



Project Exploration creates transformative learning opportunities for youth underrepresented in the sciences –particularly students of color and girls – by equipping them with the skills, practices, and mindset needed for a lifelong pursuit of learning. STEM@Home makes activities around science, technology, engineering, and math accessible and fun to do at home. This STEMbook activity, resources, and more are available at [www.projectexploration.org/stemathome](http://www.projectexploration.org/stemathome).

## In this activity, you will:

learn about what gives our skin its color, and perform a fun experiment to understand how melanin works.



## Supplies Required:

- Paper
- Pen
- Clear paper cup
- Water (1 cup)
- Brown sugar (1 cup)
- Spoon

## Video

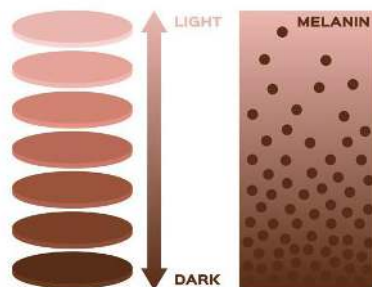
The science of skin color with Angela Koine Flynn: <https://rb.gy/rilkcw>

## Overview

Did you know that when ultraviolet sunlight hits our skin, it affects each of us differently. Depending on skin color, it'll take only minutes of exposure to turn one person beetroot-pink, while another requires hours to experience the slightest change.

The explanation for that difference lies in **MELANIN**, a tiny pigment occurring in the hair, skin, and iris of the eye in people and animals

In this activity, you are going to perform a small experiment with water and sugar to understand how Melanin works. We will then reflect on how color affects our society



## Instructions

1. **Hypothesis:** Can you guess how Melanin affects our skin color?
2. **Activity:**
  - ~ Get your brown sugar and water cup ready
  - ~ Imagine that the water is our skin, and the brown sugar is Melanin
  - ~ Add the brown sugar to the water little by little.
  - ~ What do you notice?
3. **Conclusion:** Based on this small experiment, can you now tell how Melanin affects our skin color? Was your first hypothesis right?
4. **Reflect:**
  - ~ How do you feel about your skin color and others
  - ~ If somebody asked you about the color of your skin, what would you say?
  - ~ How does sunscreen protect your skin?
  - ~ What are the two type of Melenin skin cells?
  - ~ What is Melenin?

## Additional Resources

"My black is beautiful" song: <https://youtu.be/ChecUCgJzW8>

Why do we have different skin colors? <https://youtu.be/QIYLTAo54ss>

## Share It Out

**Share on social media:** Make a short video and tell us what you love about your skin color!

#BlackisBeautiful  
#BrownisBeautiful  
#ProjectExploration  
#STEMatHome

For more activities like this one, go to [www.projectexploration.org/stemhome](http://www.projectexploration.org/stemhome). If you're interested in learning more about Project Exploration and our free events, programs, and activities, please find us on social media and be sure to follow!



Call or text us for help: 312-772-6634



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