

SOAP BUBBLE PRINTS

You will need:

- Ready mix paint
- Shallow tray
- Water
- Washing up liquid
- Straws
- White paper
- Brushes
- Paint pots

Instructions:

1. Mix together, 1/3 ready mix paint, 1/3 water and 1/3 washing up liquid in a paint pot.
2. Pour into a shallow tray.
3. Take a straw, place into the liquid and begin to blow, make sure not to suck otherwise you'll end up with a mouth full of paint!
4. Move the straw around creating bubbles.
5. Once the tray is full of bubbles take a sheet of paper and lay it carefully on top of the tray pressing down gently.
6. Lift it off and see the print you have created of the bubbles.

Why does this happen?

Washing up liquid can hold air inside its bubbles when you blow air in to the mixture it stays there creating lots of coloured bubbles. Because there is water in the mixture when you put paper on top of it the water is sucked into the paper, leaving a print.



CHOCOLATE ROCKS

You will need:

- A bar of milk chocolate and a bar of white chocolate
- A cheese grater
- Two plates
- A bowl
- Cling film
- A knife

Instructions:

1. Place the grater on a plate and carefully grate the milk chocolate. Be careful using the grater, and ask a grown up for help if you need it.
2. Do the same for the white chocolate on a separate plate.
3. Lay the cling film in the bowl, leaving the ends of the cling film hanging on the outside of the bowl.
4. Put in a layer of milk chocolate, then one of white chocolate.
5. Keep doing this until all the chocolate is used up.
6. Pull the corners of the cling film up and wrap it up.
7. Roll the cling film around in your hands for about five minutes.
8. Leave the chocolate to cool down.
9. Unwrap the chocolate.
10. Using a knife, carefully cut through the chocolate. You will see layers of chocolate just like rocks.

Why does this happen?

There are different types of rock. One kind, called sedimentary rock, has been pushed down by heat and pressure underground.

The heat your hands create and the pressure your hands put on the chocolate act like the heat and pressure applied to rocks underneath the ground.

MAKE YOUR OWN BUTTER

You will need:

- Thick cream/double cream/whipping cream
- Plastic jar with lid
- Sieve
- Bowl

Instructions:

1. Pour the cream into the jar. The jar should be about half full.
2. Put the lid on the jar and make sure it's on tightly.
3. Now for the hard work! Shake the jar lots until you see a lump form in the jar. This could take a long time – maybe even ten minutes!
4. Eventually, you will see a lump and some liquid. The lump is butter and the liquid is buttermilk, an ingredient that can be used in lots of different things.
5. Put the sieve over a bowl. Open the jar and tip the contents into the sieve.
6. You now have separate butter and buttermilk.

Why does this happen?

Cream is made up of tiny pieces (called molecules) of fat surrounded by water. When you shake the cream, the fat molecules start to clump together in a lump. They then separate from the liquid.



BOUNCY EGGS

You will need:

- Eggs
- White vinegar

Instructions:

1. Fill a container with white vinegar, and carefully drop the egg inside. Make sure the egg is completely covered.
2. Leave for another day in the vinegar if some shell remains and then rinse again.
3. Once the shell is removed carefully try to bounce the egg.
4. Think about how you can show your results! Think about using a table or a graph!
5. After a couple of days carefully rinse the egg, rubbing the shell gently.
6. Drop carefully from quite a low height, the egg should bounce up from the surface.

Why does this happen?

Vinegar is an acid. When calcium carbonate is exposed to an acid it reacts. The calcium carbonate egg shell dissolves, but the membrane inside the shell, surrounding the egg, remains intact. This makes the egg feel rubbery.

Investigation! Can you measure at what height it breaks? (maybe try this outside!) Or how high it can bounce on different surfaces?

