Station 1

DIRECTIONS

1) Grab a clear bottle

2) Visit each station
   At each station add to your bottle the amount of colored sand you think is needed of this ingredient for a good hand soap

3) Check your results
   Compare the colored bands in your bottle to the diagram at Station 8

4) Take your bottle home with you or recycle it here

You will visit 6 ingredient stations:

2. Solvent
3. Surfactant
4. Fragrance
5. Preservatve
6. pH Adjustor
7. Other
Station 2

SOLVENT

Solvents help to blend the ingredients and give soap the right consistency so it’s easy to use.

Hint: The solvent is needed to dissolve all the other ingredients; you are going to need the greatest amount compared to the other ingredients.
Surfactants are the chemicals in soap that remove germs and dirt. These chemicals hold onto the germs and dirt as the water washes them away.

Hint: Surfactants are the most important element of the soap, but are not found in the greatest amount.
Station 4
FRAGRANCE

Fragrances provide soaps with a pleasant, sweet smell.

Hint: Fragrances are optional in soap, some have them and some do not. And they are very powerful, a little can go a long way.
Station 5

PRESERVATIVE

Preservatives protect the product, keeping microscopic bugs from growing and eating the soap ingredients.

Hint: Preservatives help the soap remain effective while it sits on your counter—but you will barely be able to see this color in the final product.
Station 6
pH ADJUSTOR

pH adjustors keep the formulation stable and affects how well the soap does its job.

Hint: Twice as much as preservative—but twice as much of a very little is still a very little!
Dye—Gives soap a bit of color
Thickener—Gives soap the proper consistency to flow out of a bottle
Moisturizer—Provides hydration and moisture to the skin
Foam Enhancer—Helps create suds
Builder/Chelating Agent—Provides extra cleaning power
Antimicrobial—Kills germs on your hands or body
Just like when you are baking a cake, you must have the right balance of ingredients. Otherwise the cake will be runny, hard, dry, or too salty. A soap’s formula is key to good cleaning performance.
Station 8

WHAT DID YOU MAKE?

Way too smelly

Thick

Ouch!

Harsh

Who knows?

Too strong!

Different formulas can lead to unexpected results—or new creations!
Remember to save room for all six ingredients!

Solvent
Surfactant
Fragrance
Preservative
pH Adjustor
Other