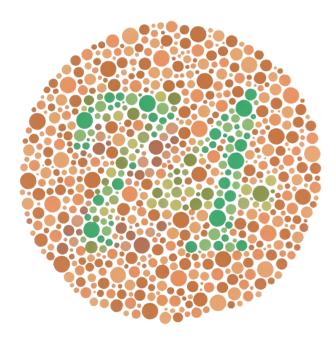
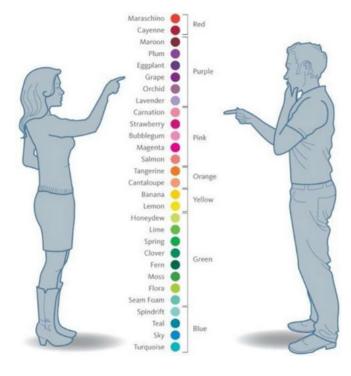
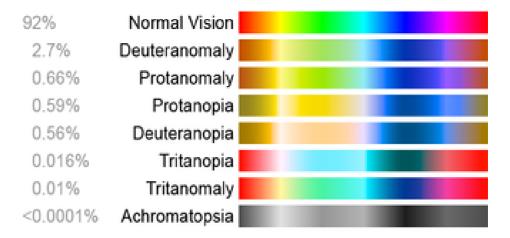
Decreased ability to see color or differences in color. Around the world, approximately 1 in 12 men and 1 in 200 women are affected by color blindness (genes responsible for the most common forms of color blindness are on the X chromosome).

- **Deuteranopia** or deuteranomoly: 5% of all males.
- **Protanopia** or protanomaly: 2.5% of all males.
- **Tritanopia**: Less than 0.3% of women and men.



Ishihara test (full test consists of 38 plates)







https://colororacle.org/

## **Color Oracle**

Color Oracle is a free color blindness simulator for Windows, Mac and Linux. It takes the guesswork out of designing for color blindness by showing you in real time what people with common color vision impairments will see. Color Oracle applies a full screen color filter to art you are designing, independently of the software in use.

https://www.toptal.com/designers/colorfilter

## **Toptal Color Blind Filter**

Use the Colorblind Colorlab to select safe colors earlier in the design process. Learn more about colorblindness in this Wikipedia entry. This tool is still in development, but feedback is welcome while we work on it.