



## STEM Detectives: Introduction to Early Years STEM



Curious about STEM? Great, that's an excellent first step! Join us for a fun and interactive session exploring STEM in the early years. Build your knowledge and confidence and put STEM Thinking under the microscope...

**Time:** Full Day

**Investment:** A quote can be provided based on your requirements and time available

**Bonus:** When you attend this session you will receive:

- STEM Detectives Clue Sheets relating to the content covered
- Access to the STEM Detectives Closed Facebook Group for ongoing support & networking

### Session Outline

#### What is STEM?

STEM is an acronym for **Science, Technology, Engineering and Mathematics**. Develop your confidence around these disciplines and further your understanding as to how they are intertwined, and applied together in real world settings.

See where you can find STEM in Early Childhood settings and how to identify it in children's play. What kind of environment is needed and what resources are required? STEM Detectives helps you identify STEM, and supports you in further scaffolding the children's interest through play and inquiry based learning.

#### Why is STEM Important?

We will discuss why STEM is important, particularly in the early years. What are the social, economic and environmental trends that will see STEM Thinking become increasingly important in a changing world?

#### What is STEM Thinking and what dispositions are needed?

Discover STEM Thinking consider how to develop and support STEM Thinking skills and further exercise children's curiosity in your service?

#### What does STEM look like in the early years?

STEM in the Early Years should not be based on teaching children science or number facts, but rather on fostering their natural dispositions for curiosity and inquiry based learning by doing. How do we create an environment, provide the resources and give children the opportunity to explore, discover, question and test their thoughts and ideas?

We will explore some stories and case studies and identify the STEM Thinking and concepts involved. This will build your confidence in identifying STEM thinking in everyday activities and further scaffold the children's interest through play and inquiry based learning.

We will also explore the difference between academic and intellectual learning. We will discuss how we can effectively build on children's interests and questions to promote higher STEM Thinking skills. What can you do to promote intellectual learning in young children?

#### STEM Plus A

Discuss the importance of the Arts and creative expression in the exploration and application of STEM thinking and concepts. How do we use art and creativity to enhance STEM Thinking?

## What is the role of Adults in supporting the development of STEM Thinking?

How can adults support children to develop STEM Thinking skills in day to day activities? We will discuss how to:

- Observe children's play and identify STEM thinking;
- Analyse and reflect on the opportunities provided, and how to extend on the children's interest through scaffolding;
- How to document STEM Thinking and communicate learning to families; and
- How to link STEM Thinking to the Early Years Learning Framework.

## STEM Opportunities in Play

Explore a range of fun and interactive activities that simulate typical scenarios in your service, and practice observing, identifying and documenting the STEM Thinking that you see. We can do this inside or outside.

### LEARNING OUTCOMES:

- Understand and appreciate STEM Thinking and related concepts;
- Understand the importance of STEM in an early years context;
- Understand how to identify STEM Thinking and concepts in children's play;
- Support children in developing STEM Thinking skills through play and inquiry based learning; and
- Observe, document, analyse and scaffold STEM Thinking and concepts with confidence.

## About the Trainers

### Niki Buchan



Niki is an experienced Educational Consultant with a biomedical background and a love of science, maths and the natural world. Originally from South Africa, she lived in Scotland for many years, and have been calling Australia home since 2011. She is passionate about the environment, animals and the people of Australia. She has a great love for the outdoors and works internationally delivering a large range of professional learning opportunities on all aspects of early childhood.

### Bronwyn Cron



Bron is an experienced facilitator having spent the last 20 years working with local government, communities, schools, early childhood services and businesses to think differently; build skills and knowledge; and take action towards a positive and sustainable future. She is passionate about making STEM accessible and fun for everyone, and in particular fostering a love of STEM in children so that they are inspired by the possibilities of the future, no matter what path they choose.

**For Further information and to book your session, please contact us on:**

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