



EXPERIENCE: COLORBLINDNESS ACTIVITY

OPENING QUESTIONS

Fill in the blanks as Qbee describes how we see color. Restart if needed.

- The color we see is based off of incoming _____ of _____.
- Eyes use _____ different types of _____ to see color:
 - One for _____ wavelengths
 - One for _____ wavelengths
 - One for _____ wavelengths
- Color blindness occurs when one cone is either _____ or _____.



ONTO THE GARDEN

Write down a description of each type of colorblindness as Qbee explains them.

Deuteranomaly	
Protanomaly	
Tritanomaly	
Monochromacy (Chronomaly)	

FRUIT STORE

In the fruit store, sort the fruit and write down your results.

- **Partner 1:** How many did you get right? _____ How many did you get wrong? _____
 - **Bonus math question:** What is your percentage? _____
- **Partner 2:** How many did you get right? _____ How many did you get wrong? _____
 - **Bonus math question:** What is your percentage? _____



THE MUSEUM

Once you've finished the colorblind experience and you're in the museum, take some time to look at the different paintings using different colorblindness filters.

- Which type of colorblindness do you find to be the **least** disruptive to sight?
- Which type of colorblindness do you find to be the **most** disruptive to sight?

COLORBLINDNESS TEST

Now take the color blindness test. (have your partner record your results)

- Partner 1: _____
- Partner 2: _____

How did your results compare with those of your partner's?

PAINT A PICTURE

Take a moment to try and paint a picture of a supreme pizza or a fruit stand or a rainbow or something that requires using many different colors. Try doing it with each type of color blindness.

- Which type was the hardest to paint with and why?
- Which was the easiest and why?



HUE SORTING ACTIVITY

Let's try the hue sorting activity. Take a couple minutes and see if you can finish.

- Were either of you able to finish?
- What made this activity difficult?

REFLECTION

After you are finished with the activities above, discuss with your partner how each type would make everyday life difficult and what they could to make adjustments.

- What are some of the difficulties people with colorblindness encounter on a daily basis?
- What are some possible solutions to help combat these difficulties?

