

# WeeMan Science Experiments

## K/1st Grade Science **Where Does Butter Come From?**

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# Making Butter

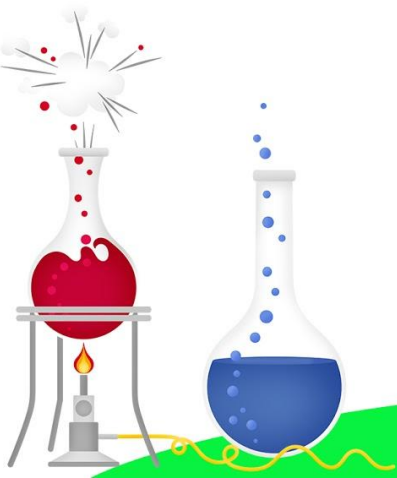


## Materials:

- Empty baby food jars
- Heavy whipping cream
- Any book about milk
- Crackers

## Directions:

1. Try to sing the *Shake It, Shake It* Song and then explain to the children at circle time that they are going to help you turn heavy whipping cream into butter. Put the heavy whipping cream into the baby food jar(s). Students can have turn shaking the jar (maybe before they can turn the pages of the book they have to shake while you're reading the entire page before they can hand it off to their friend next to them. This can also be accomplished during the song, the video, or while reading a book about milk.
2. The students will enjoy spreading the butter on a cracker as the snack at the completion of a book about milk. Tell the students to thank a cow for the butter they received.



# Shake It, Shake It!



## Verse 1

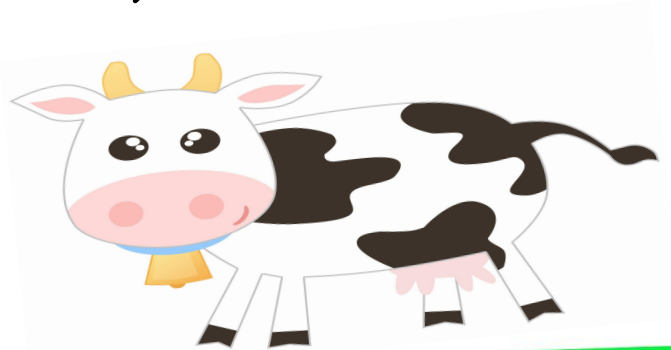
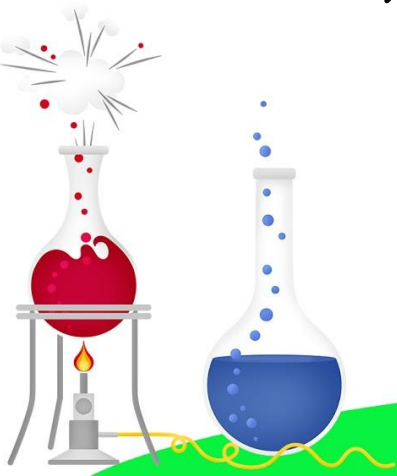
Pour some cream into this jar,  
Have the teacher help you,  
Make sure the lid is on tightly,  
This is all you have to do.

## Verse 2

We're going to make butter,  
Before we all say "mooooo"  
With milk from the cow's udder  
Rich and tasty too.

## Chorus

We're learning while we're churning,  
...and we're having fun,  
It's crazy we're making butter  
Let's eat this when we're done  
**SHAKE IT, SHAKE IT, SHAKE IT**



# If the first method does not work with making butter.

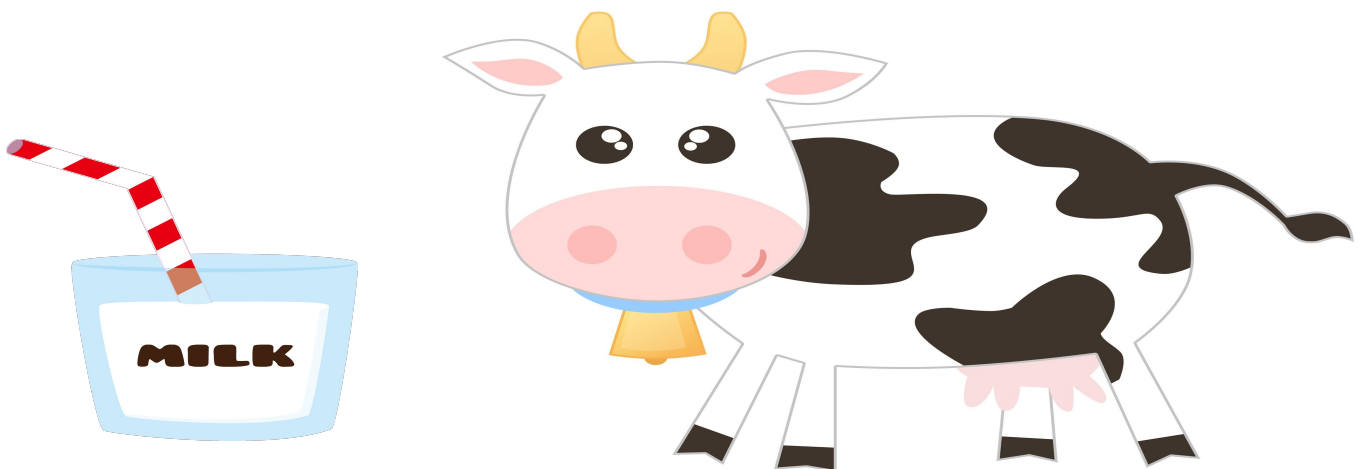
Materials:

- Heavy whipping cream at room temperature - so maybe set it out of the fridge for an hour or two.
- Baby food jar w/ lid or other leak-proof container
- Salt (optional)
- Bread (optional)
- Knife (optional)

Directions:

1. Fill container halfway with heavy whipping cream.
2. Shake! (5-15 minutes). 5 minutes generally gets the desired consistency.
3. Pour out the buttermilk.
4. Add salt.
5. Spread on butter and enjoy!

\*Water and fat particles separate during the shaking as air is added. Fat particles clump together as air pockets pop.



# BUTTER PLAYDOUGH

## Materials:

- 1 cup baking soda
- $\frac{1}{8}$  cup water
- $\frac{1}{4}$  cup oil
- 2  $\frac{1}{2}$  cups flour
- 1 cup salt
- 5-10 drops of yellow food coloring
- 5-10 drops of butter extract



## Directions:

1. Mix dry ingredients together in a mixing bowl
2. Mix wet ingredients except food coloring
3. Mix everything with your hands
4. Add yellow food coloring into the dough
5. Mix it well in the dough
6. If too oily - add a little Cream of Tartar

THIS PLAYDOUGH SMELLS AMAZING!



## Butter Candle

### Materials:

- Candle wick
- Stick of butter
- Plate
- matches



Adult Supervision highly advised

Burns 1 HOUR PER TBSP.....so you could potentially have 8 hours of light per stick.

### Directions:

1. Carefully place a wick into the stick of butter / margarine. Use a match to start the flame of the burning butter candle..
2. If there is no soot in the butter, use the melted butter on toast or into a recipe for a class snack.



# Science Experiments



## Butter / Blubber Glove

### Materials:

- Tub of ice in water
- Gallon ziploc bags
- Crisco, butter, blubber

An ADAPTATION like an animal. You can use any of these materials. Just double bag so your hand is not touching the ingredients.



### Directions:

Blubber insulates animals in frigid waters in the Antarctic and Arctic Ocean. BRRRRRR!!! You would want some insulation too if you had to be submerged in freezing waters....wouldn't you? We have found the ideal insulator ingredient? Shortening, butter, margarine are all a fat, That means fat keeps cold out and heat in, right? Let's try it out!

How does it work? Fats work as perfect insulators because of the low thermal conductivity relative to water and high density. Despite being placed in mucho frio water, fats can maintain a consistent temperature. Using the Butter or Blubber Glove, your hand isn't directly exposed to the water, so the fat takes the full brunt of the ice cold H<sub>2</sub>O. Kaylee brought this in for Tanille's class and it was a total blast!!!

