

**Poster Competition - Sustainable Coatings for the Future**

**Brief**

The use of chemistry in coatings is ubiquitous in our everyday environment, from the scratch-resistant coatings on smartphones to printing on food packaging, but most often goes unnoticed by us on a day-to-day basis. This poster competition will give you the opportunity to research and highlight the valuable contribution that coatings deliver to a sustainable way of living.

The competition is open to both solo applicants and teams up to 3 people. The competition will be split into two streams based on academic experience:

* **Stream 1 -**Undergraduate students or those working towards a level 6 or level 7 qualification.
* **Stream 2 -**A level, Scottish Higher or Irish Leaving Certificate or those working towards a level 3 qualification.

The competition is open from **1 September 2024 to 31 January 2025**. We accept poster submissions via email, either as a PDF or PowerPoint or as a photo of a handmade poster.

**Topics**

For the competition you should pick one of the following three topics to base your poster on, or another topic of your choice that discusses sustainability and coatings. There are resources available for each topic area to guide and aid you in your submission in this [**downloadable document**](https://www.rsc.org/globalassets/03-membership-community/connect-with-others/through-interests/interest-groups/surface-coatings/poster-competition/rsc-surface-coatings-ig-poster-competition-external-links-resource.docx). Please note the resources provided are external websites and therefore the **RSC is not responsible** for any content on these sites.

**Topic 1: How coatings can contribute to energy savings in buildings**

You may wish to consider how energy management of buildings can be optimised by using surface coatings comprising metals, paints, lacquers, composites, multi-layer assemblies or smart coatings. Physical principles you may wish to explore include interactions of light with coatings or phase change materials to maintain temperature.

**Topic 2: Bio-based coatings and inks**

You may wish to investigate how biologically based coatings, inks and dyes can improve product sustainability and how they can be incorporated into current products with no loss of, or improved, performance. As well as these materials aspects, you may also wish to consider bio-inspired ways to generate ‘structural’ colour.

**Topic 3: How coatings or inks can extend the life of products/buildings**

You may wish to consider how products and buildings can have increased sustainability and/or reduce the effects of corrosion by using new coatings such as dyes, inks, protective and self-healing coatings, or corrosion protection systems.

**Prizes**

Prizes and certificates will be emailed to the team leader to share with the rest of the team. Streams 1 and 2 will have the same prize structure per application.

* **1st Prize:** £150 of Amazon Vouchers + digital certificate
* **2nd Prize:** £100 of Amazon Vouchers + digital certificate
* **3rd Prize:** £50 of Amazon Vouchers + digital certificate
* **Highly commended entries:** Digital certificate

**Judging Information**

Submissions will be assessed by a judging panel made up by industry experts and world-renowned academics. Find out more about who is on each judging panel and the judging criteria below.

Stream 1 Judging Panel

Stream 2 Judging Panel

Judging criteria

**Application Process**

**How to submit your poster**

The competition is open to both solo applicants and teams up to 3 people.  We are accepting poster submissions via email as either a PDF or PowerPoint or as a photo of a handmade poster.

The application submission process for the competition varies depending on which of the streams you are entering. By submitting your poster, you accept the use of it on all RSC social media streams including the website.

* **Stream 1:**Applications can be made directly by the team leader. Submissions should be emailed to rscsurfacecoatings@gmail.com with the subject of “Stream 1 Application”.
* **Stream 2:**Applications must be made by a qualified teacher who is employed by your school, or by a parent. Submissions should be emailed to rscsurfacecoatings@gmail.com with the subject of “Stream 2 Application”. For the submission filename please use the format TEACHERSURNAME\_DATE. If you have multiple submissions per class, please also add a underscore numerical definition, for example: "WATSON\_160724\_1".

NB: The competition is open from **1 September 2024 to 31 January 2025**. Submissions received after 31 January 2025 will not be entered into the competition.