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GIRLS PURSUING SCIENCE



# BEAUTY of STEAM SERIES

The Beauty Of Lip Gloss Science



# Beauty Tips

- ① **Safety First!** When making cosmetic products, it's important to keep your work area clean to avoid contamination. Also inventory your kit before getting started.
- ② **Understand the Science.** Before you start making lip gloss, take the time to understand the scientific principles behind the product. Understanding the science is key to making great lip gloss!
- ③ **Use Full Amount of Base.** The base in your kit is highly concentrated. Utilize the full amount as instructed to achieve the desired results in your lip gloss formulation.
- ④ **Measure Mica Powder Thoughtfully.** The amount of Mica Powder significantly affects the pigment of your lip gloss using the recommended 2 - 4 scoops. Start with a small amount and blend very well to avoid streaks or clumps. For a more natural look, less is better.
- ⑤ **Patch Test & Color Match.** Always test your gloss on a small area of your skin before applying it to your lips. Place a small amount on the back of your hand to test for color match.
- ⑥ **Never** mix other ingredients with the BOSS ingredients.

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## STEM Brilliance: Incorporate the 4Cs

- ① **Creativity.** Get creative and mix and match different color mica powders to create a unique shade.
- ② **Collaboration:** Brainstorm Color Ideas with Friends: Share inspirations, mix and match, and refine shades together.
- ③ **Critical Thinking.** Think about the different ingredients and their function. Think of ways ingredients can be substituted based on their function.
- ④ **Communication.** Share your creation, tips, and scientific explanations to your social media page to inspire other girls and foster a love for STEM and beauty! Remember to share with girls worldwide using #girlspursuingscience @girlspursuingscience. Remember to like and follow!





# LIP GLOSS SCIENCE

Lip gloss like many other beauty products is where a touch of magic and a dash of science come together to create the perfect pretty look! So, let's look at the secrets behind lip gloss, exploring the key ingredients that make it a must-have beauty accessory. Let's get into it.

- **Polybutene**-pronounced paa·lee·byoo·tuh·leen, is what makes gives the lips sparkle and shine. It's made from a type of polymer, which is like a tiny chain of molecules. These molecules stick together to create a smooth and shiny texture on your lips. Polybutene is great because it gives your lips a nice, attractive sheen. However, some people might be sensitive to it, and using too much can make your lips feel a bit sticky.
- **Hydrogenated Polyisobutene** pronounced pol-ee-eye-so-byoo-teen, is what keep your lips soft and moisturized. Shielding your lips from the harsh elements, ensuring they stay supple and smooth. It's the secret ingredient that transforms lip gloss from ordinary to extraordinary.
- **Vitamin A & E, Mineral Oils, and Petrolatum** are the best ingredients in the tube. These ingredients keep your lips healthy and protected, shield your lips from the daily challenges, providing nourishment and care. They're the backbone of lip gloss, ensuring your lips look and feel fantastic.

While choosing to wear lip gloss to look pretty, remember that each ingredient plays a unique role, contributing to the allure and effectiveness of this beauty staple. 🚫 ✨

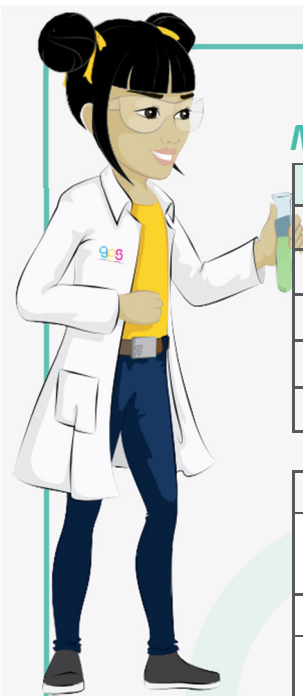
## Let's Rewind it Back!

- ♥ **Polybutene:** Makes lip gloss shiny and sparkly!
- ♥ **Hydrogenated Polyisobutene:** Keeps lips soft and moisturized.
- ♥ **Vitamin A & E, Mineral Oils, Petrolatum:** Keep lips healthy and protected.

## Check for Understanding. Fill in the Blanks:

1. Polybutene makes lip gloss \_\_\_\_\_ and \_\_\_\_\_.
2. Hydrogenated Polyisobutene prevents lips from getting \_\_\_\_\_ and keeps them \_\_\_\_\_.
3. Vitamin A and E oils, mineral oils, and petrolatum help keep lips \_\_\_\_\_ and \_\_\_\_\_.





## Let's Make Lip Gloss!

### Materials

INCLUDED IN KIT	QUANTITY	CLASSROOM	QUANTITY
Lip Gloss Tube	1	Lab Jacket (optional)	1
Mixing Cup	1	Wet Wipes	As needed
Stirrer	1	Scissors	1
Funnel Tip Bag	1	Lab Glasses (optional)	1
		Labels (optional)	As desired

Scoop	1	Stickers (optional)	As desired
15 ml Gloss Base	1		
3 ml Oil	1		
Mica Powder	1+ scoops		

- STEP 1** Mix 15ml of lip gloss base and 2 to 4 scoops of mica powder in the mixing cup. Add the scoops gradually, the more mica powder, the deeper the color. Stir until mixed well. Test the desired color on the back of your hand after each scoop is added. Get creative with the colors and levels of pigments, discuss with group best colors for your skin, without judgment, give constructive feedback.
- STEP 2** Add 3ml of oil and stir until all the streaks of the powder have disappeared.
- STEP 3** Collaborate, work in teams of two to pour the mixture into the funnel tip bag, carefully guiding the flow with the stirrer.
- STEP 4** Fill the lip gloss tube, inserting the tip of the bag as far as it will thgo into the tube. Slowly bring the tip to the top as the gloss fills tube, leaving space for the cap and ensuring a clean upper area for the applicator.
- STEP 5** Snap stopper and insert applicator, twisting to tighten and creating a professional-looking finish. Get creative and add customized labels to your gloss tube or stickers!



