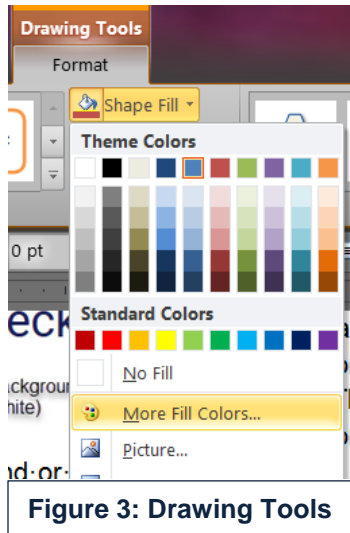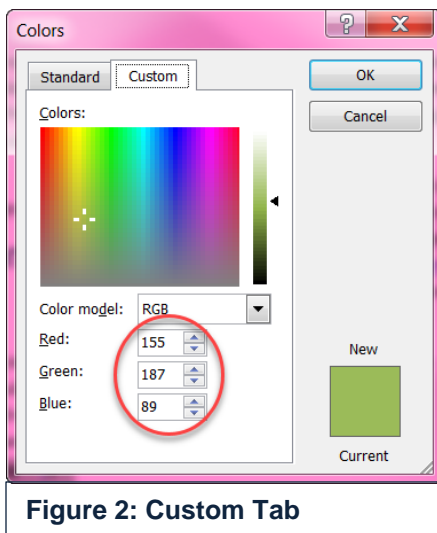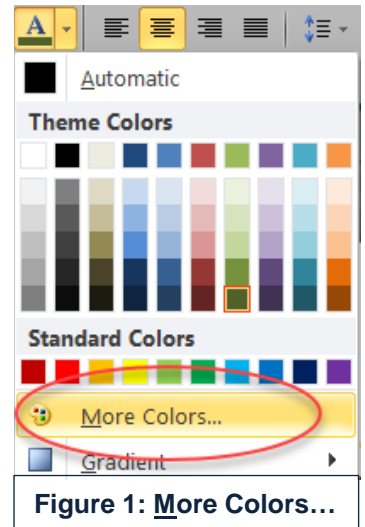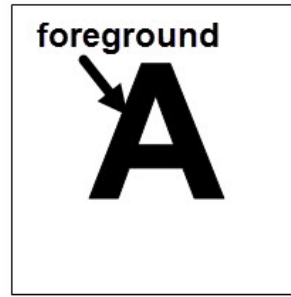# Color Contrast Checker

To ensure your design (screen based or printed) is accessible ([WCAG 2.0 AAA compliant](#)), you should check the foreground (the front most text or shapes) and background (the back most elements or fill) colors for proper contrast using one of the two methods below.

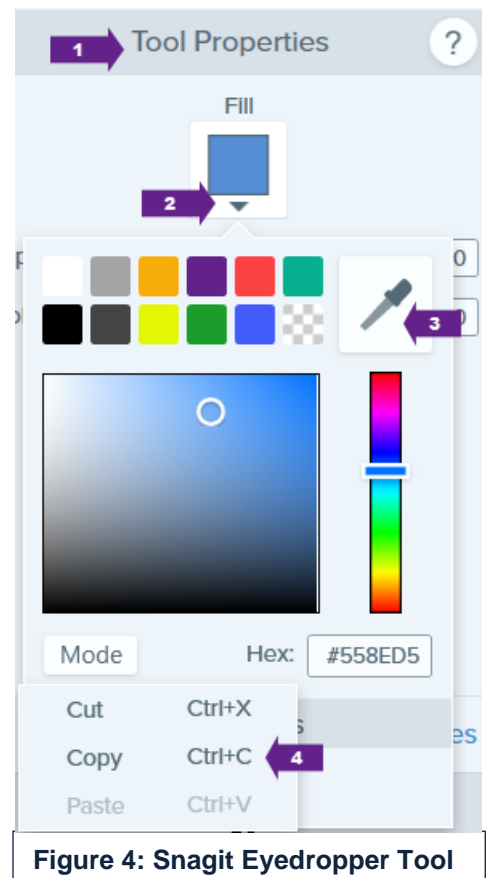

How do I find my color values?

Microsoft Office

1. Foreground
   a. Highlight the text.
   b. In the Font section of the Home tab, select the dropdown for Font Color and choose **More Colors…** (see Figure 1).
   c. Make sure the Custom tab is selected to find the RGB numbers for the text color (see Figure 2).
2. Background
   a. Select the Shape Fill dropdown in the Format tab of the Drawing Tools section (see Figure 3).
   b. Choose **More Colors…** (see Figure 1).
   c. Make sure the Custom tab is selected to find the RGB numbers for the text color (see Figure 2).

Figure 1: <u>M</u>ore Colors…

Figure 2: Custom Tab
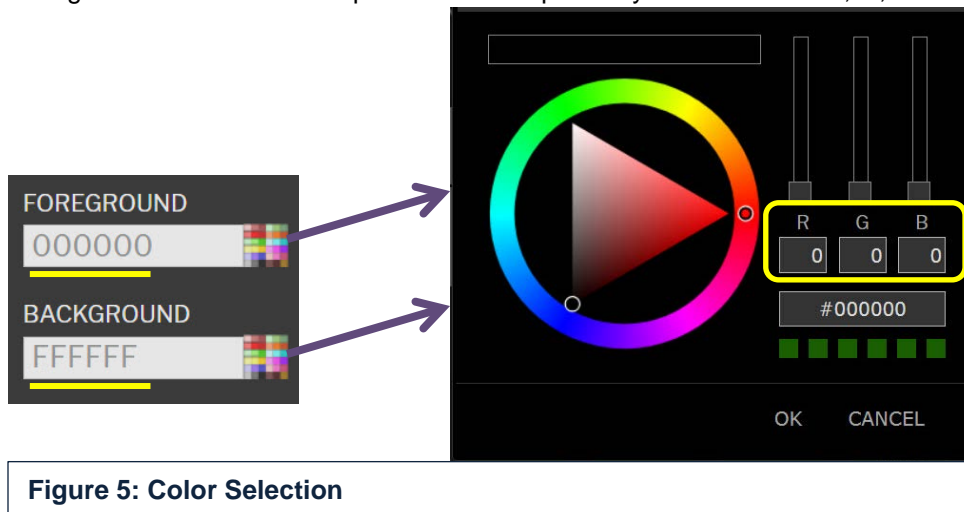

Figure 3: Drawing Tools

Snagit Editor*

1. Open the Snagit Editor.
2. Under Tool Properties,[1] open the Fill dropdown[2] and select the eyedropper icon[3] to activate the eyedropper cursor[4] (see Figure 4).
3. You can now use the eyedropper cursor to select a color anywhere on your screen. Once selected, it is added as the fill color in Snagit. You can open the Fill dropdown and copy the HEX value[4] to paste into the Tanaguru Contrast Finder described in the next section.

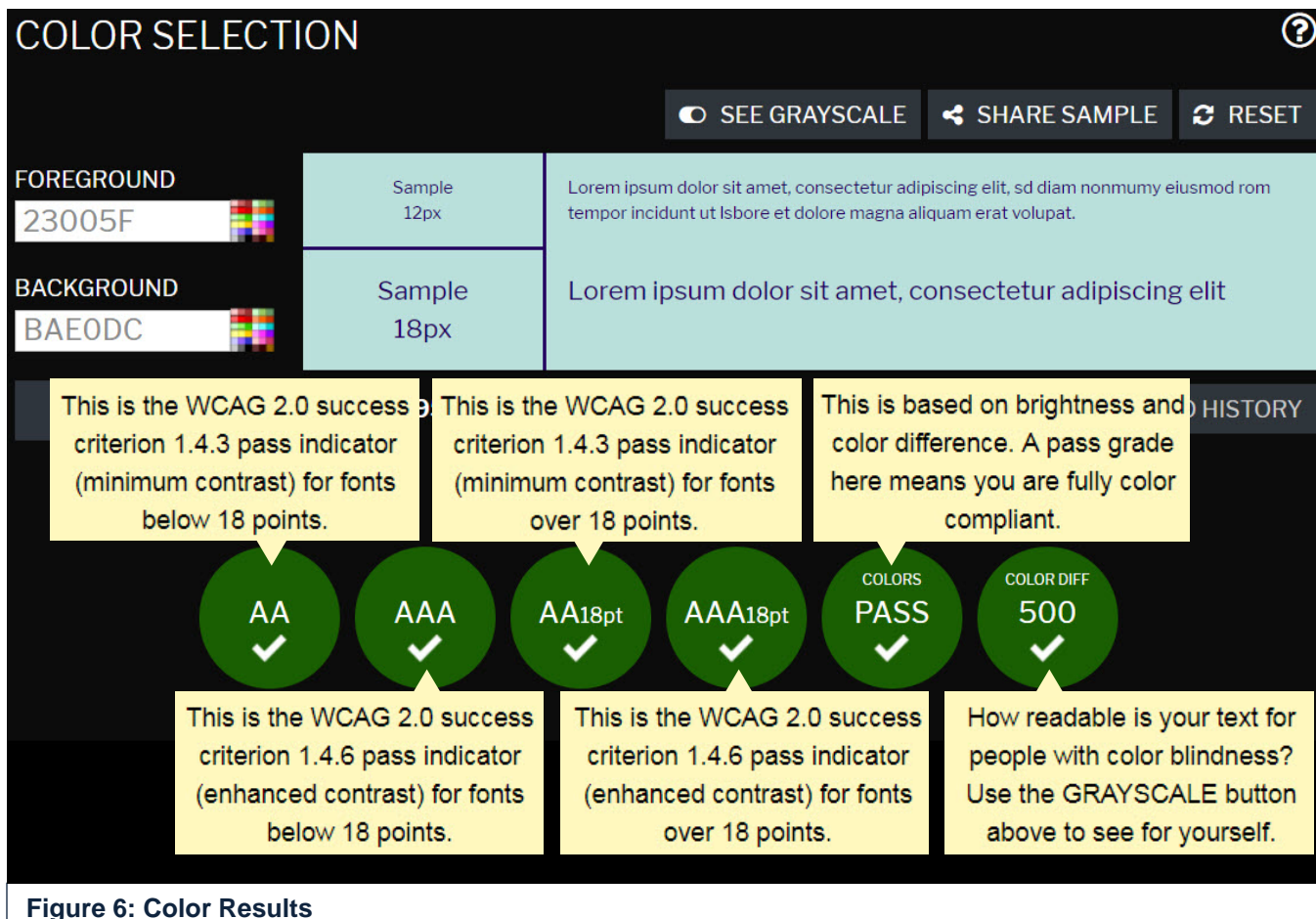*Snagit Editor is only available for purchase through BITS.

Figure 4: Snagit Eyedropper Tool

How do I see if my color combination is contrast compliant?

1. Open the Contrast Checker.
2. Enter HEX values in the foreground and background fields, or enter RGB values by clicking on the multicolored box to the right of the fields. A color picker box will open for you to enter the R, G, and B fields (see Figure 5).

Figure 5: Color Selection

Does your color combination pass?

The results automatically generate a pass (✓), margin (✓), or fail (x) score for each of the six areas. DHS requires that all content meet the Level AAA minimum contrast ratio of 7:1 to ensure its accessibility whether increased or decreased in size. For example, the web adjusts the content on the page depending on the device, such as a mobile phone versus laptop.

Figure 6: Color Results

All the circles in Figure 6 should generate a pass or margin (✓) score except for the color diff circle.

AA and AAA circles: These are for fonts below 18 points.

AA18pt and AAA18pt circle: These are for fonts over 18 points.

Colors circle: This is based on brightness and color difference.

Color diff circle: This indicates how readable your text is in grayscale. Use the toggle to see the color selection in grayscale to determine its readability for your audience (see Figure 7). If this circle does not pass, only use the color combination for large text, for example, titles and headings.

Figure 7: Color Readability

What if my colors don't pass?

If your colors do not pass, their ratio or color difference needs to increase. Adjust either the foreground or background color.

1. Open the color picker box (see Figure 5) for the foreground or background color.
2. To maintain shades of the same color, move the color picker inside the triangle until the squares turn green (see Figures 8 and 9). To change the color, move the color picker on the outside circle. If the squares still do not turn green, move the color picker inside the triangle (see Figure 10).
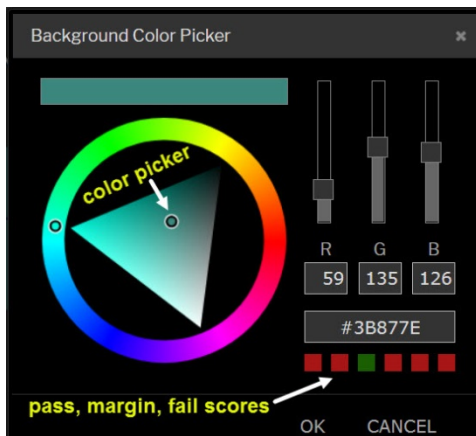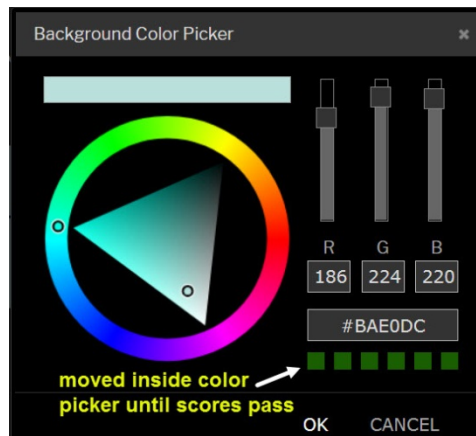

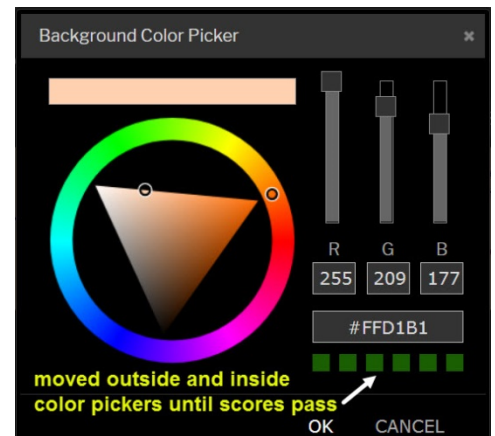**Figure 8: Color Picker, Fail**

Figure 9: Color Picker, Pass

Figure 10: Change Color