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Chemical Sciences in the Community

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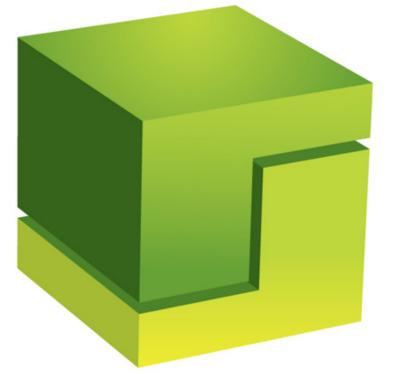
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students learning with communities

Chemical Sciences in the Community



Students Learning with Communities









Students Learning with Communities (SLWC) in the School of Chemical and Pharmaceutical Sciences, DIT

We have implemented community based learning activities since 2007. Initially, we developed compulsory assignments in a Year 4 Chemical Control and a Year 2 Professional Skills module. These projects continue to run but have been modified to ensure their sustainability.

Interaction with Schools, St Michael's Youth Project and the General Public

In the Year 2 Professional Skills project implemented in 2007, students developed information literacy, communication & teamwork skills by presenting group posters & demonstrations in DIT at the Chemistry at Work outreach event for secondary schools. They also helped organise it by liaising with speakers from industry & the public sector.



We have since expanded our community based learning provision to research projects. Two Community Based Research projects in chemistry that contribute to cross-disciplinary projects established by the SLWC office have been implemented (see our other poster for more details).

Safety Audits & Chemical Risk Assessments in Small Businesses

For the Year 4 Chemical Control project, in 2007, each student group submitted a report and safety audit for a laboratory they visited in a secondary school. Since then, we have expanded this initiative to include SMEs (small to medium enterprises). Each group of students contacts a local small business or organisation (e.g. beauty salon, garage, dry cleaners) and arranges to perform a safety audit and a chemical risk assessment. This activity has since been extended to two other programmes in our School.

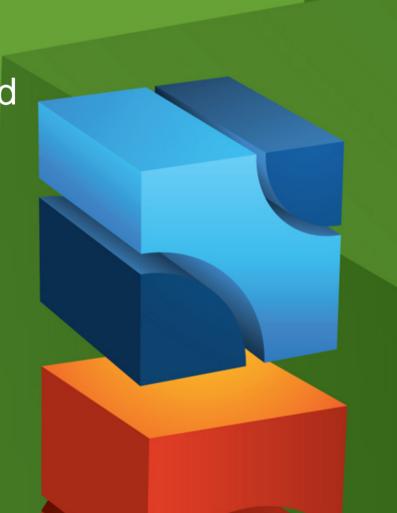
(Staff involved: Dr Patricia Ennis & Dr Claire Mc

From 2009-11, students worked instead with a Leaving Cert Chemistry class in Synge St CBS. They provided support on selected topics & lab practicals & demonstrated instrumentation not available in the school when the Synge St students visited DIT. They also prepared online learning resources (assisted by Dr Michael Seery)

Since 2011, students have developed a series of "Slice of Science" interactive, hands on sessions to support learning about scientific processes & concepts occurring in everyday life for children aged 8-11 in the Aisling Project after-school initiative in Ballymun. This has proved a very effective learning opportunity for the third level & primary level participants. In 2012, our students prepared demonstrations for the Science Zone in the Dublin St. Patrick's Day Festival.

Since 2013, the "Slice of Science" sessions were implemented in 2 local primary schools, Sancta Maria Synge St. and Presentation Warrenmount. In 2015, DIT students collaborated with primary school education students in the Church of Ireland College of Education when preparing which allowed both groups to enhance their pedagogical & scientific knowledge. In 2016, a Junior Science badge was developed (with DIT Widening Participation funding) and was implemented with young people (aged 9-11) from St Michael's Youth Project, Inchicore. (Staff involved: Dr Vanessa Murphy & Dr Claire McDonnell)





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For further Information, contact Claire Mc Donnell at +353 1 4027884 or <u>claire.mcdonnell@dit.ie</u> **and read our <u>Journal Article</u>** C. McDonnell, P. Ennis, L. Shoemaker, (2011) "Now for the science bit: implementing community-based learning in chemistry", Education + Training, 53 (2/3), 218 – 236 at http://arrow.dit.ie/scschcpsart/28/









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