

Job description and Application Procedure

Post Title

CRANN Outreach Research Assistant (Teacher)

Post Summary

This is a unique opportunity for a teacher to spend some time in CRANN, learn more about nanoscience and develop new materials on nanoscience for the classroom. You will be developing support materials for Transition Year classes, to accompany our new DVD, "Nano in My Life". The content that you develop with us will be professionally designed and available for download from September 2011 for teachers nationwide.

Background to the post

Ireland is ranked 6th in the world for nanoscience research and 8th for materials science, with CRANN responsible for most of the publications that has resulted in these rankings. We have world-class instruments and infrastructure and our research ranges from working with Intel on the next generation computer processor to work with medical device and pharmaceutical companies on developing smaller, more sensitive implants and diagnostics.

During Nanoweeek 2011, we launched a new DVD for Transition Year students. "Nano in My Life" comprises ten chapters on nanoscience covering applications in health, ICT and materials. It provides viewers with a stimulating overview of this exciting branch of science. All chapters are available at <http://www.youtube.com/user/tcdnanoscience#p/c/556DA4E9D467F799>.

We now want to develop support materials to accompany our DVD. These will provide a resource for teachers to conduct a number of Transition Year classes on nanoscience, e.g. Nano and Health, Nano and IT. Materials will include PDFs containing background reading for teachers, activities for students and powerpoint presentations. The aim is to link these materials into both the Junior Cycle and Senior Cycle curricula. Although nanoscience is not currently on the curricula, this is set to change. This post offers you a chance to find out more about nanoscience in Ireland's leading research institute ahead of the curricula changes.

You will have access to researchers in CRANN who took part in the DVD and have the opportunity to ask them about their work, spend some time in their laboratories and view world-leading electron

microscopes. You will work with CRANN's Education and Outreach Manager in developing materials. Most of your work will be office based, developing and writing materials.

The materials will be launched in Autumn 2011 and you will have the opportunity to be included in press interviews and publicity.

Principal Duties

- Research international examples of nanoscience materials for secondary school students
- Develop an appropriate template (structure) for the modules to ensure ease of use by teachers throughout Ireland
- Develop and write 7 modules for Transition Year classes on nanoscience –
 - Introduction to Nanoscience and Nanotechnology
 - Microscopy – the tools of Nanoscience
 - Nature – Nanotechnology's inspiration
 - Nanoscience and Materials
 - Nanotechnology and ICT
 - Nanoscience and Health
 - Nanoscience and the Environment
- Identify links with current curricula
- Participate in promotion activities with CRANN in launching "Nano in My Life" materials e.g. teachers' networks and newsletters, general press.

Person Specification / Knowledge and Experience

- Minimum of 3 years Science Teaching experience at Leaving Certificate level
- Creativity and ability to translate nanoscience research into appropriate activities and material for TY students
- Extra-curricular experience in writing and developing TY materials desirable but not essential
- Passion and enthusiasm for science and willingness to learn new subject matter
- Excellent written skills
- High level of competence in all MS Office applications
- Good administrative ability
- Flexible approach

Term of Employment and Salary

6 week contract to be taken up during the period 13th June – 19th August.

Remuneration dependent on experience.

Application Procedure

Candidates are asked to submit **through e-mail to colcloum@tcd.ie** :

- (1) Covering letter detailing how you meet the selection criteria for this post,
- (2) Full CV to include the names and contact details of 2 referees (email addresses if possible).

Informal enquiries to Mary Colclough, Education and Outreach Manager, telephone: 01-8963027 or email colcloum@tcd.ie.