

If I take a red apple.....



and shine a green filtered light  
on it.



What color will the  
apple appear to be?  
Why?

The answer is.....



Drum Roll.....



**BLACK!!!!!!!!!!!!!!!!!!!!**



# Here's Why.....

- In white light, a red apple absorbs all the colors (including green) of the spectrum except red, which it reflects.
- A green filter absorbs all the colors of the spectrum except green, which is transmitted through the filter (and comes through as green light).
- When the green light shines on a red apple, the red apple absorbs the green light.
- Since there is no red light shining on the apple, there is no red light to reflect, so the apple appears black.