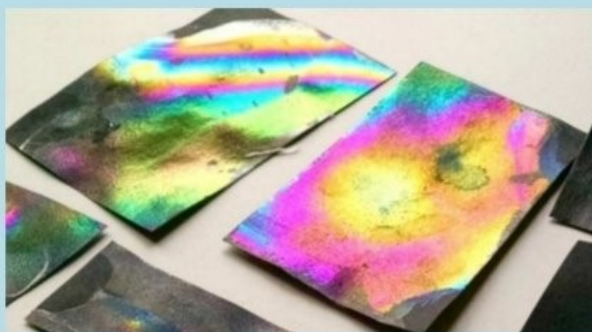


Rainbow Paper

You will need:

- Black paper/card (or try other colours!)
- Clear nail polish
- Bowl
- Water



1. Cut your black paper or card into a small rectangle. Start small until you get the hang of it then you can experiment with bigger pieces!
2. Fill a bowl with water.
3. Drop 1 drop of clear nail polish on top of the water.
4. Quickly dip a piece of black paper into the water and pull it out again.
5. Leave it a few minutes to dry.

You can also try placing the paper under the water first and then dripping one drop of clear nail polish on top of it. Once the nail polish disperses across the surface, it's safe to pull the paper out of the water, coating it with a thin film of polish.

THE SCIENCE

When you dip the paper into the water, it gets coated with a thin layer (or film) of nail polish. The rainbow colours you see are caused by *thin-film interference*. Normal 'white' light is actually made up of lots of different colours. When light hits the film of nail polish, the individual colours disperse and the reflected waves interfere with each other to create the beautiful colours.

This is the same as when you can see a rainbow in spilt oil on tarmac!



@MrsBpriSTEM