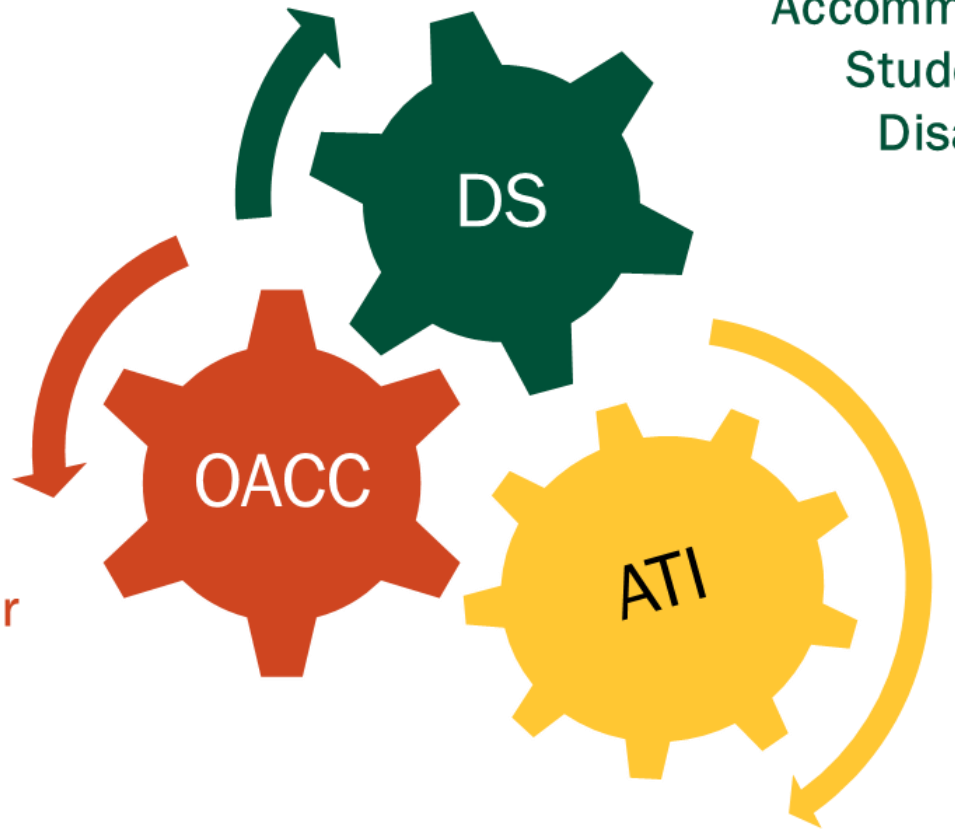
GEORGE MASON UNIVERSITY

Creating Accessible Documents

Korey Singleton, Ph.D., ATP, RET
Assistive Technology Initiative
Office for Access, Compliance, and Community

CPH Adjunct Faculty Meeting
March 16, 2026

George Mason Accessibility:
A Collaborative Partnership



Accommodations for Students with Disabilities

Accommodations for Employees with Disabilities

Technology Accommodations/ICT Accessibility & Compliance

GEORGE MASON UNIVERSITY

Compliance Changes

ADA Title II Updates, WCAG, DCAAP, Who Benefits

ADA Title II Updates

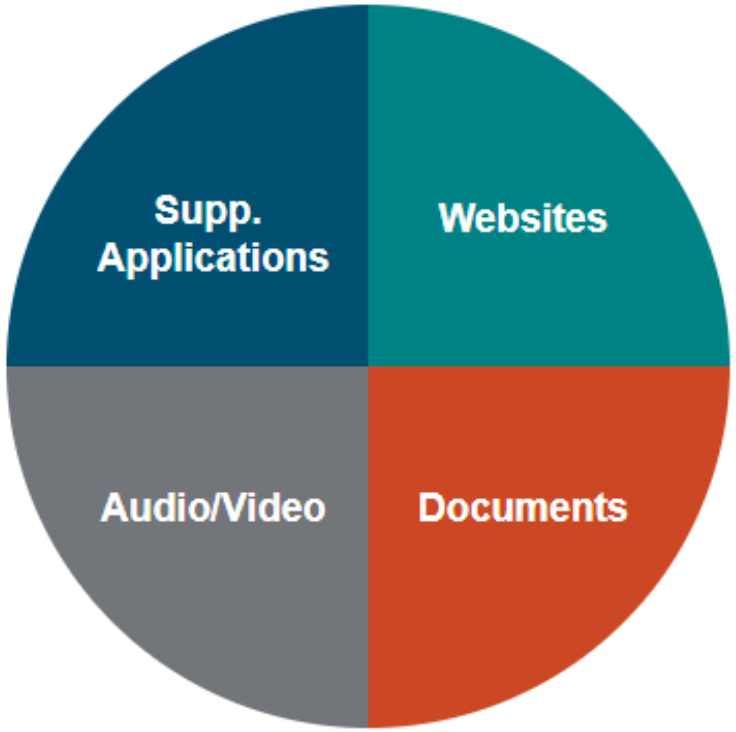
- Adopt Web Content Accessibility Guidelines (WCAG) v2.1, Level AA
- All websites and mobile apps, including digital platforms (e.g., LMS, CMS), would need to comply with the standard.
- **Compliance expected by large institutions (50k+) by April 24, 2026.**
- **Exemptions:**
    1. Archived web content
    2. Preexisting conventional electronic documents
    3. Content posted by a third-party
    4. Password-protected documents
    5. Preexisting social media posts

- **Considerations:**
    - There are exceptions to the exceptions!
    - *See DCAAP Exemptions Guide for additional guidance.*

Signed on April 26, 2024, recent updates integrate requirements relating to digital accessibility (*websites* and *mobile apps*).

Digital Content Accessibility Action Plan (DCAAP)

https://accessibility.gmu.edu/DCAAP



- **DCAAP Focus:**
  - Emphasis on resources to support accessible *content creation (documents, websites, audio/video, supplemental apps)*
- **DCAAP Timeline:**
  - PHASE 1: Fall 2024 – Pilot
  - PHASE 2: Spring thru Fall 2025 – Public-Facing Websites (**ONGOING**)
  - ***PHASE 3: Fall 2025 thru Fall 2026*** – Academic Courses
- **DCAAP Objectives:**
  - Auditing & Assessment
  - Targeted Training & Consultation
  - Remediation
  - Ongoing Accessibility Monitoring

GEORGE MASON UNIVERSITY

Why is this Important?

Assistive Technology Users, Universal Benefits

WCAG & Assistive Technology Users

Voice Control on Mac and iOS (YouTube)

Who Else Benefits?

Digital accessibility benefits people with a wide variety of abilities and disabilities

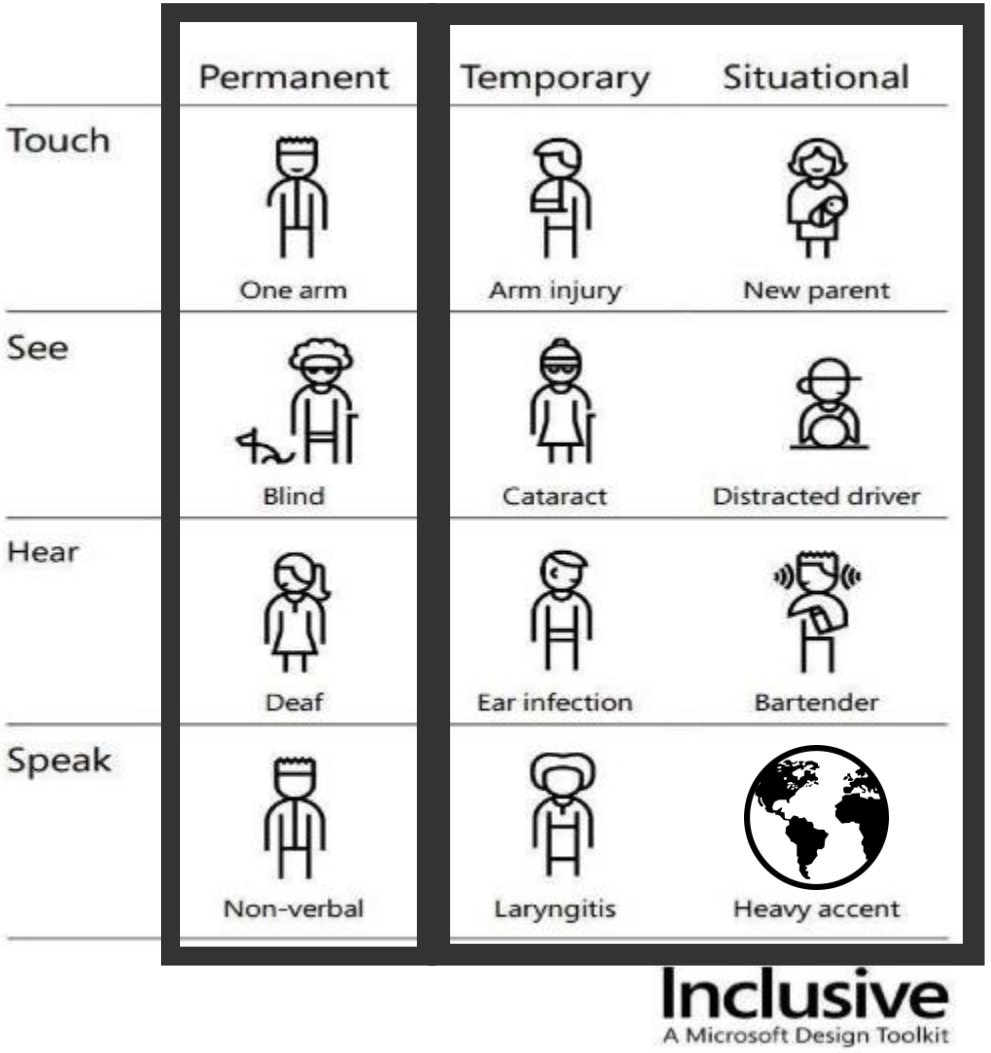


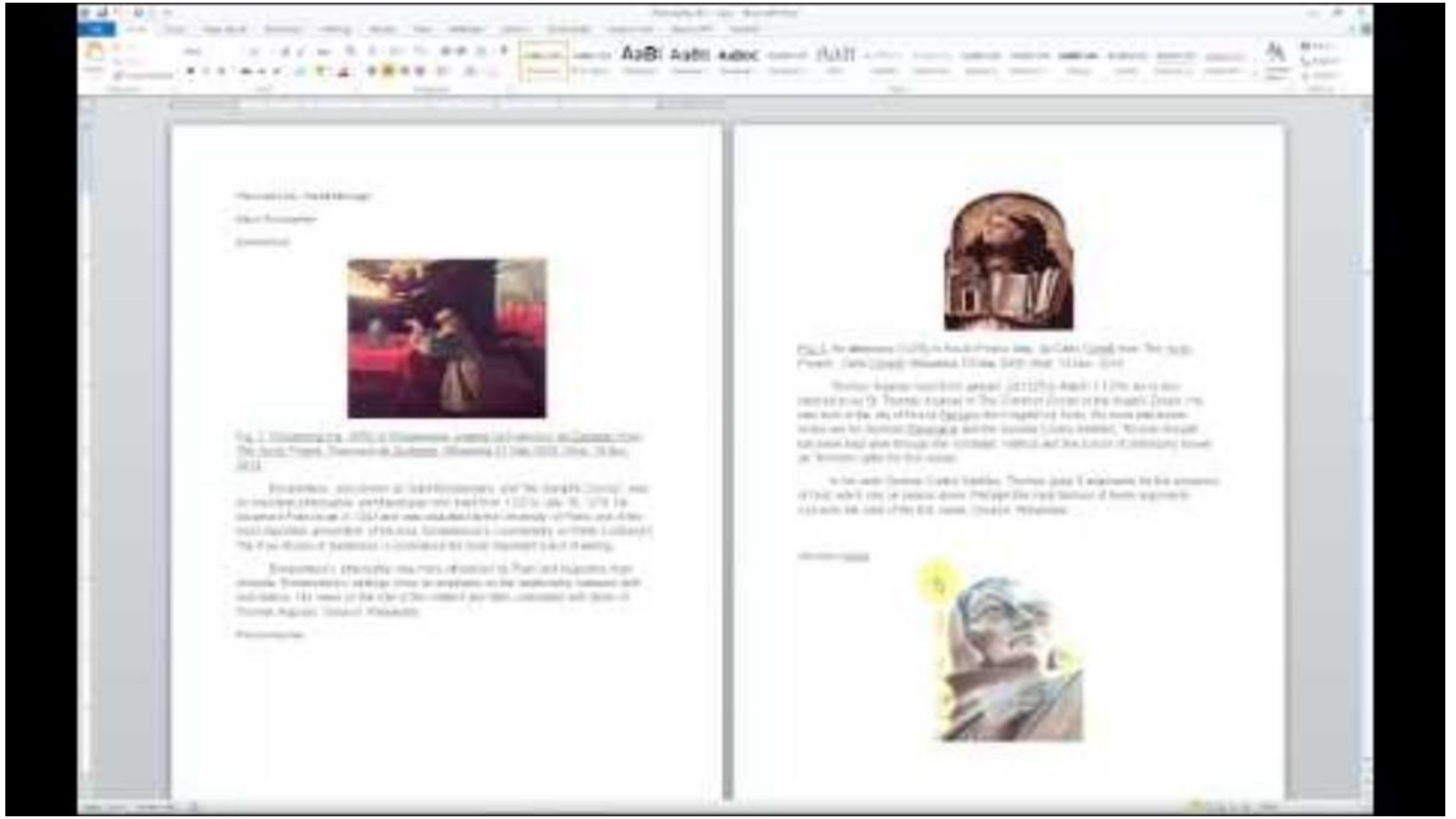
Image taken from http://awards.ixda.org/entry/2017/microsoft-inclusive-toolkit-2/

GEORGE MASON UNIVERSITY

Top 6 Tips for Creating Accessible Documents

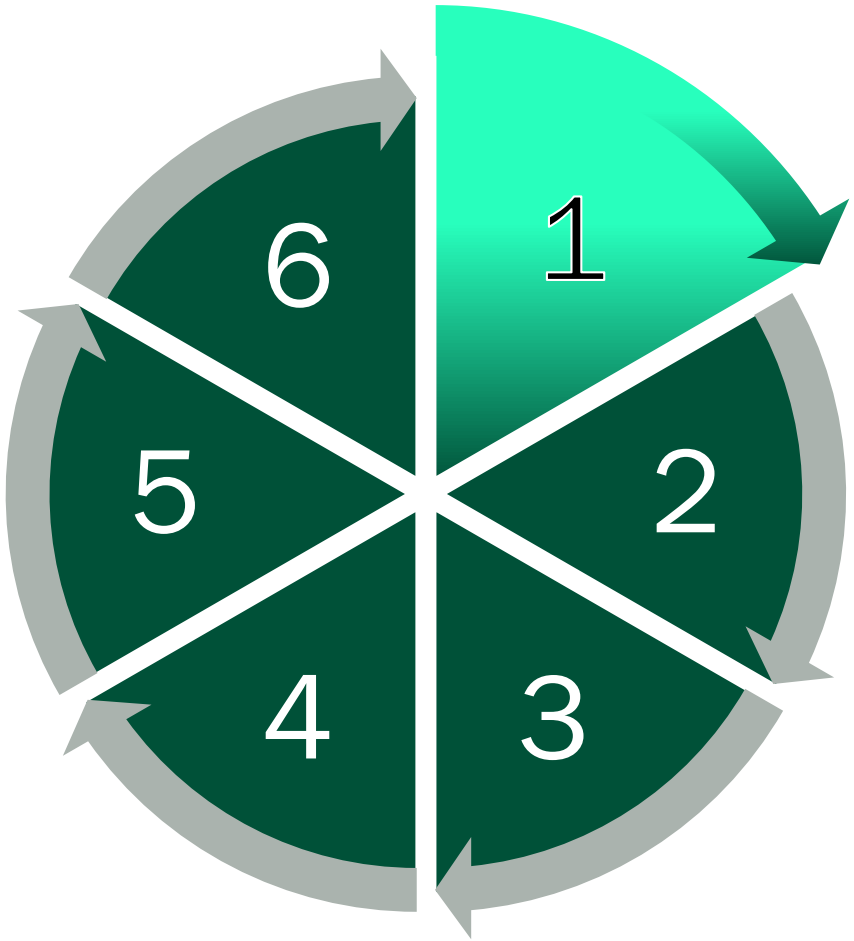
Alt Text, Color Contrast, Headings, Etc.

Screen Reader User's Experience and Microsoft Word



[Screen Reader User's Experience and MS Word](#) (YouTube)

Tip #1



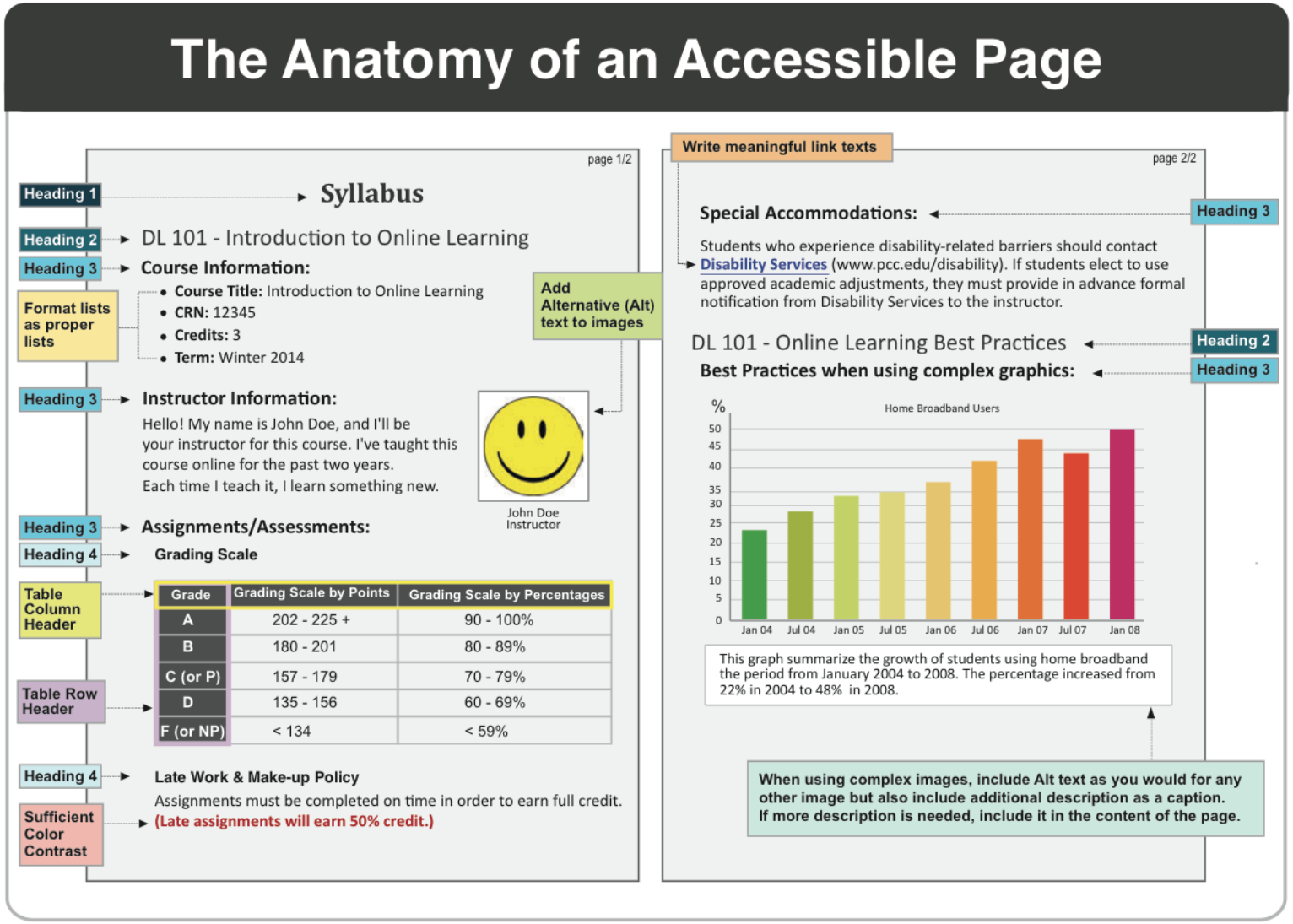
Add Headings Using Styles (Word)

Ensure your documents have easy-to-follow navigation, whitespace, and other structural elements like lists, easy-to-read fonts, etc.

Anatomy of an Accessible Document

Documents should include the following:

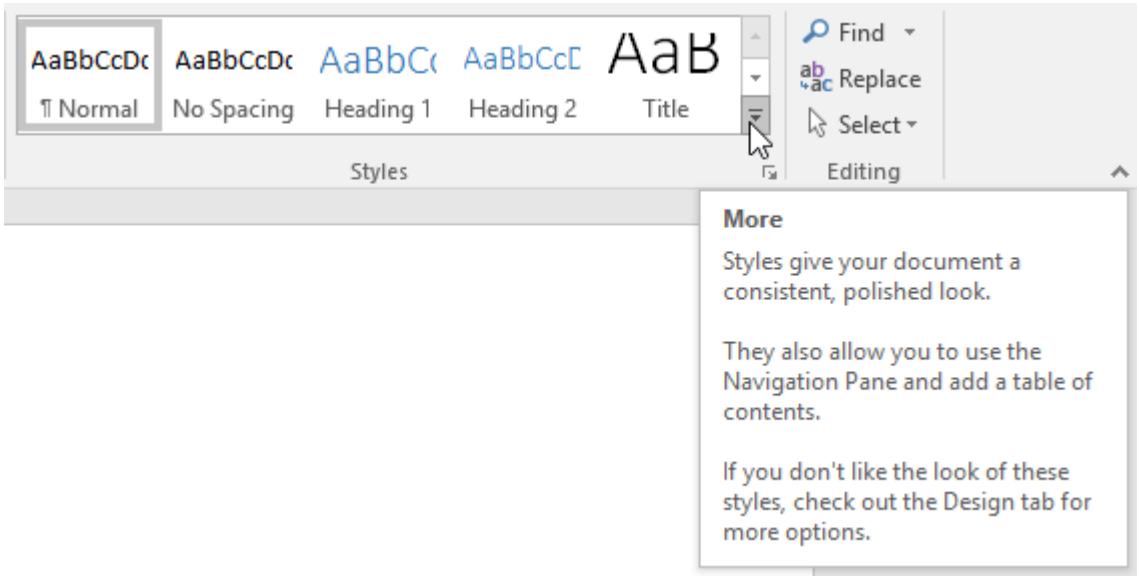
- Easy-to-follow navigation
- Whitespace
- Lists
- Headings/Bookmarks
- Easy-to-read fonts



Document courtesy of *Portland Community College*: PCC Online Accessibility Handbook [PDF].

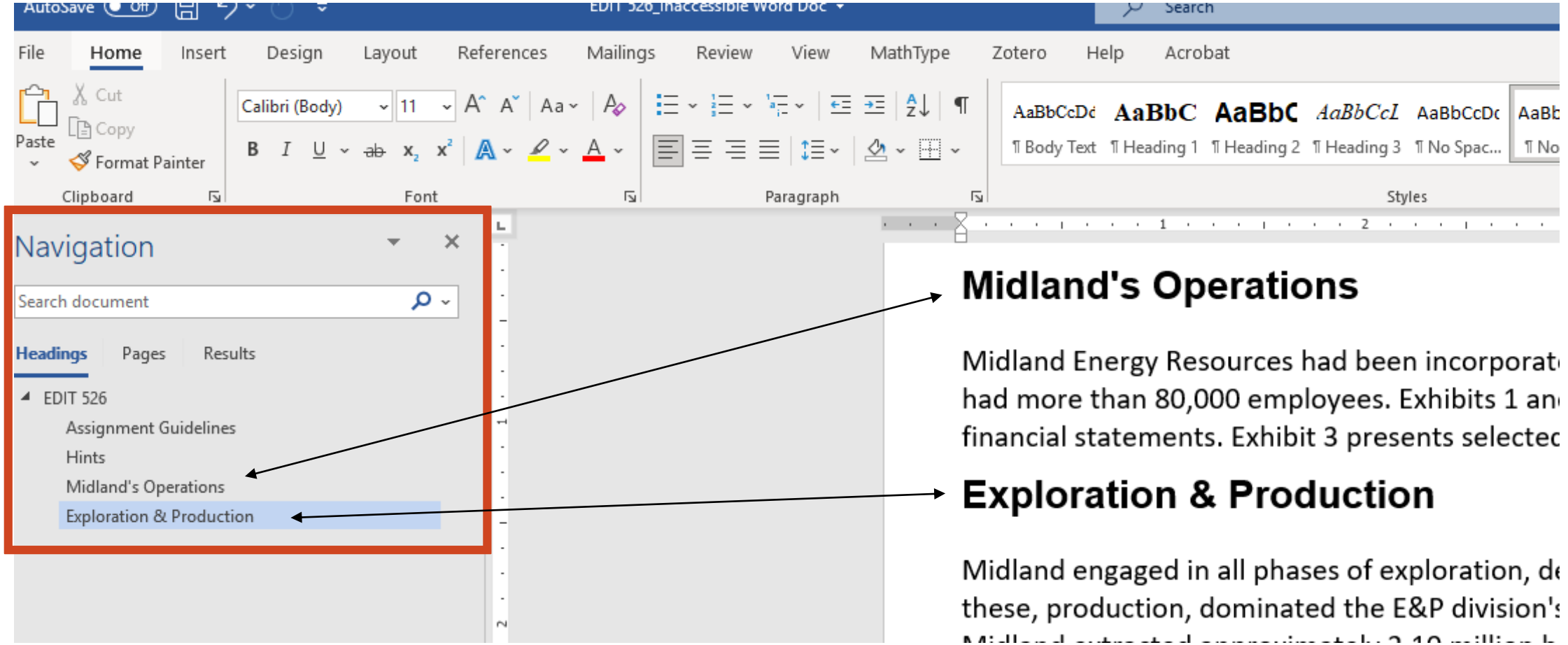
Applying Styles in MS Word

- Changing Style Set:
  1. On the **Home** tab, click **Change Styles**.
  2. Point to Style Set, then hover the pointer over each style set to preview it.
  3. Click the Word style set to apply it to the document.

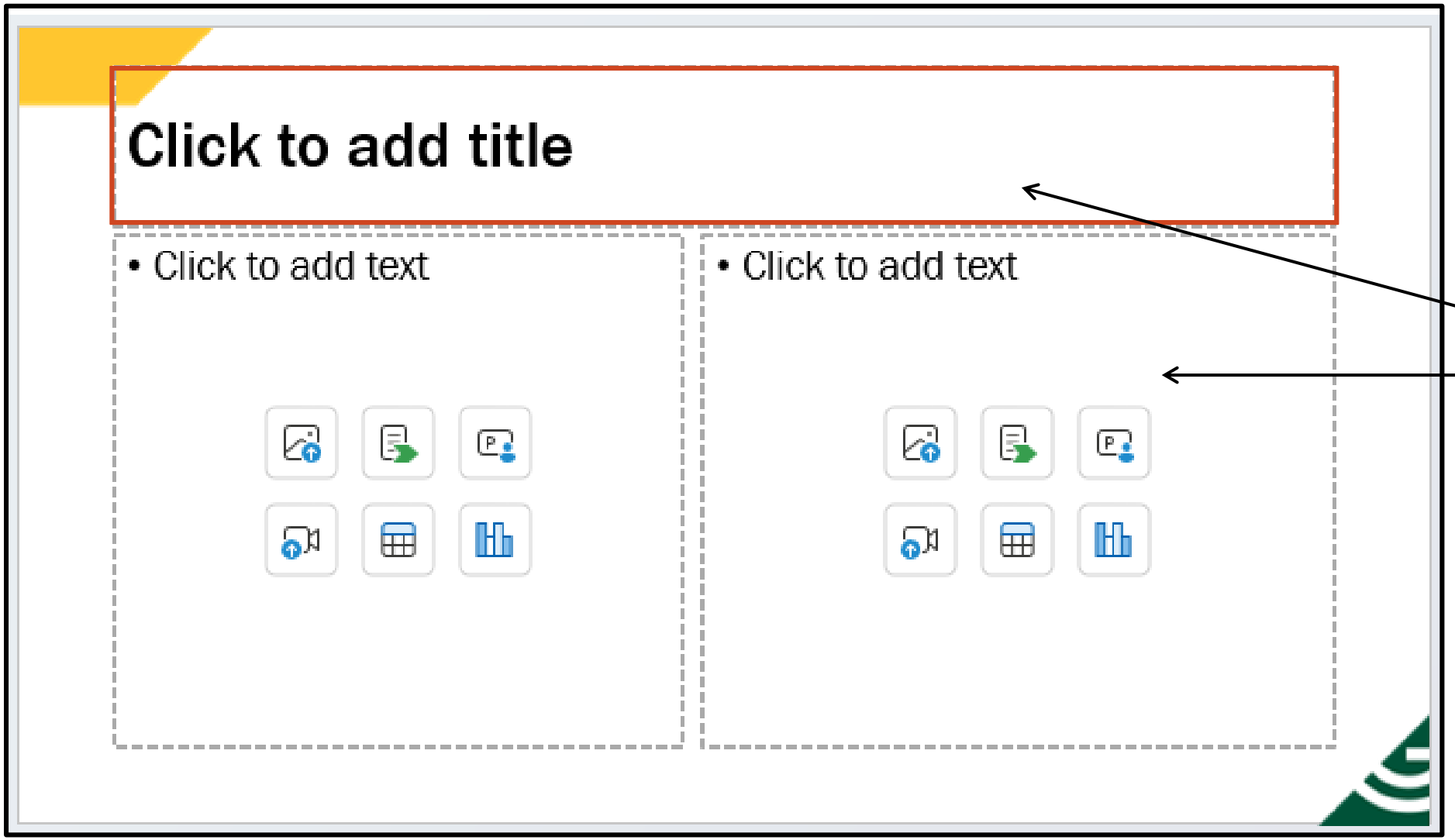


Resource: [Applying Styles in Microsoft Word]

Viewing the Navigation Pane (Word)– DEMO

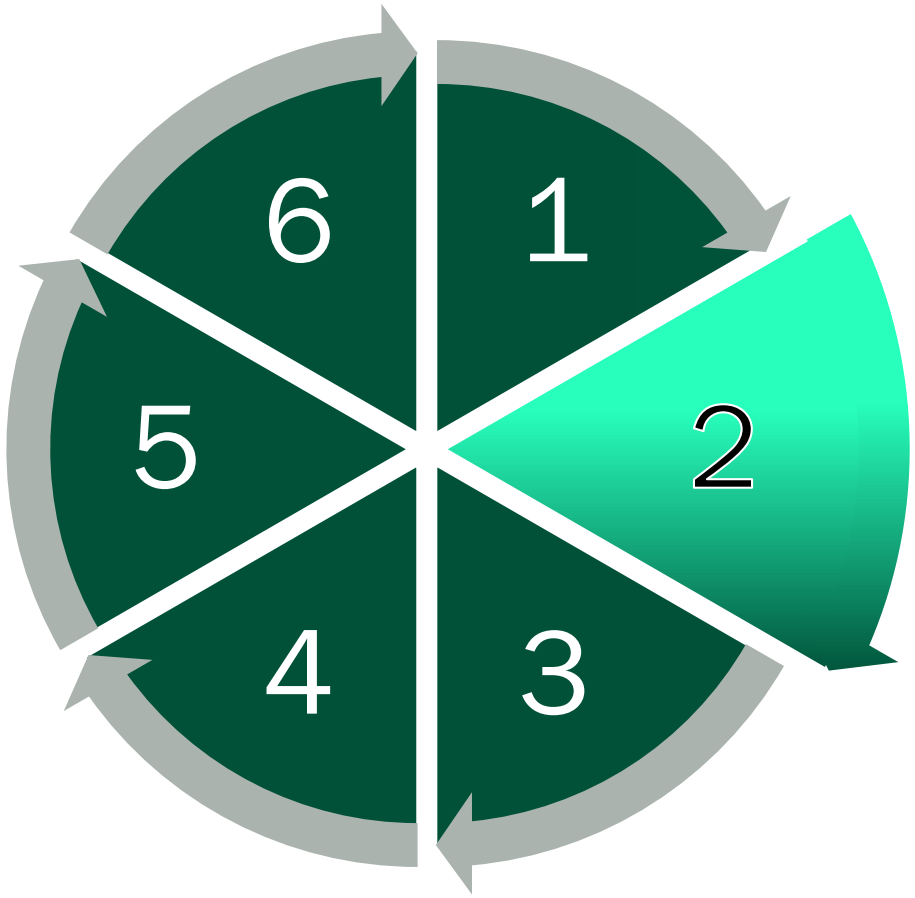


Adding Structure to your Presentations (PPT)– DEMO



Use the built-in placeholders for title, text, etc.

Tip #2



Use good color contrast. Also avoid relying on color alone to convey important information.

Example (Use Good Color Contrast):
Good Contrast vs. Poor Contrast

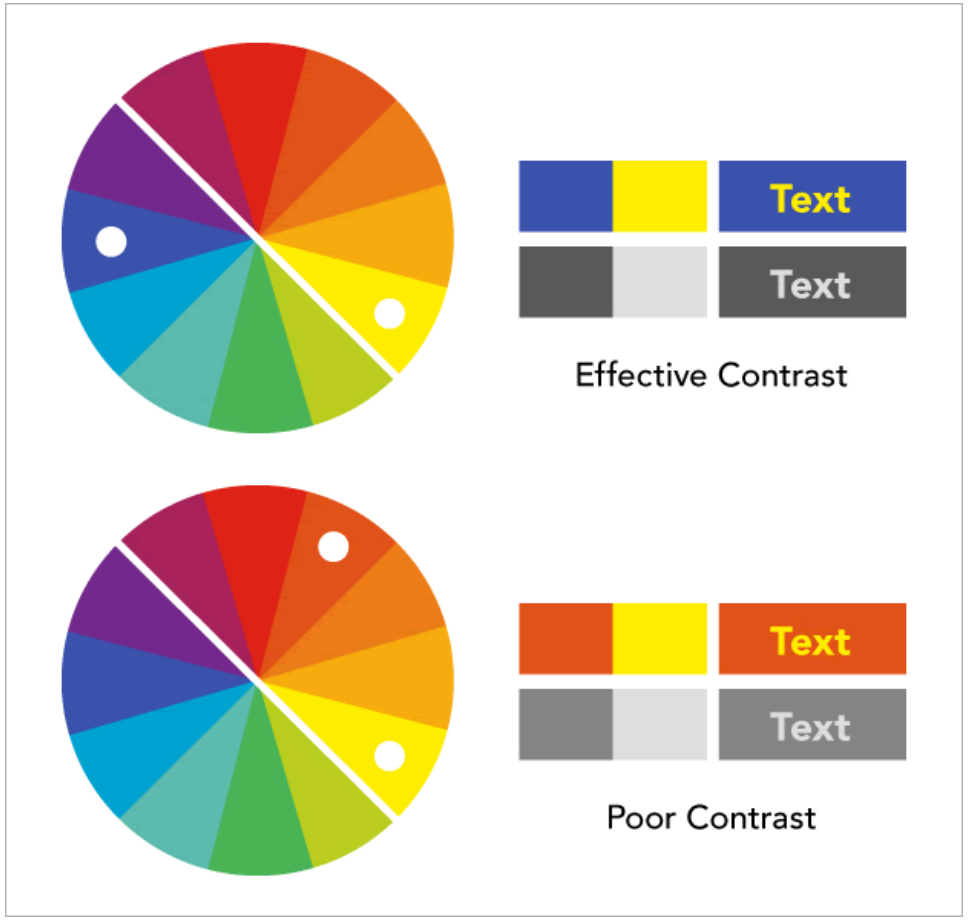
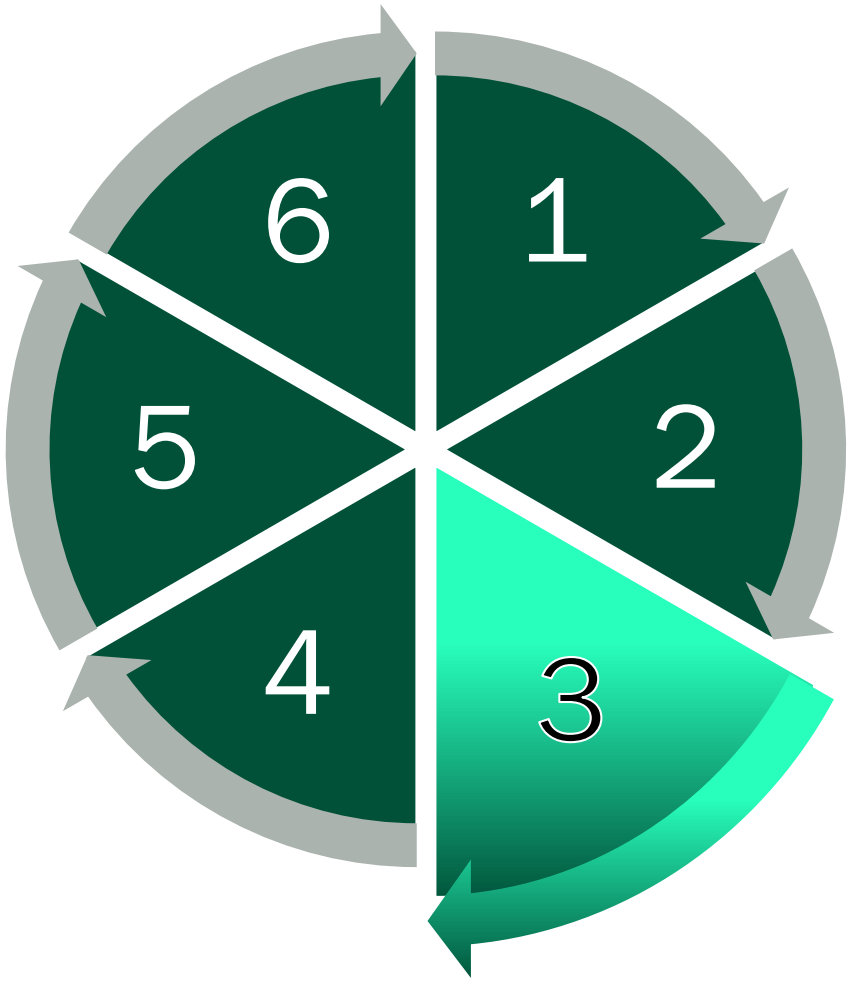


Image taken from Culture Connect.

This benefits individuals who may have colorblindness or those with low vision. It is also beneficial for drawing interest to important content.

Try to pick colors that are in opposite quadrants of the color wheel.

Tip #3

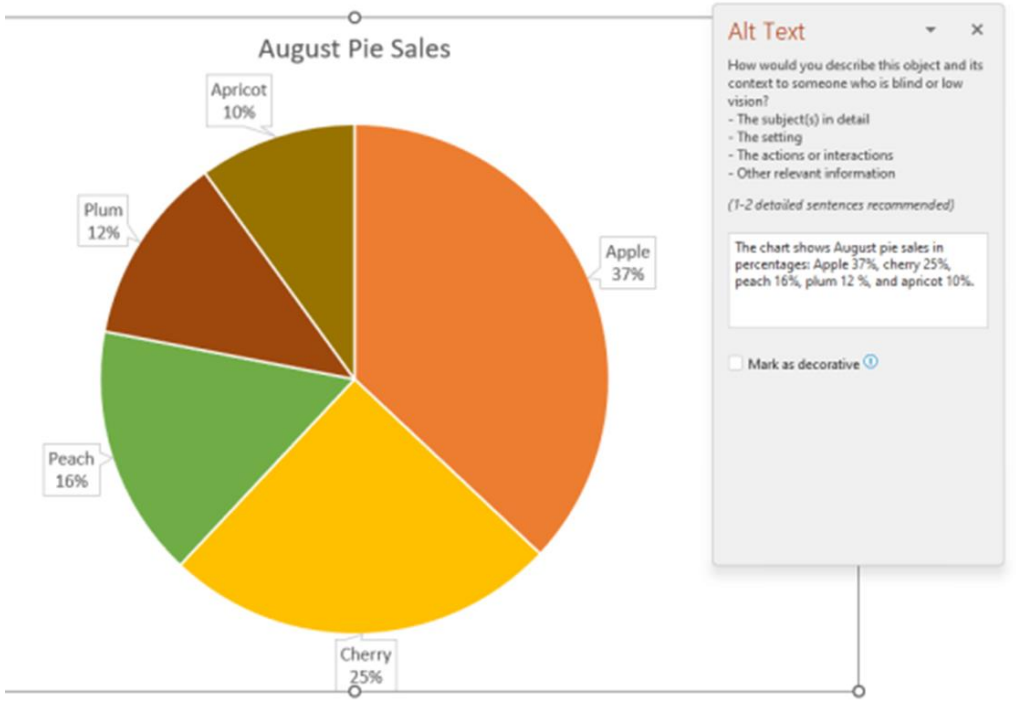


Provide alternative text descriptions for all *meaningful* images.

Alt Text Descriptions

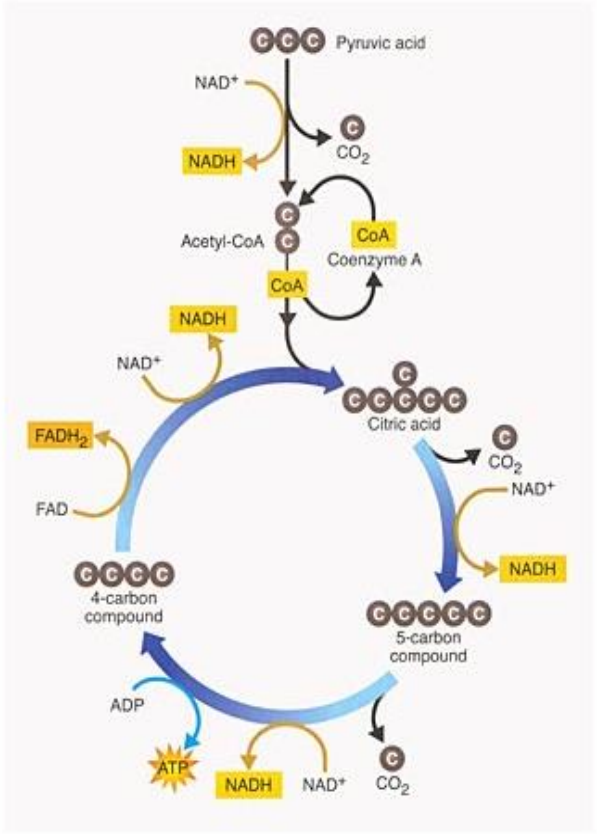
E.g., *Chart/Graph in Word or PPT*

- Alternative text descriptions, or ***alt text***, provide useful information for individuals who are unable to see the content.
- Keep it simple! Focus on what the user should take away from the image.
- If the image has no meaningful information, mark it as ***decorative***.
- ***Alt text*** is supported by most word processing applications (i.e., Word, PPT, Acrobat, Outlook, etc.)



Complex Image Descriptions
E.g., *Krebs Cycle* Infographic

Process Diagram as Flow Chart



Description:

The Krebs Cycle is depicted as a linear reaction which leads downward into a cyclical reaction. Here, the steps of the reactions are presented as lists.

1. Linear Reaction
    - Pyruvic acid, a 3-carbon compound.
    - One carbon molecule is lost as part of a CO2 molecule.
    - An NAD-positive molecule enters the reaction, then leaves as NADH.
    - A 2-carbon acetyl group remains.
    - Coenzyme A, or CoA, joins the 2-carbon acetyl group to form Acetyl CoA.
    - CoA leaves the reaction as it delivers the acetyl group to the circular reaction.

2. Circular Reaction
    - The two-carbon acetyl group joins a four-carbon compound to form a 6-carbon compound, citric acid.
    - A carbon is lost as CO2.
    - NAD-positive enters, then leaves as NADH.
    - A 5-carbon compound remains.
    - another carbon is lost as CO2.
    - NAD-positive comes in and leaves as NADH.
    - ADP comes in and leaves as ATP.
    - A four-carbon compound remains.
    - FAD comes in and leaves as FADH2.
    - NAD-positive comes in and leaves as NADH.
    - Back again at the top of the circular reaction, a two-carbon acetyl group from the linear reaction enters, forming the 6-carbon citric acid at the beginning of the cycle.

Images taken from http://ncamftp.wgbh.org/ncam-old-site/experience_learn/educational_media/stemdx/exg.html.

Tip #4

When using tables, keep it simple!

Consider the following when using tables…

- **Table headers must be identified**
- **Make data predictable and easy to navigate** (i.e., one column row header, one row for column headers)
- When possible, **avoid using split or merged cells**

Example of simple table

Name	Date of Birth	Birthplace
Jane	July 20, 2006	Nevada
Joe	February 5, 2001	Minnesota

Example of table with merged/split cells

Name	Date of Birth		Birthplace
	Month	Year	
Jane	July	2006	Nevada
Joe	February	2001	Minnesota

Screen readers and tables

Dept. Code	Course #	Section	Max. Enrollment	Current Enrollment	Room Number	Days
BIO	100	1	15	13	5	Mon, Wed, Fri
ENGL	200	2	15	7	8	Tues, Thurs
PSYCH	100	1	15	15	13	Wed

Table Without Markup (Read Left-to-Right, Top-to-Bottom)

Department Code, Course Number, Section, Max Enrollment, Current Enrollment, Room Number, Days, BIO, 100, 1, 15, 13, 5, Mon, Wed, Fri, ENGL, 200, 2, 15, 7, 8, Tues, Thurs, PSYCH, 100, 1, 15, 15, 13, Wed

Table adapted from WebAIM: Creating Accessible Tables.

What the screen reader “sees”
(*without* headers identified)

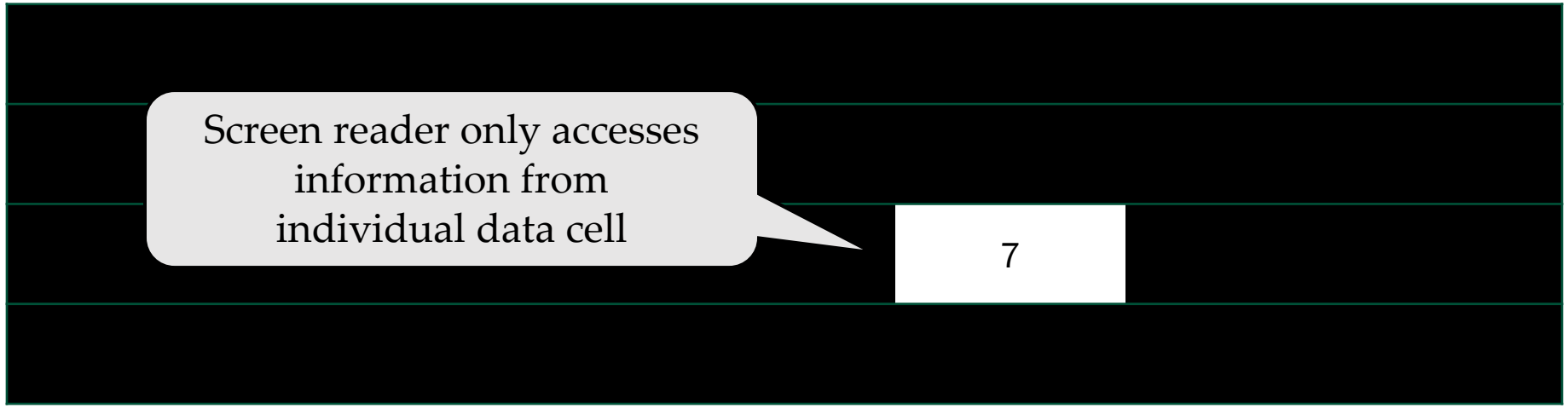


Table Without Markup (Read Left-to-Right, Top-to-Bottom)

Department Code, Class Number, Section, Max Enrollment, Current Enrollment, Room Number, Days, BIO, 100, 1, 15, 13, 5, Mon, Wed, Fri, ENGL, 200, 2, 15, 7, 8, Tues, Thurs, PSYCH, 100, 1, 15, 15, 13, Wed

Table adapted from WebAIM: Creating Accessible Tables.

What the screen reader “sees”
(*with* headers identified)

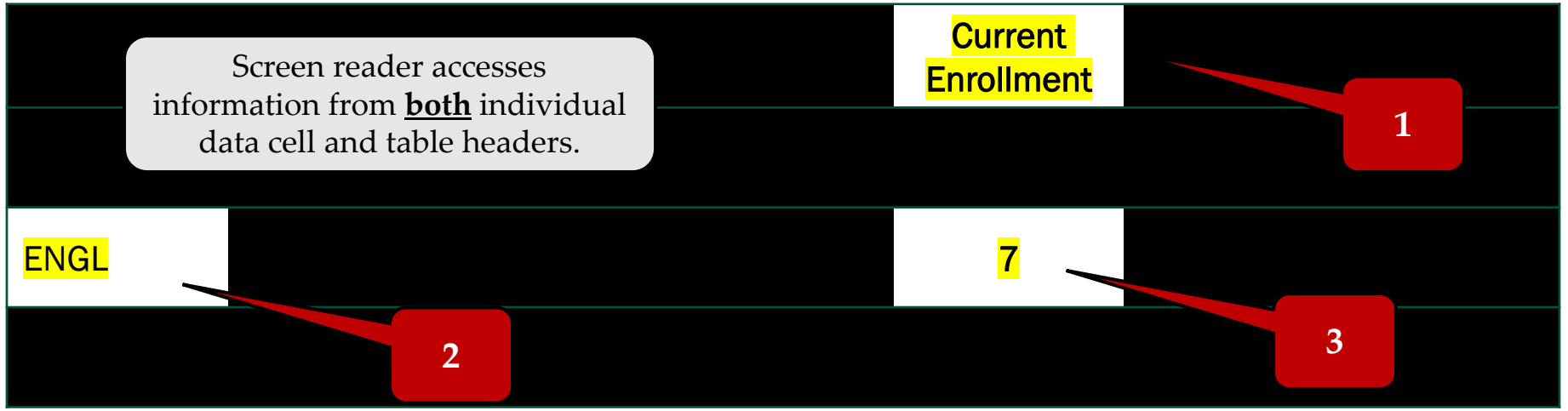
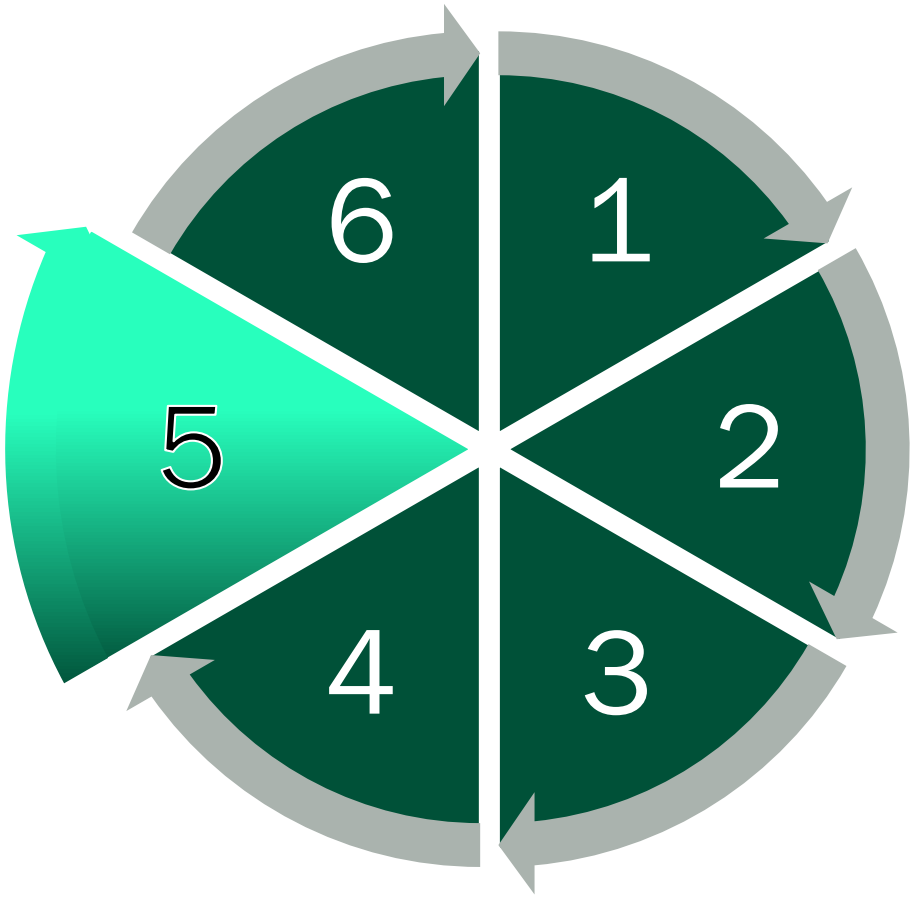


Table With <th> tags and scope attributes

Department Code, Class Number, Section, Max Enrollment, **Current Enrollment**, Room Number, Days, BIO, 100, 1, 15, 13, 5, Mon, Wed, Fri, **ENGL**, 200, 2, 15, **7**, 8, Tues, Thurs, PSYCH, 100, 1, 15, 15, 13, Wed

Table adapted from WebAIM: Creating Accessible Tables.

Tip #5



Use meaningful hyperlink text.
Text should indicate where user will go if they click on the link.

Use Meaningful Hyperlink Text

E.g., Using descriptive links, not URLs or text like "***click here***", or "***read more***"

- E.g., Use George Mason University Home Page as opposed to http://www.gmu.edu

Image taken from https://www.shutterstock.com/search/click+here+button

How screen reading apps “see” hyperlinks

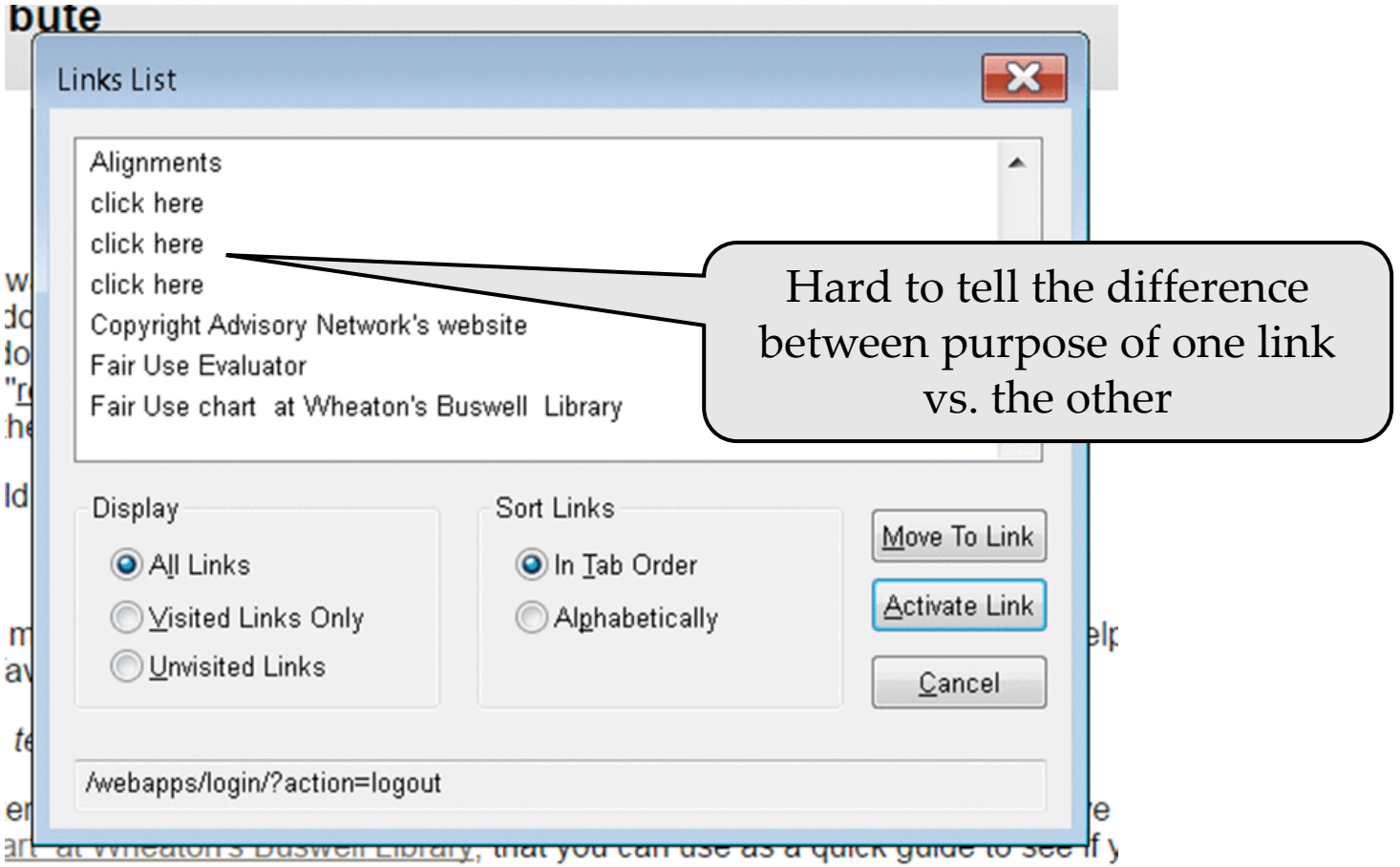


Image taken from [Best Practices in Accessible Online Design – CSU-Ohio](#).

How screen reading apps "*read*" hyperlinks

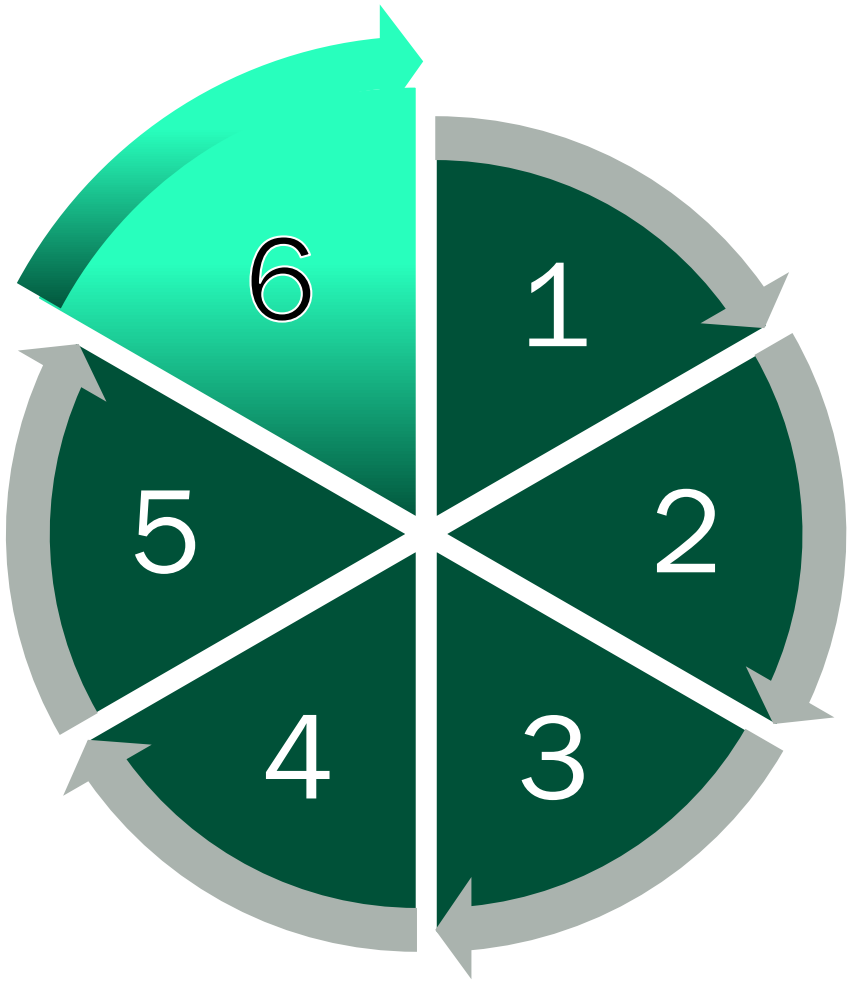
Poor Design

Try reading this article about a Mason alum: https://www2.gmu.edu/focused-your-future/lights-camera-action-mason-alum-creates-own-film-festival.

Better Design

Try reading this article about a Mason alum: Lights! Camera! Action! Mason Alum Creates Own Film Festival.

Tip #6



Use an accessibility checker!

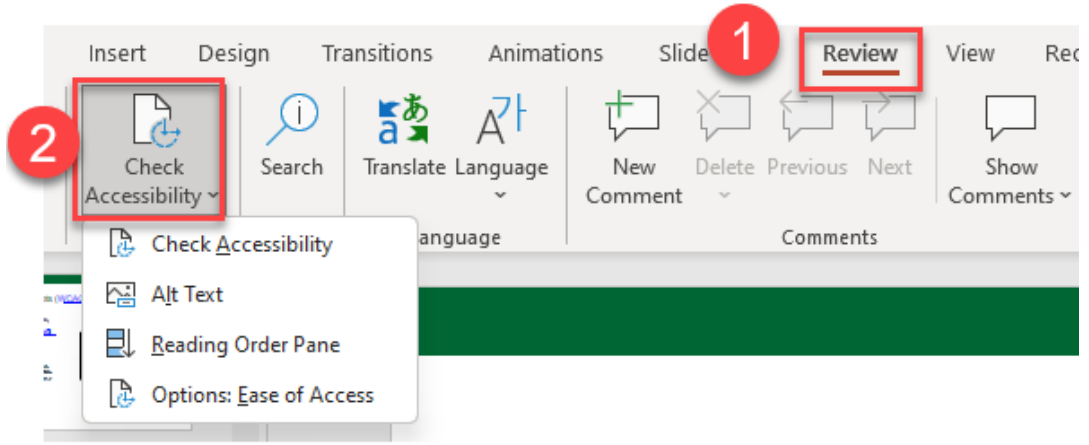
Accessibility checkers review many of the design elements covered in this presentation.

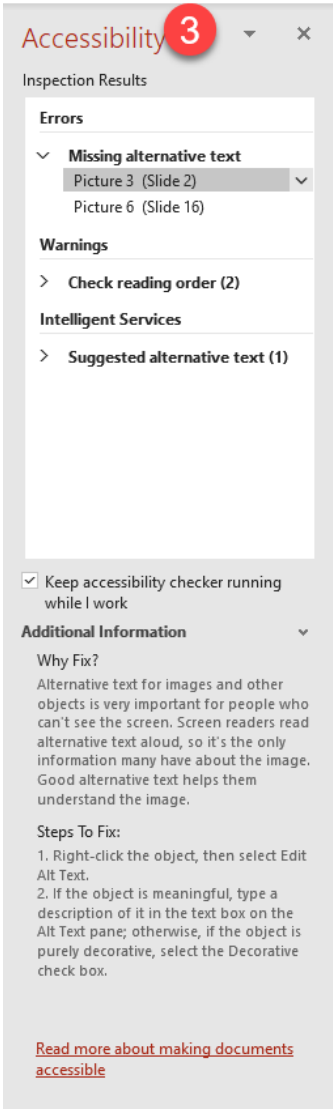
Microsoft's Built-In Accessibility Checker

- Microsoft's built-in accessibility checker reviews the accessibility of Word, PowerPoint, Excel documents. It also reviews messages being composed in Outlook.
- Has improved considerably in recent years and addresses accessibility concerns for most users.
- **Resources:** Creating Accessible Word Documents (Microsoft); Creating Accessible PowerPoint Presentations (Microsoft)

In Word, PPT, Excel, Outlook (*when composing message*)…

- Select ***Review*** tab.
- Select **Check Accessibility.**





Panorama (*Canvas*)

Faculty Supports

- Help faculty members identify course content that does not meet minimum accessibility standards.
- Prioritize content flagged with RED or ORANGE accessibility score icons.
- *Document Remediation Responsibilities:* Word/PPT (Faculty), PDFs (ATI)
- Aiming for all active courses to report a baseline accessibility score of 70 by end of Spring 2026

Student Supports

- Access to alternative formats

Institutional Supports

- Institutional/Dept/Course Dashboards

GEORGE MASON UNIVERSITY

Additional Considerations

Math/STEM Content

Accessible Math Authoring Tools

Equation Editor

- Author content in Microsoft 365 (Word, PPT)

MathType (Third-party)

- Microsoft 365 plug-in (Word, PPT)

Mathpix (Third-party)

- Web-based solution. Allows end users to convert snips into accessible digital math

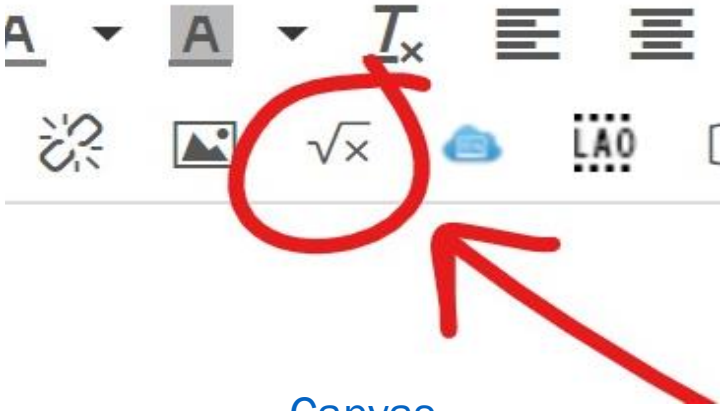
Canvas Math Editor

- Author LaTeX and MathML content directly in LMS

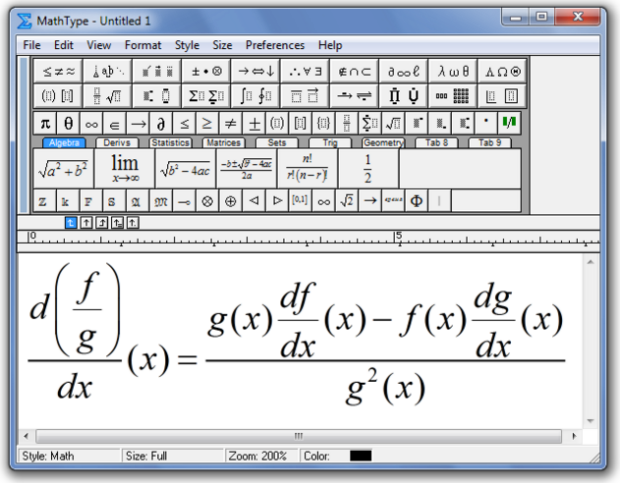
Benefits

- Help faculty members create accessible STEM content that meets ADA Title II compliance standards.
- Supports students' ability to access STEM in alternative formats like MathML and Braille (i.e., Mathpix, MathType)

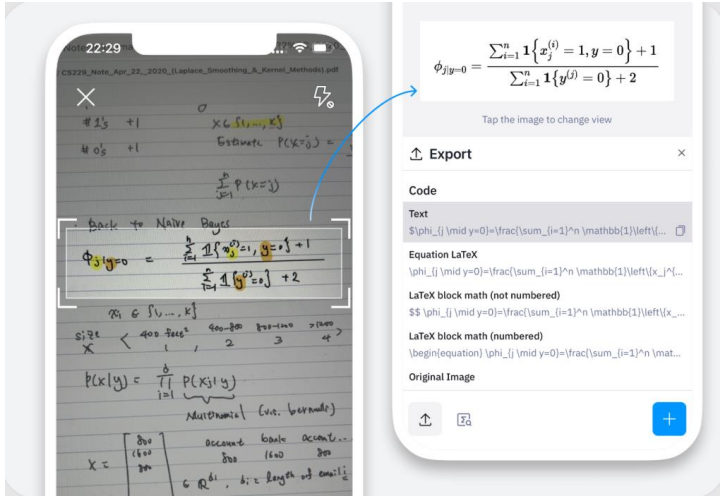
Microsoft 365 Equation Editor



Canvas Math Editor



MathType (3rd-party)



Mathpix (3rd-party)

Mathkicker.ai

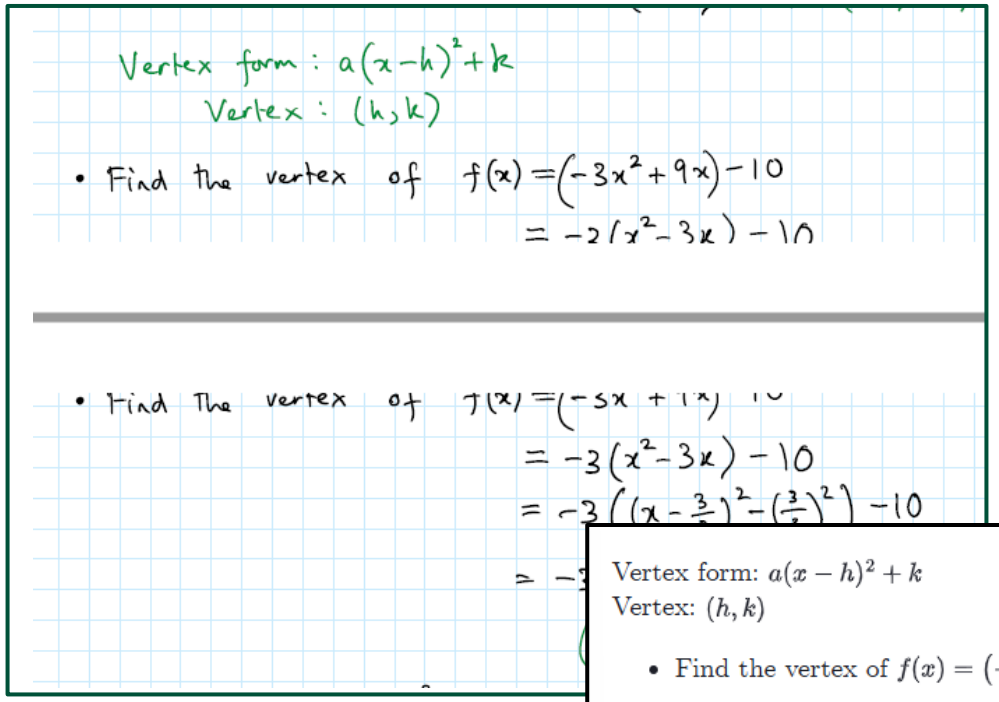
Benefits

- Introduced in the last year or so.
- Does a pretty good job scanning and converting full pages of content as opposed to just snippets.
- Handles handwritten math well.
- Low cost

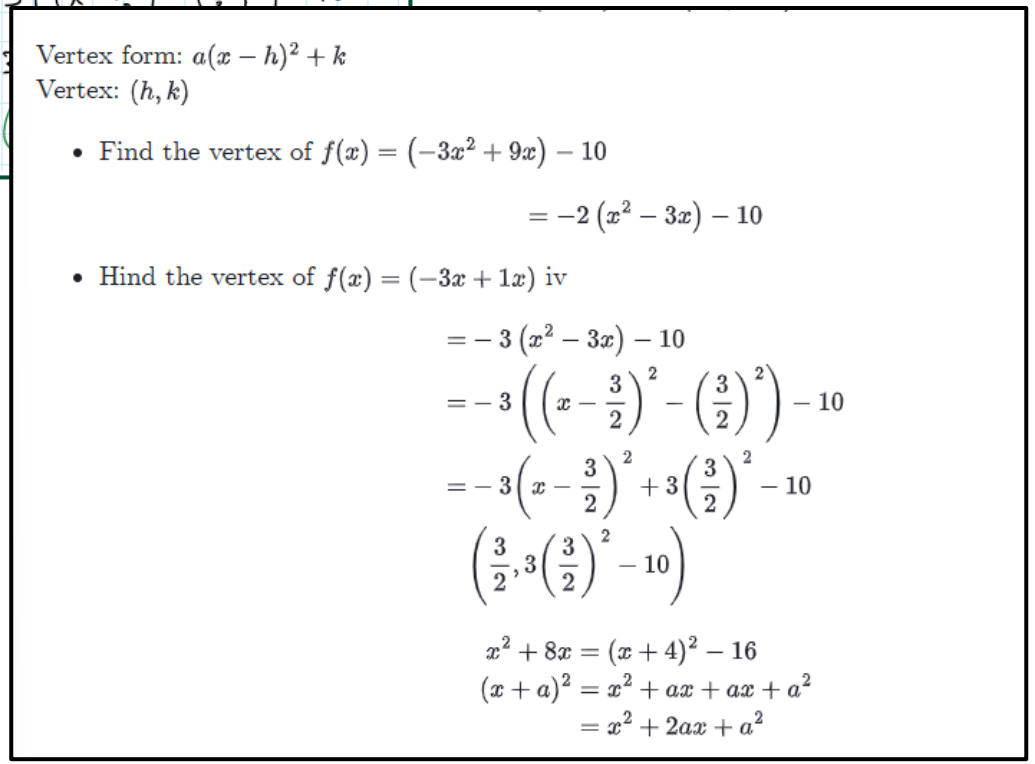
Drawbacks

- Still requires some editing to make the content fully accessible

PDF-version



HTML-version

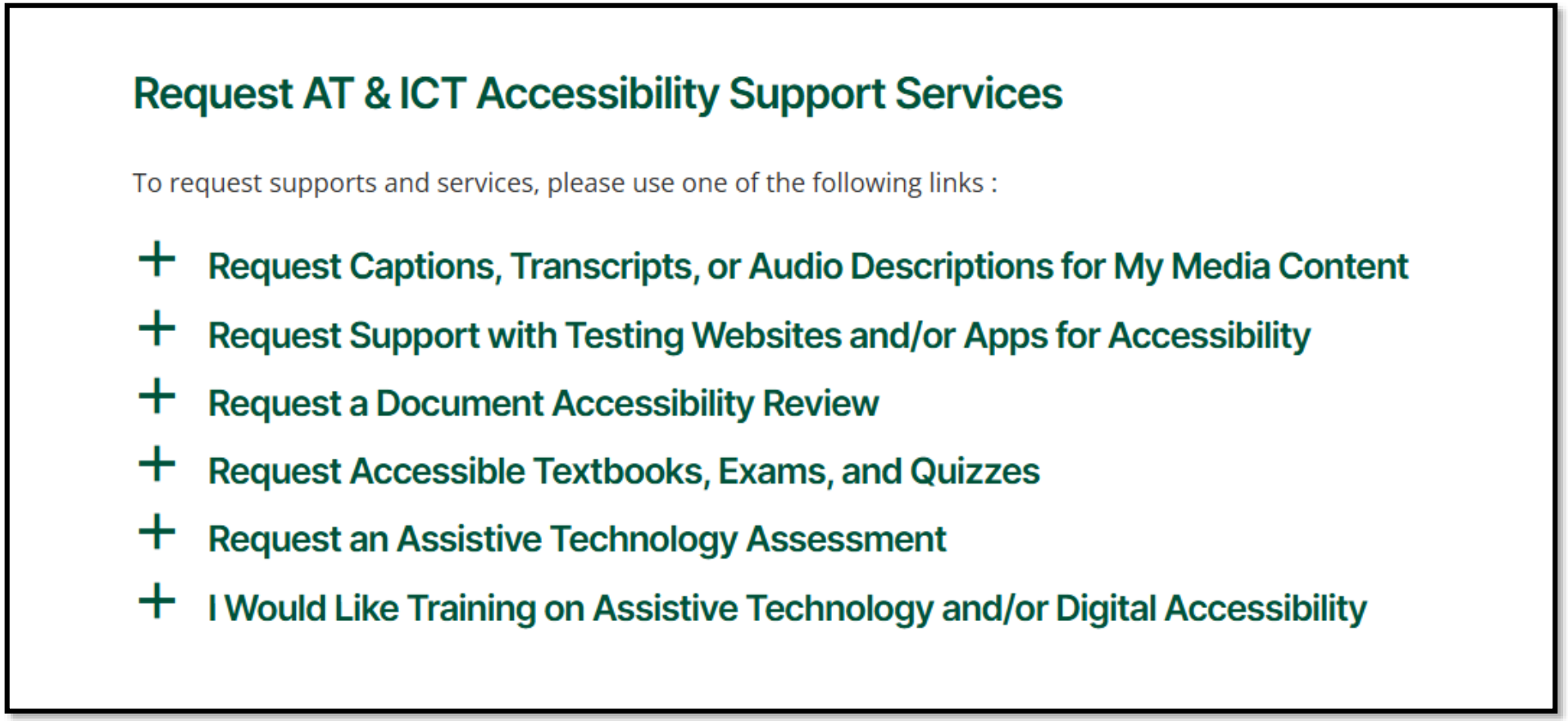


GEORGE MASON UNIVERSITY

Resources

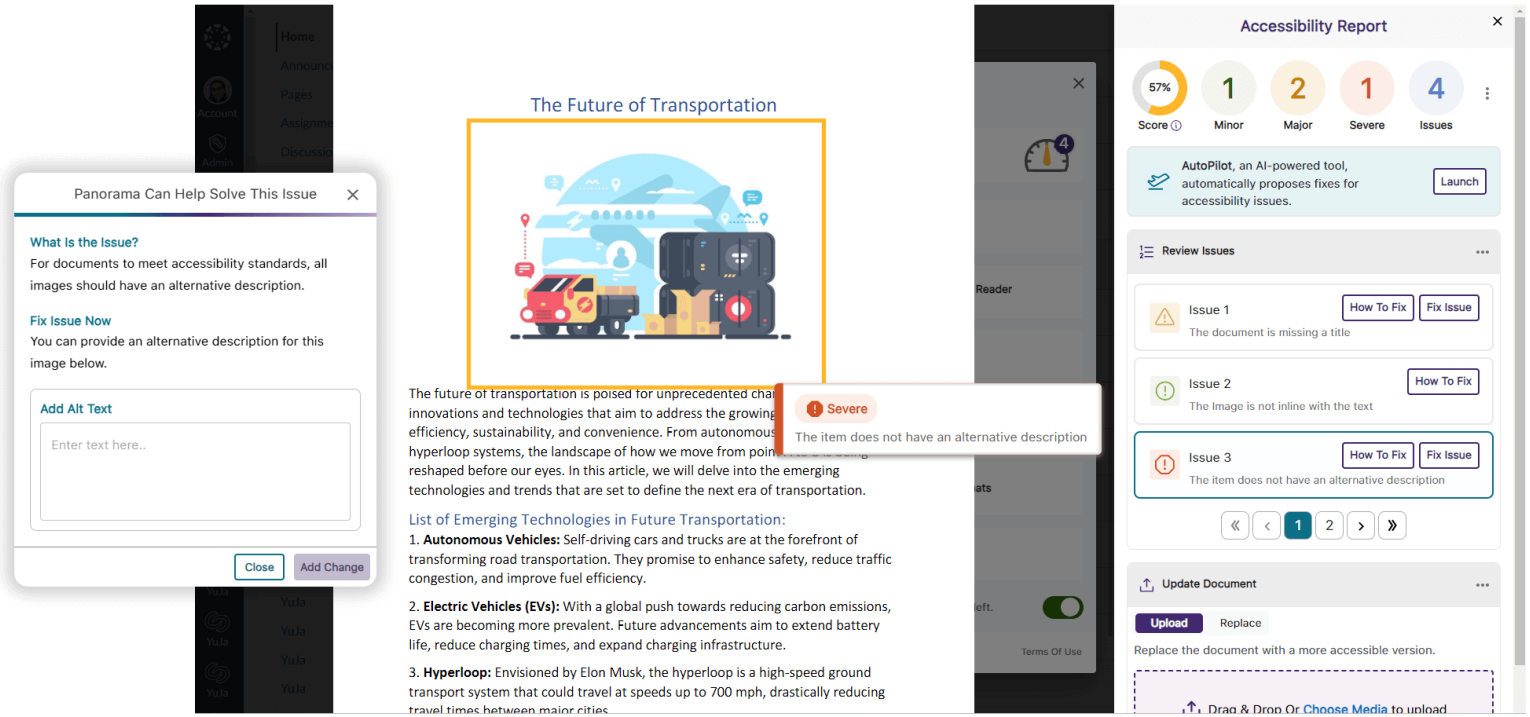
ATI Website, Panorama, Training, DCAAP

ATI Website:
Request Support Services



URL: https://ati.gmu.edu/welcome/requesting-services/

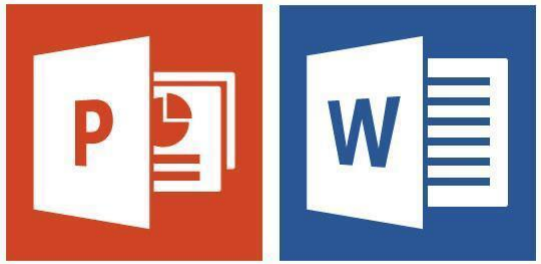
Canvas:
Use Panorama's DocHub



URL: https://ati.gmu.edu/caresguide/panorama/
DocHub (non-Canvas users): https://gmu.panorama.yuja.com/

Training Options

- **Short resources:** Word and PowerPoint Accessibility Quicksheets
- Self-guided Courses
  - **Document Accessibility Fundamentals**
    - Focuses on **Word**, **PowerPoint**, and PDF
    - Participants earn digital badge, $$ HR Impact Award
  - **Mini-Courses (*NEW!*):**
    - Self-enroll, self-guided courses focused on creating accessible Word documents and PowerPoint presentations (**Target:** Instructional faculty, content creators)
    - **Course length:** ~2-3 hours
- Customized Workshops



Contact Us

Assistive Technology Initiative

Office of Access, Compliance, and Community

George Mason University

Location: Aquia Building, Room 238
MSN: 6A11
Phone: 703-993-4329
Email: ati@gmu.edu

To learn more about DCAAP, visit:

- https://ati.gmu.edu
- https://accessibility.gmu.edu