

10-3-12

Candles Part 1

Lit.:

Identify the energy transformations required to make candles.

Ingredients - lard ^{or tallow} - Slimy, white, Smells almost dusty ^{at room temp.}

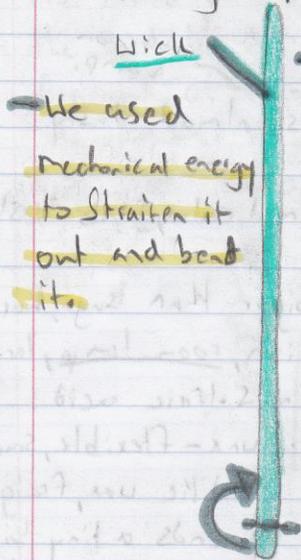
- Bees wax - Smooth, carnal color, Smells fresh, room temp
- Stearic Acid - White, bigger than sugar, hard, square-ish, room temp, lard washed in sulfuric acid
- Cotton string dipped in bees wax - flexible, Smells like wax, frayed ends a tiny bit sticky, room temp



← Drawing of my candle when it's finished.

- Slide, slimy, fragile (if you swung them they would break. 6 boys broke theirs)
- there are little lines at the top that show where some of the layers are.
- make my hand greasy
- still warm after 5 minutes after done
- smell like bees wax
- a lump at the bottom because of the fold we made on the wick
- while melting the ingredients together, it smelled very bad.

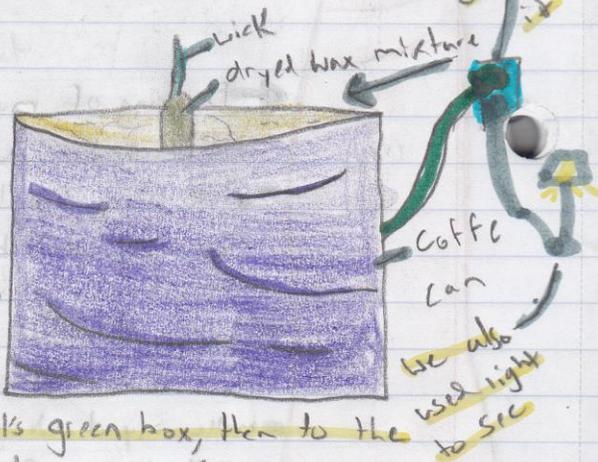
The Steps of Making My Candle



- We used mechanical energy to straighten it out and bend it.

- The wick was a piece of cotton string covered in bees wax. It was very flexible, sticky and smooth. It smelled fresh and outdoorsy. It was cream colored with fringed edges. The first thing we did to it was straighten it out. Then we folded about an eighth of an inch of it over on itself, that was the bottom.

- Next we continuously dipped the wick in the can of melted, bees wax, stearic acid, and lard. We transformed energy melting it go from the energy plant, to the telephone pole/wires, then into the school's green box, then to the outlet, where we plugged the hot pan into to melt the ingredients. We also transformed the solid ingredients into a liquid. After each dip, you could tell the candle was forming around the wick. It took us about 50 dips to form a candle with the width of a quarter. The wax almost immediately dried and was very smooth, warm and left your labs greasy.



- We used chemical energy in the wax mixture

Note

- The picture of the finished candle is on the page before.

Summary Paragraph

By making candles, I learned to identify the change in energy while making candles. At first we started out with the wick (even though we didn't make energy was transformed to make it. The bra's wax had to be melted to have the wax stick on the string. Also we used mechanical energy. It would have took some sort of energy to melt it, (maybe a fire or a hot pan.) We transformed energy by plugging the hot pot in and turning it on, we transported energy from the power company, to the telephone wires/poles, bend to the school's green box, through wires to the outlet, then through the cord and into the hot pot, making the solids to melt into liquids. Then as we dipped the wick into the pot of hot wax, the wax changed places from the coffee tin to the forming candle. That's the energy that I noticed was transformed throughout making candles.

Also we used light energy to see.