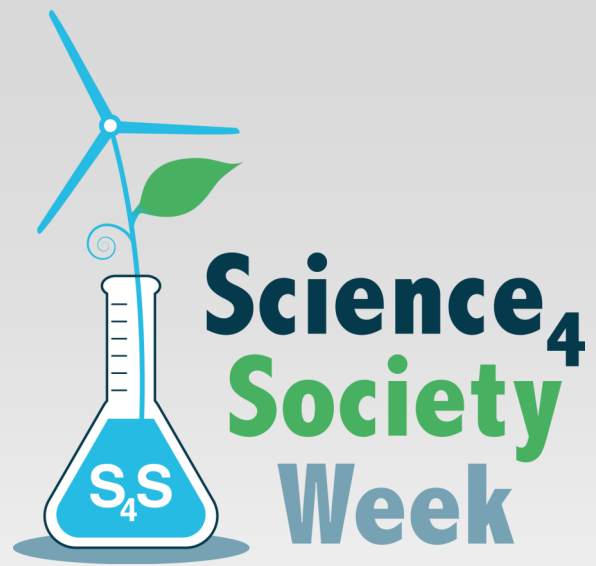


How to make cold process soap bars



Safety

- Read everything before you start!
- Goggles and gloves must be worn at all times
- Loose clothing and hair tied back
- The lye is caustic, it can burn skin
- The lye must be handled by an adult at all times
- The lye must be added to the water slowly, not the other way around
- Mixing the lye solution will get hot as it is exothermic (dissolving the lye in water gives out heat).
- Mix the lye in a well ventilated area, doing this in a sink is a good idea to reduce risk of spills
- Soap is not edible, do not eat any part of this!

Ingredients

For the lye solution:

- 35g of lye (sodium hydroxide)
- 75g of water

The oils:

- 200g of olive oil
- 50g coconut oil (melted)
- Essential oils (50-100 drops)

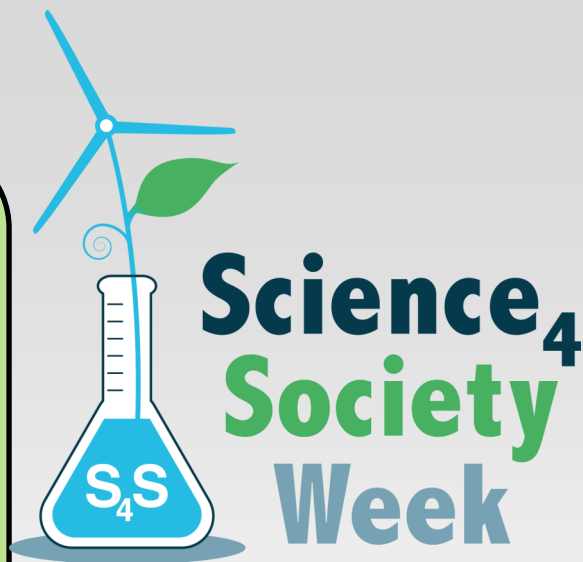
Equipment

The ones in **bold** should be for soap only—not food!

- PPE—goggles, gloves and apron or lab coat
- Kitchen scales
- **Mixing bowl**
- **Cup (to measure lye in)**
- **Jug (or something to mix lye in)**
- **Stick blender**
- Thermometer



How to make cold process soap bars



Tips

- Use a glass bowl to mix the soap
- If children will use the soap, use child safe essential oils
- Before unmoulding the bars, put them in the freezer for half an hour to make it a bit easier
- Stand away from the jug and bowl when mixing to minimise the risk of splashing

Method

1. Ensure your work space is clean and tidy and that everyone has the correct PPE
2. First measure the water and the solid lye
3. Put the jug of water in a safe, well ventilated space and add the thermometer
4. Slowly add the lye bit by bit to the water, the temperature will increase, try to keep the temperature below 60^o
5. Leave the lye solution to cool, measure the oils and melt the coconut oil
6. Once the lye solution is below 40^o pour this into the oils
7. Mix to combine then switch to your stick blender, alternate between blending and mixing, this could take a few minutes
8. When your soap mixture looks thick like custard, and the blender leaves a trace, it is ready, this is called reaching 'trace'.
9. At this point you can add your favourite essential oils for fragrance, you can also add things such as poppy seeds, ground oats or dry coffee grounds, once you feel comfortable with the process.
10. Pour the soap into moulds. Old takeaway tubs, silicone loaf tins and silicone cake cases all work as moulds
11. Leave the soap to dry for 24hrs and then unmould, if you want to cut large blocks into bars, do this now
12. Leave the soap to cure (dry) for 4-6 weeks, turning regularly. This is because the chemical reaction (saponification) needs time to complete, as well as the bars drying out enough before use.
13. Enjoy your homemade soap!