

INQUIRY BASED LEARNING Professional Learning Program

Your school is invited to participate in a unique, cutting edge professional learning opportunity designed and facilitated by Western Sydney University in partnership with Sydney Metro. Teachers who participate will develop expertise in the development of high quality, Inquiry Learning units of work, focusing on aspects of Sydney Metro, Australia's largest transport project. This opportunity is supported by Sydney Metro and places are limited. The course will be offered three times during 2021, so register your interest [now](#).





Sydney Metro and Inquiry Based Learning

Inquiry Based Learning is gaining momentum as a strategy to engage students in authentic, purposeful learning. Sydney Metro provides a community based context for students in our local schools. Although Sydney Metro currently provides a range of place-based resources that were written by teachers, for teachers, the very nature and scope of the project is now providing significant opportunities for the development of high quality, inquiry learning professional development and resources. These opportunities span a range of key learning areas and are underpinned by the Cross-Curricular Priorities and General Capabilities and include but are not limited to topic areas such as STEM, sustainability, local heritage, commerce, geology, geography, design and technology, and Aboriginal and Torres Strait Islander culture and histories.

Benefits of Participation:

- Participation in a community of practice focused on implementing Inquiry Based Learning approaches to benefit student learning outcomes and engagement
- Design, implement, evaluate and publish high quality inquiry-based units of work with the support of University academics
- Participate in collaborative action research and formal evaluation of the units of work
- Opportunities to disseminate units of work through professional journals and conferences
- 16 hours NESA accredited professional learning at Proficient Level
- Sydney Metro will sponsor up to 20 teachers per course to participate in the professional learning course
- **Schools to cover the cost of teacher release** (two full days for Sessions 1 and 5)



Course Structure

Course Structure and Activities

(Courses will run in Terms 1, 2 and 3 in 2021 – session dates to be confirmed on registration)

Please note that planned face-to-face sessions will be subject to COVID-19 restrictions. Where face-to-face sessions cannot occur, online sessions will be provided.

Session 1 (Program Week 1)

Introduction to Inquiry Based Learning and the Sydney Metro Project

Full day, face to face workshop, maximum 20 participants

Participants will be introduced to the pedagogy of inquiry based learning and the action research process. They will also be introduced to the Sydney Metro Project by a Sydney Metro representative. The workshop facilitator will provide an overview of the activities and expectations of participation in the professional development program that will culminate in a set of units of work to be published and disseminated. By the end of this workshop participants will have begun brainstorming ideas for their units of work. Participants will be set the task to begin drafting a unit of work in preparation for the next meeting (in two weeks)

Session 2 (Program Week 3)

Developing a Unit of Work using an Inquiry Approach – Ask the Experts Session

Two-hour, after school session to be held at the Sydney Metro Community Information Centre, Campsie.

Prior to this session, participants will be asked to submit questions about the Sydney Metro project that may have arisen following the introductory session. It is anticipated that questions would be related to the curriculum area to be covered within units of work, hence submission prior to this session will ensure Sydney Metro personnel are able to respond and invite appropriate experts to the session. During the session participants will have opportunities to ask further questions and seek clarification where required.

Session 3 (Program Week 5)

Designing a Unit of Work using an Inquiry Approach – Aligning with Curriculum and Embedding Technology

Two-hour, online session (Zoom)

Participants will share their progress and receive peer feedback on the draft units of work and will begin to align their activities with curriculum outcomes, General Capabilities and cross-curriculum priorities.

Session 4 (Program Week 6)

Implementing a Unit of Work using an Inquiry Approach – Assessment Strategies and Evidence Gathering

Two-hour, online session (Zoom)

In this session participants will share progress on draft units of work. They will provide each other with feedback and will be set the task of completing their drafts in preparation for implementation.

Participants will implement their units prior to Session 5.

Session 5 (Program Week 15)

Presentation, Evaluation and finalisation of Units of Work

Full day, face to face workshop

In this final workshop, participants will bring along their Units, work samples (including assessments) and other evidence, to work on documenting the unit evaluation. Participants will finalise documentation of their units in preparation for peer review. Participants will be required to upload their completed units of work.

*Planning Day

During the course of the program **participants will be provided with an additional day of release from face to face teaching** to allow them to plan their units of work. This will occur at a time appropriate to participating teachers and their schools.

Presenters

Associate Professor Catherine Attard

Catherine is an Associate Professor in primary mathematics education and Deputy Director of Research within the School of Education. She is a multiple award-winning educator who has transformed teaching and learning in primary mathematics at Western Sydney University for over 13 years. Catherine's research is focused on student engagement with mathematics and issues surrounding the pedagogical practices that influence students' engagement. Catherine is also actively researching contemporary teaching practices through the use of digital technologies, and the use of financial literacy education as a tool to engage children with mathematics. Catherine has won several teaching awards, including a prestigious Australian Awards for University Teaching (AAUT) Teaching Excellence Award, an Office of Learning and Teaching citation for Outstanding Contributions to Student Learning and the Western Sydney University Vice-Chancellor's Excellence in Teaching Award. She regularly presents workshops and keynotes nationally and internationally and is the current President of the Mathematics Education Research Group of Australasia (MERGA) a past president of the Mathematical Association of New South Wales (MANSW), and past editor of the professional journal, Australian Primary Mathematics Classroom. Catherine is also the author of the leading mathematics education blog, engagingmaths.com, as well as the author of several popular mathematics teacher resource books.

Dr Nathan Berger

Dr Nathan Berger is Postdoctoral Research Fellow in STEM Education at Western Sydney University. He has degrees in information technology, secondary social sciences, and quantitative educational research. Nathan's PhD in education, awarded by the University of Newcastle, examined the career and education aspirations of children and adolescents across the course of schooling. Nathan has presented his research at conferences across Australia and in Denmark, Germany, Ireland, New Zealand, and the United Kingdom. As an Early Career Researcher, he has worked with colleagues to establish a publication record in high-quality journals and to secure \$1.1m in research funding. A significant portion of this funding has enabled collaboration with industry partners across the education and government sectors, with a focus on program evaluation and teacher professional development. Nathan has almost a decade of experience as an initial teacher educator, delivering highly-rated learning experiences at two universities in foundation studies in education, educational psychology, the sociology of education, educational research methods, and various aspects of STEM education. Since joining WSU, he has been the foundation lecturer or co-lecturer of several new units in the *Graduate Certificate in Secondary STEM Education*, *Master of Education (STEM)*, and *Master of Teaching (Secondary STEM)* programs.

Please register your interest here