



Using WebAIM

[WebAIM](#) (Web Accessibility in Mind) is a non-profit organization based at Utah State University. It provides tools to determine the accessibility of web content and digital materials, based on Web Content Accessibility Guidelines (WCAG), such as [WAVE](#) evaluation tools. The WebAIM website also provides resources and tools for evaluating the accessibility of web content. This guide focuses on the color contrast checking tools available through WebAIM.

A screenshot of the WebAIM Contrast Checker tool. The header shows the WebAIM logo and navigation links: services, articles, resources, projects, and community. Below the header is a search bar and two links: 'Introduction to Web Accessibility' and 'WebAIM Training'. The main section is titled 'Contrast Checker' and includes a breadcrumb trail: 'Home > Resources > Contrast Checker'. There are two input fields for 'Foreground' and 'Background' colors, each with a 'Hex Value' and a 'Color Picker'. The 'Foreground' field shows '#0000FF' and the 'Background' field shows '#FFFFFF'. To the right of the input fields is a 'Related Resources' section with links to 'Contrast and Color Accessibility', 'Quick Reference: Testing Web Content for Accessibility', 'WebAIM Auditing & Evaluation Services', 'Web Accessibility for Designers', and 'Link Contrast Checker'.

Why does contrast matter?

Contrast refers to the difference in brightness between two colors, such as text and its background. In WCAG 2, this difference is expressed as a ratio that ranges from 1:1 to 21:1. A ratio of 1:1 means there is no contrast at all, such as white text on a white background. A ratio of 21:1 is the strongest contrast, such as black text on a white background. It is important to remember that for some readers the strongest contrast will be uncomfortable over long periods of time. Therefore, WCAG 2 recommends *minimum contrast levels of 4.5:1* for normal size text (under 18 point or 14 point bold) and 3:1 for large text. Some examples are provided below:

- Pure red (#FF0000) has a ratio of 4:1. **I am red text.**
- Pure green (#00FF00) has a very low ratio of 1.4:1. **I am green text.**
- Pure blue (#0000FF) has a contrast ratio of 8.6:1. **I am blue text.**

Checking Color Contrast

If you know the hex values for the text and background colors you want to check, go directly to the Webaim contrast checker and follow the steps below. If you are unsure of the hex values for your text and colors, skip to the [Using the Eyedropper Extension](#) section to learn how to install the eyedropper tool.

- Go to the Webaim color contrast checker.
- Enter the Foreground hex color (for text) and the Background hex color.
- The Contrast ratio is displayed below the color checkers.

The image shows the Webaim Contrast Checker interface. It has a title "Contrast Checker" and a breadcrumb "Home > Resources > Contrast Checker". There are two main sections: "Foreground" and "Background". Each section has a "Hex Value" input field, a "Color Picker" button, and a "Lightness" slider. The "Alpha" input field is also present. The "Contrast Ratio" is displayed in a large box at the bottom.

Section	Hex Value	Color Picker	Alpha	Lightness
Foreground	#0F347F	[Color Picker]	1	[Slider]
Background	#212121	[Color Picker]		[Slider]

Contrast Ratio: 1.39:1

- Scroll to the bottom of the page for more information about the contrast when using text.

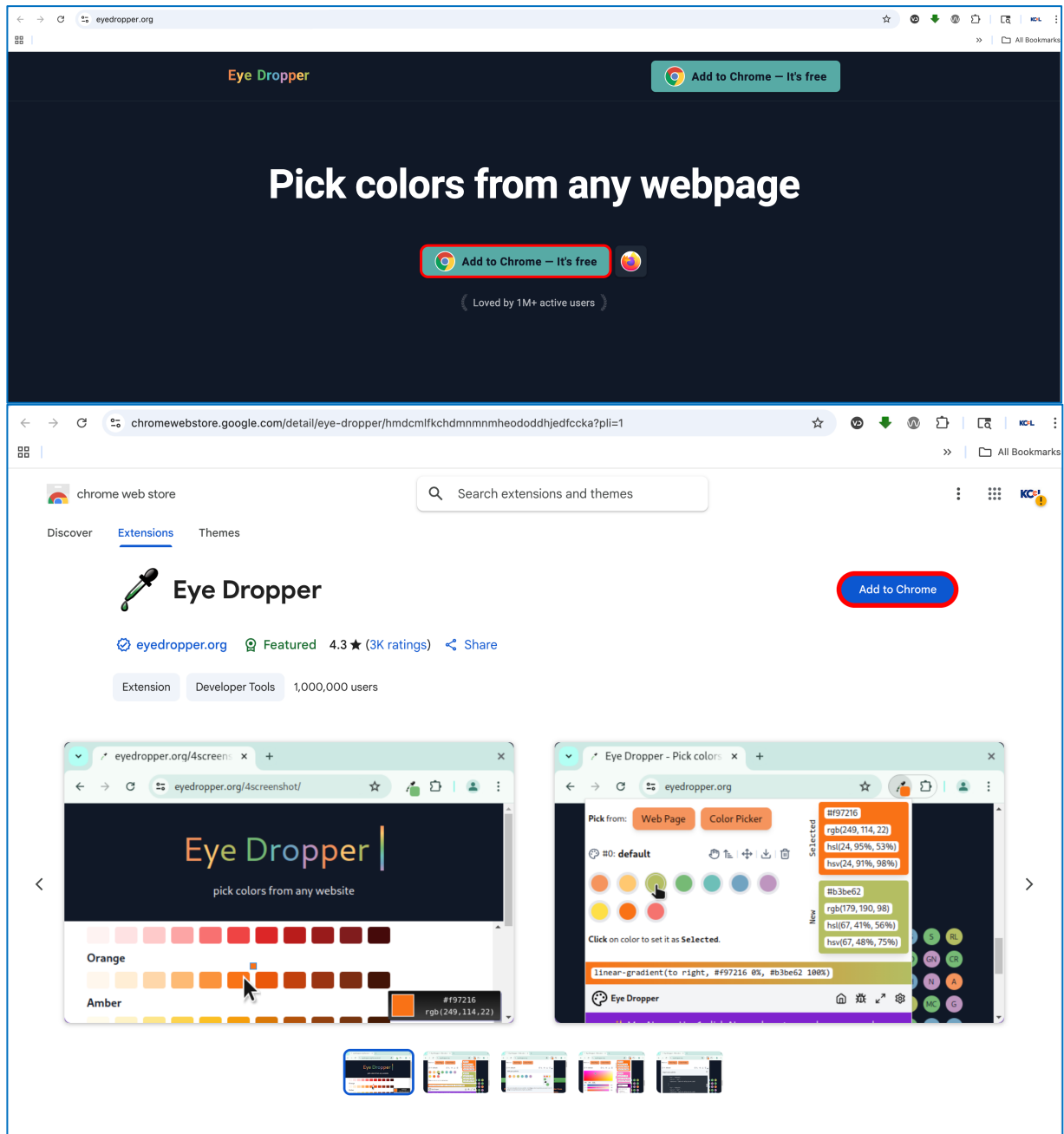
The image shows the results of the contrast checker for three different text types. Each section has a heading, WCAG AA and AAA status, and a visual representation of the text on a dark background.

Section	WCAG AA	WCAG AAA	Visual Representation
Normal Text	Fail	Fail	The five boxing wizards jump quickly.
Large Text	Fail	Fail	The five boxing wizards jump quickly.
Graphical Objects and User Interface Components	Fail		★ Text Input

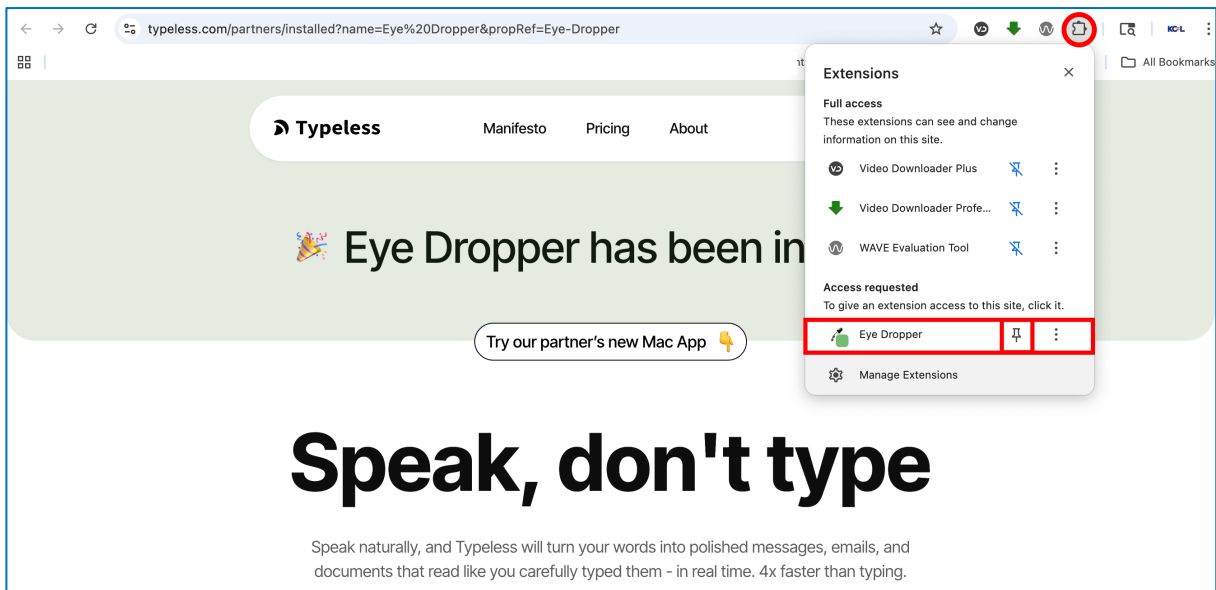
Using the Eyedropper Extension

A simple way to learn the hex values for colors on in your documents is to use the [Eye dropper](#) extension to your Chrome web browser. Follow these steps to install it:

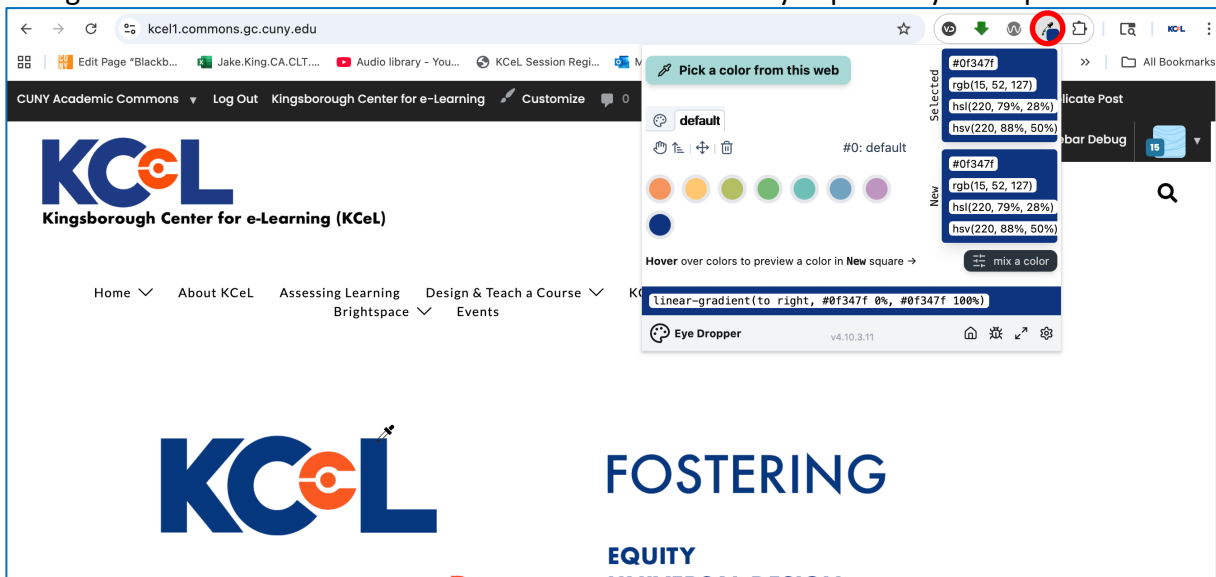
- First, go to [Eyedropper.org](#) and follow instructions to install the Eyedropper extension to your Chrome web browser.



- From there, click on the “manage extensions” buttons, which looks like a puzzle piece. Then, on the list of extensions, locate the “Eye Dropper” and click on the thumbtack icon next to it.



- You should now see an eyedropper icon appear at the top of your Chrome web browser ribbon, next to the extensions button.
- Now that you've installed the EyeDropper, you can use it to pick colors from a web page.
- Open the eyedropper and click **Pick a color from this web**. Hover over the desired foreground or background color and click. The hex values are automatically copied to your clipboard.



To determine the contrast, copy the hex numbers into the Eyedropper into WebAim's Contrast Checker Page and follow the [Checking Color Contrast](#) steps above.