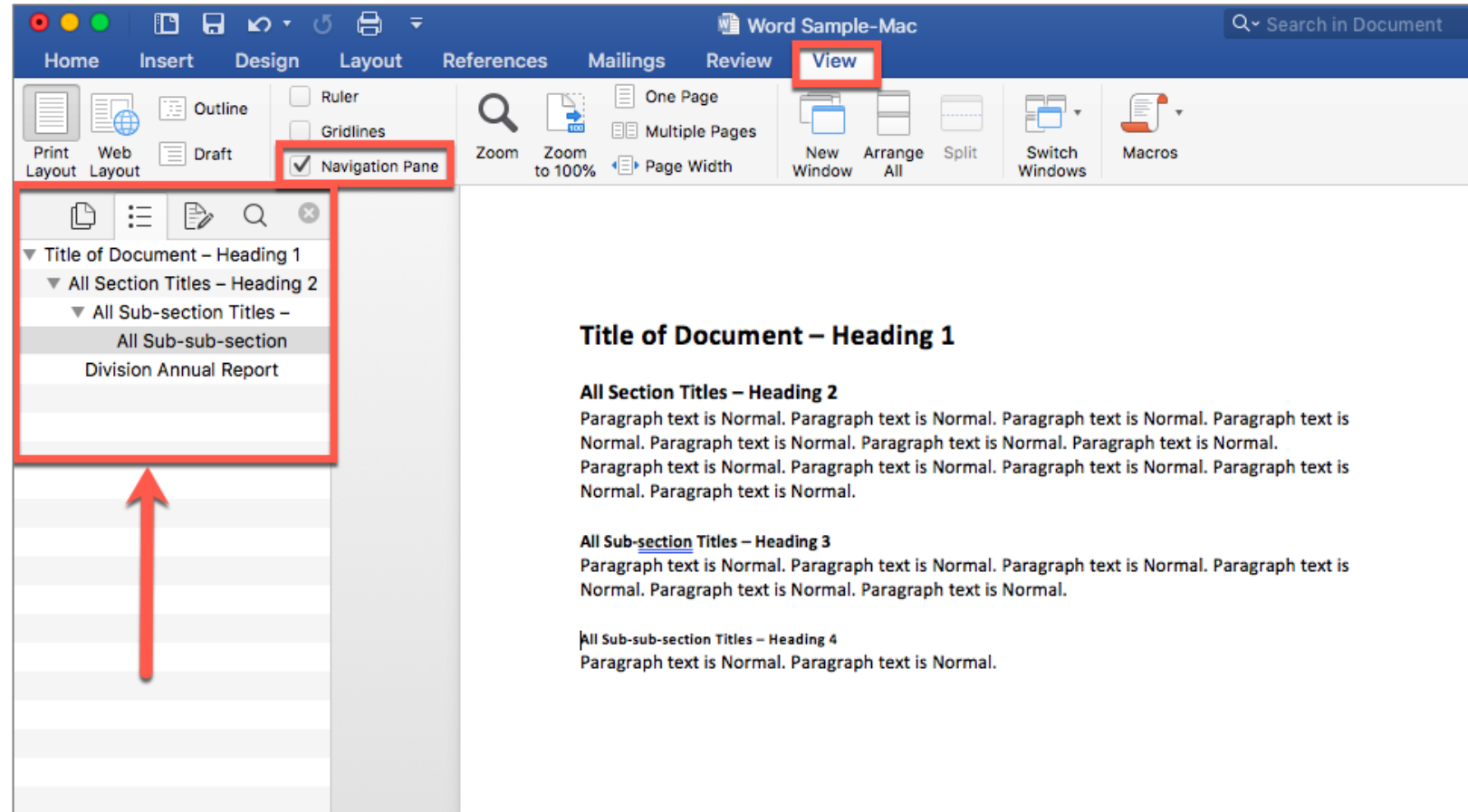- Use **Strong** (instead of Bold) to indicate importance.

- Use **Emphasis** (instead of Italics) to indicate vocal stress.

- Avoid <mark>underlining</mark> text. Underlining is interpreted by screen readers and people with low vision as linked text.
  - Use **Strong** instead of underlining.
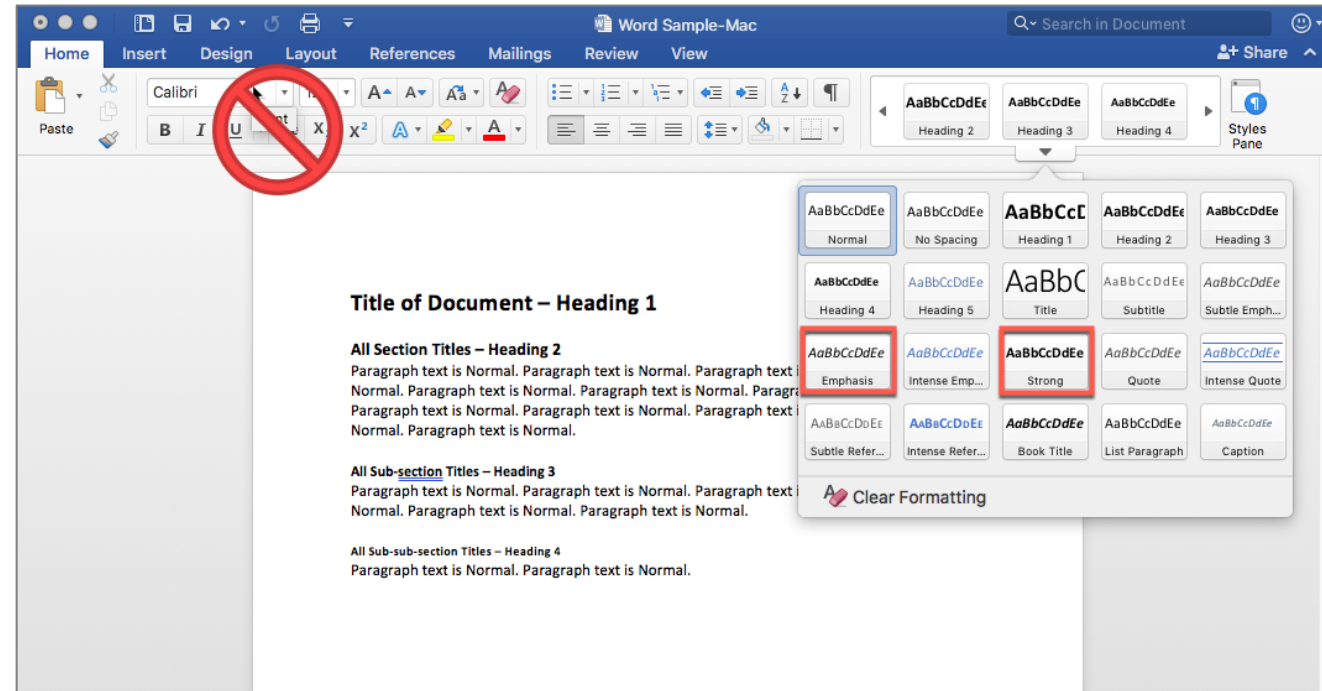
Lists
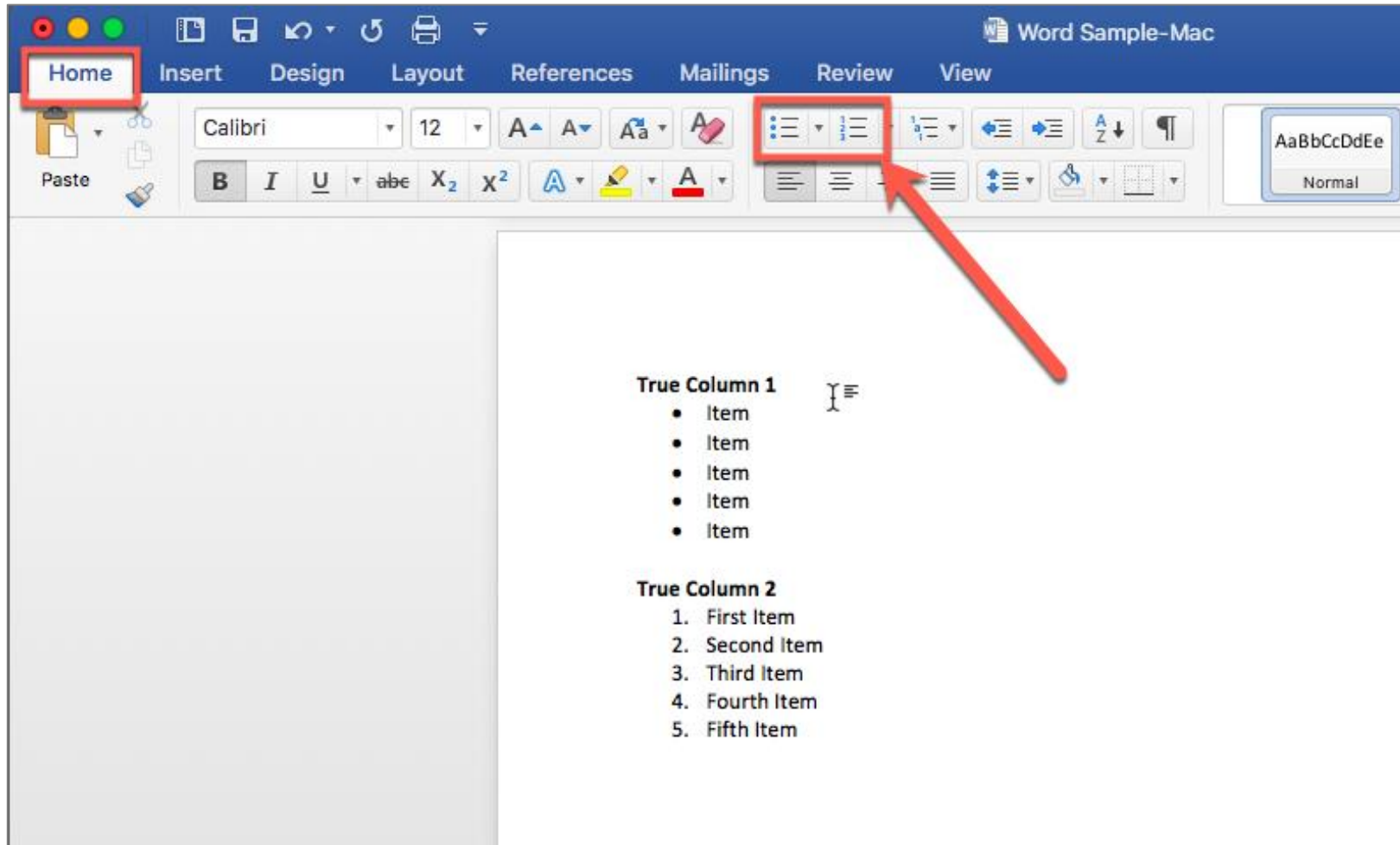
- Use the bulleted or numbered list formatting tool.

- Screen readers can read the number of items in a list before it begins to read the items.

Columns

- If you want to make columns, format them as columns. Screen readers can read the content organized in columns.

- Do not put text on one line and use several tab stops to move it over. Screen readers will read it one line a time, not as columns.
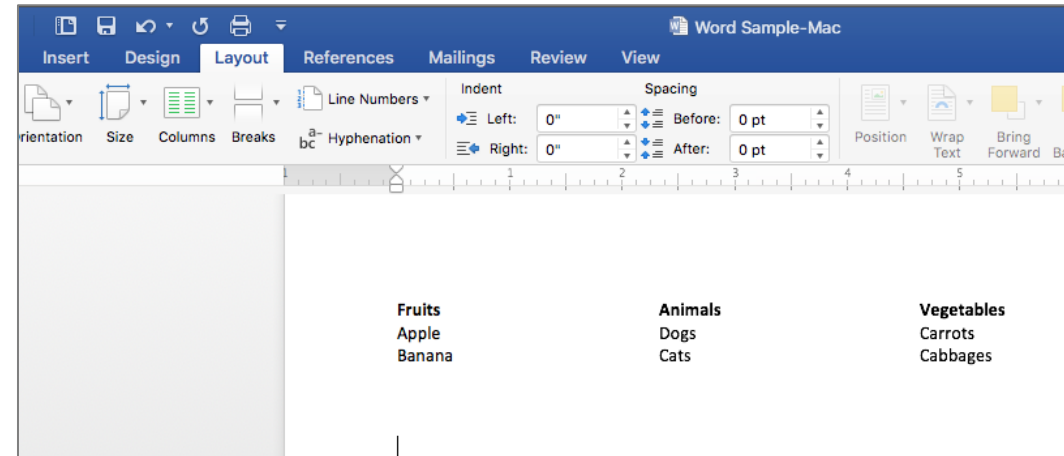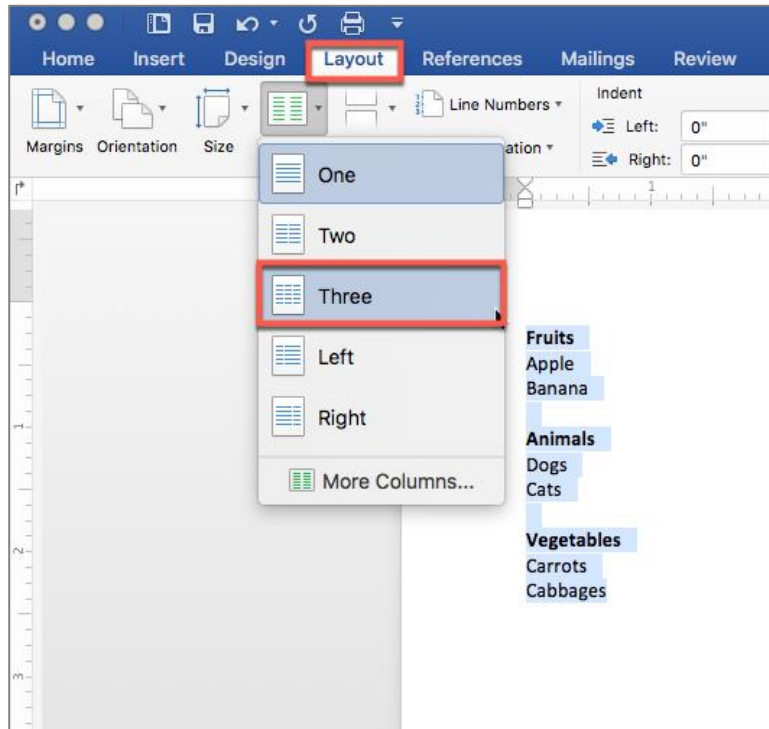
Optional: If you want to add line between the columns, select **More Columns**, checkbox **Line Between.**
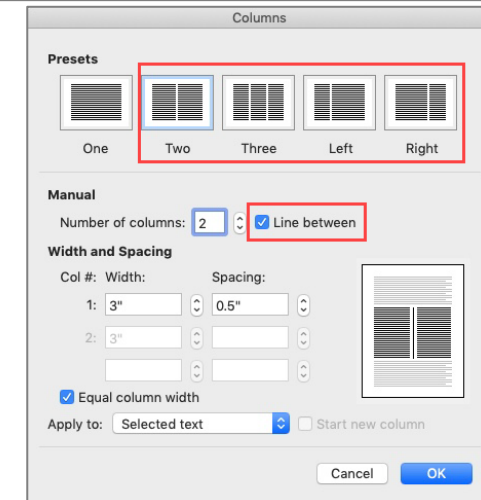
Text Boxes are **In**accessible

Screen readers will not be read content that is in the text boxes. The best approach is to use borders and color background in Paragraph group instead of the text box.

- Take the content out of the text box.

- Use ruler to adjust left and right indent.

- Paragraph Group, select Borders, Outside Borders and optional background color.
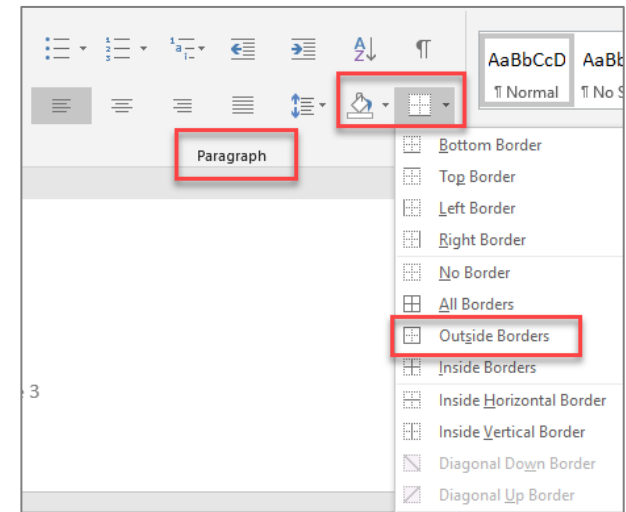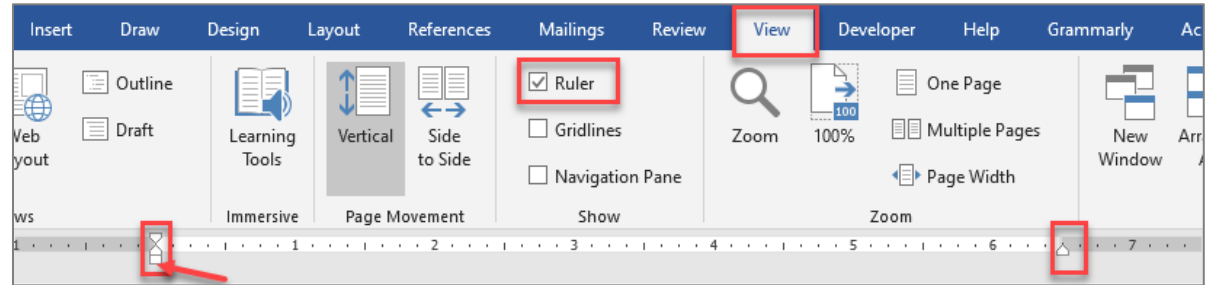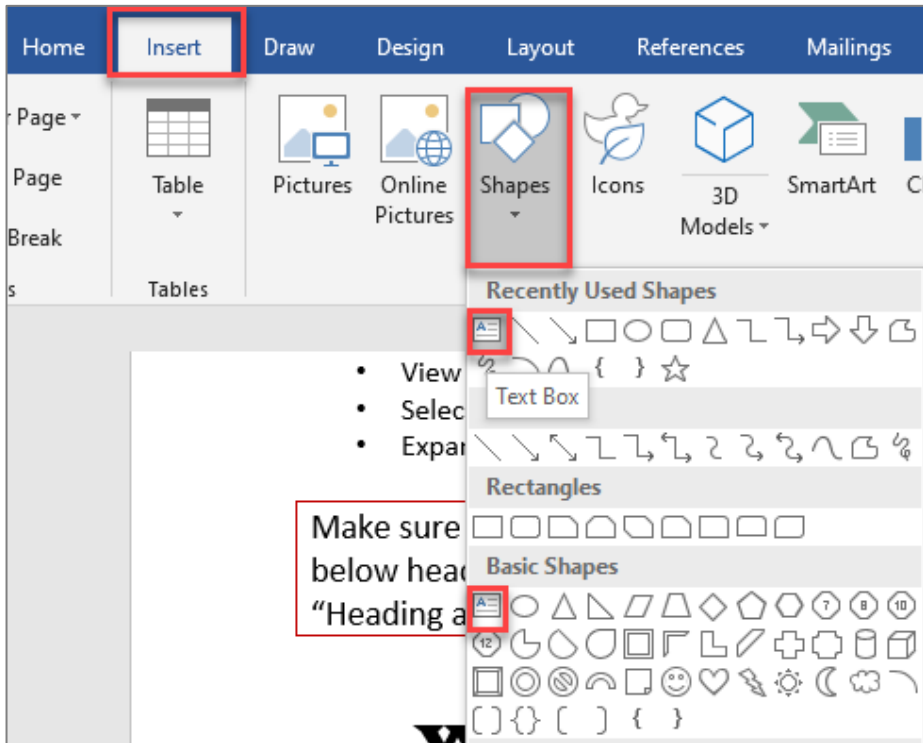
Avoid Extra Spaces

- Screen readers will read blank or multiple spaces created using the space bar, empty line, empty tab, empty paragraphs or carriage returns as "Blank".

- This can be very irritating for someone using assistive technology to listen multiple blank characters and may assume they've reached the end of a document.
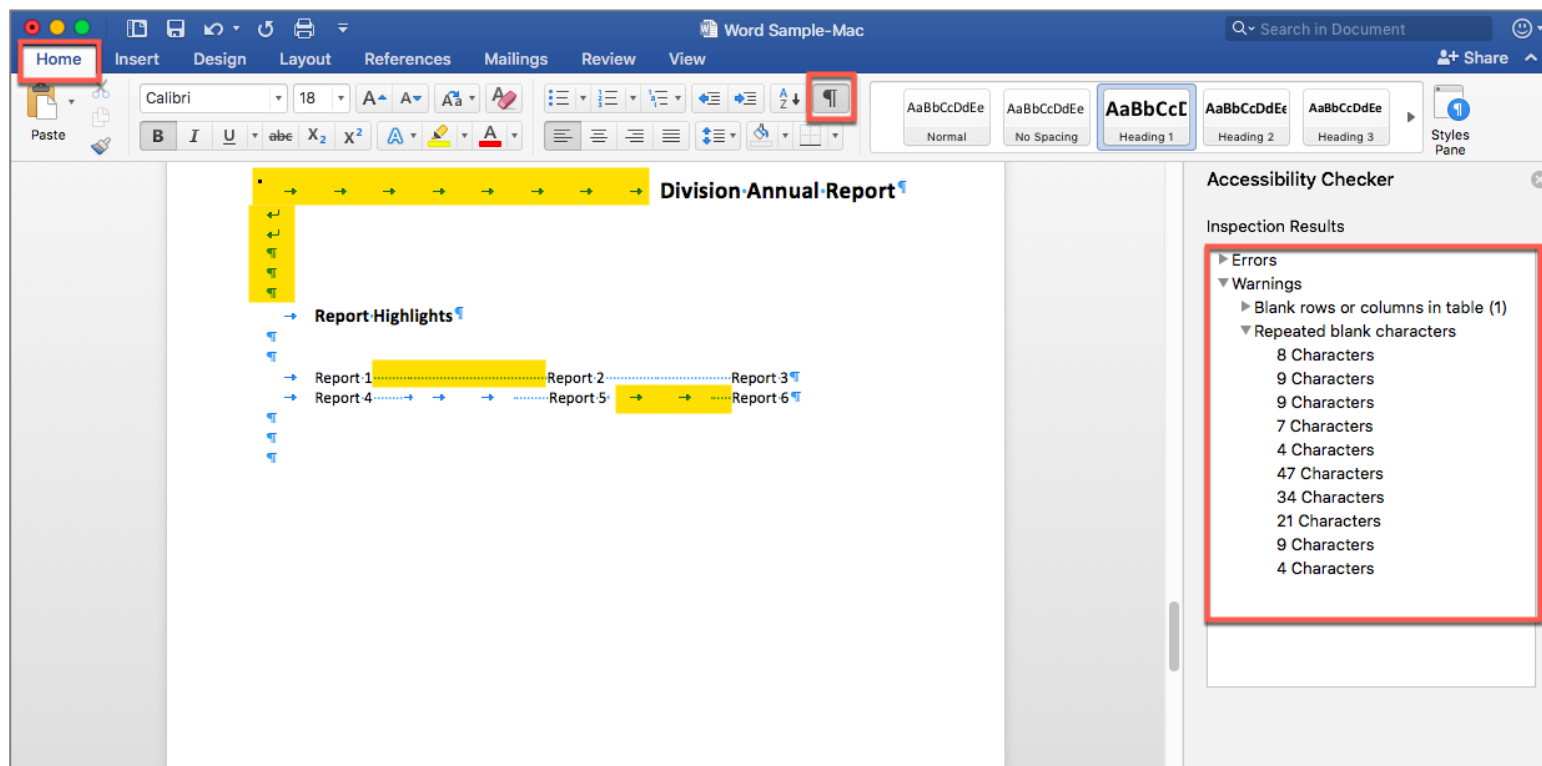
Use Page Break

Accessibility Statement (Heading 2)¶

As part of our commitment to excellence through diversity and inclusion, California State University, Northridge (CSUN) strives to ensure that campus communication and information technology is accessible to everyone. The California State University system statement on accessibility is articulated in California State University - Executive Order 1111, in accordance with both federal and state laws including the Americans with Disabilities Act of 1990 (ADA) and Section 508 of the U.S. Rehabilitation Act.¶

Use Page Break instead of several carriage Returns as "Blank"

Page 2

Need help? (Heading 3)¶

Need assistance or have a question not answered here? Please contact the Universal Design Center (UDC) at UDC@csun.edu or, during business hours (Monday through Friday, 8am to 5pm.

Screen readers can read blank characters as "Blank". This can be very irritating, especially if there are multiple blank characters.
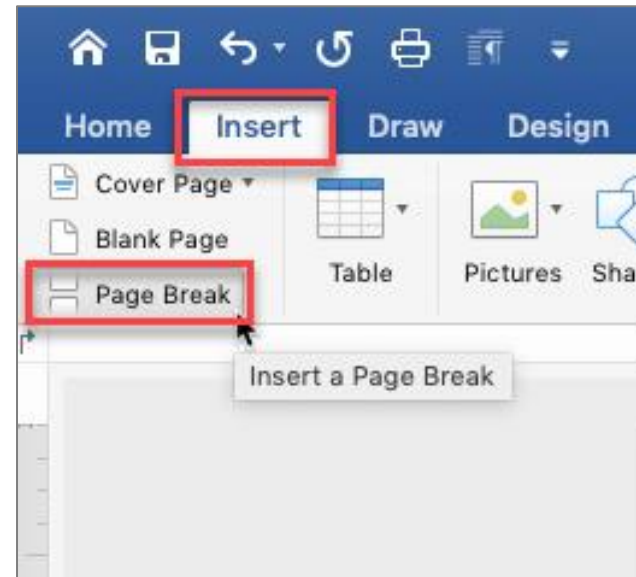
Insert a Page Break

Word automatically adds a break at the end of each page. You can also insert a manual page break anytime you want to start a new page in your document.

- Put your cursor where you want one page to end and the next to begin
- Go to **Insert** > **Page Break**

Ruler Tab Marker

To create three columns in one line, set ruler tab marker as shown.

1. Select paragraph marks "**Show/hide**"

2. **View** tab then select **Ruler**

3. Remove extra white spaces, tabs, and spacebars (keep one tab only)

4. Highlight selected text

5. Set ruler tab marker position at 2" for second column and 4" for third column

Note: You can also set **indentation** in lieu of a single tab marker.
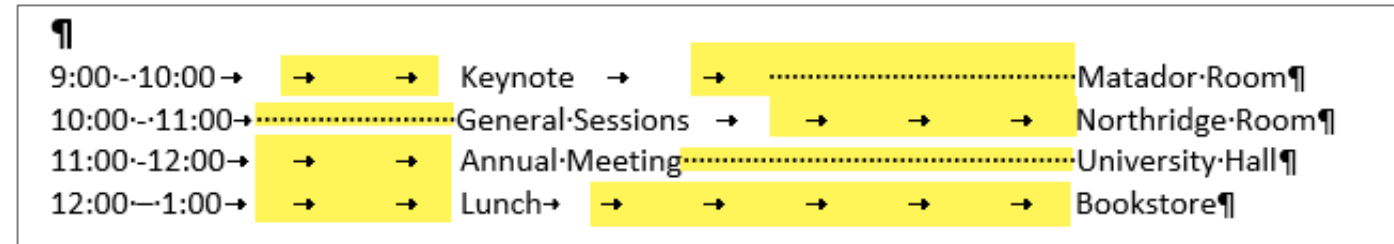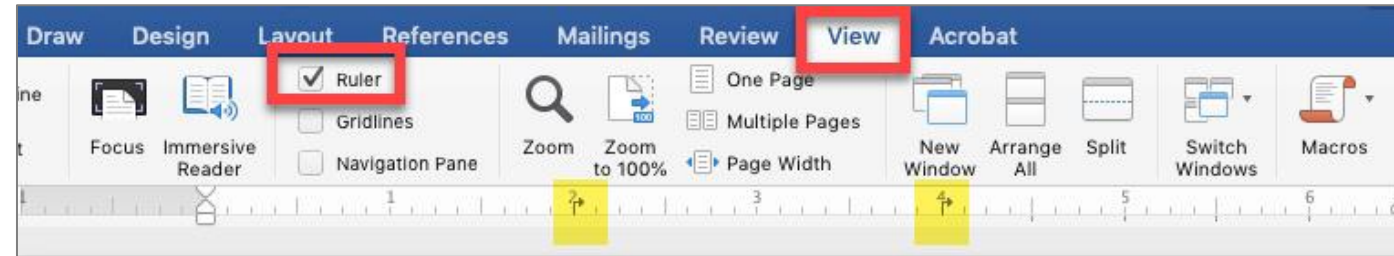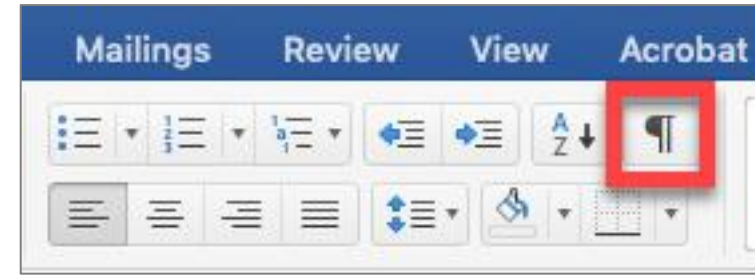
Paragraph or Line Spacing

- Avoid creating blank lines to create spaces between text.

- Use line or paragraph space to increase or decrease the amount of space between headings and paragraphs.

- Heading levels space between a heading and the previous section's body text.

How many spaces BEFORE a paragraph?

As part of our commitment to excellence through diversity and inclusion, California State University, Northridge (CSUN) strives to ensure that campus communication and information technology is accessible to everyone.

How many spaces AFTER a paragraph?

Universal Design Center (Heading 1)

Accessibility Statement (Heading 2)

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What is Accessibility? What is Universal Design? (Heading 2)

In this context, "accessibility" means that people with disabilities have access – to facilities, to information and to technology. "Universal design" takes this concept one step further, to ensure that everyone can perceive, understand, engage, navigate and interact regardless of ability or preference.

Universal Design Center Mission (Heading 2)

The UDC supports the campus community in their efforts to make it possible for individuals to learn, communicate, and share via information and communication technology. One way we do this is by assisting the campus community to ensure their information and communication technology is interoperable, usable and accessible, so that individual learning and processing styles and/or physical characteristics are not barriers to access.

The role of the UDC is to help CSUN implement business practices which enable the campus to meet policy standards under the Accessible Technology Initiative Coded Memoranda.

Shared Campus Responsibility (Heading 3)

Everyone has a part in creating accessible and usable information. The responsibility of creating and maintaining accessible content falls to the entire campus community.

Paragraph Spacing

- On Styles Panel, select **Heading 2** and right-click to select **Modify**

- **Format** button to select **Paragraph...**

- **Heading 2** set Before: 12pt and After: 6pt.

- **Heading 3** set Before: 12pt and After: 6pt.

- **Normal** paragraph set Before: 0 pt and After: 18pt.

For example: If you increase spacing for Heading 2, it will increase spacing for the entire Heading 2.
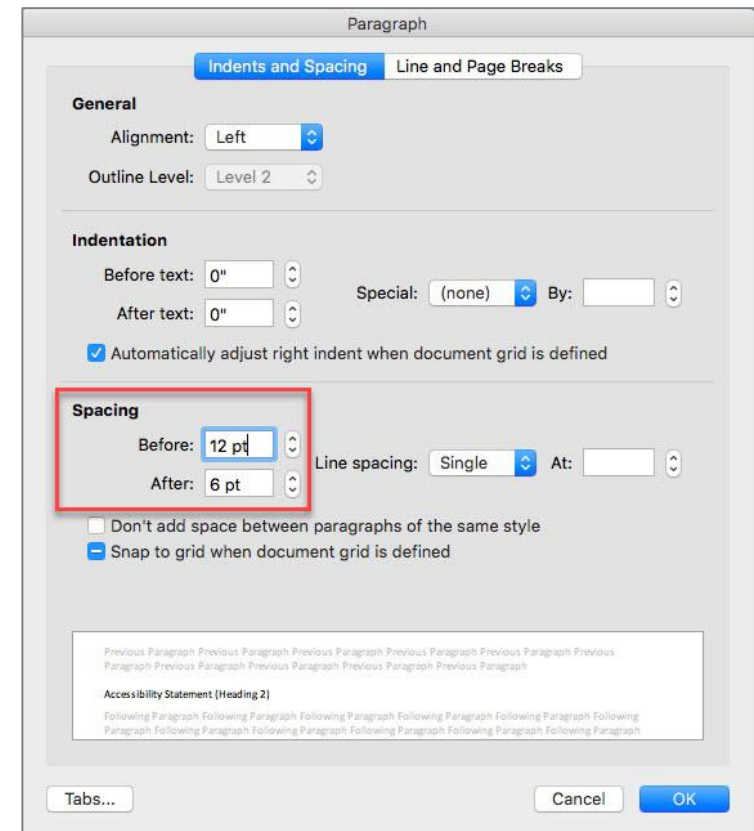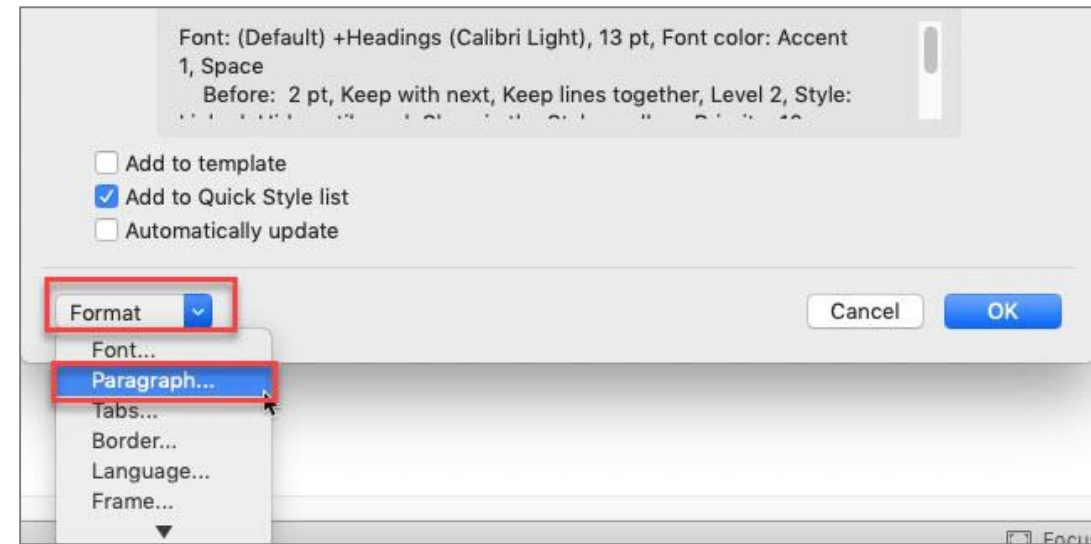
Line Spacing in a portion of the document

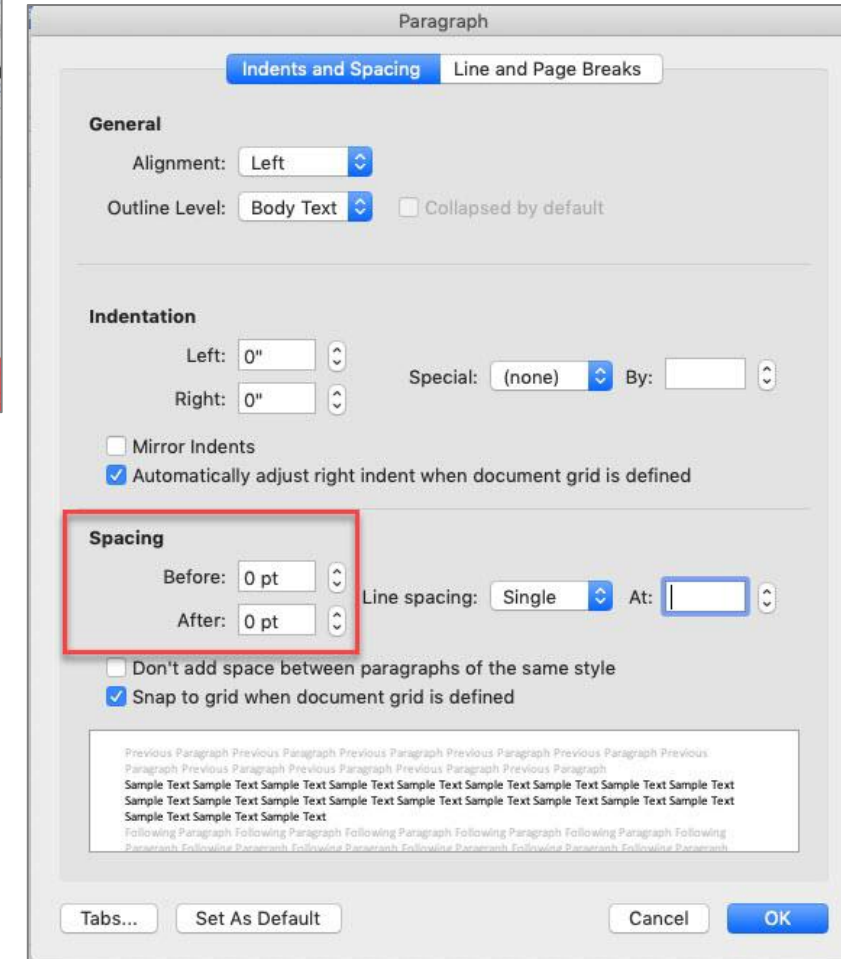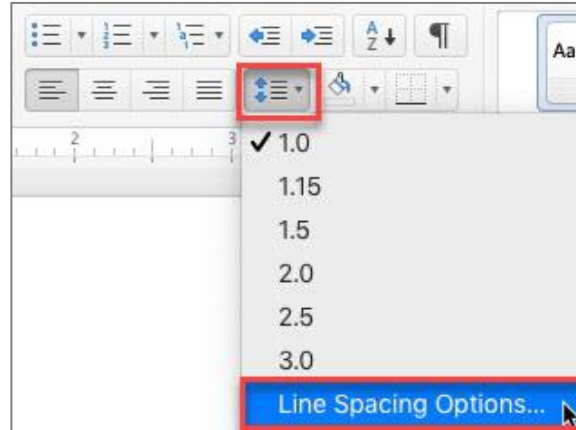You can control the vertical space between the lines of text in your document by setting the line spacing.

- Select one or more paragraphs to update line spacing

- Go to **Home** > Paragraph section

- Select **Line Spacing Options**

- Enter how much spacing before and/or after vertical space lines of text

How many spaces BEFORE a paragraph?

As part of our commitment to excellence through diversity and inclusion, California State University, Northridge (CSUN) strives to ensure that campus communication and information technology is accessible to everyone.

How many spaces AFTER a paragraph?

Returns as "Blank" vs Line Spacing

Screen readers can read blank characters as "Blank". This can be very irritating, especially if there are multiple blank characters.

Automatic Table of Contents

Table of Contents

Table of Contents

- Headings structure will automatically populate a table of contents and provide accessible for screen readers rely on headings structure to navigate a page quickly.

- Adding Table of Contents to any documents or syllabus **over 8 pages** to make it easier for readers to go directly to a specific section in the document.
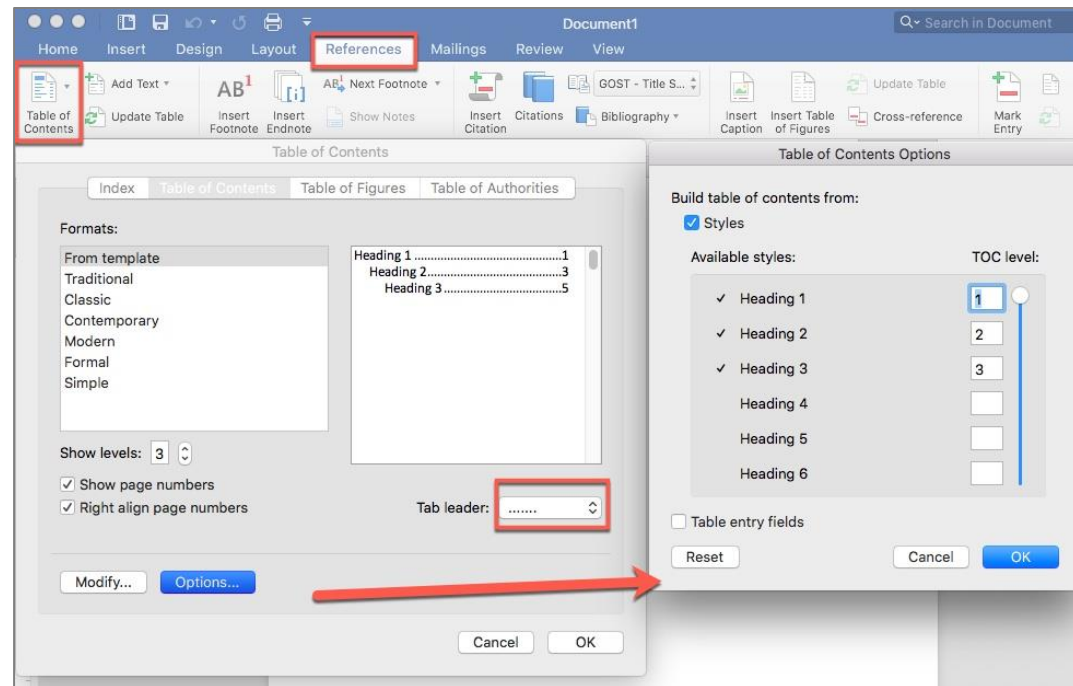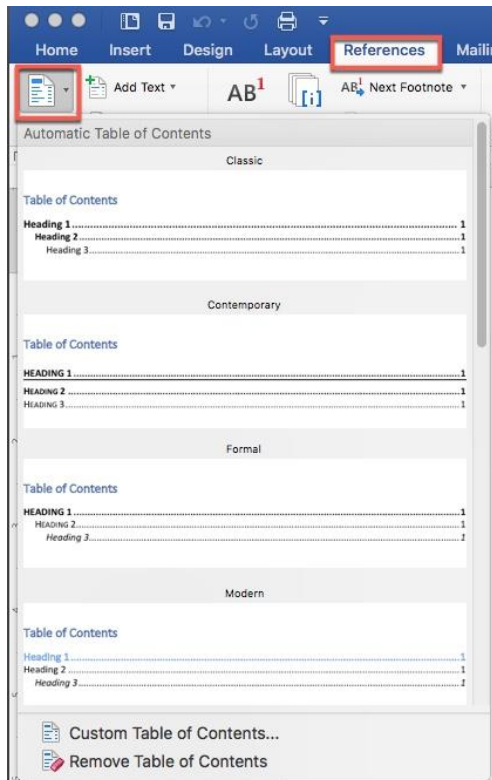
- **Or Custom Table of Contents**

- To change which heading level appear on TOC, select '**Options**'

- Number each style in the order in the **Table of Contents**

- Select '**Ok**' twice

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:

  o 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.

  o Image with text (for example, the CSUN wordmark) should include the words on the image.

  o "Image of…", "Photo of…" is not needed because screen readers and other AT announce that it's an "image" or "graphic".

  o 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.

  o 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!'

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.'"

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."

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.**

Content text here.

This line separator does not need alternative text because it does not convey any additional information.

Footer text here.
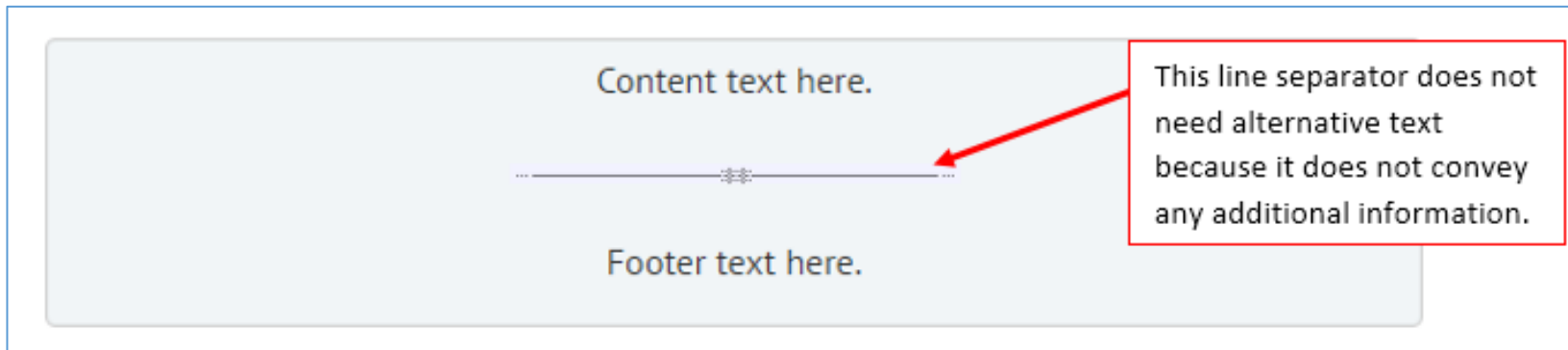
Alt Text

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.
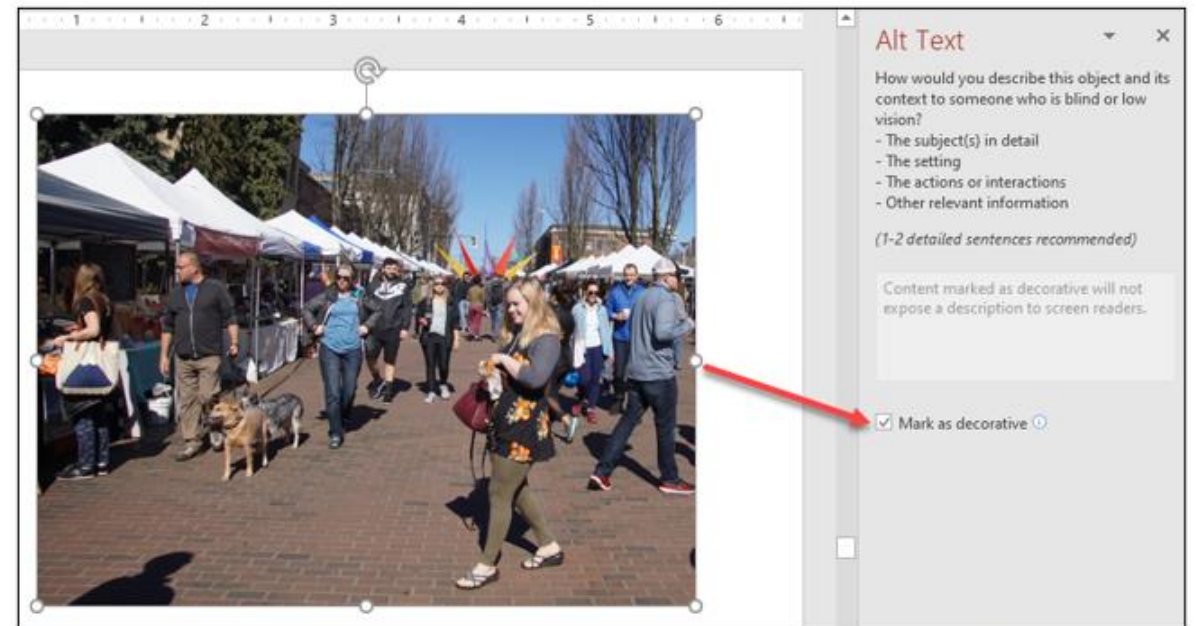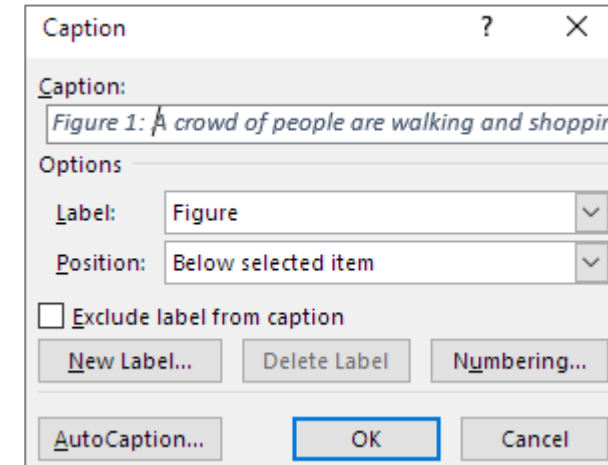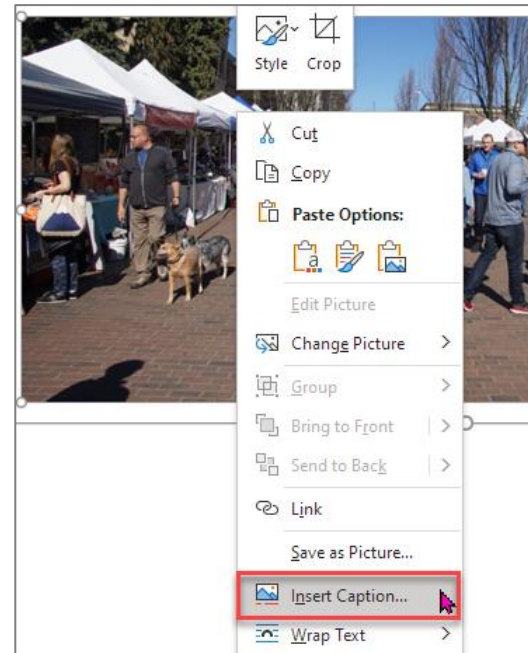
Figure 1: A crowd of people are walking and shopping at an outdoor market.

Office 365 - Adding Alt Text
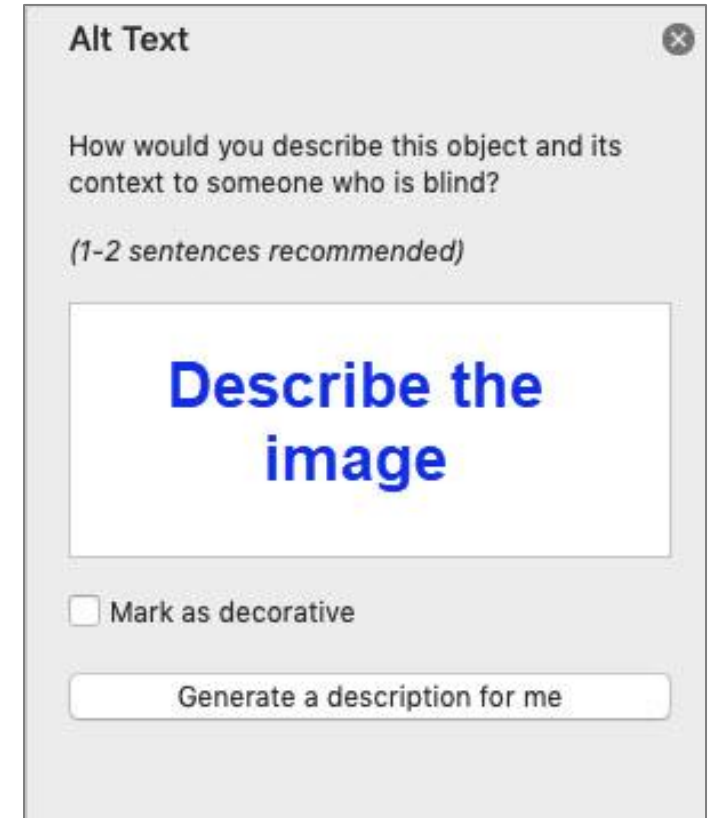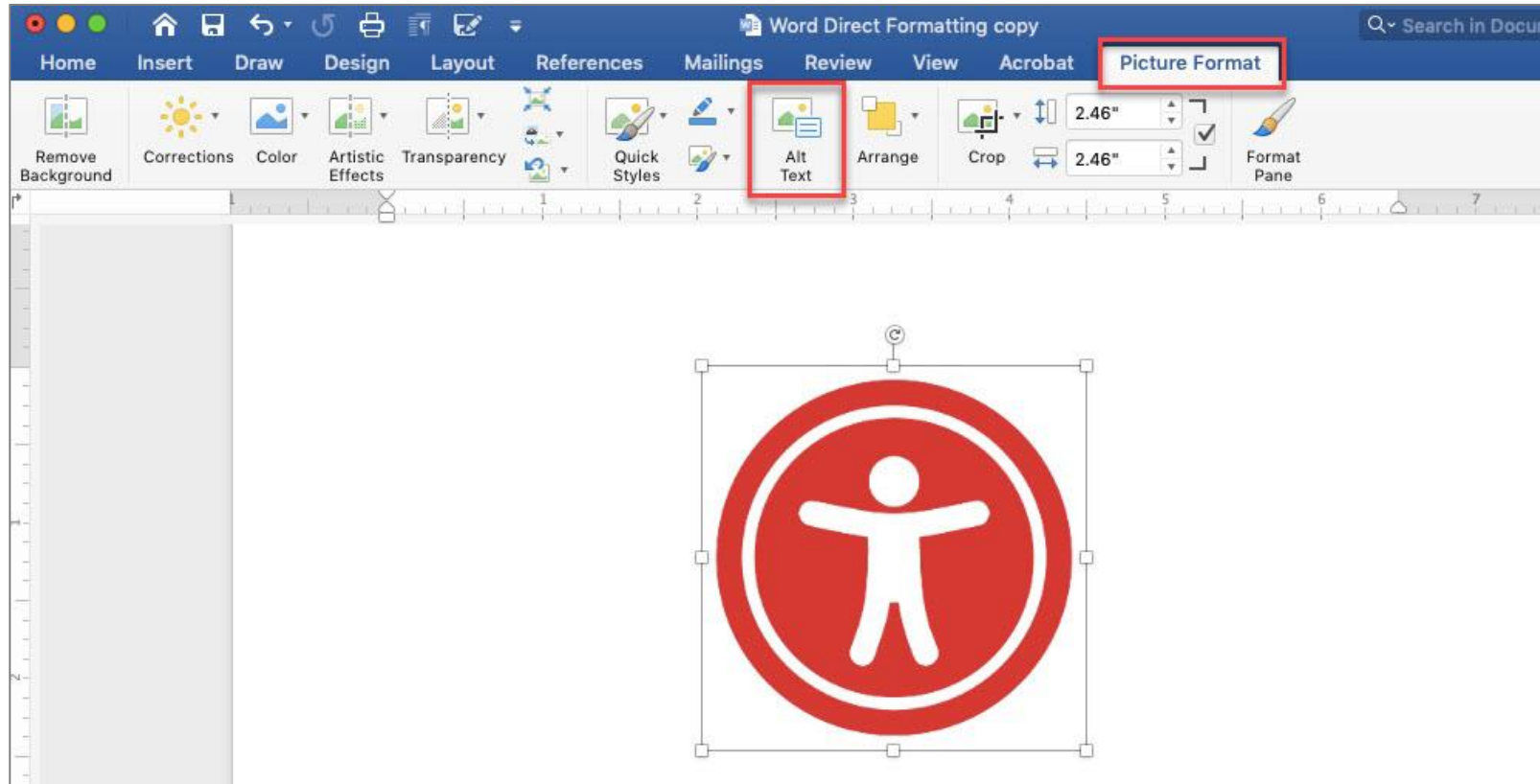
Select the image, select **Picture Format** tab, then **Alt Text**.

Office 2016 – Adding Alt Text

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

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

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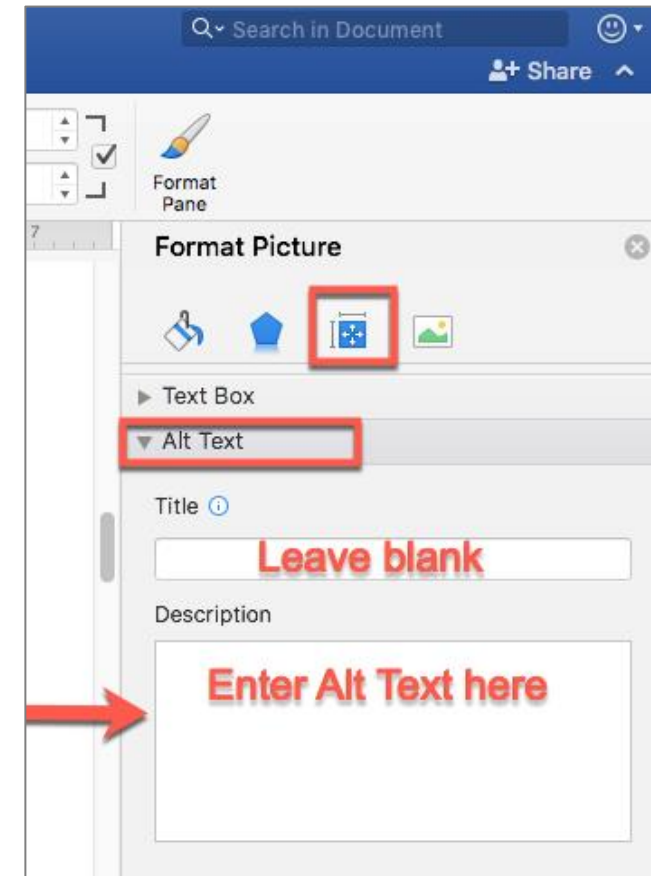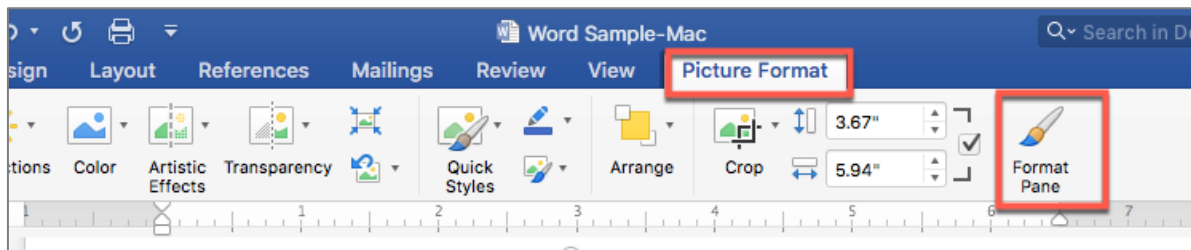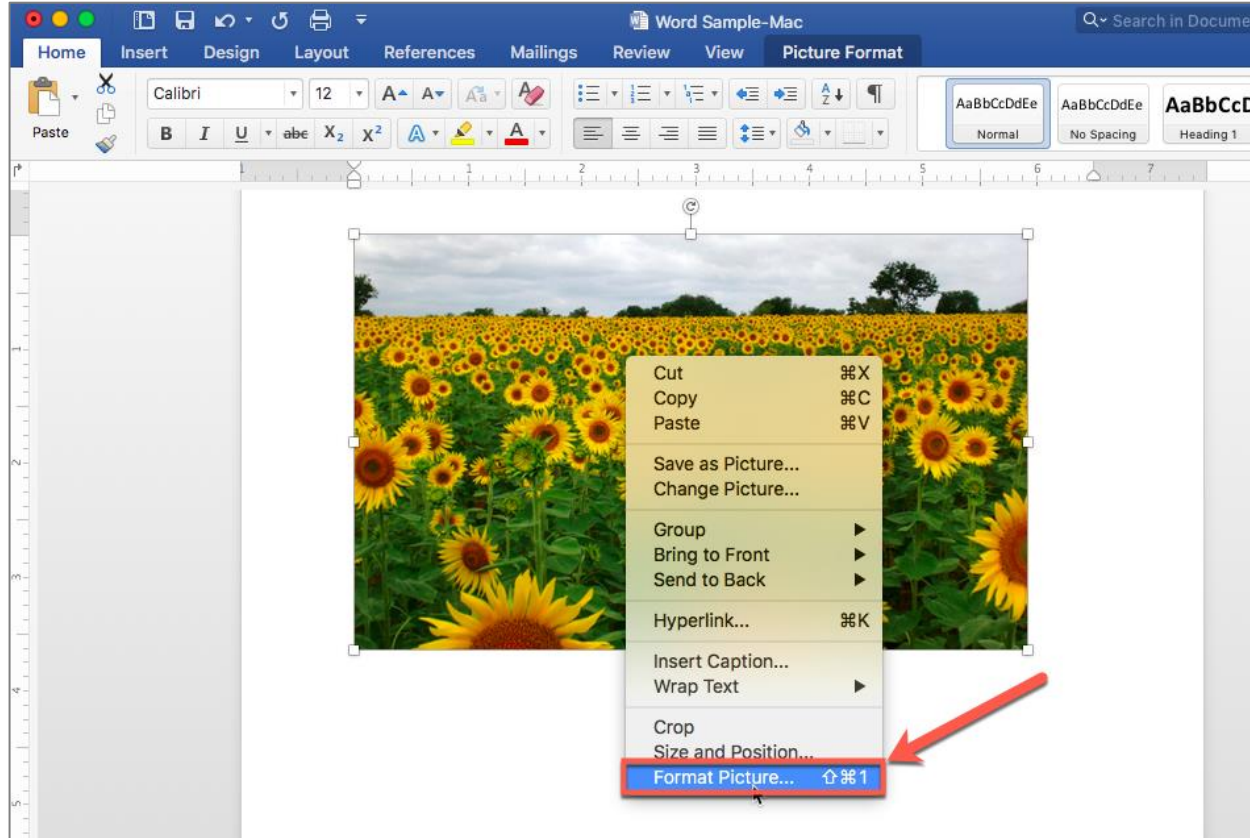
CSUN Team to Tap into Power of Inouye Telescope to Study Sun's Atmosphere

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
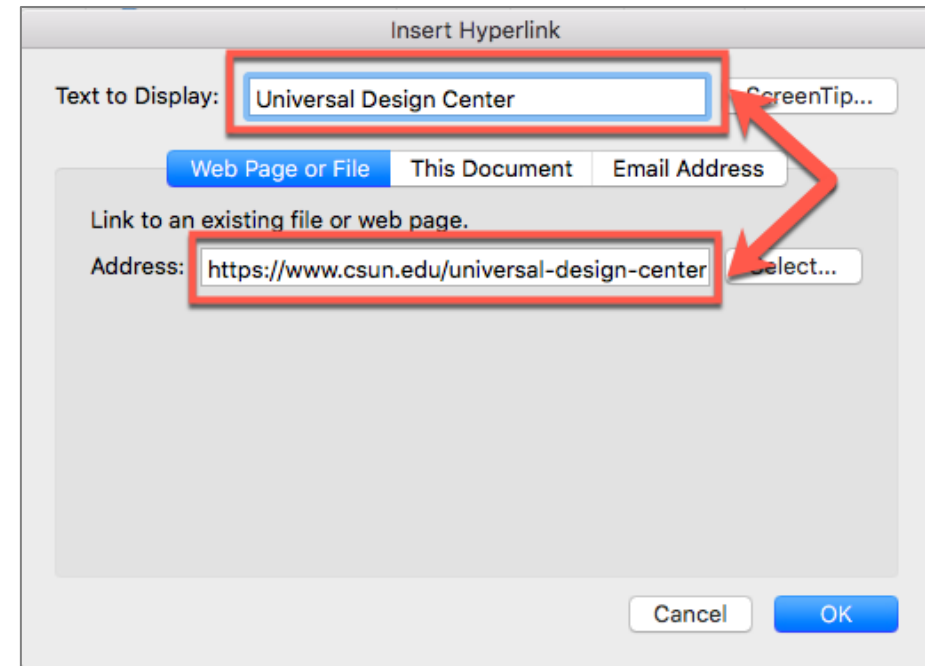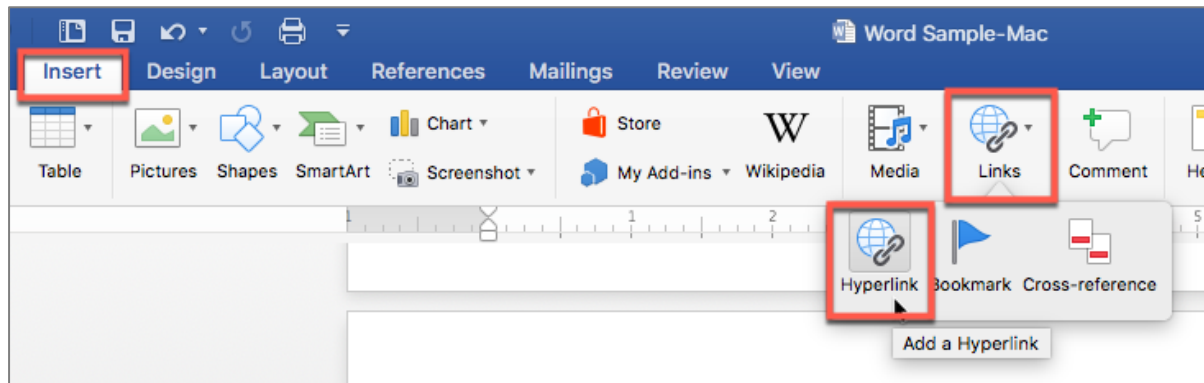
A presentation that is intended to be displayed electronically and in a printout, include the URL and a description in the link text. For example, "Universal Design Center (www.csun.edu/universal-design-center)."

Universal Design Center

csun.edu/udc

Image Position

Text wrapping around an image, screen readers will skip it. To ensure screen readers do not skip over an image, the image needs to be on its own line "In Line with Text" or format them as 2 or 3 columns.

Complex Images

Some images, such as graphs, charts or informative illustrations require fairly lengthy explanations to make them accessible. When this is the case, there are a few options:

1. Provide a brief alt text description of the image and a longer description within the text of the document. This may be helpful for others as well since some people have difficulty understanding charts and graphs.

2. Provide a brief alt text description of the image and create a section at the end of the document for long descriptions.

3. Provide a brief alt text description of the image and create a separate document with a long description of the image.

Credit to [Explore Access](#)
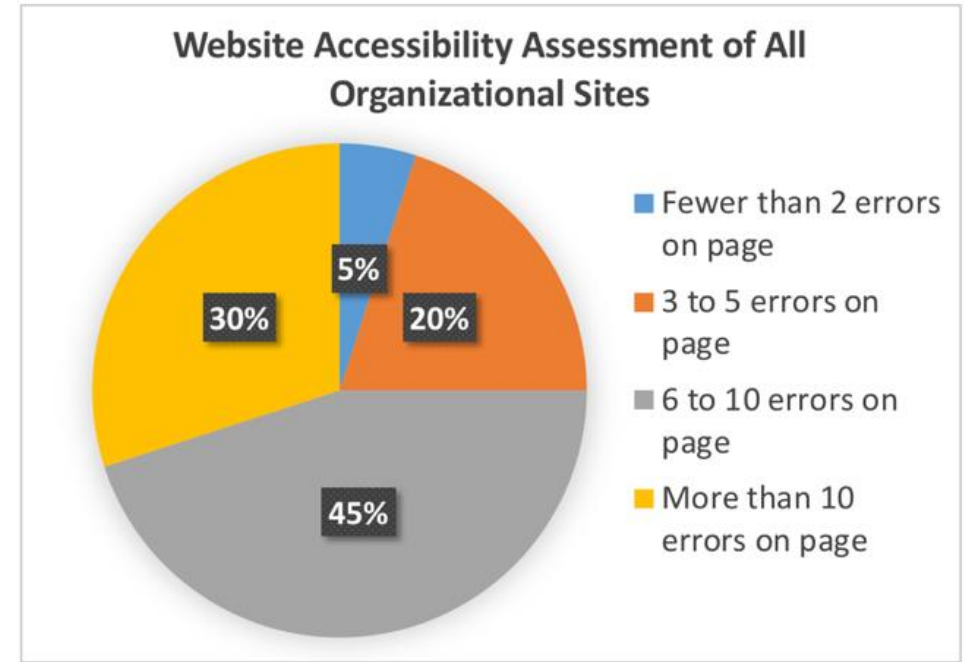
Example of Option 1

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.

Art or SmartArt Shapes

Often shapes are used behind text to create emphasis. Most screen readers **will not** identify shapes, and you will often split up your text in awkward ways to make it fit within the shape.

The example below exemplifies what **not** to do (notice how the reading order is impacted when a shape is moved to the background in order for the text to show on top)

Universal **D**esign **C**enter
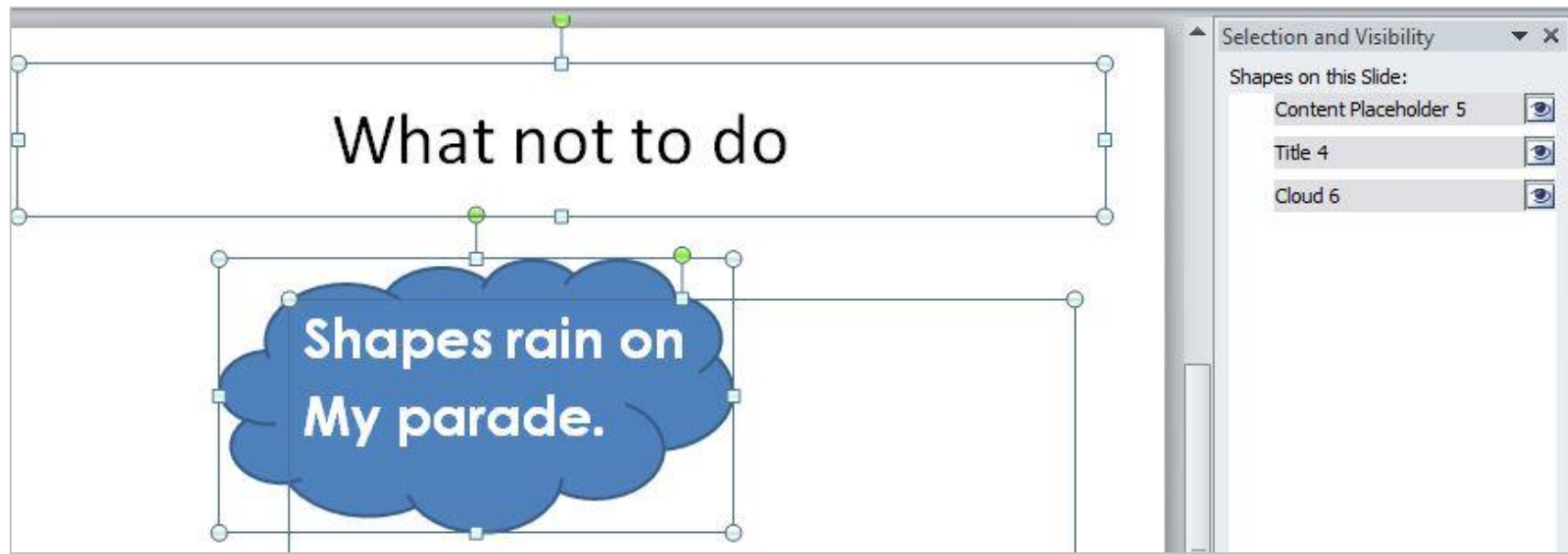
Art or SmartArt Shapes Workaround

Step 1: Create stand-alone PowerPoint file for all Art Shapes (editable).

Step 2: Use SnagIt to capture Art Shapes (step 1) then copy an image into final slides (step 3)

Step 3: Create another PowerPoint file for final slides.

Step 4: Add Alt Text for an image (step 3)
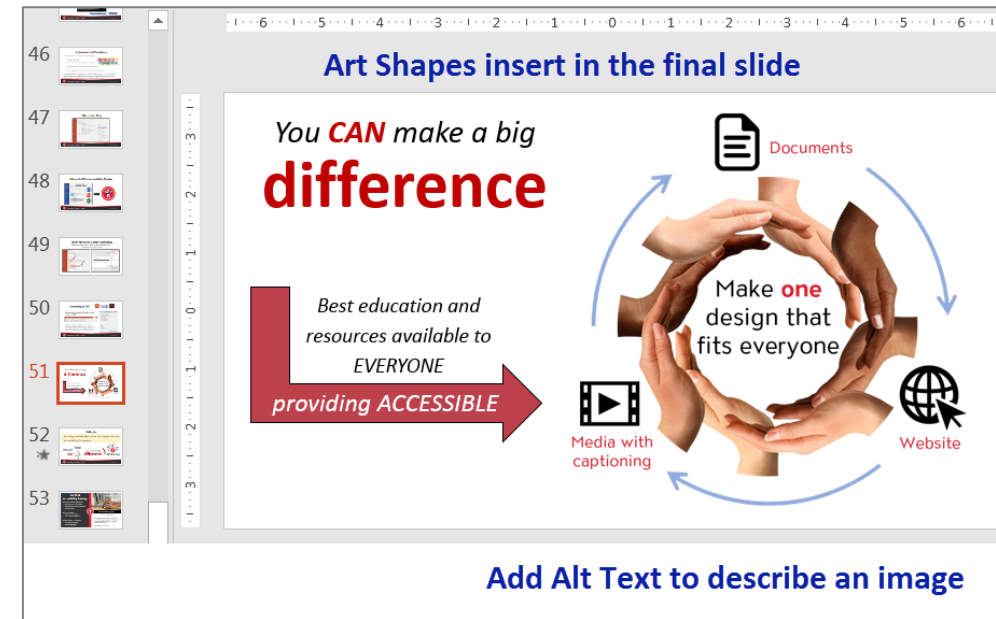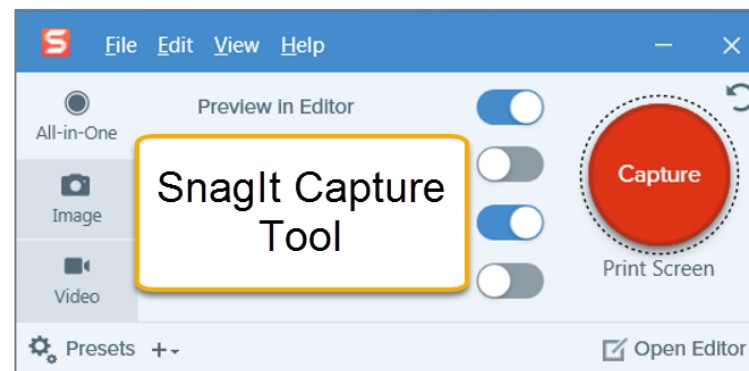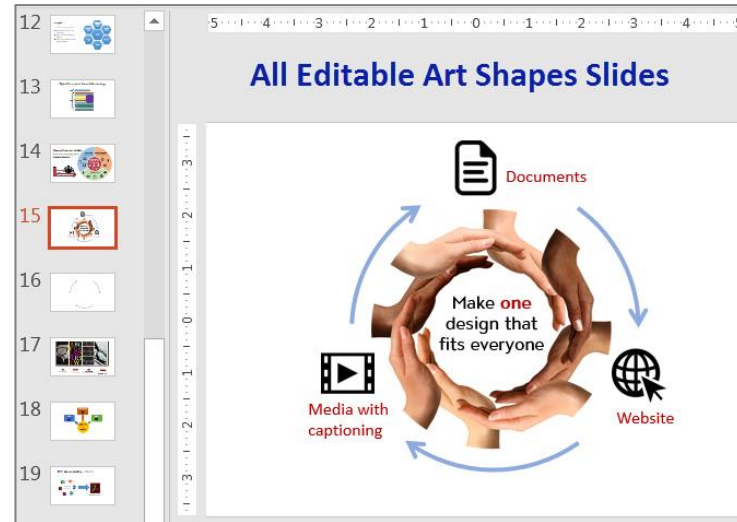
Provide descriptions if using color to convey meaning

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 only

Which is the right-angled triangle?
- Green
- Blue
- Red
- Yellow
- Don't know
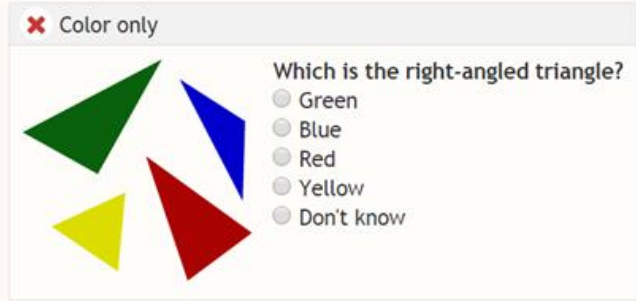
Color identical may not be recognized by colorblind users

Example: Refer to something using color alone

✖ Color only

Which is the right-angled triangle?
- Green
- Blue
- Red
- Yellow
- Don't know

Example 3: Accessible color and number

✔ Color and number

Which is the right-angled triangle?
- Green (1)
- Blue (2)
- Red (3)
- Yellow (4)
- Don't know

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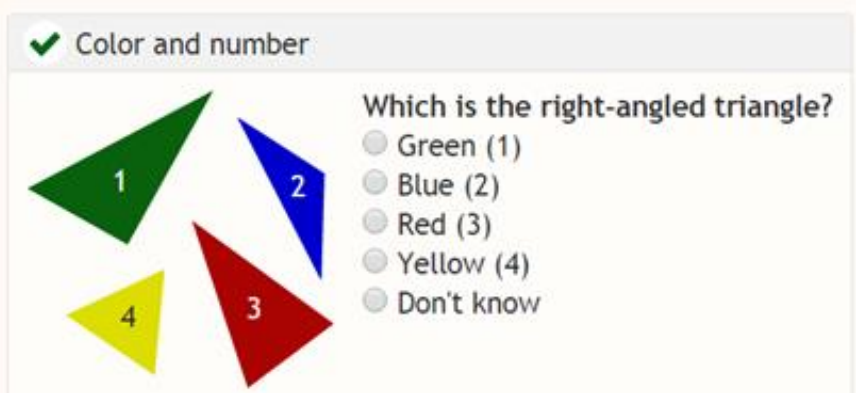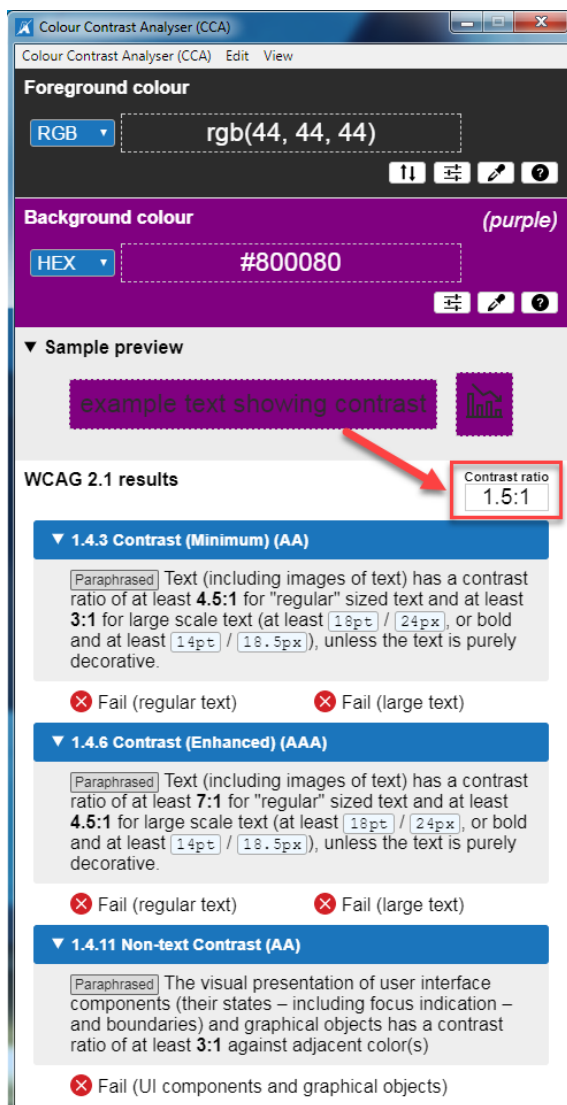
People who have low vision or colorblind could encounter some difficulty distinguishing text color from a background color if the contrast is insufficient contrast ratio 1.5:1.

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

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?
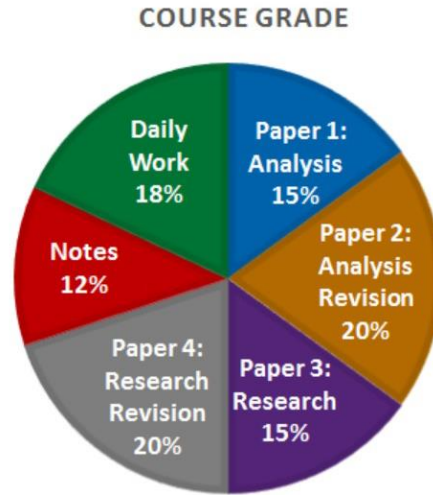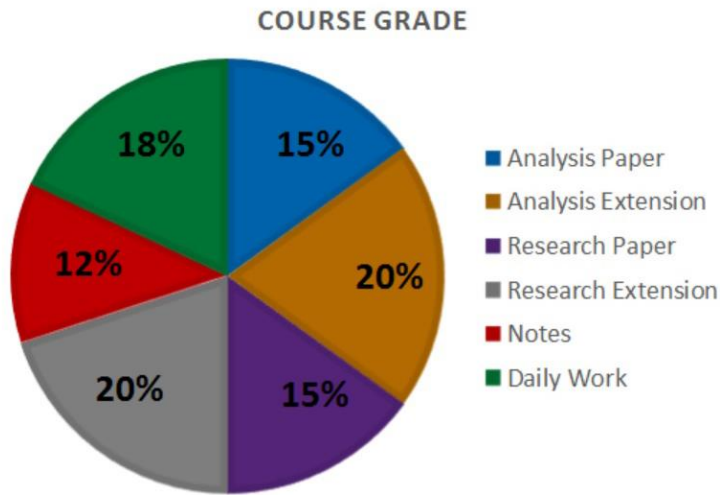
- Information and charts should never be conveyed through color alone.

- 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**.
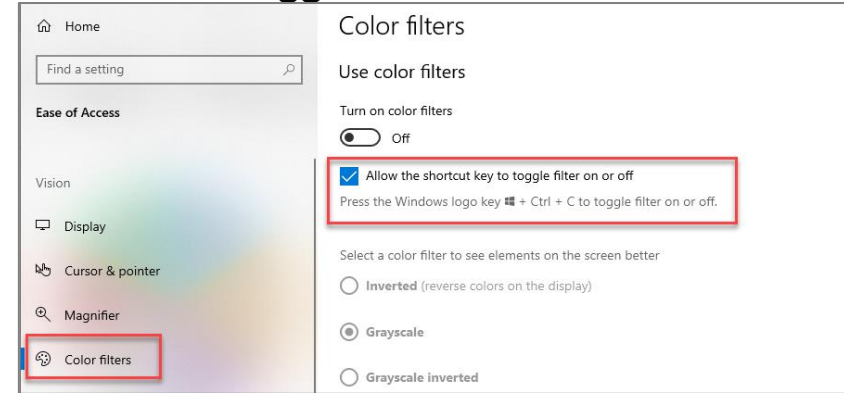
To use color filters on Mac:

- On your Mac, choose **Apple** menu > **System Preferences**, select **Accessibility**, select **Display**, select "Use grayscale"
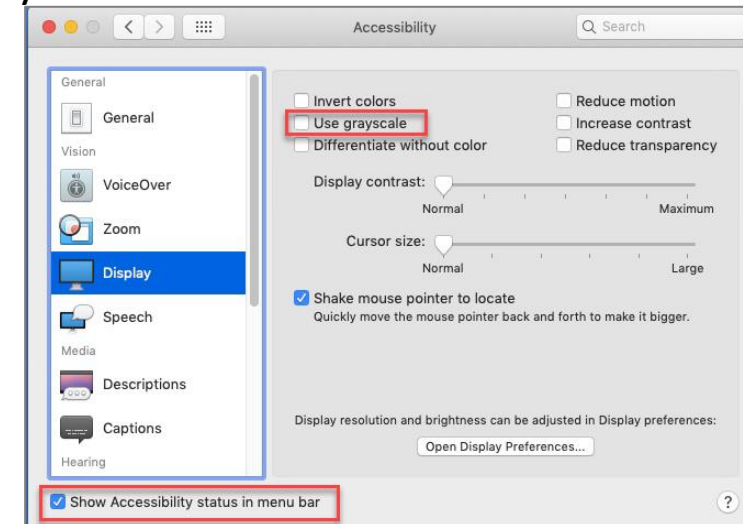
Tips for Creating Accessible Tables

Use Word's built-in to create Tables

- Create tables by inserting them. **Avoid creating tables by drawing boxes** and lines or by using tabs and spaces. Screen readers have difficulty understanding tables with odd cell sizes.

- Simple Data Tables only.

- Tables have a logical reading order from left to right, top to bottom.

- Tables are labeled with alternative text.

- Provide Title (i.e. Caption) and Summary before the Table.

- Use Table Tools editor to identify the different types of rows and columns such as **Header Row and First Column.**

Keep your table simple

- Simple tables are easier to interpret for all students and screen readers.

- **Avoid** merging cells, split cells, no blank cells, as well as tables nested within a cell.

- Use tables to organize data not format information. Never use table for layout.

- 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.

Accessible grading scale in table vs non-table format

Non-table format

A plus = 1000 to 970 points

A = 969 to 940 points

A minus = 939 to 900 points

B plus = 899 to 870 points

B = 869 to 840 points

B minus = 839 to 800 points

C plus = 799 to 770 points

C = 769 to 740 points

C minus = 739 to 700 points

D plus = 699 to 670 points

D = 669 to 512 points

D minus = 639 to 600 points

F = 599 points or lower

Different screen readers may read texts differently. The "+/-" may not be read out loud. Screen readers will read + symbol for plus but not - symbol. Screen readers do not know whether - symbol is minus, hyphen, dash, en dash or em dash. It is always a good practice to spell them out and spell out any abbreviations or make a reference to your abbreviation when used for the first time. Visit [Screen Readers: A Guide to Punctuation and Typographic Symbols](#).

Table format

Grade	Points	Percentage
A plus	960 to 1000	96 to 100%
A	930 to 959	93 to 95%
A minus	900 to 929	90 to 92%
B plus	860 to 899	86 to 89 %
B	830 to 829	83 to 85%
B minus	800 to 829	80 to 82%
C plus	760 to 799	76 to 79%
C	730 to 759	73 to 75%
C minus	700 to 729	70 to 72%
D plus	660 to 699	66 to 69%
D	630 to 659	63 to 65%
D minus	600 to 629	60 to 62%
F	599 points or lower	59% or lower

Step 1: Insert - Table
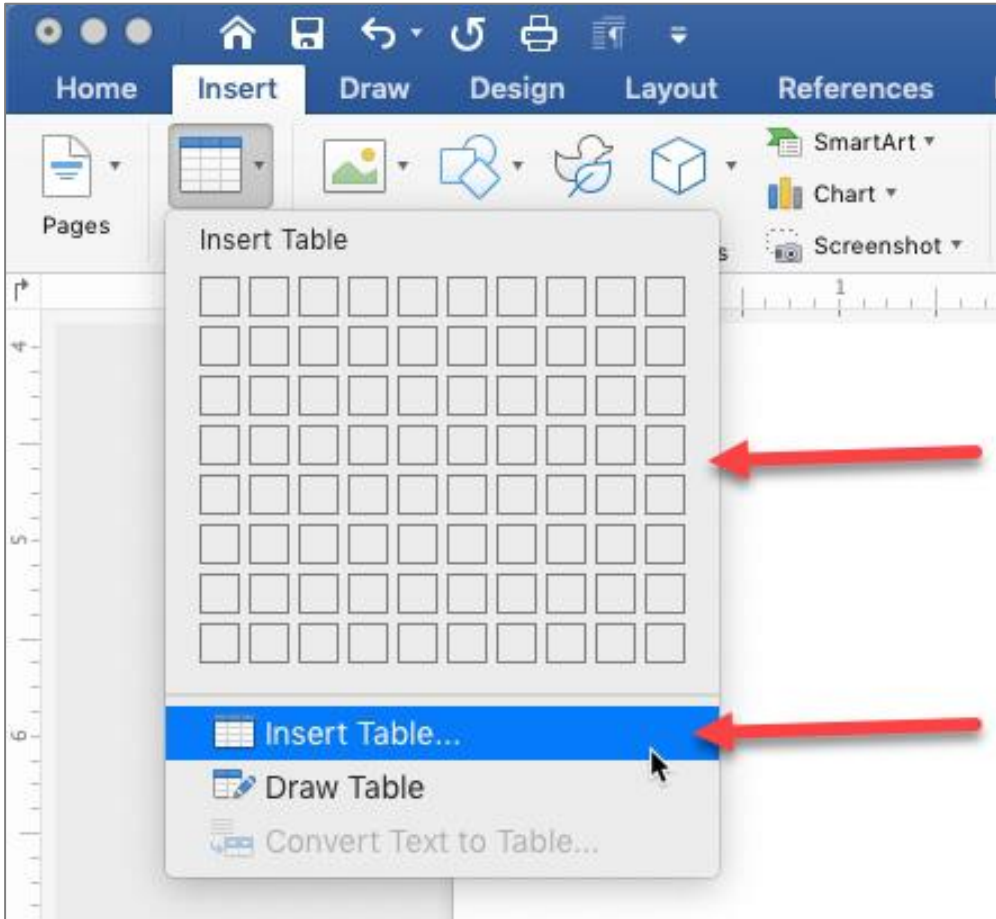
- Use tables to organize data not format information

- Create table headings

- Include table captions or brief description
  - Select **Insert** tab, then select **Table**
  - Select the number of rows and columns by highlighting the boxes on the grid.
  - Type in the table data

Step 2: Select Table Header Row

A table header row contains column headings that provide context and aid navigation of the table. People who can't see the table can have column headings read aloud.

Example of Header Row
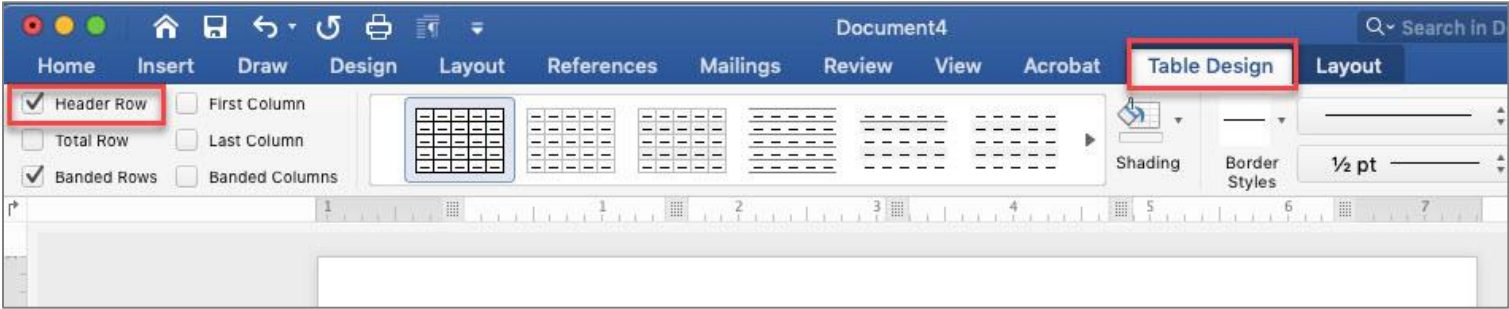
Design Tab > Header Row

Grade	Points	Percentage
A plus	960 to 1000	96 to 100%
A	930 to 959	93 to 95%
A minus	900 to 929	90 to 92%

Example of Header Row and First Column
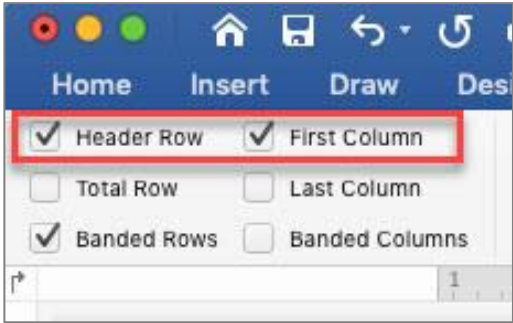
Design Tab > Header Row and First Column

Name	Project	Presentation
Student 1	95%	100%
Student 2	90%	75%
Student 3	60%	85%

Step 3: Repeat Header Rows

- Highlight the first row
- Layout tab then select **Repeat Header Rows**

When inserting a table at the bottom of a page in Word, the table break across two pages show **two repeating header rows as example**
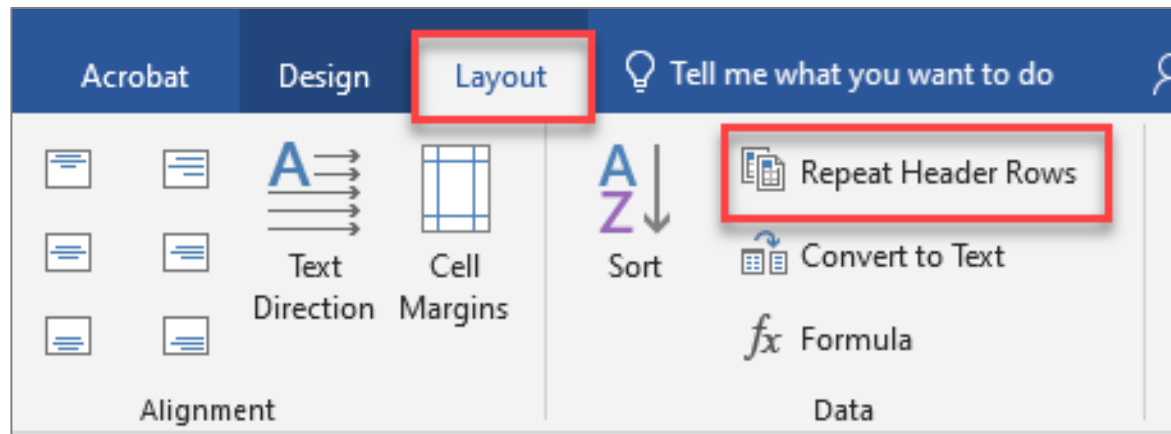
Grade	Points	Percentage
A plus	960 to 1000	96 to 100%
A	930 to 959	93 to 95%
A minus	900 to 929	90 to 92%
B plus	860 to 899	86 to 89 %
B	830 to 829	83 to 85%
B minus	800 to 829	80 to 82%

Page 1

Grade	Points	Percentage
C plus	760 to 799	76 to 79%
C	730 to 759	73 to 75%
C minus	700 to 729	70 to 72%
D plus	660 to 699	66 to 69%
D	630 to 659	63 to 65%
D minus	600 to 629	60 to 62%
F	599 points or lower	59% or lower

Step 4: Table – Insert Caption

Adding a caption or summary of your table is universal and accessible for everyone

- Select the table, then right click to select **Insert Caption** or
- Go to **References** tab, then select **Insert Caption**
- In the popup window, type the title of the table in the **Caption** textbox
- In the **Label** textbox, select **Table**
- **Position** textbox, select **Above selected item** then select **OK**
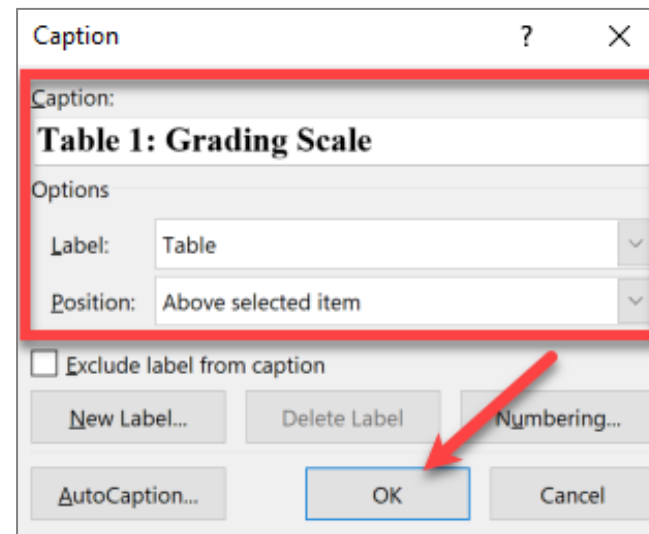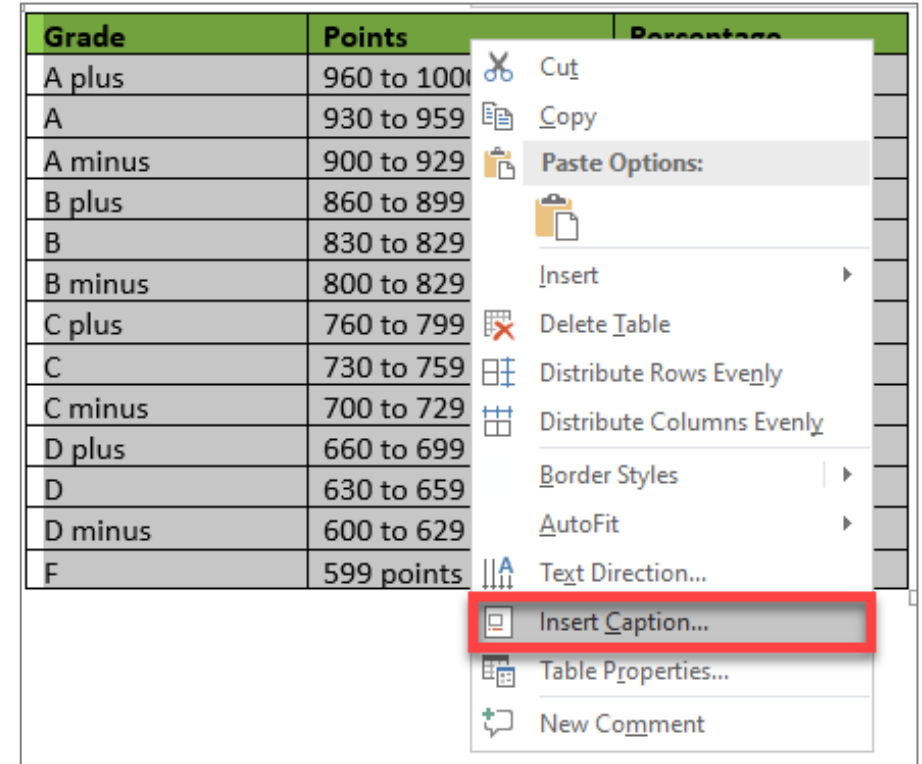
Grade	Points	Percentage
A plus	960 to 100	
A	930 to 959	
A minus	900 to 929	
B plus	860 to 899	
B	830 to 829	
B minus	800 to 829	
C plus	760 to 799	
C	730 to 759	
C minus	700 to 729	
D plus	660 to 699	
D	630 to 659	
D minus	600 to 629	
F	599 points	

Right-click menu:
- ✂ Cut
- 📋 Copy
- 📋 Paste Options:
- Insert
- ✖ Delete Table
- Distribute Rows Evenly
- Distribute Columns Evenly
- Border Styles
- AutoFit
- Text Direction...
- 🔲 Insert Caption...
- Table Properties...
- New Comment

Caption dialog box

Caption:

Table 1: Grading Scale

Options

Label: Table

Position: Above selected item

☐ Exclude label from caption

New Label...   Delete Label   Numbering...

AutoCaption...   OK   Cancel

Table 1: Grading Scale

Grade	Points	Percentage
A plus	960 to 1000	96 to 100%
A	930 to 959	93 to 95%
A minus	900 to 929	90 to 92%
B plus	860 to 899	86 to 89 %
B	830 to 829	83 to 85%
B minus	800 to 829	80 to 82%
C plus	760 to 799	76 to 79%

Alternative way without using Table
(no header row)

To create three columns in 1 line, set Tab Stops (see previous slide):

1. If Paragraph settings is not available, click on Quick Access Toolbar, More Command to select Paragraph settings.

2. View tab then select Ruler

3. Select text to create tabs

4. Open Paragraph dialog

5. In the lower left of the Paragraph dialog is the button for Tabs

6. Clear All existing Tab Stops for the selected text

7. Set new Tab Stops

Avoid multiple tabs key, space bar, and blank lines, someone with assistive technology like screen readers will listen excess spaces and lines.
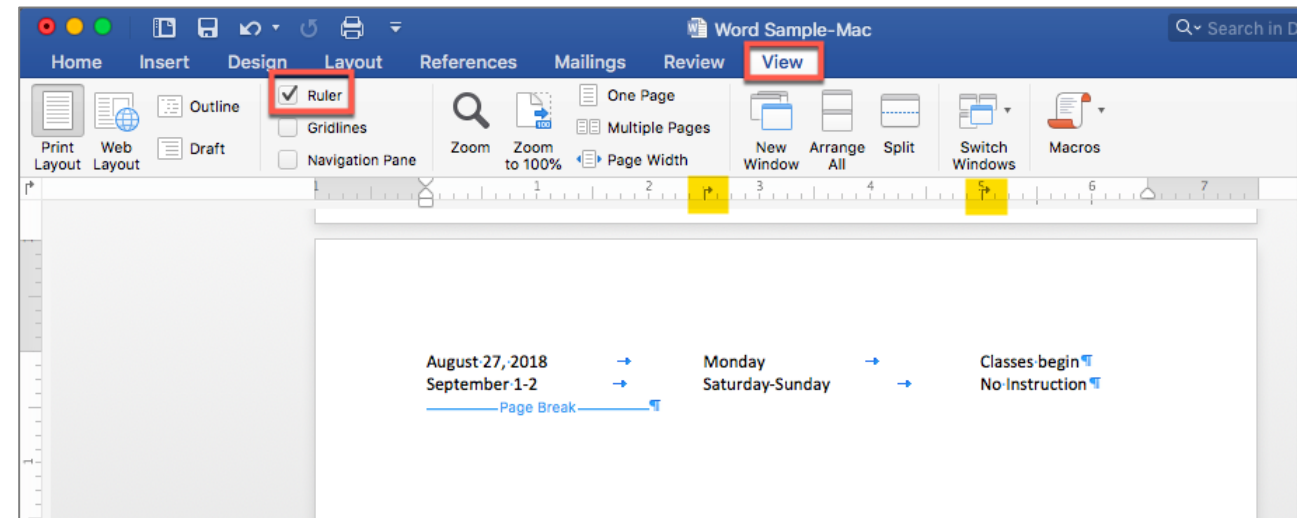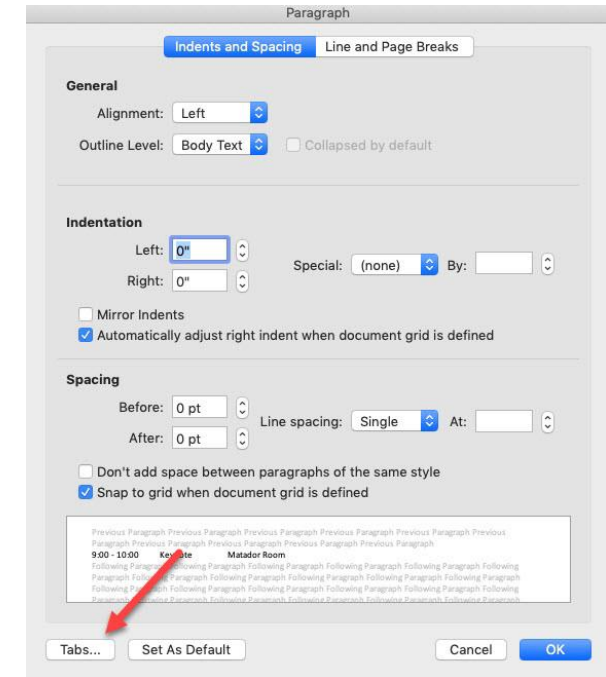
Table Color

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

Headers and Footers, 1 of 2

Q: Should I included headers and footers in my document?

A: Headers and Footers are not always read immediately to screen reader users. However, if a screen reader user wants to look at the header there are methods for them to do that.

Headers and Footers can be used to hold document information but should **never** hold important document content such as filename, document owner etc.

Universal **D**esign **C**enter

csun.edu/udc

Headers and Footers, 2 of 2

- Insert tab
- Select Header or Footer
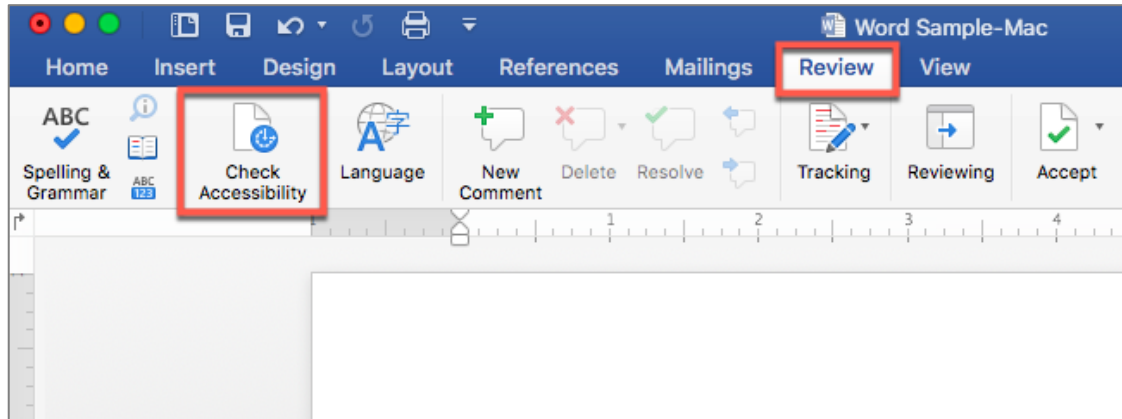- Insert text or other document information
- Always include page numbers in the footer with the "Normal" style

Word Accessibility Checker

The accessibility checker will identify certain accessibility issues:

- 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

- Large numbers of repeated blank characters (spacebars, tabs, enters)

Check for Issues, Check Accessibility

Always use Word's built-in Accessibility Checker

Repair Errors, Warnings and Tips
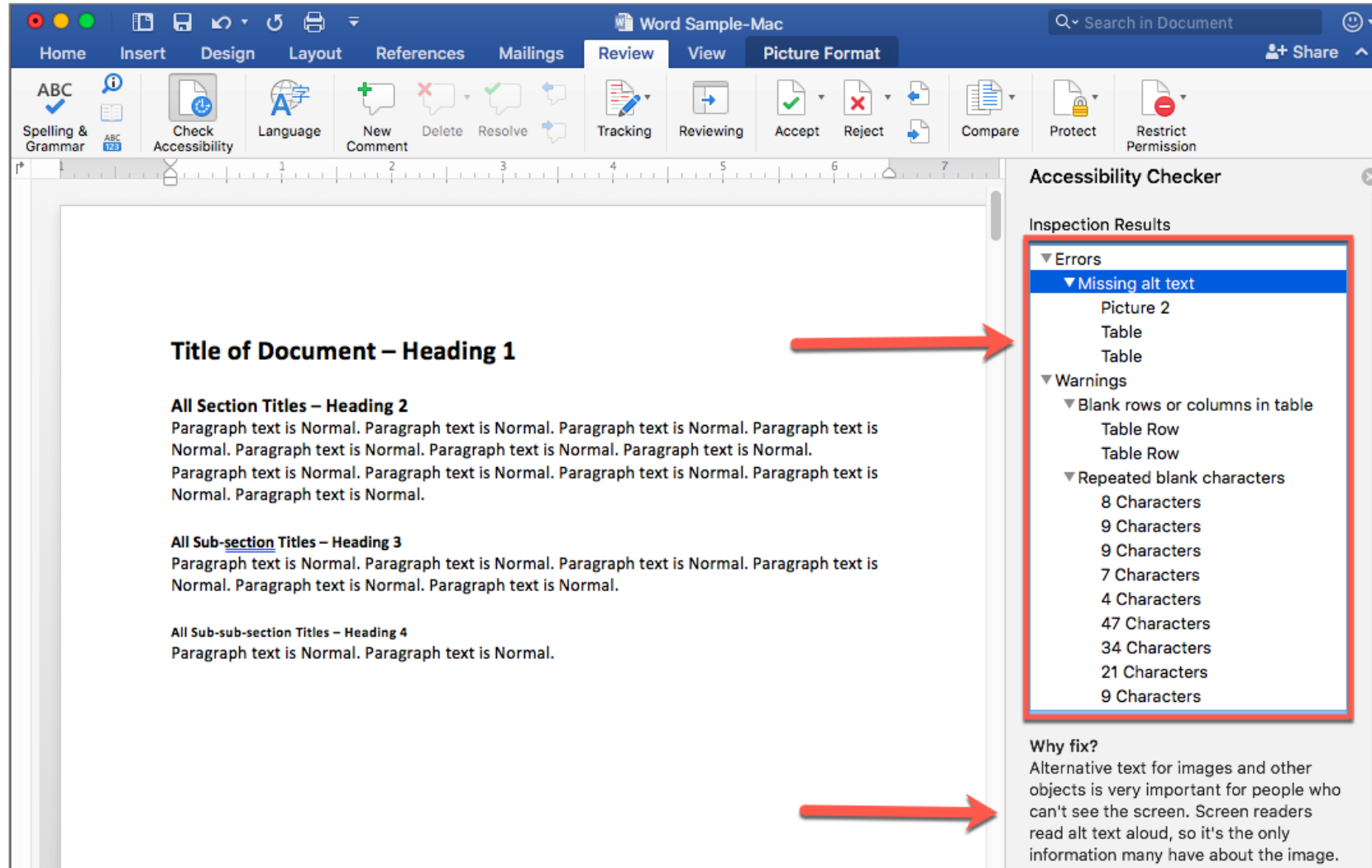
What is a Document Title?

- A document title is a descriptive and meaningful version of the file name. When converting to PDF, titles are often visible in the PDF window or tab.

- When multiple PDFs are open, well defined PDF titles allow for easier distinction between them. This distinction is particularly useful when relying on screen readers.

- The best way to add a PDF title is to edit an original document such as Microsoft Office file. See next slide how to add a Document Title in Word Document.

Accessibility 101   Word Essentials   Ally Demo Tools

How to add a Document Title?

1. Open Microsoft Word

2. Select **File** from the menu and select **Properties**

3. In the **Summary** tab, enter **Title** field to add a document title.

4. A title is a short descriptive sentence of what the document is about. For example, file name '**Accessible Tables.doc**' versus the title '**Guide for Creating Accessible Tables**'.

5. Save the changes you made.
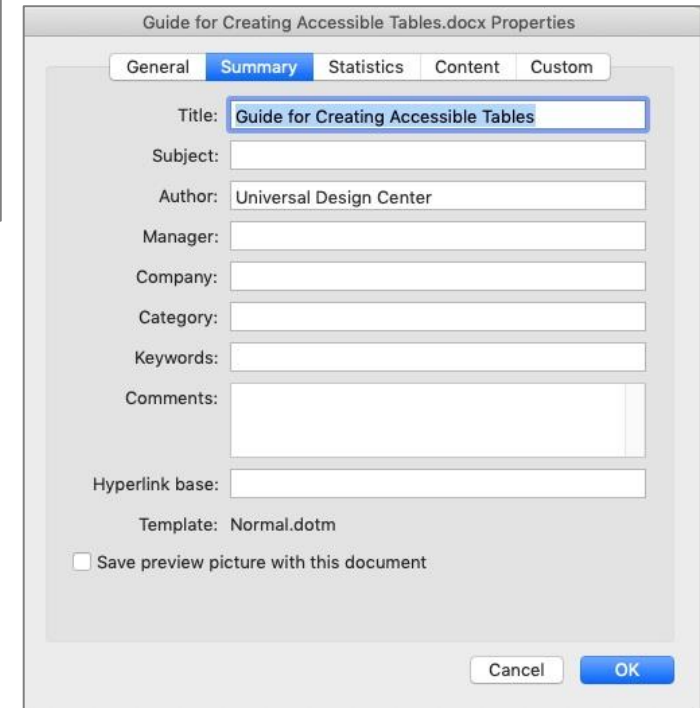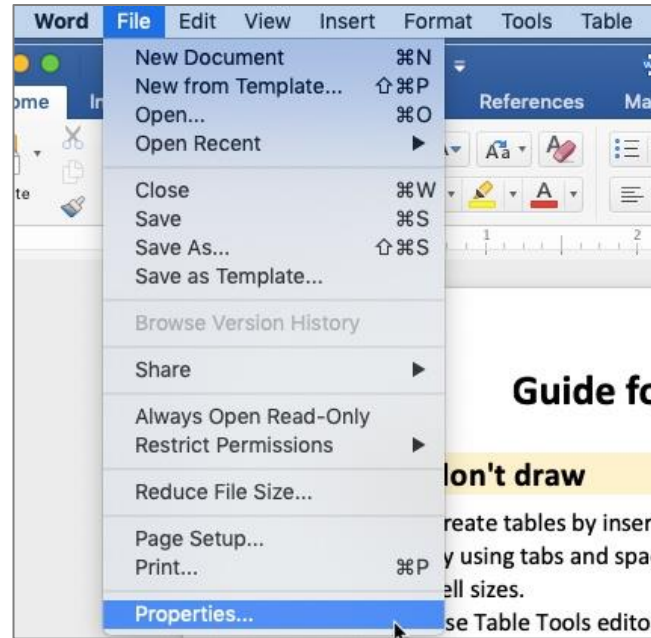
Converting a document to PDF

1. Select **File** from the menu and select **Save As.** Choose where you want to save the file.

2. In the **Save As** dialog box, choose **PDF** (Export Formats) in the File Format.

3. Select 1st radio button "**Best for electronic distribution and accessibility (Uses Microsoft online service)**"

4. Select **Export** button
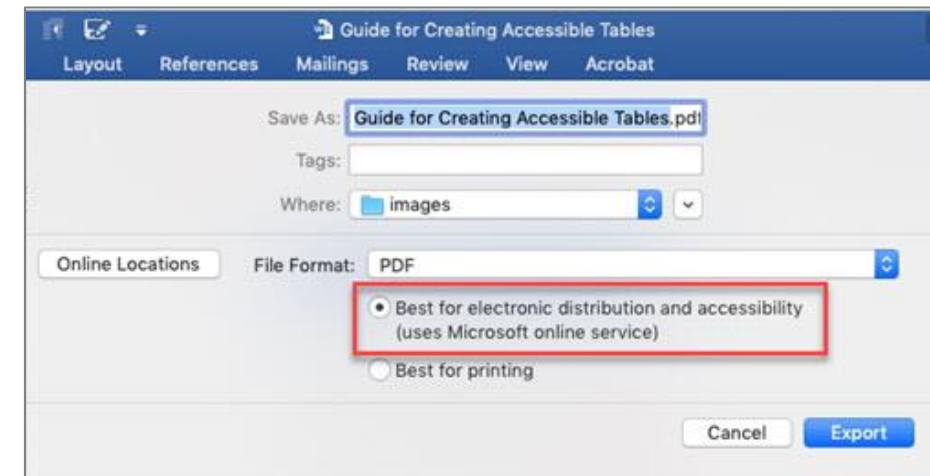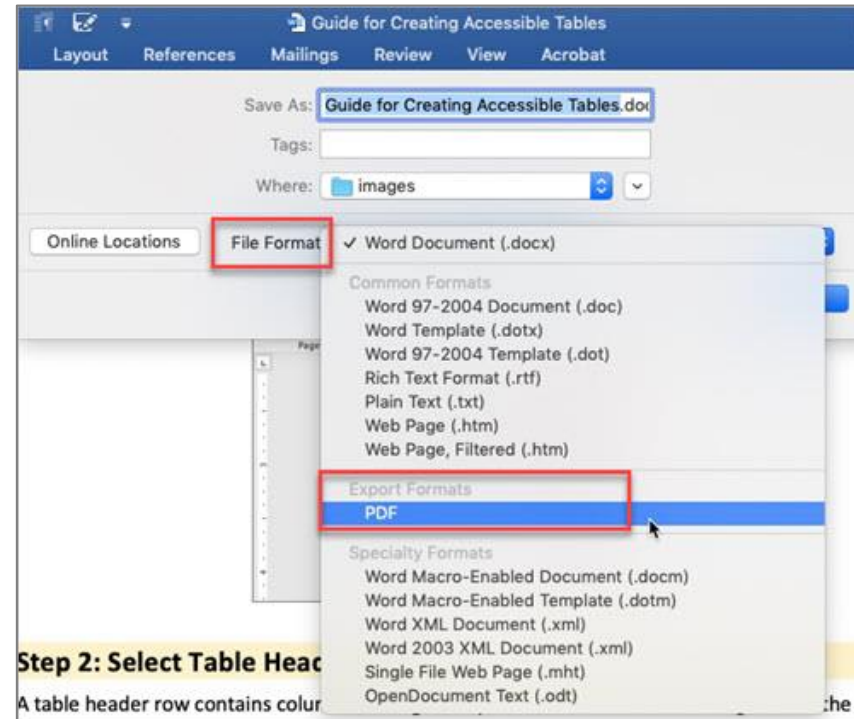
# Never Choose Print to PDF Option

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 **Save As** choose **PDF**.
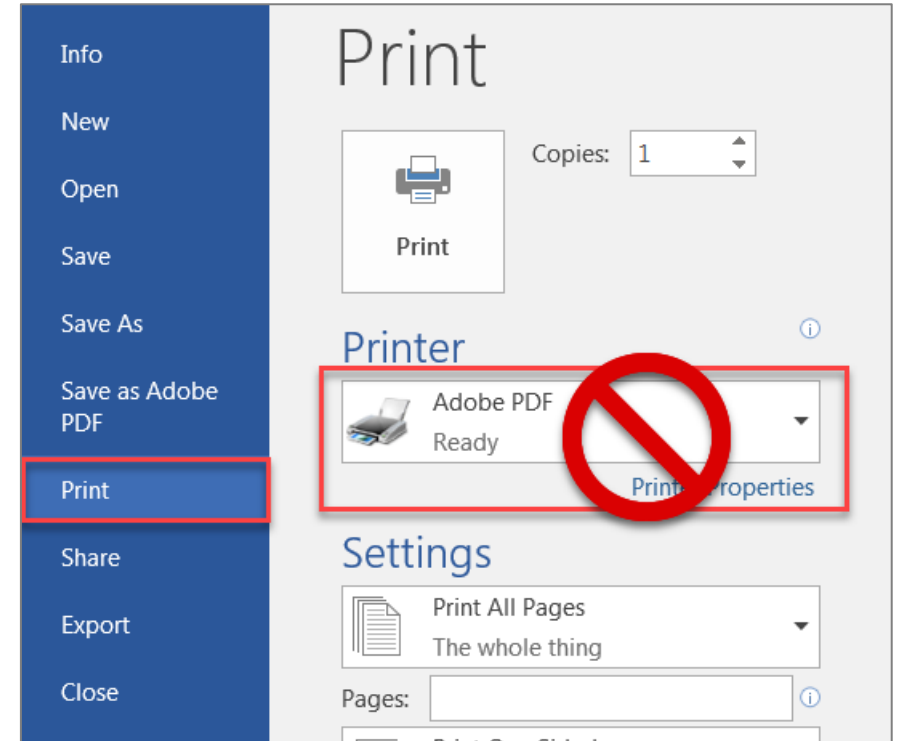
Open PDF files from Adobe Acrobat not Web Browser by default

- Save PDF files on Desktop
- Select PDF (not double click)
- File tab, Always Open with, Other

Adobe Creative Cloud for Faculty & Staff

Adobe Acrobat DC
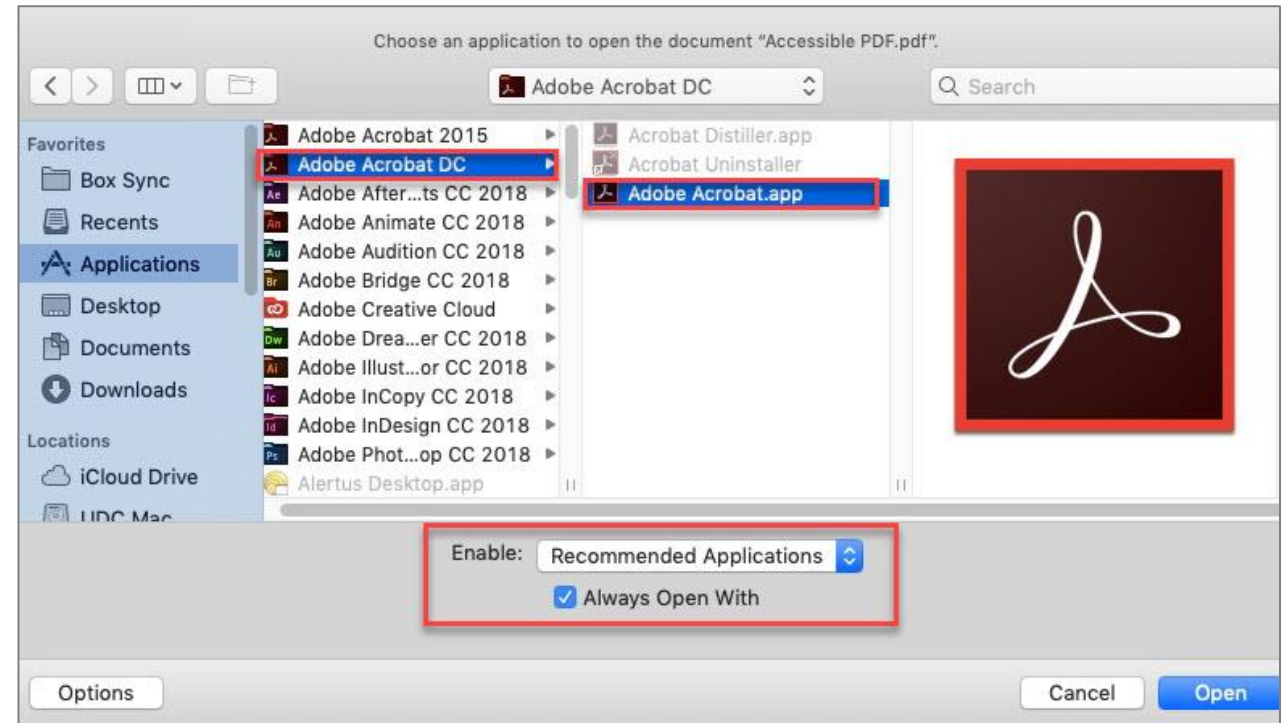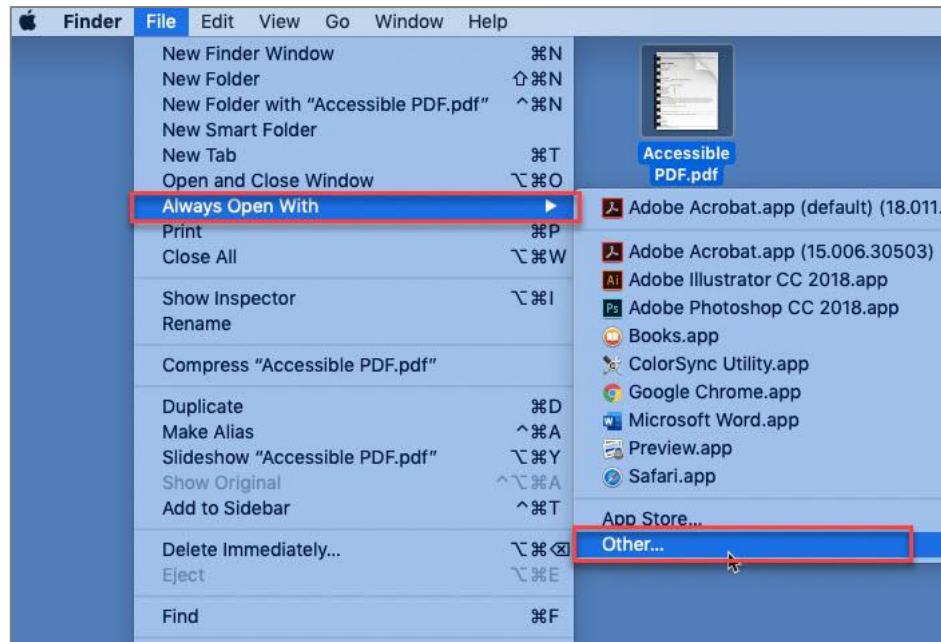
- Adobe Creative Cloud software is now available for use (at no additional charge) on all faculty and staff university-owned computers, labs and classroom devices, and for all students.

- 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.*
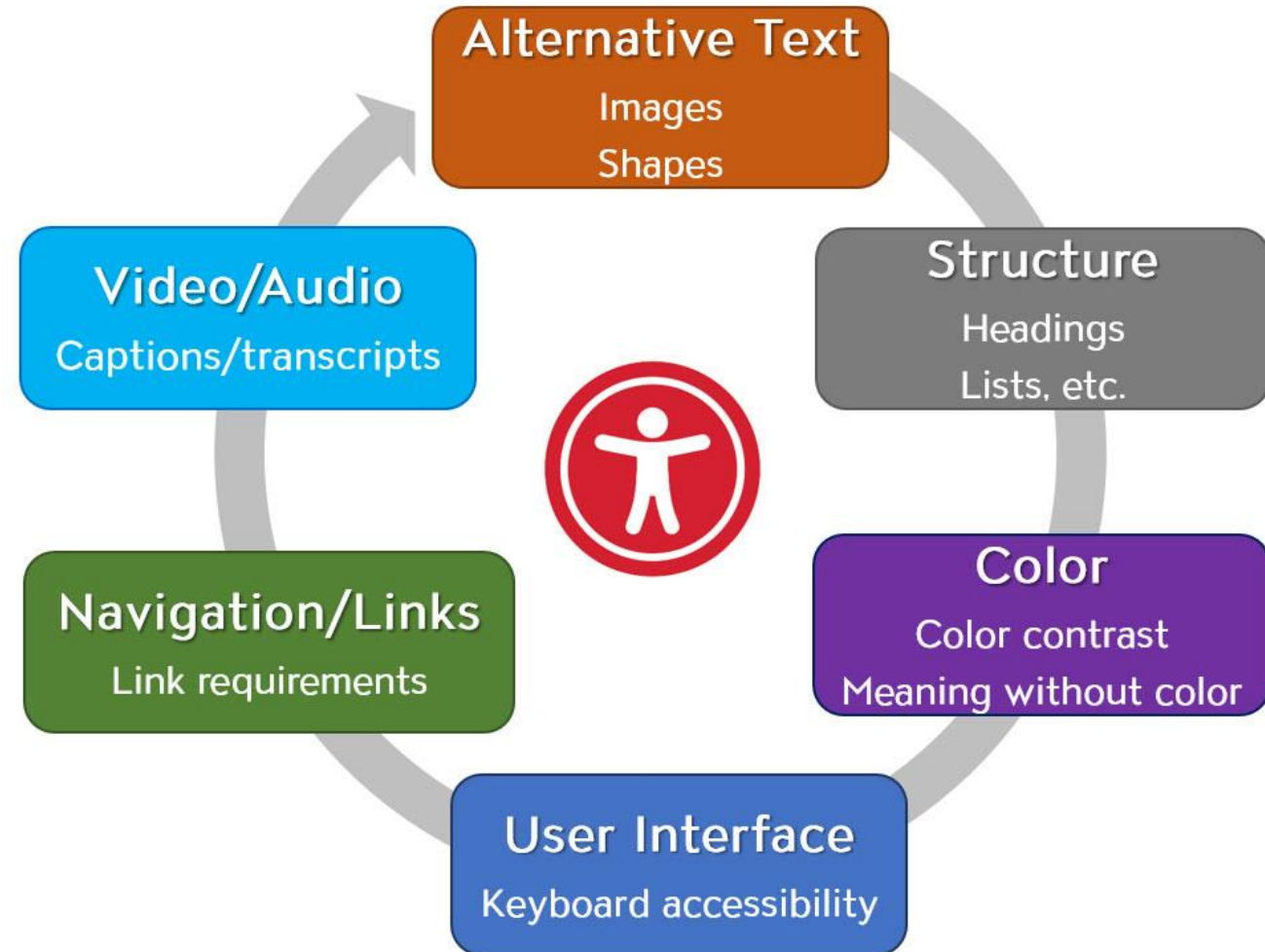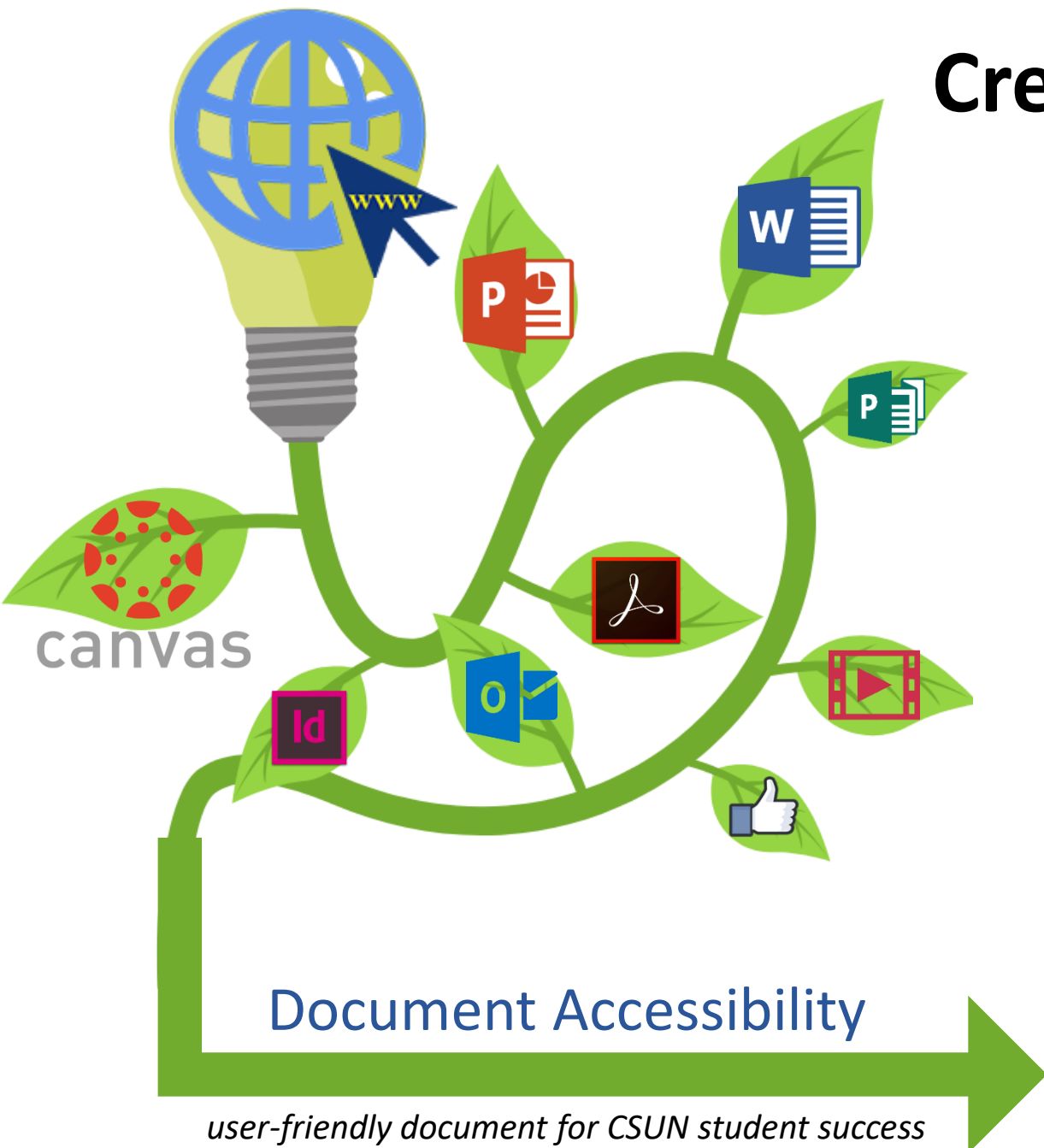
Create with Accessibility in Mind
Best Practices

Document Accessibility

user-friendly document for CSUN student success

Alternative Text
Images
Shapes

Structure
Headings
Lists, etc.

Video/Audio
Captions/transcripts

Color
Color contrast
Meaning without color

Navigation/Links
Link requirements

User Interface
Keyboard accessibility

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

Universal Design Center Offers

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

[Self-Paced Accessibility Canvas Courses](#)