

# Skittle Diffusion

## Equipment (Get this ready before you start)

A bag of skittles (the original ones works best but any will do. You could also use M&Ms)

A white plate or tray (any colour will work but white is best)

Warm water



## Method

- 1) Arrange your skittles in a pattern of your choice around the edge of your plate
- 2) Add warm water to your plate so it just covers the bottom. If the skittles move quickly push them back.
- 3) Watch what happens!
- 4) Repeat the experiment trying to make different patterns. Can you make a flower? A Butterfly? A dinosaur?!



When you've finished, the skittles are safe to eat, just a little less colourful and a bit soggy!!  
Just check with parents before you eat them 😊

## Spectacular Science!

The coloured sugar that is coating the skittles **DISSOLVES** in to the water and spreads out due to a process called **DIFFUSION**. The sugar will always move from the area where there is lots of sugar (next to the skittle) to a place where there is less, so you see the coloured sugar move across the plate. It doesn't mix together because when it meets the other colours of sugary water, they all have the same amount of sugar in so there aren't any areas with less sugar to move in to.

Want to go further? What happens if you use a different temperature of water? Does the diffusion work faster or slower with colder water or is it the same? What about using a different liquid rather than water? Do any other sweets work as well as skittles? Can you work out what the **SOLVENT** and **SOLUTE** are in this experiment? These are key words you may need to look up. Have Fun!