



## Effective use of Color

There are two accessibility issues related to the choice of color when used on digital or printed media:

### Avoid Using Color to Communicate Information

Some users cannot perceive color differences or may not perceive color the same way you do. Therefore it is important to avoid using color alone to communicate information. For example, if the link text is blue, it should also be underlined so users who cannot perceive color differences can distinguish links from surrounding text.

### Choose Colors with Ample Contrast

Some users need help perceiving text if there is too little contrast between foreground and background.

The W3C Web Content Accessibility Guidelines 2.0 require that color combinations meet clearly defined contrast ratios.

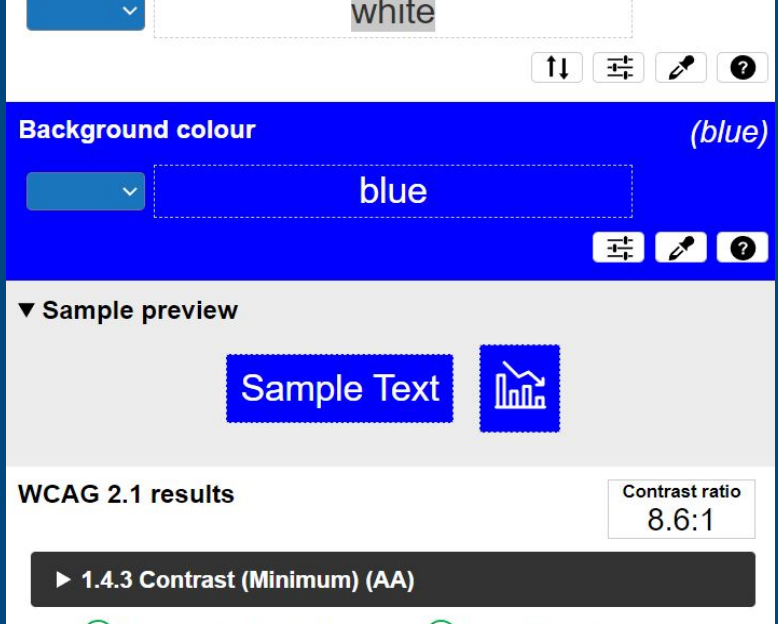
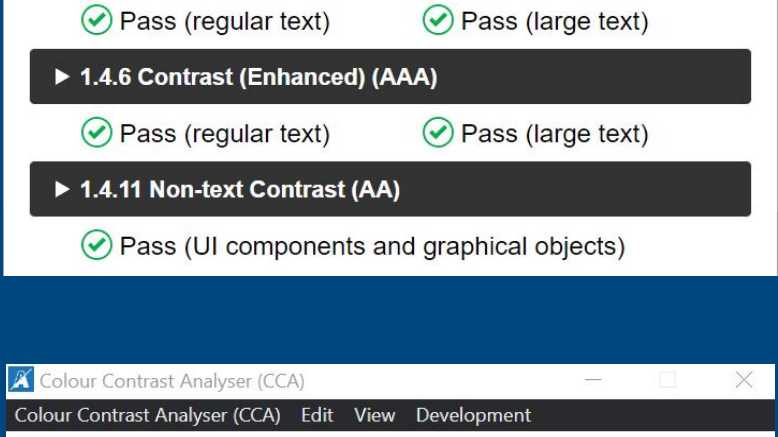
- To meet the guidelines at Level AA, text or images of text must have a contrast ratio of at least 4.5:1 (or 3:1 for large text).
- To meet the stricter Level AAA guidelines, the contrast ratio must be at least 7:1 (or 4.5:1 for large text).

Several free tools have been developed that make it easy to check color combinations for WCAG 2.0 compliance. The following are a few examples:

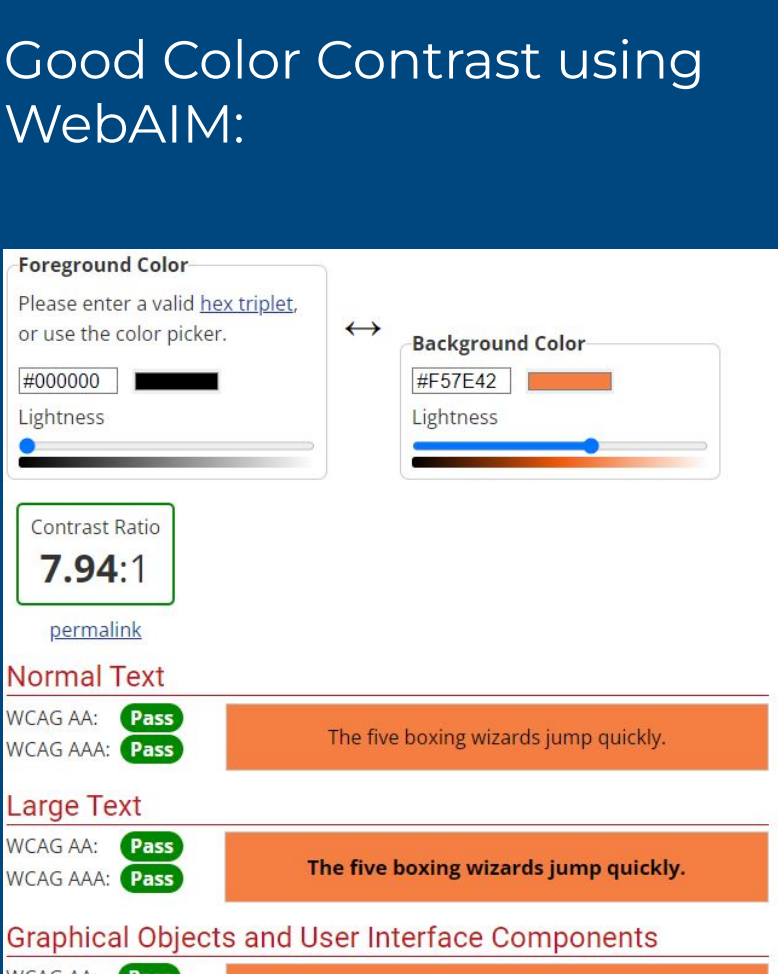
- Color Contrast Analyzer (for Windows or Mac):
  - [https://developer.paciellogroup.com/resources/contrastanalyser/Links to an external site.](https://developer.paciellogroup.com/resources/contrastanalyser/Links%20to%20an%20external%20site)
- WebAIM Color Contrast Checker:
  - [https://webaim.org/resources/contrastchecker/Links to an external site.](https://webaim.org/resources/contrastchecker/Links%20to%20an%20external%20site)

### Examples of Good Color Contrast

Good Color Contrast using Color Contrast Analyzer:

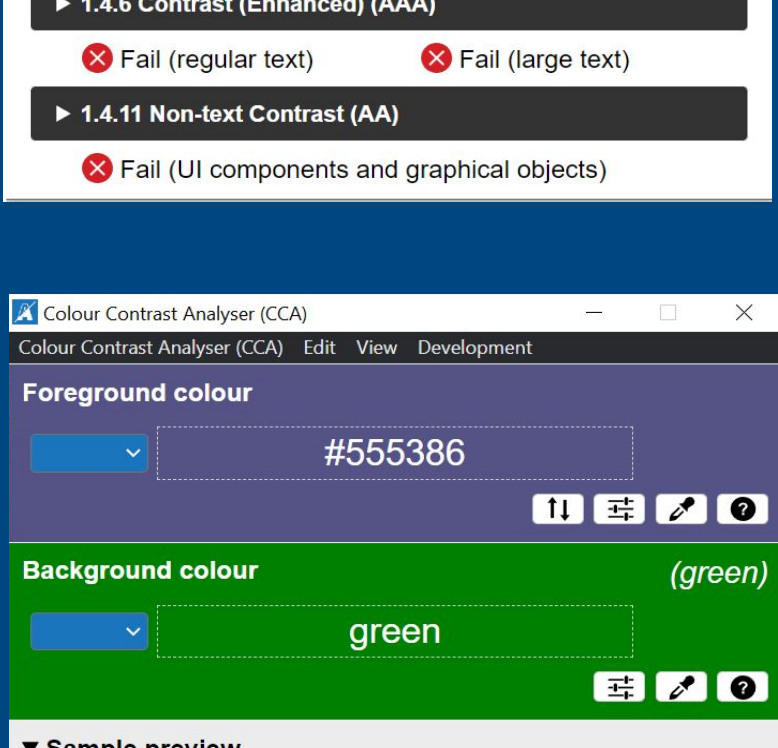
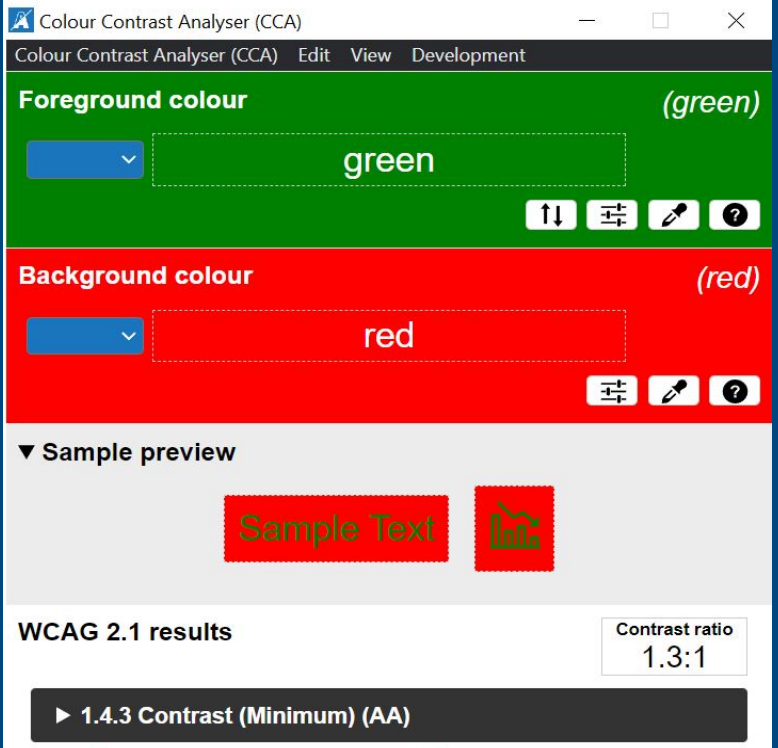


Good Color Contrast using WebAIM:



### Examples of Poor Color Contrast

Poor Color Contrast using Color Contrast Analyzer:



Poor Color Contrast using WebAIM:

