



GOVERNOR'S TECHNOLOGY OFFICE

INSPECT AND FIX EXCEL DOCUMENT

INTRODUCTION

Finding and fixing issues in an Excel document by using both the accessibility checklist and the instructions in this guide will help resolve most Accessibility issues causing the document to be non-compliant. Creating an accessible document benefits all users.

TABLE OF CONTENTS

Click a title below to go to the destination page.

Introduction.....	1
Inspecting and fixing Excel Documents.....	2
<i>Adding a Document Title</i>	<i>2</i>
Using Check Accessibility Tool and Fixing Issues	5
<i>How to find and use the "Check Accessibility" tool.....</i>	<i>5</i>
<i>Another Way to get to the Accessibility Checker</i>	<i>8</i>
Some Accessibility Issues to Cover	9
<i>Fixing Accessibility Issue: Missing Object Description</i>	<i>9</i>
Giving Alternative Text to Images, Pictures, and Clip Art.....	10
<i>Fixing Accessibility Issues of Hard-to-Read Contrast.....</i>	<i>12</i>
Setting a Good Color Contrast Ratio in Document	12
Document No Longer has Accessibility Issues.....	15
WebAIM Contrast Checker	16
<i>What does WebAIM check for?.....</i>	<i>16</i>
<i>Using the WebAIM Contrast Checker.....</i>	<i>16</i>
Foreground (Text) Color	16
Background (Page) Color.....	20

INSPECTING AND FIXING EXCEL DOCUMENTS

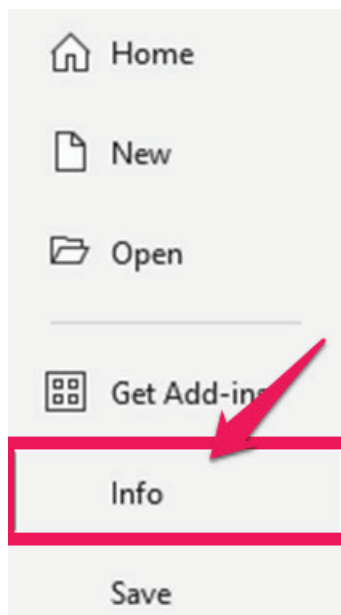
ADDING A DOCUMENT TITLE

Documents should have titles that describe their function or purpose of the document. It is usually the first content that is announced by screen readers instead of the file name. To give a title to a document complete the following steps:

1. Go to the top left of the document. Click on "File" tab.



2. After clicking on the File tab, Microsoft Office Backstage view will appear. Find the "Info" button to open the Document Properties window.



3. To the right of the Info button is where the Info section is. Further right of the Info section find the "Properties" section.

Properties ▾	
Size	47.7KB
Pages	3
Words	156
Total Editing Time	31 Minutes
Title	Add a title
Tags	Add a tag
Comments	Add comments

4. Below where it says Properties locate the Title.

Properties ▾	
Size	47.7KB
Pages	3
Words	156
Total Editing Time	31 Minutes
Title	Add a title
Tags	Add a tag
Comments	Add comments

- To the right of Title select where it says, "Add a title" click on it and an input box will appear.

Properties ▾	
Size	47.7KB
Pages	3
Words	156
Total Editing Time	31 Minutes
Title	<input type="text" value="Add a title"/>
Tags	<input type="text" value="Add a tag"/>
Comments	<input type="text" value="Add comments"/>

- Write the document's title it can be the same or different from the filename. This document title's is "Non-Compliant Doc."

Total Editing Time	31 Minutes
Title	<input type="text" value="Non-Compliant Doc"/>
Tags	<input type="text" value="Add a tag"/>

- Now the document has a title for the screen reader to read.

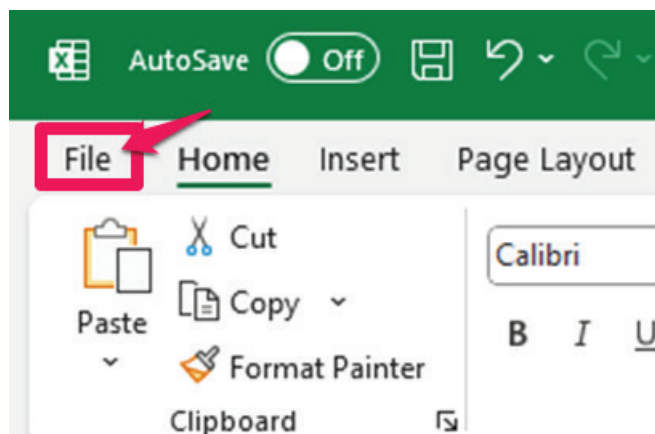
USING CHECK ACCESSIBILITY TOOL AND FIXING ISSUES

It crucial to ensure that documents are accessible to people with disabilities. Checking and fixing accessibility issues in documents promotes inclusivity compliance with accessibility standards and grants equal access of information to users. It improves readability, usability, and navigation, benefiting all users. It will enhance user experience and facilitates understanding of content, fostering inclusivity, diversity, and equal opportunities for all to obtain information.

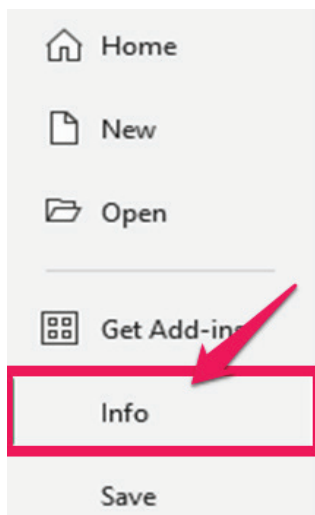
HOW TO FIND AND USE THE “CHECK ACCESSIBILITY” TOOL.

The “Check Accessibility” is a tool that performs a full and thorough check for whether the document conforms to accessibility standards. It finds any issues such as the missing use of alternative text on images, presence of complex tables, missing document language, and hard-to-read fonts’ colors to be corrected. By following these steps, it’ll enable the checker to identify and address the accessibility issues in the document:

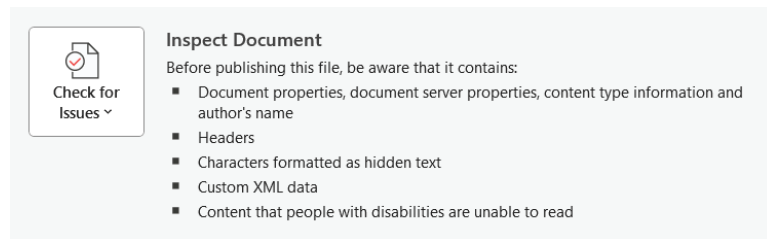
1. Go to the top left of the document. Click on “File” tab.



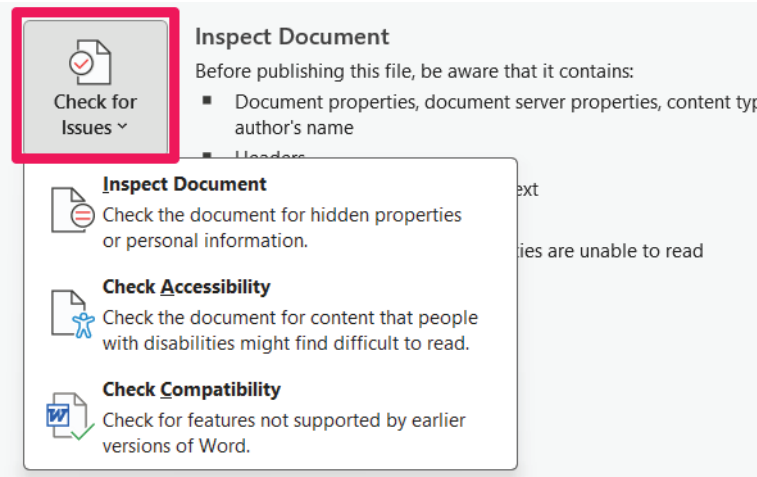
2. After clicking on the File tab, you can see Microsoft Office Backstage view. Find the “Info” button to open the Document Properties window.



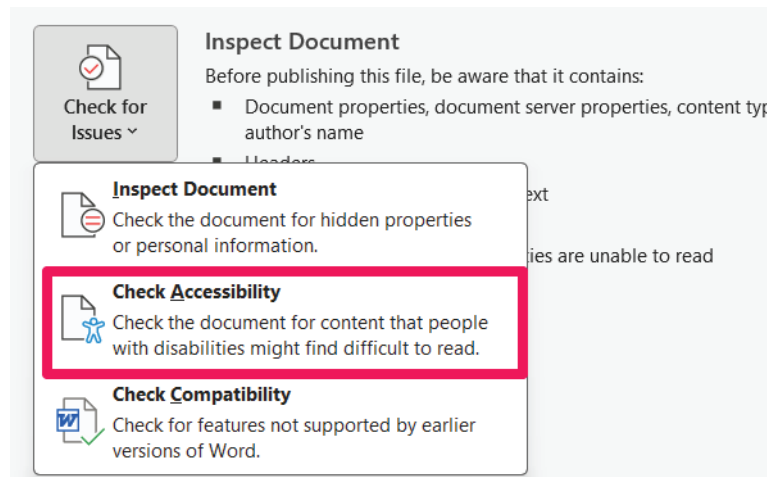
3. To the right of the Info button is where the Inspect Document section.



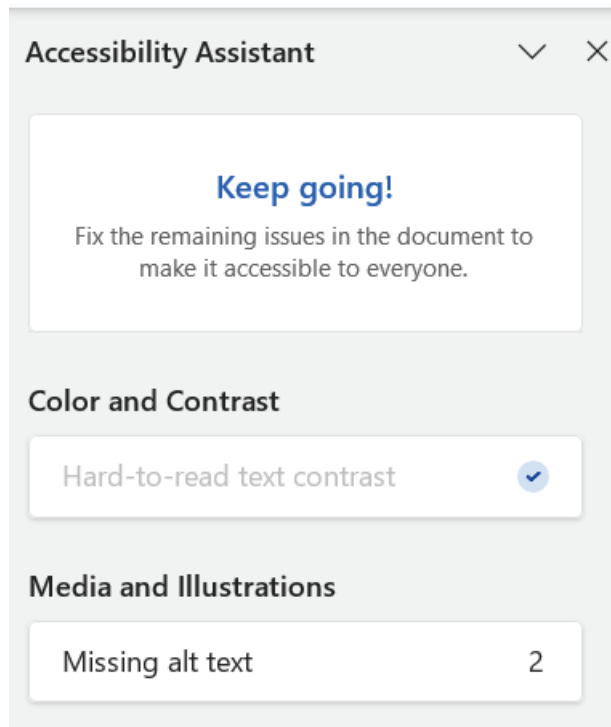
4. Click the "Check for Issues" dropdown button.



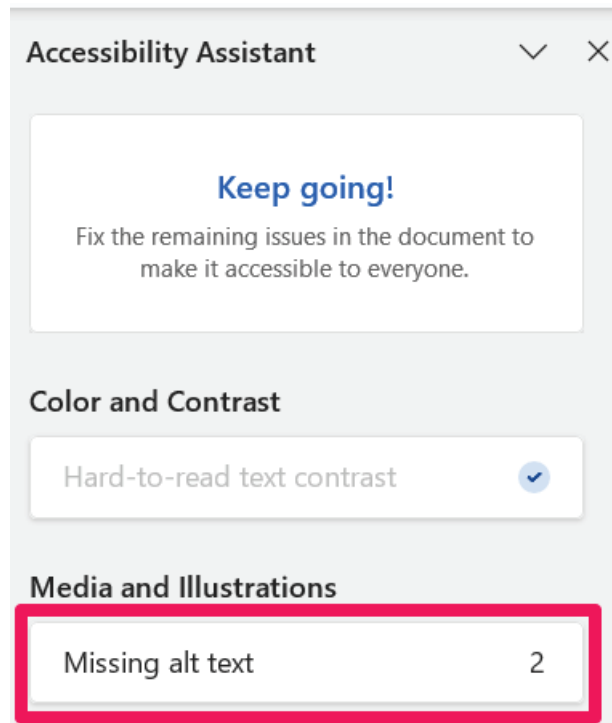
5. In the Check for Issues drop-down select the "Check Accessibility" option. This will open "Accessibility Inspection Results."



6. The "Accessibility Assistant" box will now appear on the right of the document.

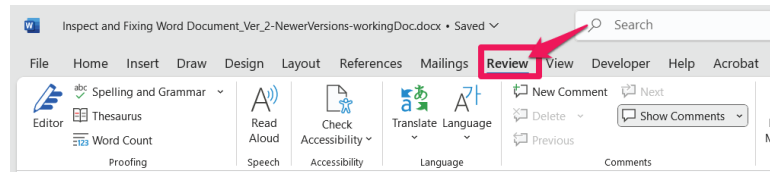


7. In the Inspection results it'll show the issues making the document non-compliant. Select an issue to work on.

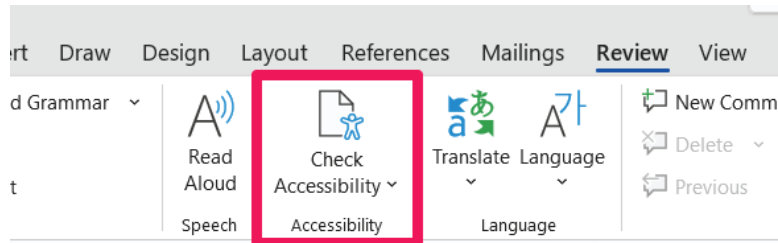


ANOTHER WAY TO GET TO THE ACCESSIBILITY CHECKER

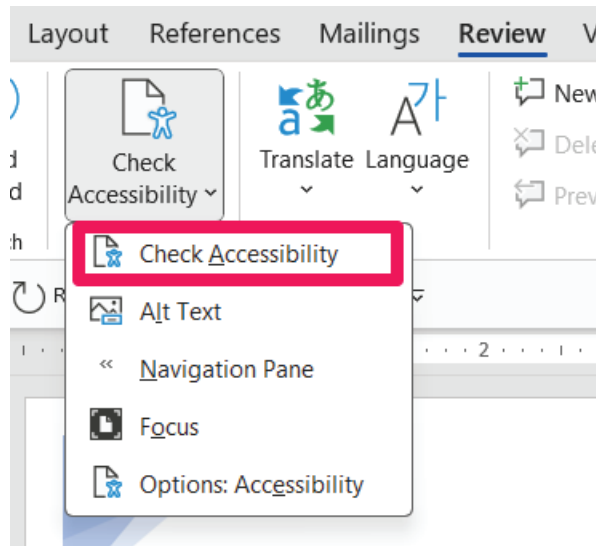
1. Click on the "Review" menu.



2. In the Review tab find the Check Accessibility button then click on it.



3. A drop-down menu with options will appear. Select the Check Accessibility option.



4. Now you will see the "Accessibility Inspection Results" box to the right of the document.

SOME ACCESSIBILITY ISSUES TO COVER

Some of the issues that we will be covering are:

- **Missing Object Description:** Missing alternative text on an image.
- **Use of Merged or Spilt Cells:** Creation of a complex table.
- **Hard-to-Read Text Contrast:** Light or faint contrast between text and document background.
- **Header Row:** Missing header row on a table.

These are the most common issues to be found in a Excel document. Going over these common issues in this guide by inspecting and fixing the errors so that the document can become compliant.

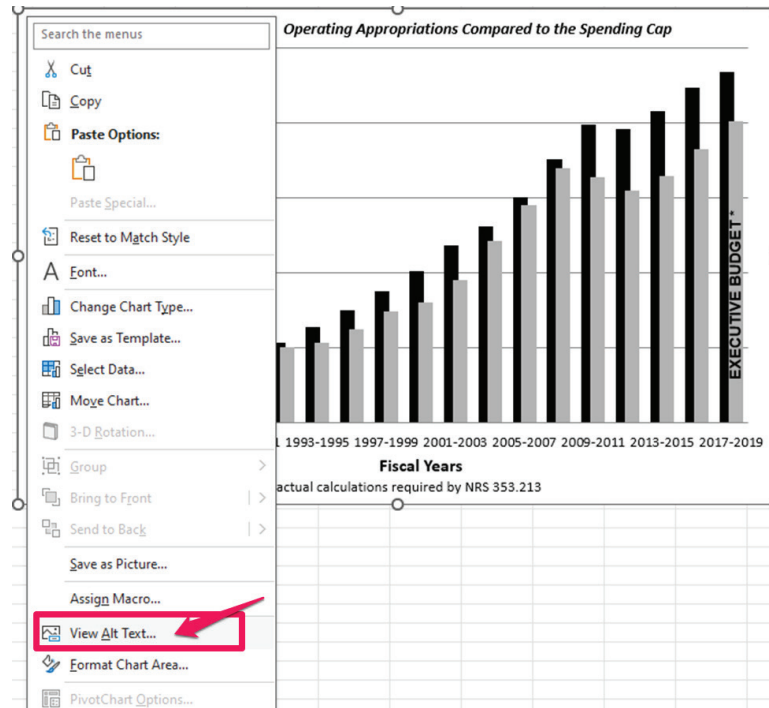
FIXING ACCESSIBILITY ISSUE: MISSING OBJECT DESCRIPTION

Missing Object Description is crucial for individuals who are blind or visually impaired, as screen readers rely on alternative text, also known as alt text, to convey the meaning of images. Alt text allows these users to understand the context and purpose of the images making the document more accessible and inclusive. Additionally, alt text is useful in situations where the image cannot be displayed due to technical issues or when the document is being accessed by devices with limited visual capabilities. By providing accurate and descriptive alt text, it ensures that the document can be understood by a wider range of users.

GIVING ALTERNATIVE TEXT TO IMAGES, PICTURES, AND CLIP ART

It helps screen and document reading tools describe images to visually impaired readers. Giving alternative text when an image, picture or clip art does not have one or has a generated crated one can be done in a few steps: *There are two ways to give an images alternative text.*

1. Right click on the image.
2. Select "View Alt Text" Option.



3. The "Alt Text" box will appear to the right of the document.

Alt Text

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

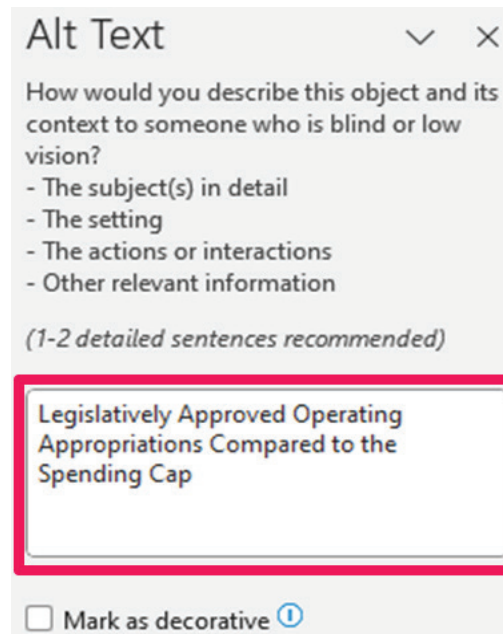
- The subject(s) in detail
- The setting
- The actions or interactions
- Other relevant information

(1-2 detailed sentences recommended)

Legislatively Approved Operating Appropriations Compared to the Spending Cap

Mark as decorative ⓘ

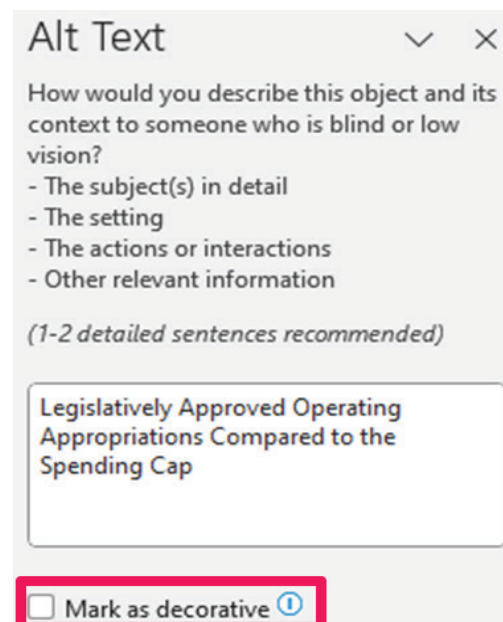
4. In the input text box provide a description of the image. In this case write "Legislatively Approved Operating Appropriations Compared to the Spending Cap" to describe the image.



The screenshot shows the 'Alt Text' dialog box. At the top, it says 'Alt Text' with a dropdown arrow and a close button. Below that is the question: 'How would you describe this object and its context to someone who is blind or low vision?'. This is followed by a list of bullet points: '- The subject(s) in detail', '- The setting', '- The actions or interactions', and '- Other relevant information'. Below the list is the text '(1-2 detailed sentences recommended)'. A text input box contains the text 'Legislatively Approved Operating Appropriations Compared to the Spending Cap', which is highlighted with a red border. At the bottom, there is a checkbox labeled 'Mark as decorative' with a help icon.

***If an image is of no importance such as it being decorative or line(s) to divide page or repeating logos/images that does not need to be read, then it can be marked as decorative instead. This will cause the screen reader to overlook the image. ***

1. Below the input text box where the description of the image is given. Select the check box called "Mark as decorative" to checkmark it.



This screenshot is identical to the previous one, but the 'Mark as decorative' checkbox at the bottom is now checked and highlighted with a red border. The text input box and the rest of the dialog are no longer highlighted.

Now the image will no longer be read out by screen readers, nor does it need alternative text.

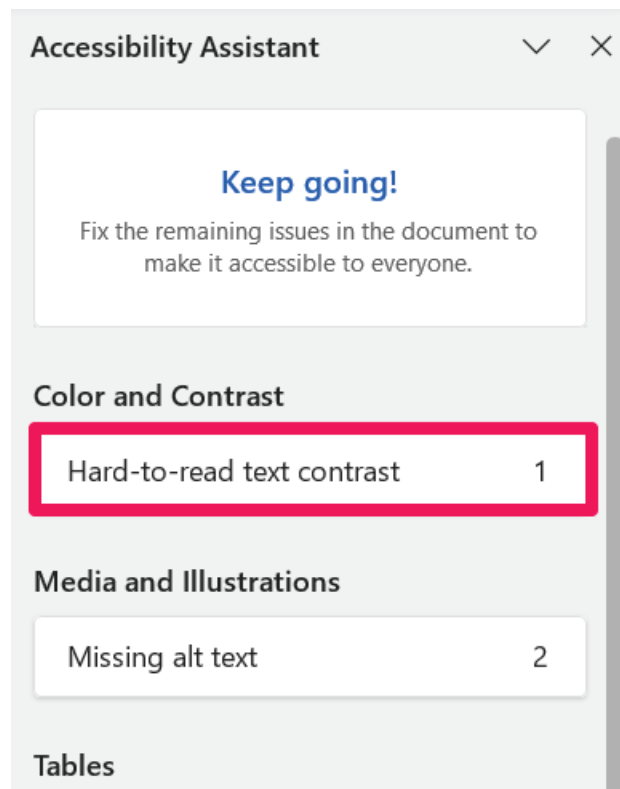
2. The rest of Alt Text box will be greyed out/inaccessible to use after check marking the Mark as decorative check box.

FIXING ACCESSIBILITY ISSUES OF HARD-TO-READ CONTRAST

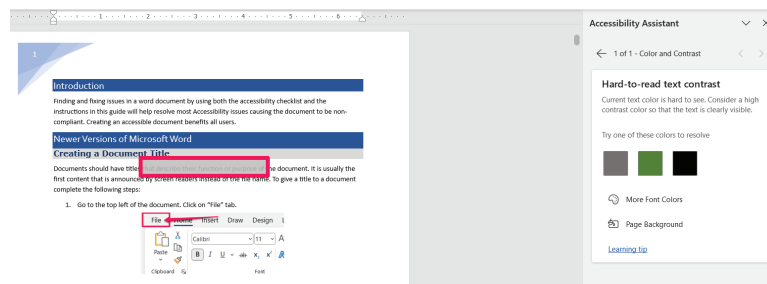
SETTING A GOOD COLOR CONTRAST RATIO IN DOCUMENT

Text is easier to read when there is a good amount of contrast ratio between the text and page of the document. Good contrast is an ideal design choice for everyone and especially for those who have low vision. Hard-to-read text therefore lacks good contrast making the document difficult for people with both high and low vision to read. By follow these steps good contrast for the document can be accomplished:

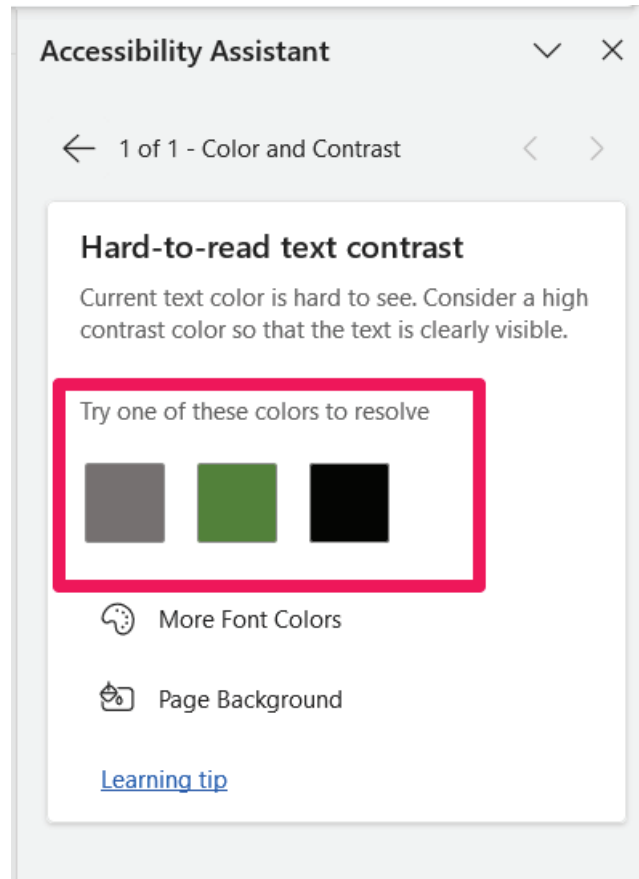
1. Go to the Accessibility Assistant Inspection Results box to the right of the document.
2. Select the error Hard-to-Read Text Contrast. It'll open the specific cause/location of the error.



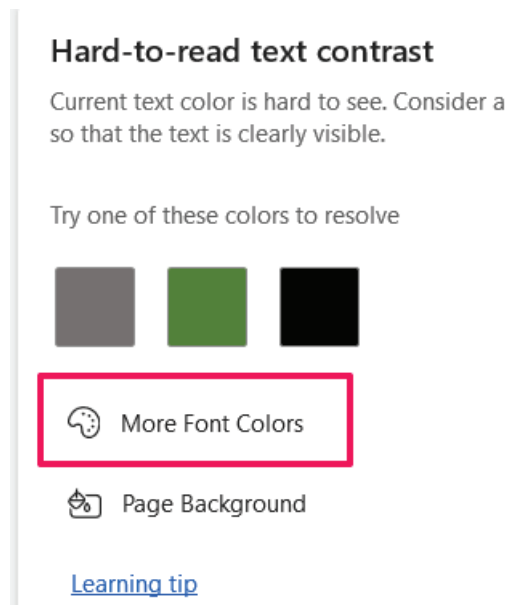
3. Select the issue/problem that is causing the error, and the problem words or sentence will be highlighted in the document when it is selected from the Hard-to-Read Text Contrast error.



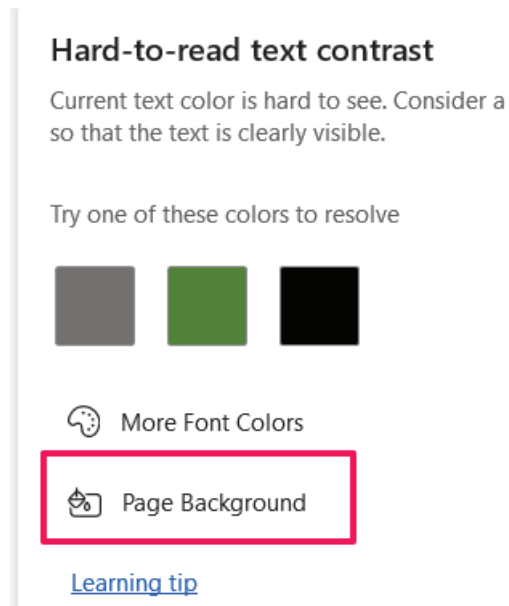
4. The Hard-to-read text contrast box will open. Click on one of the colors under “Try one of these colors to resolve”. Excel will highlight the problem words or sentence in the document and will change the font color to what you selected.



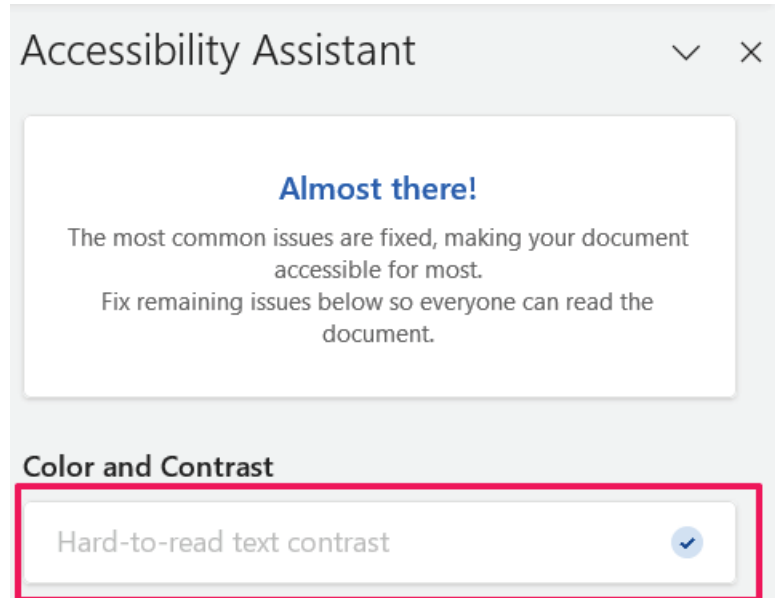
- a. Note: If you don't like any of the recommended colors, click on “More Font Colors” and choose another color.



- b. If that doesn't provide the results you are looking for, you can click on Page Background and change the color of the background to correct the color contrast issue. However, this is not recommended as this will change the background color of all pages in the document, not just the area you are trying to fix the color contrast on.



- c. Once you've chosen a color with enough contrast to meet ADA requirements, the Accessibility Assistant will show the issue in a lighter gray text with a check mark to the right indicating the issue has been resolved.



DOCUMENT NO LONGER HAS ACCESSIBILITY ISSUES

In the Accessibility Inspection Results there is now a green checkmark saying "No accessibility issues found. People with disabilities should not have difficulty reading this document.

Now this Excel document is compliant with all the accessibility issues fixed meeting ADA standards. This document will now be accessible to everyone.

WEBAIM CONTRAST CHECKER

WHAT DOES WEBAIM CHECK FOR?

WCAG AA requires a contrast ratio of at least 4.5:1 for normal text and 3:1 for large text.
WCAG AAA requires a contrast ratio of at least 7:1 for normal text and 4.5:1 for large text.

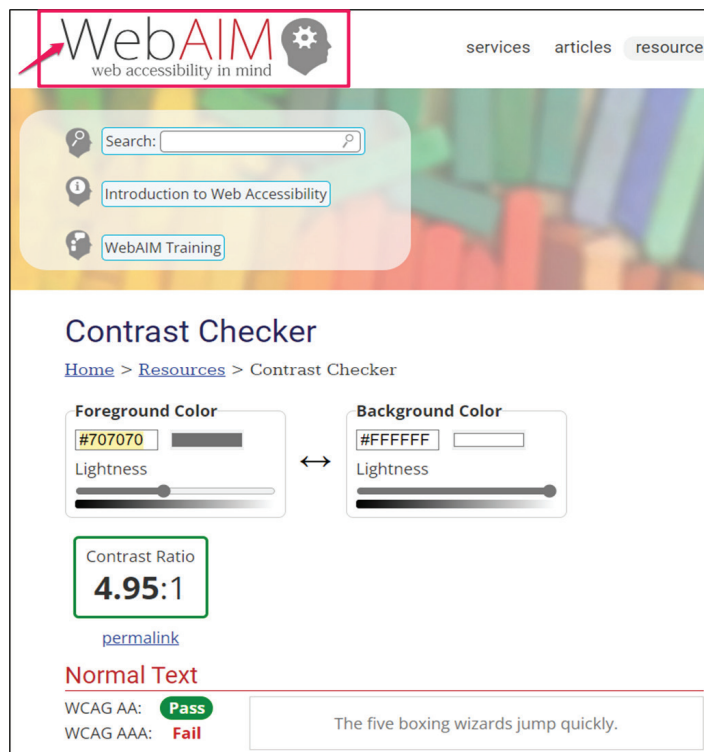
Web AIM Contrast Checker can check the color contrast of a document. Using it to check the text color and the background against different sizes of text will show if the contrast passes the required WCAG of both A and AA. It is recommended to pass AAA, when possible. If the contrast does not meet the above requirements, changes can be made by changing and/or adjusting the color contrast of the document's content and background to make it easier to read the information and comply with ADA color contrast requirements.

USING THE WEBAIM CONTRAST CHECKER

Text is easier to read when there is a sufficient contrast between the page background and the text or other elements on the page. If unsure what would be an acceptable color for a good color contrast ratio, then changing to a darker version of the font color may help. For a more accurate contrast choice you can use a color contrast checker. A good resource is to use [Web AIM Contrast Checker Website Resource](#), an online checker to verify WCAG AA and WCAG AAA compliancy from normal to large size text.

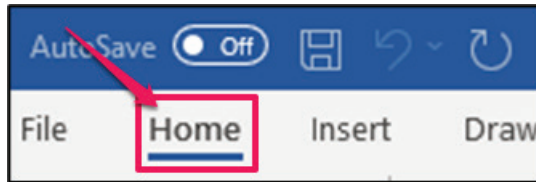
FOREGROUND (TEXT) COLOR

1. Once the website has opened the Contrast Checker can be used.

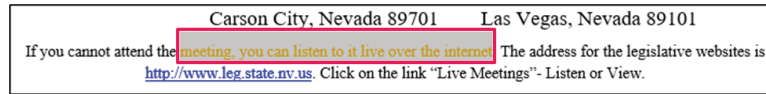


The screenshot shows the WebAIM Contrast Checker website. At the top, the logo "WebAIM web accessibility in mind" is visible, along with navigation links for "services", "articles", and "resources". Below the logo is a search bar and a list of links: "Introduction to Web Accessibility" and "WebAIM Training". The main content area is titled "Contrast Checker" and includes a breadcrumb trail: "Home > Resources > Contrast Checker". The interface features two color selection tools: "Foreground Color" (set to #707070) and "Background Color" (set to #FFFFFF). Each tool has a color swatch and a "Lightness" slider. A double-headed arrow indicates the relationship between the two colors. Below these tools, the "Contrast Ratio" is displayed as "4.95:1" in a green box, with a "permalink" link underneath. At the bottom, the results are shown: "WCAG AA: Pass" (in a green circle) and "WCAG AAA: Fail" (in a red circle). A sample text "The five boxing wizards jump quickly." is displayed in a white box against the background color.

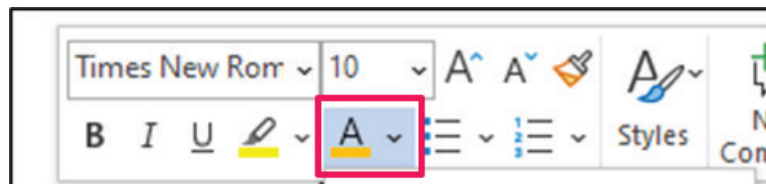
- Go to the document and click on the Home Tab.



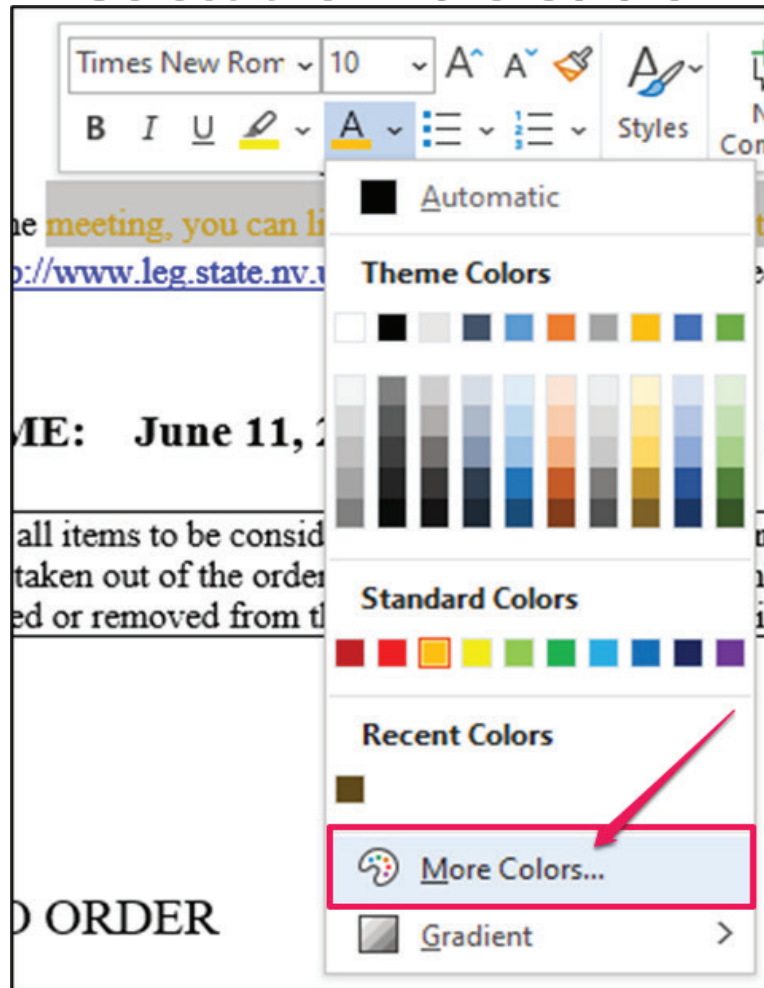
- Select the words/sentences with the contrast error.



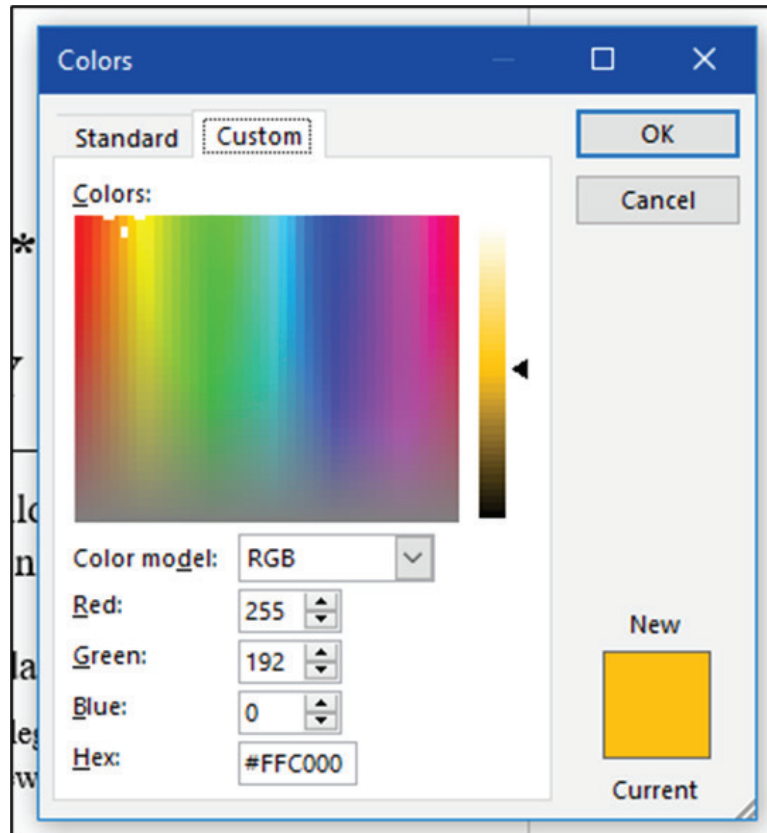
- Find the "Font Color" tool and select the arrow next to the tool. A drop-down menu will appear with color options.



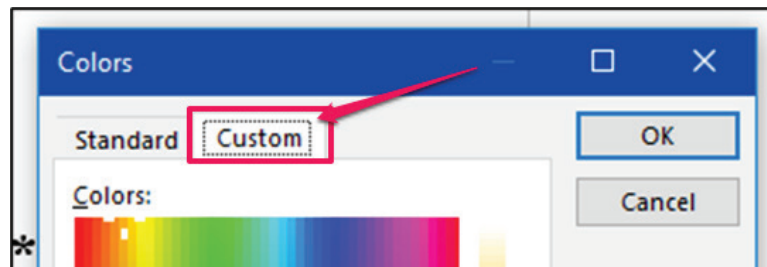
Select the "More Colors."



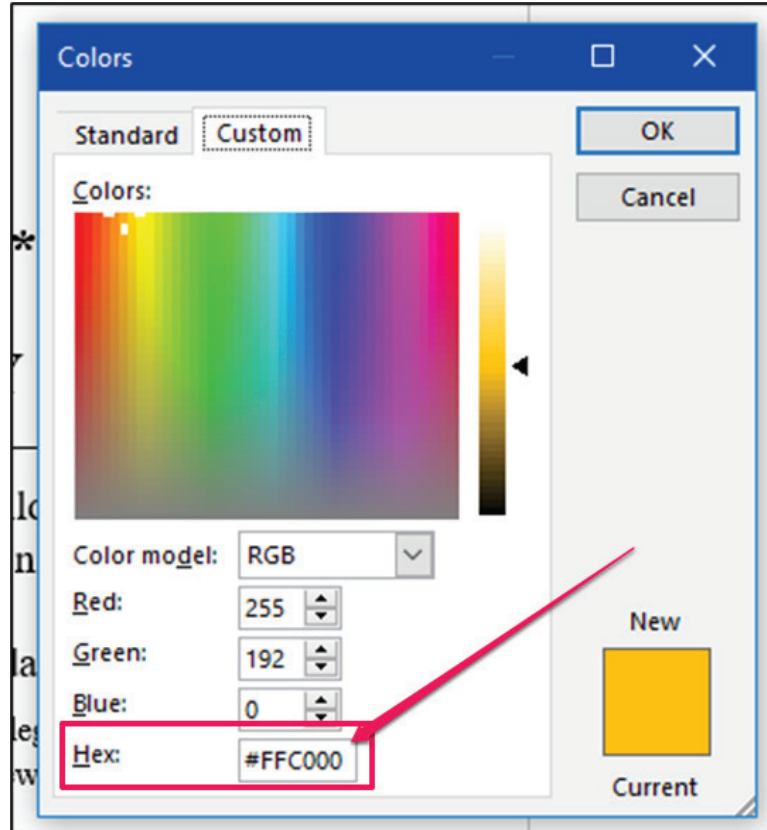
5. The "Colors" box will appear.



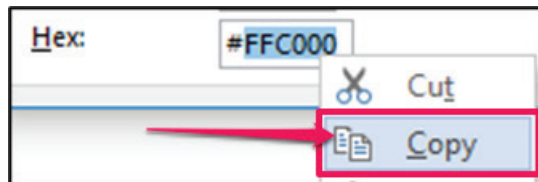
6. Select the "Custom Tab."



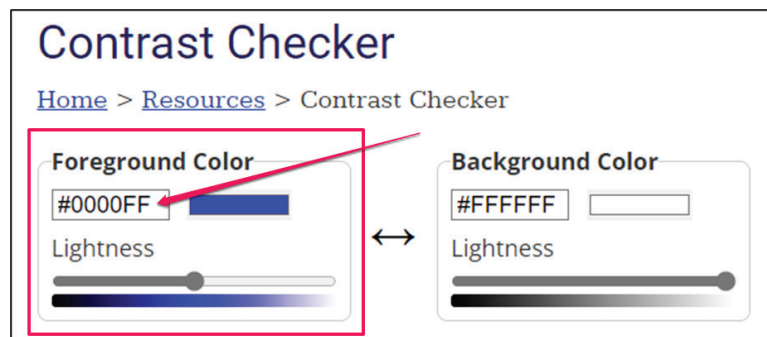
- Find where it says "Hex," in its input box that is the hexadecimal number of the font color that is causing the error to the document.



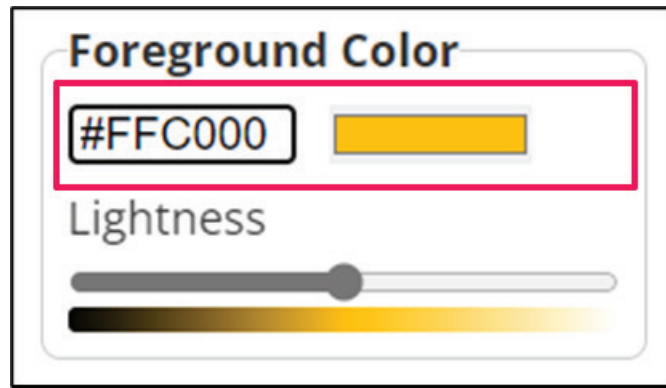
- Copy the hexadecimal number of the font color.



- Once the hexadecimal number is copied go back to the [Web AIM Contrast Checker](#) website.
- In the Contrast Checker website find the "Foreground Color input box and copy the hexadecimal number copied in Step 9 into the input box."



11. Then press the "tab" key on the keyboard. Now the text color from the document will appear.



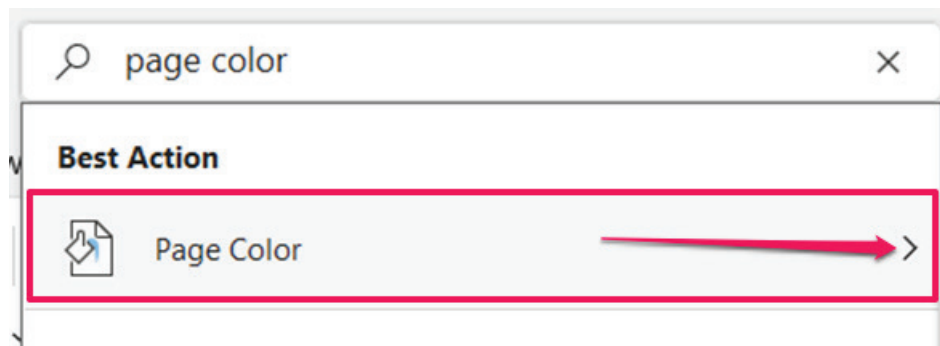
BACKGROUND (PAGE) COLOR

If the background color of the document you are checking for color contrast is white, you can skip checking the background color (skip to Step 18 below) as WebAIM Color Contrast Checker defaults to white. If a background color has been applied, follow the steps below:

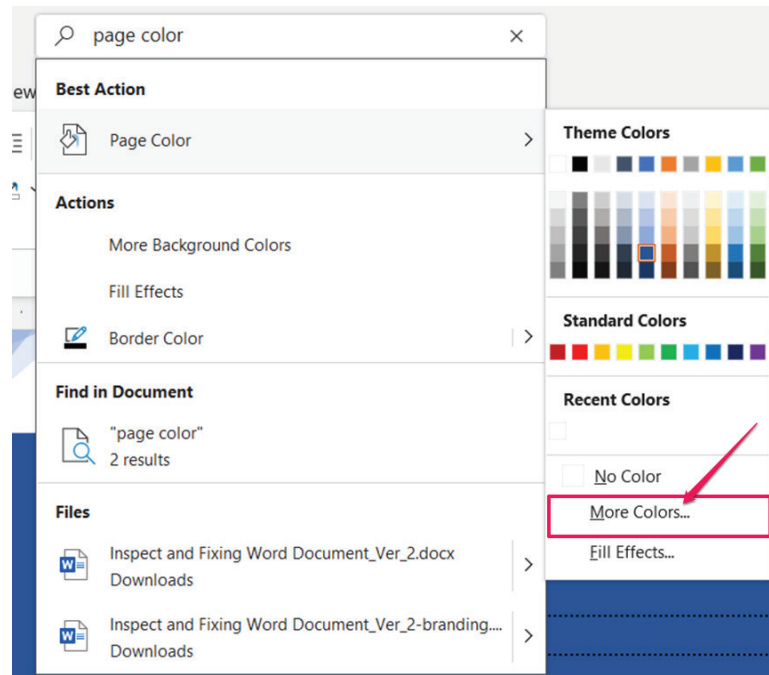
12. Enter page color in the search bar at the top of the word document



13. Then choose Page color from the drop-down menu



14. Then choose More Colors at the bottom of the Theme Colors drop-down menu.

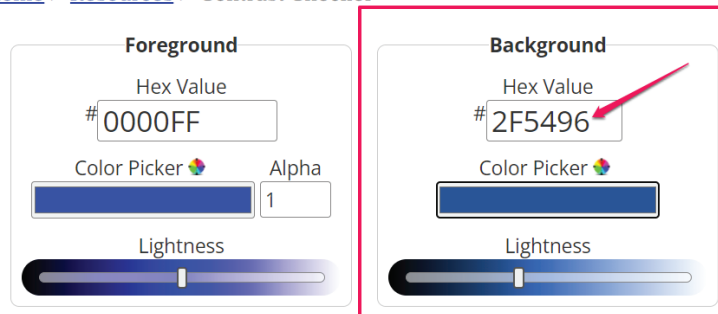


15. Locate the Hex field input box, and copy the Hexadecimal code in the input box.

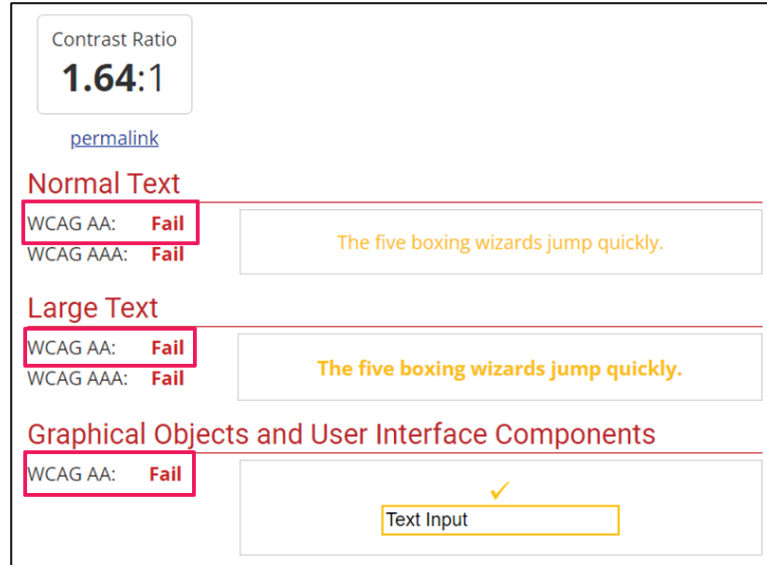
16. Open the WebAIM Color Contrast Checker and paste the hexadecimal code you copied into the background Hex Value input field. The color picker under the hex value will show the background color.

Contrast Checker

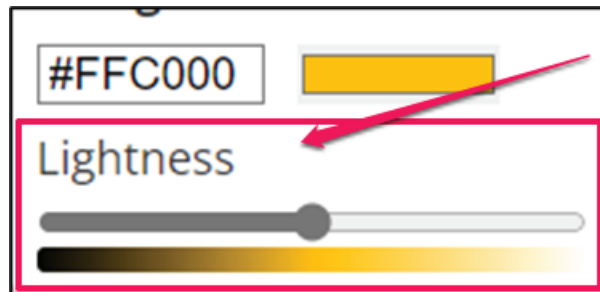
[Home](#) > [Resources](#) > Contrast Checker



17. Check to see if the Contrast Checker passed the color of the document. Scroll down the website to see if it passes WCAG standards in "Normal," "Large" and "Graphical Objects and User Interface Components with a minimum of AA." If it does not go the top of the webpage, back to Foreground Color.



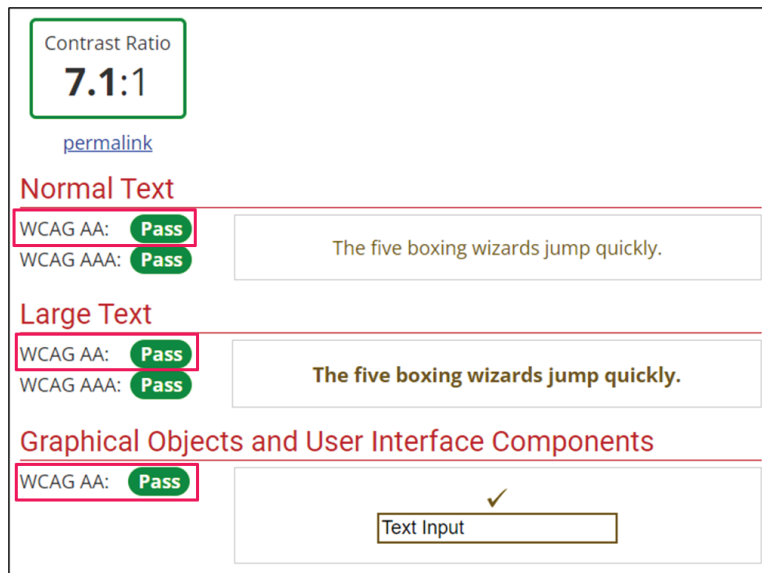
18. Under the hexadecimal number input box there is a tool called "Lightness."



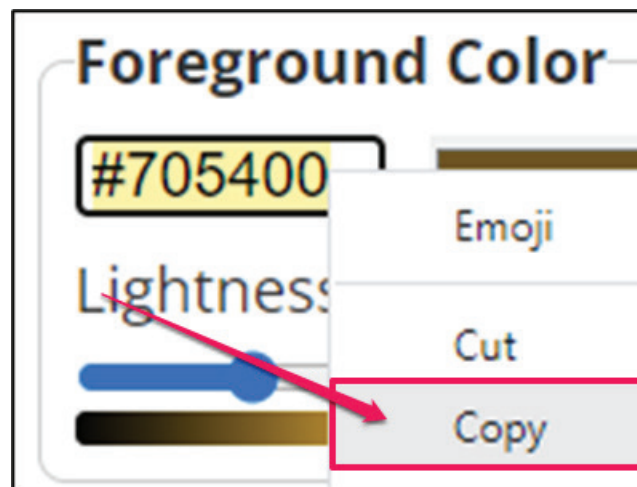
19. In the Lightness tool there is a sliding bar tool. It is used to change the color that is in the hexadecimal input box. It makes the color darker or lighter depending on where the slide tool is positioned. The hexadecimal number will change depending on the position of the slide tool.



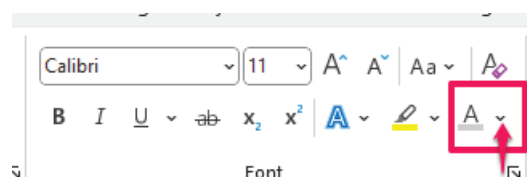
20. Once you've found a contrast ratio color that has passed the WCAG's standards, the Checker will provide you with a pass for all WCAG AA normal text, large text and graphical objects and user interface components. It is recommended to pass AAA, whenever possible.



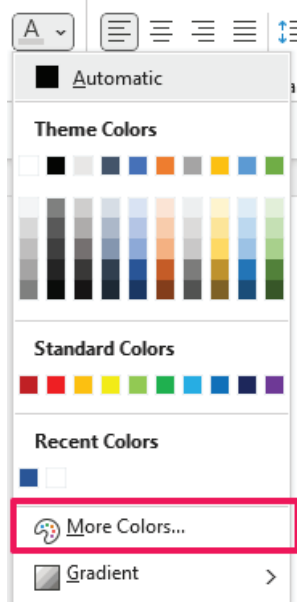
21. Select the new hexadecimal color from the Contrast Checker and right-click and choose Copy from the drop-down menu.



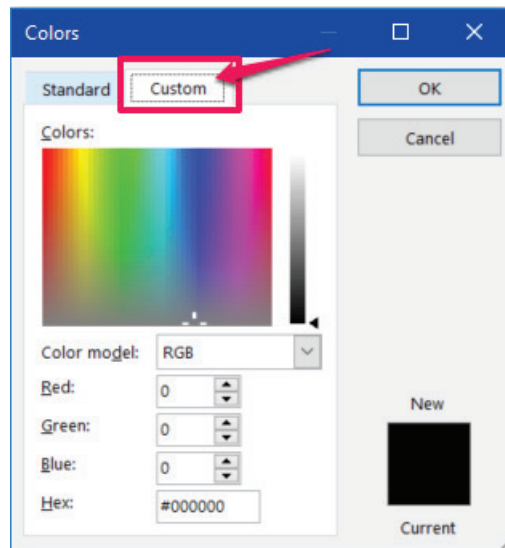
22. Go back to the Microsoft Word document. Then go to the Colors box to the Custom tab. If the Colors box has been previously closed, follow the steps below to open the Colors box.
23. Select the text that is hard to read
24. Click the font icon drop-down button



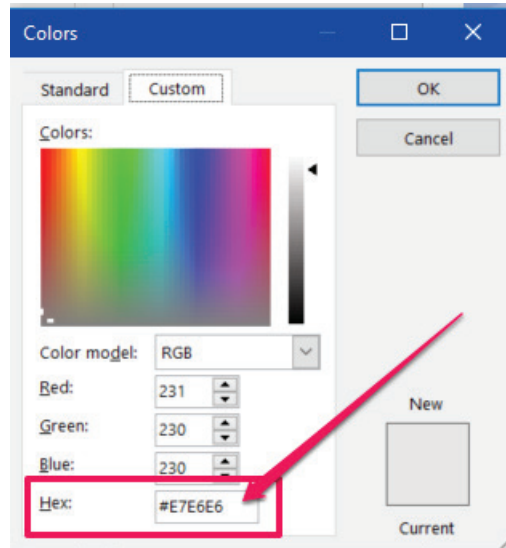
25. When the Theme Color dialog box opens, choose the "More Colors" option.



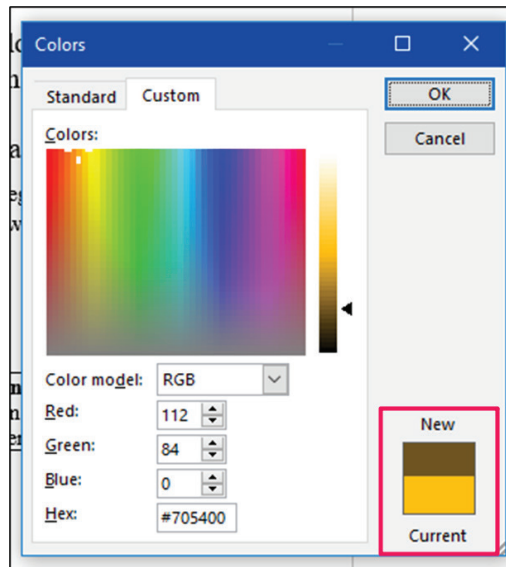
26. Be in the Custom tab of the Colors box.



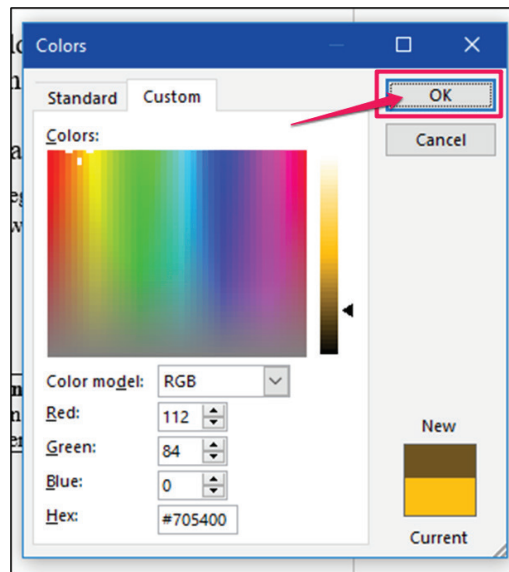
27. Find where it says "Hex" and paste the new hexadecimal number from the Contrast Checker. Then press the "Tab" button on the keyboard.



28. To the right of the Hex input box there is a box with two colors. The top that says New is the color from the contrast checker pasted in, the other is the color that is currently being used and is causing the problem for the document.



29. Click on the OK button.



30. Now the selected words/sentence with the contrast error has changed color to the one from the contrast checker and meets ADA Color Contrast requirements.

If you cannot attend the meeting, you can listen to it live over the internet. The address for the legislative websites is <http://www.leg.state.nv.us>. Click on the link "Live Meetings"- Listen or View.

31. Now there are no more Hard-to-Read Text Contrast errors. The error has now disappeared from the Accessibility Inspection Results.



STATE OF NEVADA

GOVERNOR'S TECHNOLOGY OFFICE