

## Teaching Science and Mathematics Creatively with Young Children: Finding Opportunities

A conference for people working with learners aged 3-8 years in EYFS and KS1

For practitioners, advisers, teacher educators, science and mathematics co-ordinators

Wednesday 26<sup>th</sup> February 2014 1030 – 1600

STEM Education Centre London at the Institute of Education, WC1H 0AL

This practical one-day conference will explore opportunities for creative teaching and learning in the context of the new National Curriculum and EYFS. In association with the Association for Science Education and the STEM Education Centre London at the Institute of Education, the team from the EU-funded project *Creative Little Scientists* (SIS-CP-2011-289081) has planned the programme in light of the project and the demands of the new curriculum.

This professional development opportunity will enable participants to:

- Examine creativity in science and mathematics teaching and learning
- Consider strategies that support the development of children's creativity in science and mathematics
- Recognise the opportunities in the EYFS and the new NC to foster creativity
- Build upon children's capacities as young scientists and creative learners



### Programme

1. **Introduction to the Creative Little Scientists Project**  
Fani Stylianidou, Ellinogermaniki Agogi, Greece
2. **Creativity in science and mathematics education: myth or reality?**  
Teresa Cremin, Open University and Ashley Compton, Bishop Grosseteste University
3. **Workshop.** Choose two from: Fostering problem solving and agency; Developing curiosity and questioning; Enhancing reflection and reasoning; Capitalising on opportunities for inquiry and creativity (see overleaf)
4. **International policies and our national contexts – implications for practice**  
Esmé Glauert, Institute of Education and Fani Stylianidou, Ellinogermaniki Agogi, Greece
5. **Implications for learning and teaching in EYFS and NC**  
Creative Little Scientists project team

*Creative Little Scientists* is a comparative study working across the UK and eight other participating countries: Belgium, Finland, France, Greece, Germany, Malta, Portugal, and Romania. The project (2011-14) focuses on relationships between science and mathematics education and creativity in the early years. It has documented practice in the nine countries through policy surveys and classroom research with children aged 3-8 years. <http://www.creative-little-scientists.eu/> The project has culminated in the production of materials for teacher education that will be previewed at the conference.

**BOOKING FORM** We recommend early booking to secure your place.



I wish to attend the CLS conference, Wednesday 26<sup>th</sup> February 2014.

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**CONTACT DETAILS**

Name

School/Institution

Address for mailing

Postcode

Telephone

E-mail

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**CHOICE OF WORKSHOP** Choose **two** of the following. Please tick as appropriate.

**A: Fostering problem solving and agency in the new curriculum and EYFS - Esmé Glauert & Jane Maloney, Institute of Education.**

In this workshop you will explore episodes of children's problem solving in science and mathematics recorded in Foundation Stage and KS1 classrooms as part of the project. You will discuss the creative potential of young children's explorations and investigations and identify ways in which early years teachers can support children's independence and decision-making. During the session you will consider how everyday classroom activities can be adapted to extend opportunities for inquiry and creativity.

**B: Developing curiosity and questioning in the new curriculum and EYFS -Teresa Cremin & James Clack, Open University.**

This workshop will look at the role that curiosity and questioning plays in early years science and mathematics education. By using examples from classrooms across the UK, the workshop will demonstrate how children's questioning in science and mathematics can lead to creative outcomes. The contribution of teachers' creative and inquiry based practice and their own questions in fostering children's curiosity in science and mathematics will also be highlighted. Participants will be invited to discuss examples from their own practice, and how these might be developed in the future.

**C: Enhancing reflection and reasoning in the new curriculum and EYFS - Ashley Compton, Bishop Grosseteste University**

This workshop will explore what reflection and reasoning look like in young children, specifically in science and mathematics, drawing on examples from the CLS project. The place of reflection and reasoning in the new curriculum and the EYFS will be identified. We will also consider practical activities that will encourage children to develop these skills.

**D: Capitalising on opportunities for inquiry and creativity - Alison Riley, Bishop Grosseteste University**

This session will explore how to make the most of the indoor and outdoor environment to maximise opportunities for creativity in mathematics and science through play. Through a range of practical activities based on findings from the CLS project participants will have the opportunity to examine how observations can be made and used in the assessment and planning process in the early years.

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Please return booking slip by **20<sup>th</sup> January 2014**

By e-mail to [louise.tulip@ioe.ac.uk](mailto:louise.tulip@ioe.ac.uk)

By post to STEM Education Centre London, Institute of Education, 20 Bedford Way, London WC1H 0AL.

Or book by phone at tel: 020 7612 6455

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