

WAG Webinar

Topic: Writing Effective
Alternative Text for Images

December 2018

Blackboard Collaborate Ultra

- Closed Captioning



Closed captions are available for this session. Would you like to use them?

Yes

No thanks

- Chat Access



WAG - Web Accessibility Group



Monthly Webinars

- Housed at AMAC Accessibility at Georgia Tech
- First Wednesday of most months
- Focus on web accessibility for higher-ed
- WAG listserv discussion and technical guidance
- WAG website: <http://www.amacusg.org/wag>
- Its purpose is to bring together individuals in Higher Ed seeking to navigate the complex requirements of state and federal accessibility standards and guidelines.

- AccessGA is an initiative of the State of Georgia ADA Coordinator's Office, AMAC Accessibility, and the Georgia Technology Authority (GTA) Digital Services Georgia: <https://digitalservices.georgia.gov/>
- WAG receives funding through the State of Georgia ADA Coordinator's Office under the umbrella of the AccessGA initiative, a statewide partnership supporting state agencies including Higher Ed institutions and technical colleges.
- The objective is to support Georgia state agencies that strive to provide equitable and timely access to their employees, students, and clients with a wide range of disabilities.



AMAC Accessibility, College of Design, Georgia Institute of Technology

AMAC was created as an initiative of the Board of Regents University System of Georgia, to help post-secondary disability services offices provide complete, timely, and efficient accommodations to the students with print disabilities that they serve and has expanded over the past 10 years to provide a variety of products, services, and research.

AMAC Products, Services, and Research



- **Braille Services** produces customized projects from both print materials and electronic text including partial books and chapters or graphics only using cutting-edge technology.
- **Professional E-Text Producers** provide high-quality e-text in many formats such as PDF, DOC, DAISY, and HTML.
- **Captioning and Audio Description Services** makes classrooms, meetings, labs and other audio environments fully accessible for deaf or hard-of-hearing, includes remote captioning and captioned media.
- **Certified Assistive Technology Team (TFL)** provides on-site and remote assessments, demonstrations, training and technical assistance for education, work, and daily living environments.
- **Accessibility Compliance** focuses on organizational accessibility needs with evaluation, technical assistance, customer support, and website accessibility.
- **Research** focuses on accessible environments for people with disabilities including students and aging individuals both online and within physical environments.

Webinar Topic



Topic: Writing Effective Alternative Text for Images

Description: Writing alt text can sometimes be a complex and subjective experience. This webinar will walk you through the process of deciding when and how to apply descriptive (alt) text to images in documents and online content.

General Introductions

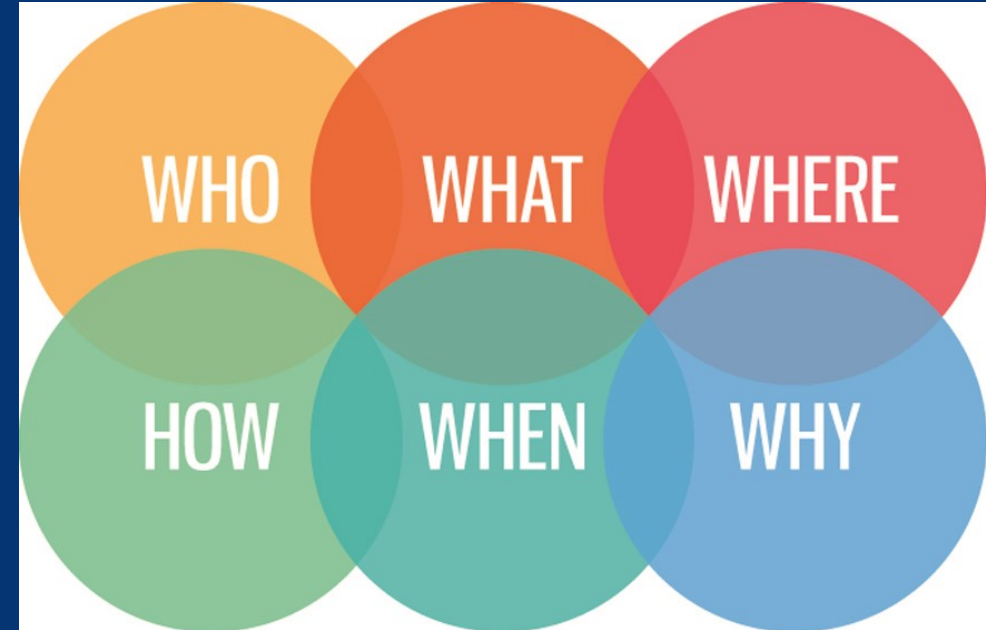
About the Presenter

Valerie Morrison manages the E-Text department and has been working at AMAC for over 6 years. Her team works on converting college textbooks and course materials into accessible, digital file formats for students who have print related disabilities.



Goals of this Webinar

- **Who:** Identifying Your Audience
- **Why:** Defining the Purpose of the Image
- **When:** How Much Information to Include
- **What:** Determining Context
- **How:** A Basic Approach to Alt Text Writing
- **Where:** Step by Step Instructions



Identifying Your Audience

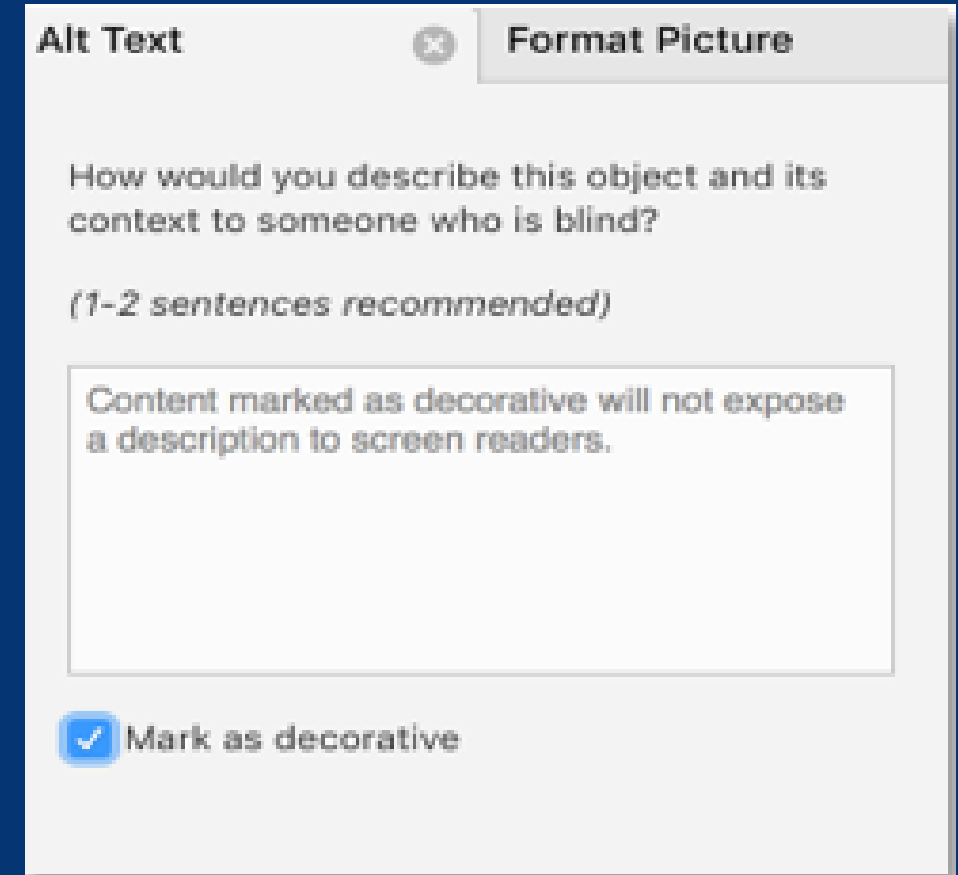
Who Needs Alternative Text?

- Screen reader users and text-to-speech software users often rely on alt text. This includes people with learning disabilities, people with mobility issues or cognitive impairments, people who are blind or low-vision, and auditory learners.
- Search engines also “need” alt text because they rely on alt text in the semantic markup of the website for images that can’t be displayed.
- To be fully accessible, documents and websites should have all images fully described using proper capitalization, grammar, spacing, and punctuation.

Defining the Purpose of the Image

Why Was This Image Included?

- First determine if the image is what we call “fluff.” If the image is purely decorative, it will not need alt text.
- If you’re describing an icon or functional image, you can keep things brief, ie. “The save icon.” “The publisher’s logo.”
- If it conveys educational or “purposeful” value, it will need a fuller description.

A screenshot of a web editor's 'Alt Text' dialog box. The dialog has two tabs: 'Alt Text' (selected) and 'Format Picture'. The 'Alt Text' tab contains the question 'How would you describe this object and its context to someone who is blind?' followed by the suggestion '(1-2 sentences recommended)'. Below this is a large text input area. At the bottom, there is a checkbox labeled 'Mark as decorative' which is currently checked. A small tooltip box is visible over the text input area, containing the text: 'Content marked as decorative will not expose a description to screen readers.'

How Much Information to Include

When to Wrap Up Your Description



- Best practice for adding alternative text to images is 125 characters, close to the first Tweets, which were 140 characters long.
- The default setting for JAWS screen reading software pauses after 250 characters.
- However, depending on context, the purpose of the image, and the needs of the audience, alt text can get quite long. Keep cognitive load in mind when writing long descriptions.

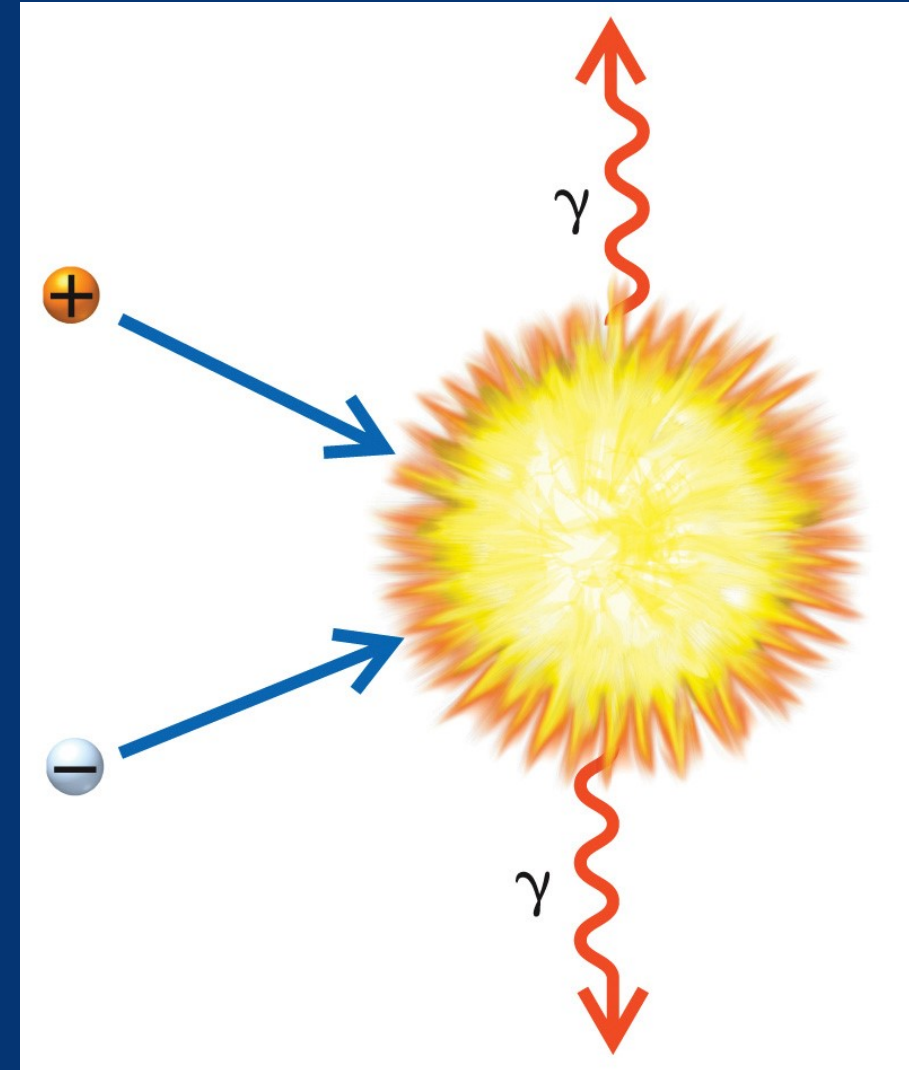
Consider Cognitive Load

- Cognitive load is something to consider when writing alternative text, so that you don't overwhelm the listener.
- Keep your descriptions as concise as possible and edit out repetition. Also try to group items so your description is easier for someone to process.
- Example: A pie chart of five food groups with dozens of examples. Grains include bread, potatoes, and pasta and make up 30 percent. Fruits and veggies include bananas, lettuce, and eggplant and make up 40 percent...



Describe Meaning Not Appearance

- Avoid the common mistake of spending your time describing the appearance of symbols.
- Instead, focus on meaning, as that's the most important information to relay.
- Example: In this image, you would want to avoid describing “a ball labeled with a plus sign” and instead you should call it “a positron.” Avoid describing “a squiggly arrow labeled with a weird γ ” and instead call it “a gamma ray.”



Determining Context

What Should Be Included in Alternative Text?

- First, decide why the image is relevant to the surrounding text, and what specific information is being conveyed. What to include (gender, race, age, ethnicity, level of detail) is usually determined by context.
- Next, describe the type of image it is and summarize the information contained in the image in a general informative sentence. Add detail as needed by your audience.
- Everything else should be left out. Avoid adding subjective information or opinion in your alt text, keeping your description neutral and informative.

How Would You Describe This Image?

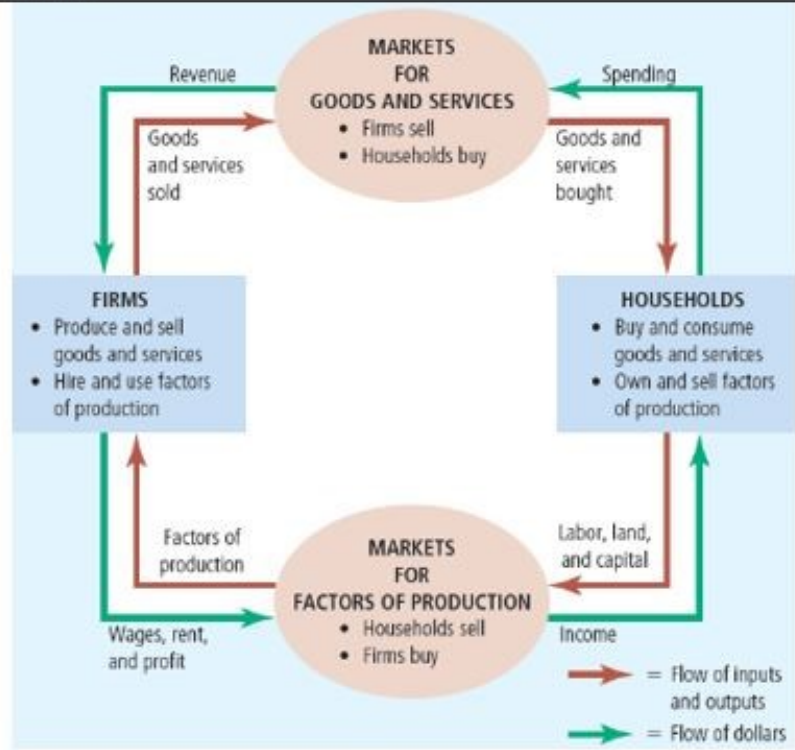


1. What is the relevance and specific information being conveyed in this image?
2. Describe the type of image and summarize the information in a general informative sentence.
3. Add detail as needed by your audience.

Keeping Alt Text Clear and Concise

- Work from general to specific.
- Use proper grammar and spelling.
- Use parallel structure so that the information is presented in a logical manner.
- Avoid using symbols, abbreviations, and acronyms. Write these out if possible.
- Do not include phrases such as “An image of” or “A photo of.” Those phrases are redundant because the screen reader will announce it as a graphic.

Consider Context, Purpose, and Audience

Image	Brief	Moderate	Complex
 <p>The diagram illustrates the circular flow of income and products in a two-sector economy (Firms and Households) interacting through two markets. Markets for Goods and Services: Firms sell; Households buy. Markets for Factors of Production: Households sell; Firms buy. Flows: - Flow of Inputs and Outputs (Red Arrows): Households buy goods and services from the first market and provide labor, land, and capital to the second market. Firms sell goods and services to the first market and buy factors of production from the second market. - Flow of Dollars (Green Arrows): Households spend on goods and services, which flows to firms as revenue. Firms pay wages, rent, and profit to households, which flows to households as income.</p>	<p>A circular flow diagram showing the relationship between markets for goods and services, households, markets for factors of production, and firms.</p>	<p>A circular flow diagram. Markets for goods and services consist of firms that sell and households that buy. Households buy and consume goods and services; own and sell factors of production. Markets for factors of production consist of households that sell and firms that buy. Firms produce and sell goods and services; hire and use factors of production. The flow of inputs and outputs goes clockwise around the diagram, from markets for goods and services to households to markets for factors of production to firms, and the cycle repeats. The flow of dollars goes counterclockwise from markets for goods and services to firms to markets for factors of production to households, and the cycle repeats.</p>	<p>A circular flow diagram. Markets for goods and services consist of firms that sell and households that buy. Households buy and consume goods and services; own and sell factors of production. Markets for factors of production consist of households that sell and firms that buy. Firms produce and sell goods and services; hire and use factors of production. The flow of inputs and outputs is as follows: Markets for goods and services contain goods and services bought by households. Households provide labor, land, and capital to markets for factors of production. From there factors of production leads to firms, which consists of goods and services sold to the market for goods and services. The flow of dollars is as follows: Markets for goods and services brings revenue to firms. Firms use that revenue for wages, rent, and profit of markets for factors of production. Markets for factors of production provides income to households, and households spend on markets for goods and services.</p>

What level of detail do you need for your image description: brief, moderate, or complex?

Figure and Table Captions

- If you don't already have captions for your figures and tables, consider using these to your advantage – it will help clarify the intended meaning of your graphics for sighted users as well.
- Review captions before writing alt text. If the caption adequately describes the image or table, there is no need to add alternative text. If the caption does not summarize the information, then write alt text that does.
- Think about conveying information in multiple ways without being repetitive.

Structural Alt Text for Tables

In addition to adding alt text descriptions for any images or visual content, consider adding structural alt text to summarize your table contents. This gives someone a chance to hear what the table contains before listening to all the data.

Example: Table 10.1 is titled **Physical Properties of the Giant Planets**. It has 5 columns and 13 rows. The column headings are **Physical Property**, **Jupiter**, **Saturn**, **Uranus**, and **Neptune**.

*Because the first column heading was left blank, we filled it in with “Physical Property” so that the table would make more sense.

TABLE 10.1

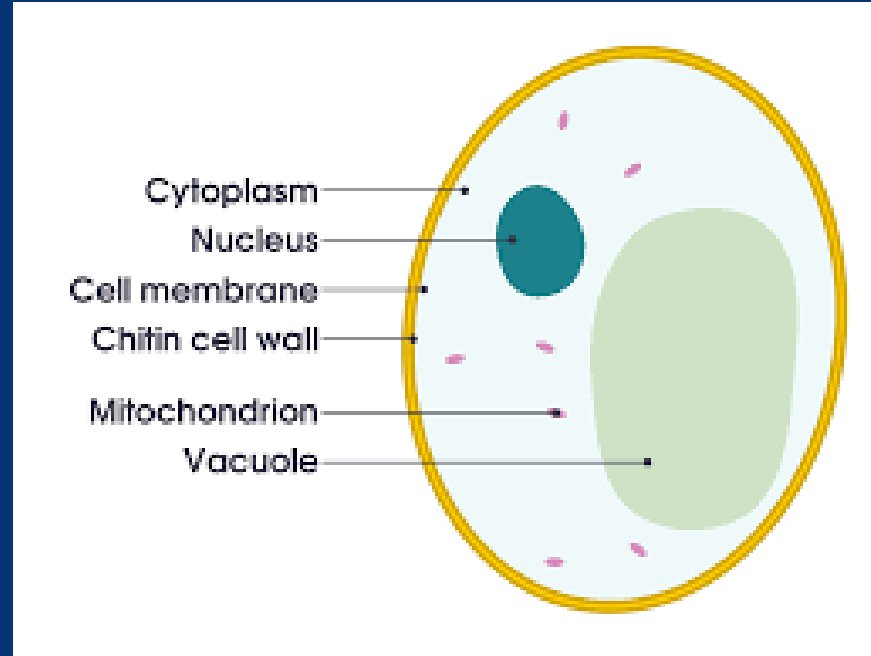
**Physical Properties
of the Giant Planets**

	Jupiter	Saturn	Uranus	Neptune
Orbital semimajor axis (AU)	5.20	9.6	19.2	30
Orbital period (Earth years)	11.9	29.5	84.0	164.8
Orbital velocity (km/s)	13.1	9.7	6.8	5.4
Mass ($M_{\text{Earth}} = 1$)	317.8	95	14.5	17.1
Equatorial radius (km)	71,490	60,270	25,560	24,300
Equatorial radius ($R_{\text{Earth}} = 1$)	11.2	9.5	4.0	3.8
Oblateness	0.065	0.098	0.023	0.017
Density (water = 1)	1.33	0.69	1.27	1.64
Rotation period (hours)	9.9	10.7	17.2	16.0
Tilt (degrees)	3.13	26.7	97.8	28.3
Surface gravity (relative to Earth's)	2.53	1.07	0.89	1.14
Escape speed (km/s)	59.5	35.5	21.3	23.5

Describing Simple Images



Photographs of people just need a name: **Marilyn Monroe.**

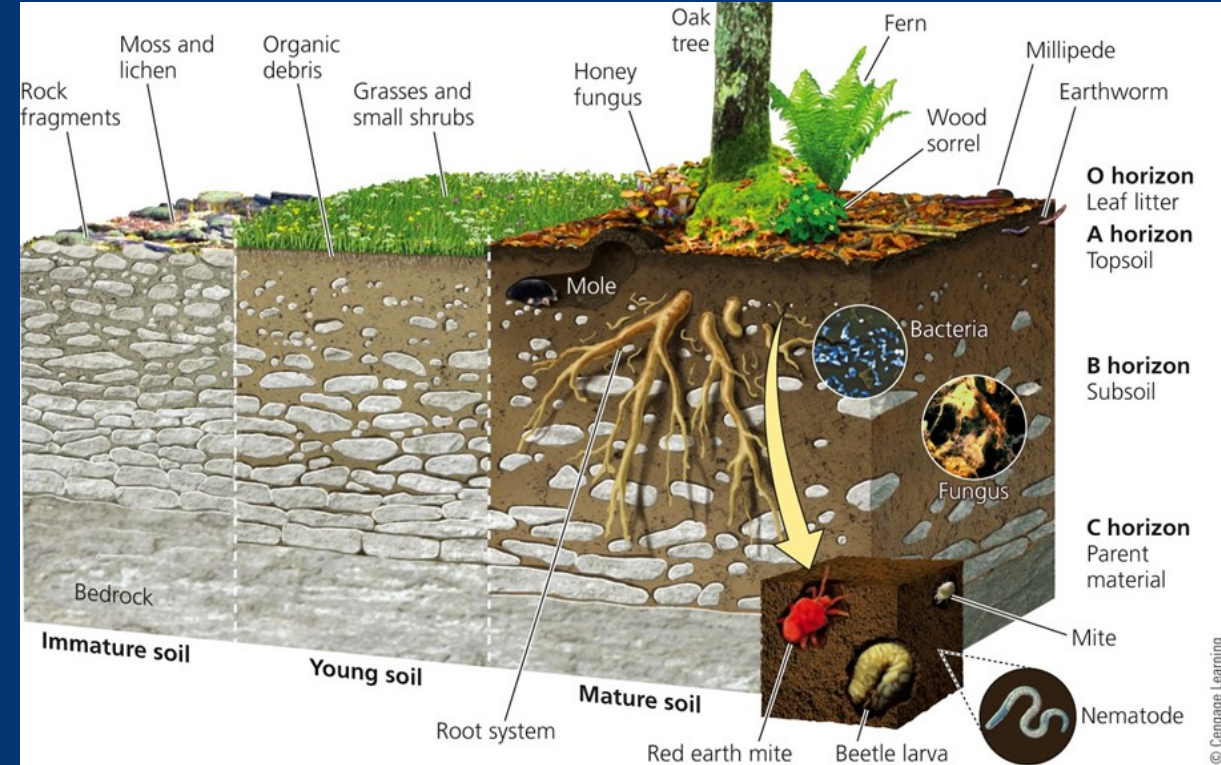


Simple Diagrams can often be summed up in one sentence: **A diagram of a cell. The chitin cell wall forms the outer skin of the cell with the cell membrane just inside it, and filling the membrane is cytoplasm in which floats the nucleus, multiple mitochondrion, and a vacuole.**

Complex Diagrams

Brief: A diagram showing a cutout of soil formation in three stages: immature, young, and mature.

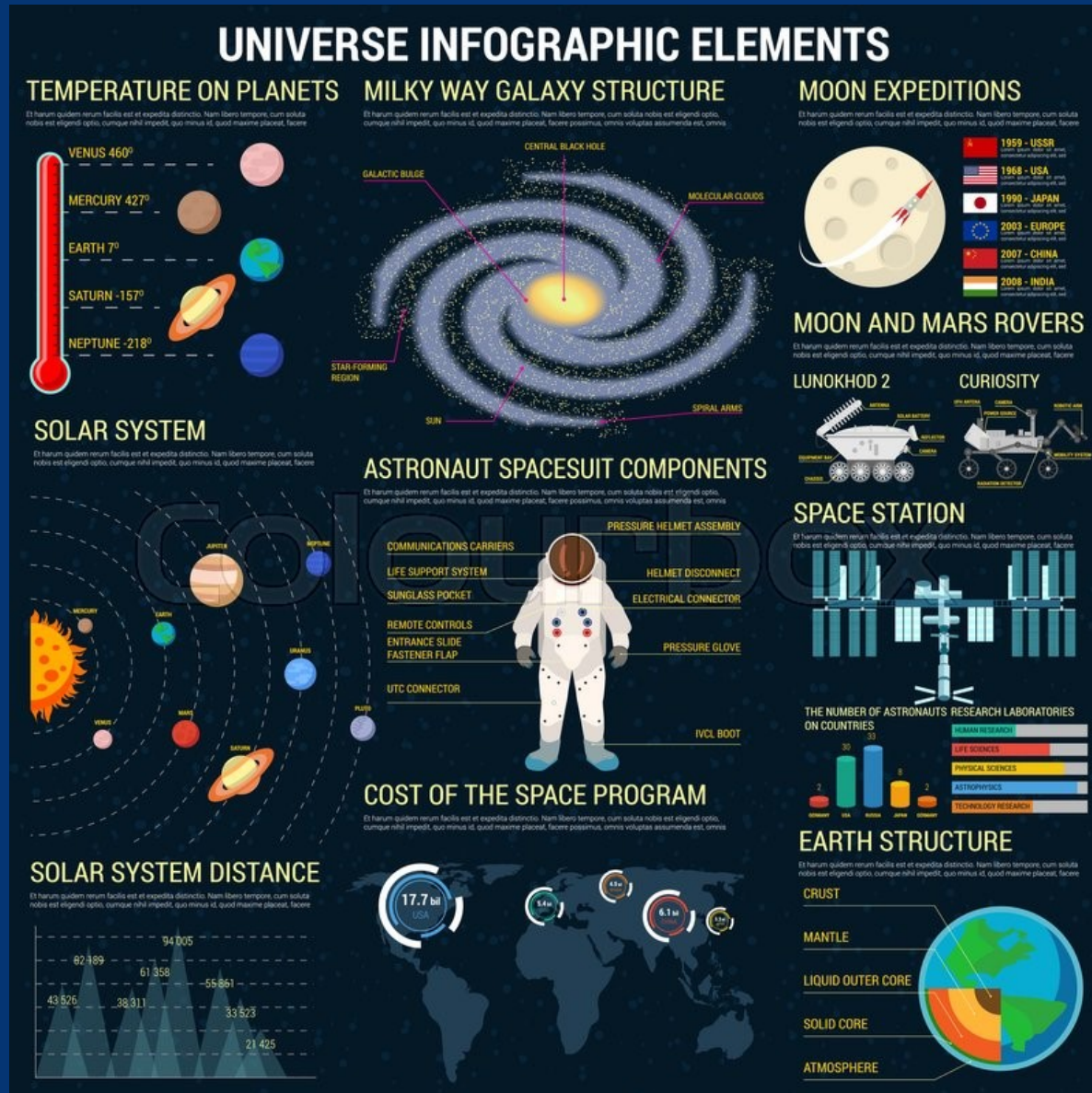
Complex: A diagram showing a cutout of soil formation in three different stages. Immature soil includes a large layer of bedrock at the bottom, large rocks throughout the rest of the ground, and rock fragments near the surface. Moss and lichen can grow on this soil. Young soil has a smaller layer of bedrock at the bottom, fewer large stones above it, and organic debris near the surface. Grasses and small shrubs can grow on this soil. Mature soil has an even smaller bedrock layer called the C horizon parent material followed by the B horizon subsoil, followed by the A horizon topsoil, and lastly the O horizon leaf litter. Throughout the soil there are root systems, moles, bacteria, fungus, beetle larva, red earth mites, nematodes, and earthworms. On the surface there are honey fungus, oak trees, ferns, wood sorrels, and millipedes.



How to Approach Complex Infographics

1. Begin by describing the type of image.
2. Follow up with a general statement to summarize the content.
3. Work from general to specific, filling in the details your audience needs.

An infographic titled "Universe Infographic Elements" that contains information about the temperatures on various planets, a diagram of the solar system including distances between planets, the components of an astronaut's spacesuit, the cost of the space program, the structure of the Milky Way galaxy, Moon expeditions by various countries, the Moon and Mars Rovers diagrams, a rendering of the Space Station, and a diagram of the Earth's structure.



Maps

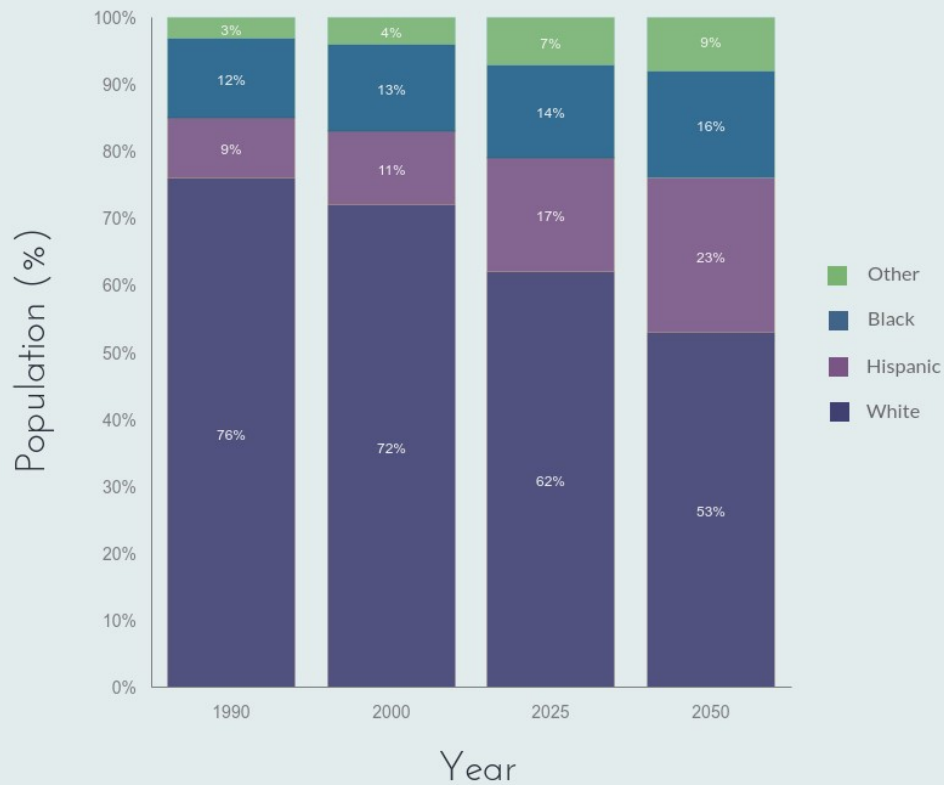
Describe the areas, regions, and relevant details on the map plus any inset. Often the colors, shapes, or arrows on a map have no significance.

A map of oceanic exploration routes by Dias and de Gama circa 1500, during the reign of the Holy Roman Empire in Europe and the Ottoman Empire in northern Africa and the Middle East. Dias' route begins in Portugal and hugs the western coast of Africa, ending at the Cape of Good Hope. The route for de Gama also begins in Portugal, goes around the Cape of Good Hope, hugs the eastern coast of Africa, and crosses the Indian Ocean ending in India.



Graphs and Flow Charts

U.S. Population by Race



Source: <http://www.originlab.com/doc/Tutorials/StackColumn-Labels>

Work from general to specific. Begin by naming the type of graph and title. Then describe the horizontal and vertical axes if applicable. Finally, describe the data.

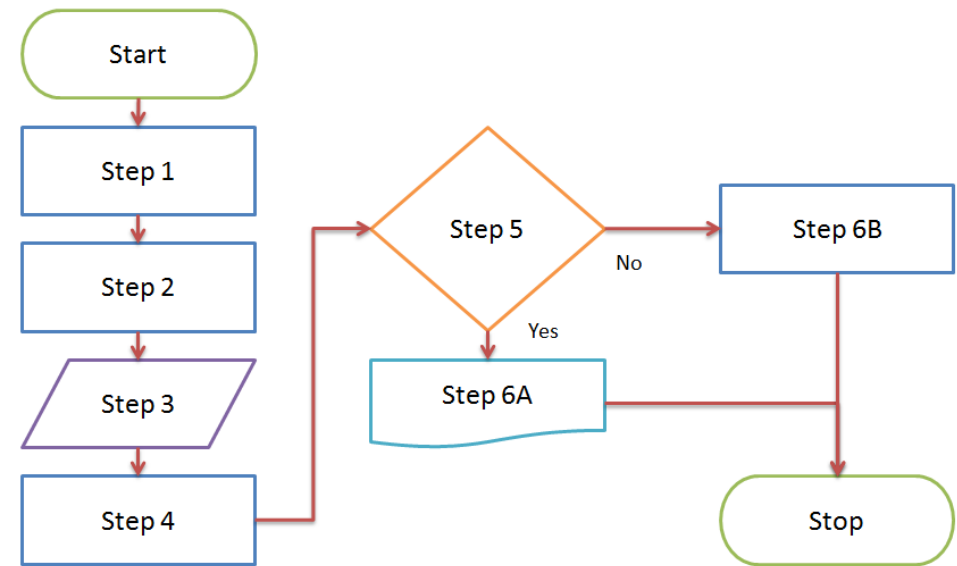
A bar graph titled U.S. Population by Race that compares the percentages of Black, Hispanic, White, and Other races in the United States for the years 1990, 2000, projected 2025, and projected 2050. In 1990, there were 76% White, 9% Hispanic, 12% Black, and 3% Other. In 2000, there were...

Flow Charts

Often flow charts can be reproduced easily in list format, either as numbered options, or in text form like the example below:

This sample flowchart begins with Start, then Step 1, Step 2, Step 3, Step 4, and Step 5. If yes, proceed from Step 5 to Step 6A and Stop. If no, proceed to Step 6B and Stop.

Sample Flowchart

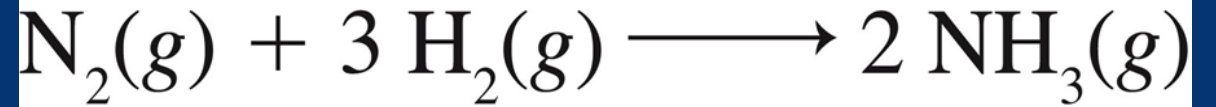


STEM Material and Equations

$$t = \frac{(325 - 286) - 0}{\sqrt{\frac{(40)^2}{12} + \frac{(44)^2}{12}}} = 2.27$$

Brief: An equation.

Complex: Begin equation. T equals start fraction left parenthesis 325 minus 286 right parenthesis minus 0 over start root start fraction left parenthesis 40 right parenthesis squared over 12 end fraction plus start fraction left parenthesis 44 right parenthesis squared over 12 end fraction end root end fraction equals 2.27. End equation.

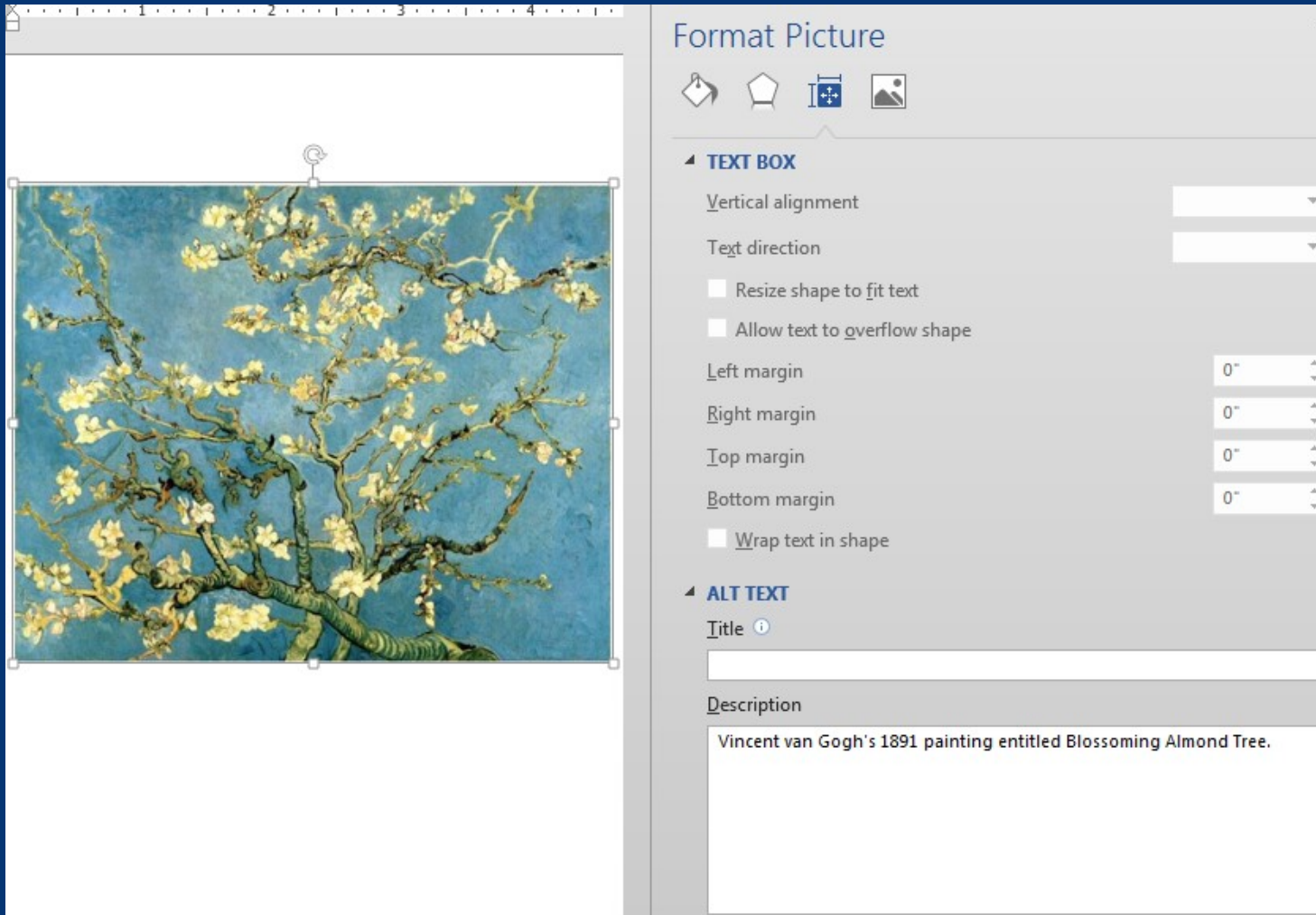


Brief: A chemical equation.

Complex: Begin equation. Gaseous Upper N 2 plus 3 gaseous Upper H 2 yields 2 gaseous Upper N Upper H 3. End equation.

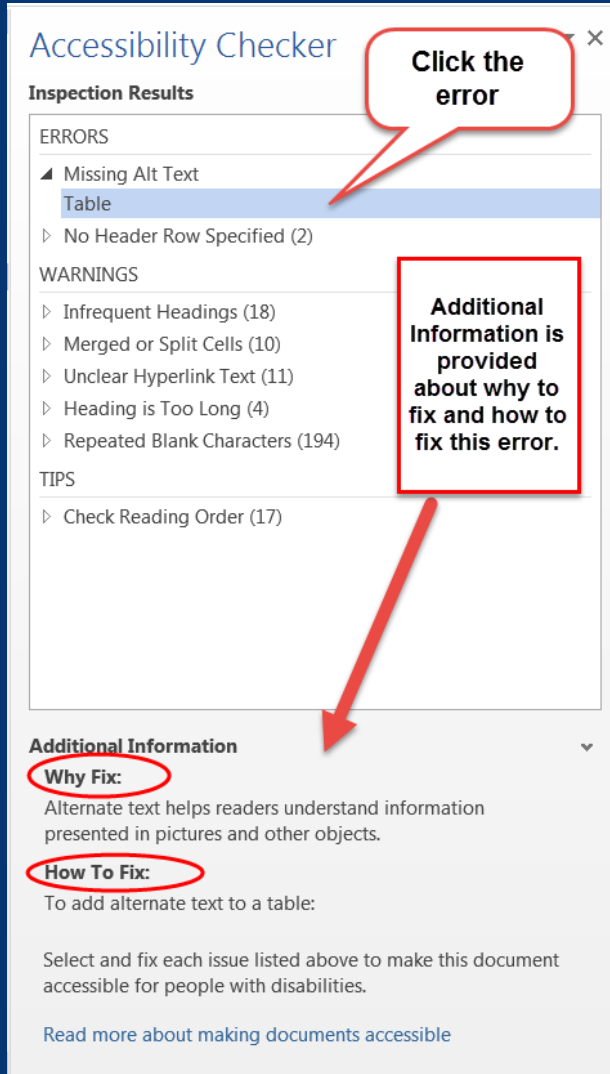
Where to Add Alt Text

To add alternative text to an image in Microsoft Office:



- Right-click the image.
- Choose Format Picture.
- Select the Layout Properties icon.
- Click on the Alt Text link.
- Type in the description field only, and do not include hard line breaks.

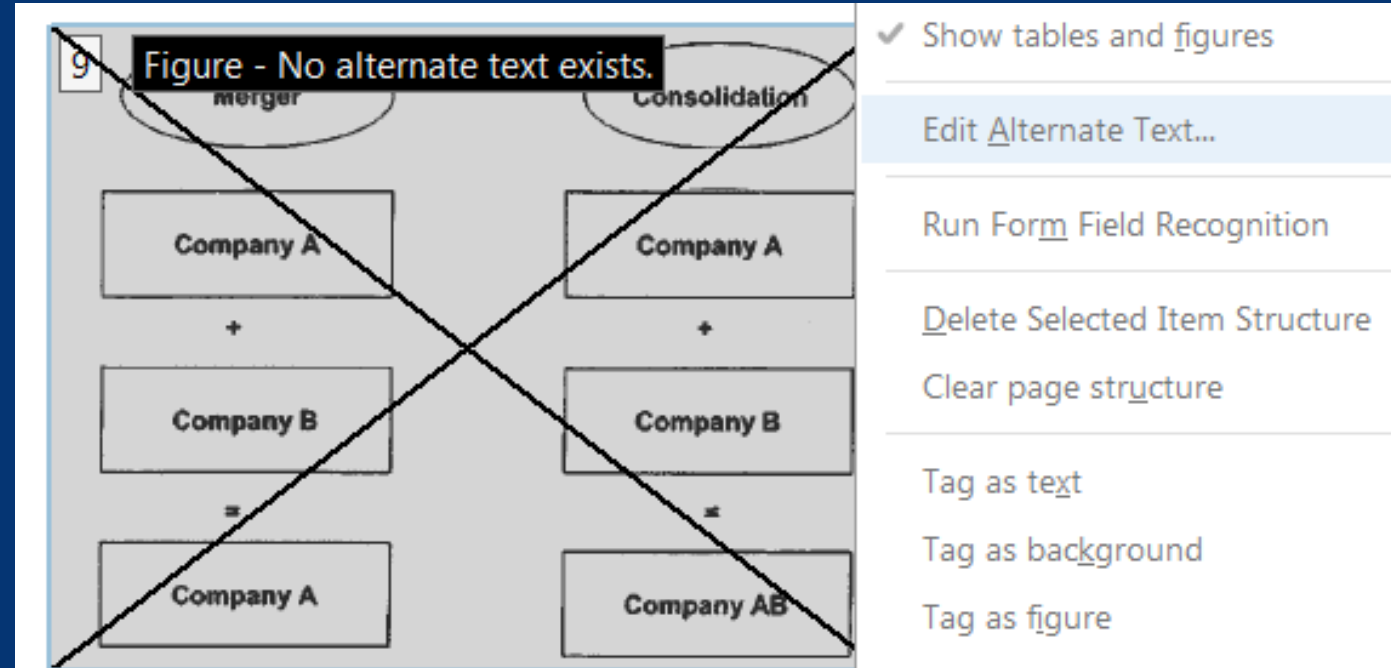
Checking Your Accessibility in MS Office



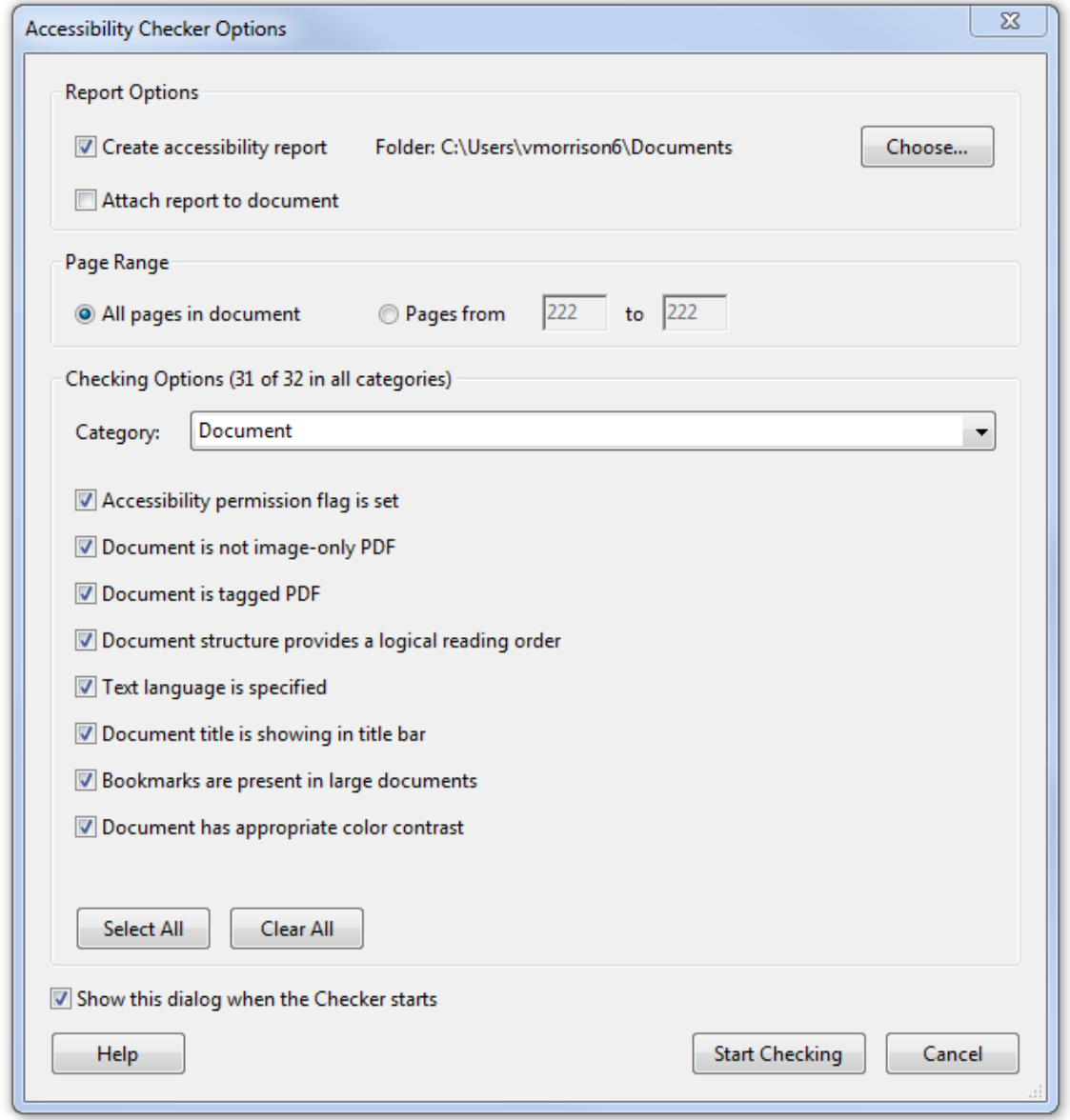
- Save your document as a .docx file.
- Go to the **File** tab and click on **Check for Issues**, and select **Check Accessibility**.
- The accessibility checker will open in a separate pane and list all accessibility issues with links to each potential problem.
- Additional information appears below, instructing you on why this might cause a problem and how to fix the issue.

Where to Add Alt Text to PDF Files

To add alt text descriptions in a PDF file, it's easiest to turn on T.U.R.O. in the Accessibility Tools, which stands for "Touch Up Reading Order." This tool highlights all figures for you, and you can then right click on the ones needing descriptions and select "Edit Alternate Text."



Checking Your Accessibility in Adobe



Accessibility Checker Options

Report Options

☒ Create accessibility report Folder: C:\Users\vmorrison6\Documents Choose...

☐ Attach report to document

Page Range

☒ All pages in document ☐ Pages from 222 to 222

Checking Options (31 of 32 in all categories)

Category: Document

- ☒ Accessibility permission flag is set
- ☒ Document is not image-only PDF
- ☒ Document is tagged PDF
- ☒ Document structure provides a logical reading order
- ☒ Text language is specified
- ☒ Document title is showing in title bar
- ☒ Bookmarks are present in large documents
- ☒ Document has appropriate color contrast

Select All Clear All

☒ Show this dialog when the Checker starts

Help Start Checking Cancel

You can also generate an Accessibility Report in the Accessibility Tools options. Click on “Full Check” to open a list of things you’d like your check to include, such as figures missing alt text, missing bookmarks, errors in reading order, color contrast, not having a language selected, etc.

Have Further Questions?

Contact our Customer Support Team
by phone (404) 894-7756 or by email
amactech@amac.gatech.edu

A recorded version of this webinar will be
made available on the WAG website:
http://www.amacusg.org/wag/Main_Page



www.amacusg.org

