

Nature's Sweet Scrub

GROUP 7

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THE PROBLEM- CREATING A SOAP

CREATING A SOAP

- Our class was asked to be creative and make a soap product that would be visually appealing and perform its duties well
- We were given a list of 10 oils that we could use and using combinations of those oils through our research of the soap calculator, we would come up with characteristics that would make our soap appealing.
- To make the soap, we first had to saponify the oils. Saponification is a process that involves the conversion of fat or oil and hydroxide into soap.

CREATING A SOAP

- We had to use a cold batch process to solidify the soap into the shape that we wanted
- We were also able to put in extra chemicals and materials into the soap to give it appealing qualities
- We were given the perimeters of incorporating the soap and packaging to be eco-friendly, and distinct from our other competitors
- We were also tasked on coming up with a price and marketing strategy so that our soap could perform the best at this symposium



NATURE'S SWEET SCRUB- AT A GLANCE

Nature's Sweet Scrub

- Nature's Sweet Scrub is a double-sided solid bar of soap embedded with particles of pumice to induce a scrubbing and exfoliating effect.
- One side will include a formulation of slightly softer soap, with very fine pumice stone embedded to produce an exfoliating effect; this side contains a peppermint aroma.
- The other side will be made with a harder soap embedded with larger grit pumice stone to promote better scrubbing against dirt and dead skin. This side is enriched with a rich lavender smell.

PACKAGING

- We had eco-friendliness and renewability in mind.
- Our primary wrapping is parchment paper; our label is paper
- The glue that holds the contents together is a blend of natural solvents and tree resins.
- All these ingredients are 100% compostable and you can feel confident throwing it into a green bin rather than adding to a landfill.



INGREDIENTS

MAIN INGREDIENTS: OILS AND HYDROXIDE

- **Canola oil-** This oil constitutes $\frac{2}{3}$ of the composition of our soft formulation due to its low relative hardness and high conditioning to promote moisturising.
- **Coconut oil-** This oil constitutes $\frac{1}{3}$ of the composition of our soft formulation and $\frac{1}{2}$ of the hard formulation due to its high hardness contribution and high cleansing factor that improves the cleaning effectiveness of the soap.
- **Crisco Vintage-** This oil constitutes $\frac{1}{2}$ of the composition of our formulation for its conditioning property and middle-to-low hardness to balance out that of the coconut oil.
- **Sodium hydroxide** was chosen as our base because sodium hydroxide soaps are more solid and harder compared to their potassium hydroxide analogues; this is due to the relatively decreased solubility of sodium salts when compared to potassium salts.

SCENTS AND OTHER INGREDIENTS

- **Lavender essential oil** was chosen as an additive to the hard formulation because of several benefits; it has a soothing aroma, antibacterial properties, moisturizing properties, unclogs pores, and reduces inflammation, which is beneficial in conjunction with the scrubbing action.
- **Spearmint essential oil** was chosen as an additive to the soft formulation for several reasons; it has a sweet, sharp aroma that in lower concentrations compliments the scent of lavender. It also has antibacterial properties and is a dermal stimulant that leaves the skin feeling cool and refreshed - the perfect way to end a good scrub.
- **Pumice** was introduced to both sides of the soap in different grit sizes for different degrees of scrubbing; the hard formulation has coarser particles to tackle tough dirt, while the softer formulation has finer particles to promote exfoliation.

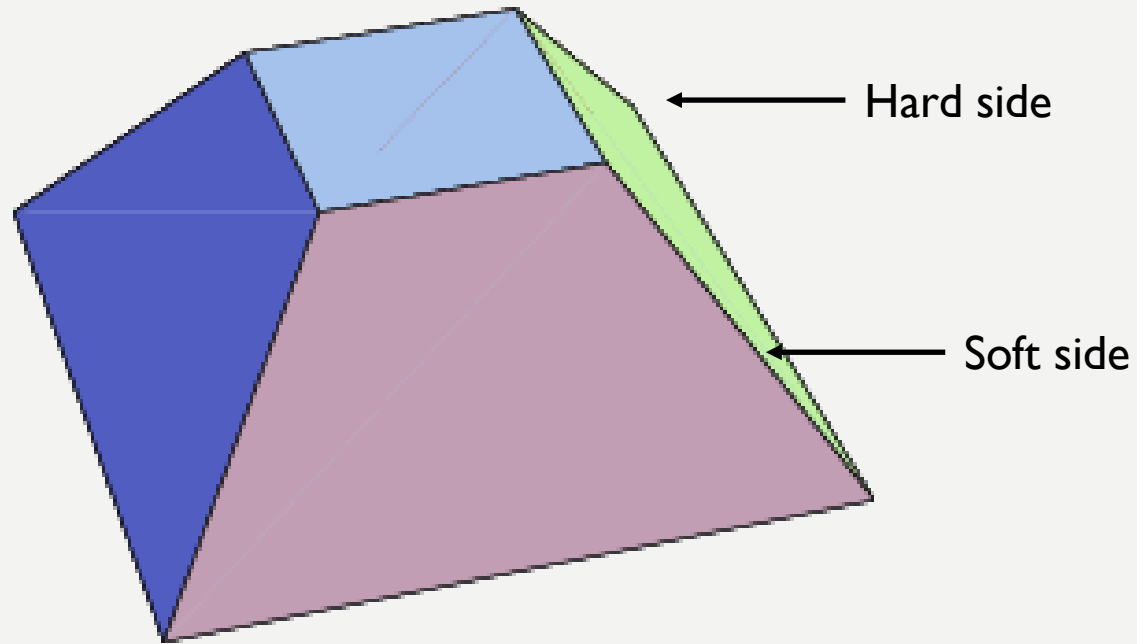


THE MOLD

THE MOLD AT A GLANCE

- The flattened square-based pyramid shape promotes utility and enhanced performance for both sides of the soap.
- The hard side of the soap has the smallest surface area because it allows for a concentrated scrub in the areas you desire. The shape of the soap is also easier to hold on when scrubbing vigorously, leading to you dropping the soap less.
- The soft side of the soap has the largest surface area because a large surface area offers lightly scrubbing action that doesn't strip away. The shape of our soap also forces you to be delicate when applying.
- The finer granules of pumice also allow for gentler scrub on the soft side

OUR MOLD-TRUNCATED PYRAMID



Nature's Sweet Scrub

THANK YOU!