

Rainbow Candy Science! A Sweet Experiment!

October 22, 2024 / DIY / STEM Activities / Quick Easy Experiments / Age 3 - 5 / Rainbow Candy Diffusion



This is a magical candy show where rainbow candies and water will transform into a dazzling flow of colours. Get ready for a collision of science and sweetness that will surprise your eyes and brain!

- Age: 3-5
- Time: Less than 30 minutes
- Mess Level: A bit messy

Materials Needed:

Rainbow candies
Plate
Water



Step-by-Step Instructions:

1. Arrange the rainbow candies in the shape of a Christmas candy cane.



2. Pour warm water into the middle of the rainbow candies until they are half submerged. Be careful not to disturb the arrangement of the candies. Wait for a moment, and you'll see a spectacular flow of colours.



The Science Behind It:

When rainbow candies come into contact with water, some of their water-soluble dyes and sugar dissolve in the water to form a solution. As the candies dissolve, the density of the solution around them gradually increases. To achieve balance, these solutions will gradually spread from areas of high density (around the candies) to areas of low density (the centre of the plate), so that all parts of the water with sugar and food colouring have roughly the same density. This is what happens when the rainbow starts to move away from the candies! Scientists call this process diffusion.