



AMBER Launches New **NanoWOW** Lesson Plans for Primary Students



6th Class Students from Bayside Senior National School at the NanoWOW launch

AMBER, Ireland's new materials science research centre has announced the launch of their new NanoWOW lesson plans. Designed for 5th and 6th class pupils the plans will introduce Irish Primary students to the world of nanoscience and materials science. AMBER is a Science Foundation Ireland funded research centre and funding for NanoWOW was provided through SFI's Education & Outreach programme.

Nanoscience is the study of materials on the nanoscale or 100,000 times smaller than a single human hair. It is leading to the revolution of materials and manufacturing, with applications across a range of industries including energy; medical devices; pharmaceuticals; technology and bioengineering.

Linked to the existing Primary science and maths syllabus while also including environment, history and art, the new lessons will enable school children to understand how the properties of materials can change on the nanoscale and provide opportunities for them to work like scientists through discussion, investigations and activities.

To celebrate the launch of NanoWOW, St Patrick's College, Drumcondra are using this year's Science Week theme, "Exploring the XTRA-Ordinary" to find out more about nanoscience and materials science amongst their students and staff. They have organised a number of CPD workshops to introduce primary school teachers to the NanoWOW lessons and will have guest speakers from AMBER visiting during the week.

Dr Cliona Murphy, Lecturer in Science Education, St Patrick's College said *"I think this is a wonderful initiative and we are very pleased to collaborate with AMBER on further developing the educational resources and bringing them to primary schools throughout Ireland. The NanoWow investigations provide children with ample opportunities to work like scientists and to develop their scientific skills and knowledge. Through engaging with the NanoWow activities the children are also provided with numerous opportunities to develop their language and thinking skills and to use a range of mathematical skills. The NanoWow educational programme provides children with first hand experience of the ground breaking scientific research that is currently being conducted in Ireland and gives them an insight into careers that are potentially achievable for them."*

Prof. Stefano Sanvito, AMBER said, *"The new NanoWOW lesson plans are designed to engage school children in a creative way that fosters their curiosity in nanoscience. We also want to develop their interest and understanding so they are aware of nanoscience as part of their everyday lives and the potential future career options that would be open to them."*

Prof. Sanvito went on to comment, *"Ireland is currently ranked 6th worldwide for nanoscience research and 1st in the EU for European Research Council starting grants. With Nanoscience linked to €15 billion or 10% of Irish exports and 250,000 jobs in sectors like technology, biomedicine, pharmaceuticals, energy and more, the importance of making nanoscience relevant amongst school pupils is obvious for future development"*.

The launch of the new NanoWOW lesson plans builds on the success of the **"Nano in My Life"** lesson plans for secondary schools, which were launched by CRANN during Science Week 2011. Targeted at **Transition Year students**, the resource provides teachers with **nanaoscience lesson plans free of charge**. With nanoscience due to feature as part of the new Leaving Certificate, the NanoWOW lesson plans aim to build on this success and bring the subject to a wider audience.