

Wow! Fireworks on a Plate!

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Put on a colourful fireworks display on a plate using everyday items! With just 3 simple steps, you'll not only see a vibrant visual effect but also learn about the science of surface tension!

- Age: 3-5
- Time: Less than 30 minutes
- Messiness level: Messy

Materials Needed:

Glue
Food Colouring
Dropper or Cotton Bud
Plate
Washing-Up Liquid



Step-by-Step Instructions:

1. First, pour a thin layer of liquid glue into the plate, spreading it evenly across the entire bottom.



2. Choose your favourite colours and drop different food colourings onto the glue surface. You can place the colours in different spots to create more variation in your "fireworks".



3. Using a dropper, take some washing-up liquid and drop it onto the food colouring. Watch closely - something magical will happen! Continue dropping different colours and more washing-up liquid into the plate, observing the different "firework" combinations.

Tip:

If you don't have a dropper, you can use a cotton bud dipped in a small amount of washing-up liquid, then gently touch it to the surface of the glue and food colouring.



The Science Behind It:

Behind this experiment is a game of surface tension. Glue and water have strong surface tension, acting like a tightly stretched "film" that keeps the food colouring in place. Washing-up liquid is a surfactant that can reduce the surface tension of liquids, breaking that "film" and allowing the colouring to spread outwards rapidly. This is why washing-up liquid can easily remove grease from plates, and also why it makes your "fireworks" spread quickly!