State Government Victoria Department of Education and Early Childhood Development

MONASH University Education

Primary Science Matters

Professional Learning in Primary Science

Three-day Professional Learning Program

Every child, every opportunity

Day One:

Session (1) – Welcome and introduction to the program
The program commences by articulating expectations, recognising needs and concerns and key issues of teaching and learning science for participants. What does the latest research tell us?

Session (2) – Valuing and attending to students' interest in science
How can teachers be flexible, reactive and responsive to students' curiosity, imagination and questions and still meet curriculum requirements? What role does teacher confidence and personal content knowledge play in dealing with these issues?

Session (3) – Identifying features of good science lessons
How can teachers use students' everyday experiences and existing alternative conceptions to promote discussion and explore these ideas using practical investigations? This session will identify teacher and student behaviours which promote good science teaching and learning.

Session (4) – Building teacher confidence with difficult science content
Teachers will be introduced to ways of building their confidence in areas that are known to be problematic to teachers and students e.g. physical and chemical changes. The session will also contrast a range of science teaching resources, Science Connections, Science Continuum P-10 and 'The 5 Es' to identify their features and strengths for particular contexts.

Engaging and challenging workshops to enrich your teaching and your students' learning of science.

Day Two:

Session (5) – The nature of science and the importance of values in science
The program will explore science values, the nature of science, the dilemmas and problems that scientists often face, and most importantly, 'how and why' to raise and discuss these issues with your students and canvas their ideas.

Session (6) – Exploring and sharing your science classroom practice
This session will introduce the program's follow-up online support features, including the ways that participants will be encouraged to reflect on and share aspects of their classroom practice with program facilitators and each other. Specific topics will be identified for reflection and investigation and participants will be encouraged to work closely with a school 'buddy' to set realistic goals and to post reflections using the online discussion forum.

Session (7) – The nature and purpose of student investigations in science
How can teachers and students broaden their understandings of science investigations? What are the common problems associated with student designed investigations and how can data be collected and presented in innovative ways that makes sense to the students?

Session (8) – Program review and personal reflection
This session will draw together and examine the many themes introduced throughout the program which underpin good science teaching and learning. Teachers will be encouraged to identify changes in their thinking and practice and the implications these have on student assessment.

Day Three:

Sessions (9 & 10) – Affirming and extending new practice.
The precise focus of this final day will change from program to program and the day will be responsive to issues raised by participants in their online contributions. However, in every case, there will be a focus on encouraging teachers to reflect on what has been learnt, to affirm and extend new practice, and to set ongoing personal goals for future innovation of practice.