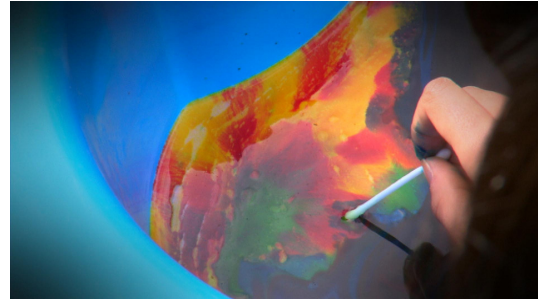


Milk Rainbow

On SCOPE's Extremes episode, the students from Thebarton College took the milk rainbow experiment to the extreme! Here's how you can try it at home!



What you need:

Kids pool
Milk (enough to fill the pool to a depth of 10cm)
Food colouring
Detergent
Cotton buds

What to do:

1. Pour the milk into the pool.
2. Wait for the milk to stop moving.
3. Add drops of food colouring to the whole pool (many different colours).
4. Soak the tip of a cotton bud in the detergent.
5. Touch the cotton bud on the surface of the milk.

Watch the colours swirl around the pool!

What's happening?

If you've ever added food colouring to water, you will know the dye spreads out pretty quickly. But when you add it to the milk it doesn't do this because milk is more dense than water.

Water molecules love to stick together, and so they create a skin on top of the water – this is why a drop of water remains in a bubble shape. When the detergent touches the milk, it breaks the surface tension, and sends the molecules shooting off in every direction, making the colours swirl in crazy patterns.

If you have ever tried the normal sized version of this experiment, you probably found that in a smaller bowl, one spot of detergent reached the edges of the bowl quickly, and the colours mixed around. But in the extreme version, instead of meeting the edges of the pool, lots of spots of detergent hit each other, and the colours mixed up in a different way.

