

# THE LITTLE SCIENTISTS PROGRAM AND THE EARLY YEARS LEARNING FRAMEWORK

The Early Years Learning Framework (EYLF) has been developed by the Council of Australian Governments (COAG) for all children from birth to five years and is a key component of the Australian Government National Quality Framework (NQF). Published in 2009, the EYLF presents a vision for young children’s learning and was designed to “assist educators to provide young children with opportunities to maximise their potential and develop a foundation for future success in learning”. The EYLF views children as belonging, being and becoming and includes three interconnected elements that encourage quality early learning: Principles, Practices and Outcomes.<sup>1</sup>

In 2017 an analysis of the Little Scientists program in Australia conducted by a team consisting of Dr Amy MacDonald, Dr Lena Danaia, Dr Shukla Sikder and Dr Kate Highfield found significant alignment between the Little Scientists educational approach and the five EYLF Learning Outcomes. The Little Scientists workshops were also found to assist educators in developing an understanding of the Principles and Practices underpinning the EYLF.

The following table presents an overview of the EYLF Principles and Practices that align with the Little Scientists program and its educational approach:

	EYLF Principle	EYLF Practice	Evidenced in Little Scientists workshops and support materials
Secure, respectful and reciprocal relationships	•		pe
Partnerships with families	•		e
High expectations and equity	•		e
Respect for diversity	•		pe
Ongoing learning and reflective practice	•		e
Holistic approaches		•	pe
Responsiveness to children		•	e
Learning through play		•	e
Intentional teaching		•	e
Learning environments		•	e
Cultural competence		•	pe
Continuity of learning and transitions		•	e
Assessment for learning		•	pe

e = explicitly explored  
pe = potentially explored or implied

In the Little Scientists workshops participants engage in active discussions and are encouraged to draw upon their prior individual experiences and knowledge. With this in mind, many of the Principles and Practices identified as ‘potentially explored’ (pe) may well be examined both in the workshops and afterwards in educator reflections.

<sup>1</sup>Australian Government Department of Education and Training (2009). *Belonging, Being and Becoming: The Early Years Learning Framework for Australia*. Retrieved from: [https://docs.education.gov.au/system/files/doc/other/belonging\\_being\\_and\\_becoming\\_the\\_early\\_years\\_learning\\_framework\\_for\\_australia\\_v5\\_docx.pdf](https://docs.education.gov.au/system/files/doc/other/belonging_being_and_becoming_the_early_years_learning_framework_for_australia_v5_docx.pdf)

## Outcome 4: Children are confident and involved learners

The Little Scientists program relates to all five EYLF Learning Outcomes and especially to Outcome 4: Children are confident and involved learners:

- Children develop dispositions for learning, such as curiosity, cooperation, confidence, creativity, commitment, enthusiasm, persistence, imagination and reflexivity.
- Children develop a range of skills and processes such as problem solving, inquiry, experimentation, hypothesising, researching and investigating.
- Children transfer and adapt what they have learned from one context to another.
- Children resource their own learning through connecting with people, place, technologies and natural and processed materials.

Aligning with the EYLF requirements in Outcome 4, participation in the Little Scientists STEM workshops will assist educators and teachers to:

	LITTLE SCIENTISTS WORKSHOP TOPICS									
	Acoustics	Air	Chemical Reactions	Computer Science	Design and Technologies	Engineering	Human Body	Mathematics	Optics	Water
Provide learning environments that are flexible and open-ended	•	•	•	•	•	•	•	•	•	•
Encourage children to engage in both individual and collaborative explorative learning processes	•	•	•	•	•	•	•	•	•	•
Listen carefully to children’s ideas and discuss with them how these ideas might be developed	•	•	•	•	•	•	•	•	•	•
Provide opportunities for children to revisit their ideas and extend their thinking	•	•	•	•	•	•	•	•	•	•
Model inquiry processes, including wonder, curiosity and imagination, try new ideas and take on challenges	•	•	•	•	•	•	•	•	•	•
Plan learning environments with appropriate levels of challenge where children are encouraged to explore, experiment and take appropriate risks in their learning	•	•	•	•	•	•	•	•	•	•
Recognise mathematical understandings that children bring to learning and build on these in ways that are relevant to each child	•							•		
Provide experiences that encourage children to investigate and solve problems	•	•	•	•	•	•	•	•	•	•
Provide opportunities for involvement in experiences that support the investigation of ideas, complex concepts and thinking, reasoning and hypothesising	•	•	•	•	•	•	•	•	•	•
Model mathematical and scientific language	•	•	•				•	•	•	•
Support children to construct multiple solutions to problems and use different ways of thinking	•		•	•	•	•				
Draw children’s attention to patterns and relationships in the environment and in their learning	•			•		•		•		
Provide sensory and exploratory experiences with natural and processed materials	•	•	•	•	•	•	•	•	•	•
Introduce appropriate tools, technologies and media and provide the skills, knowledge and technologies to enhance children’s learning	•			•	•	•				
Provide opportunities for children to both construct and take apart materials as a strategy for learning	•			•	•	•				
Develop their own confidence with technologies available to children in the setting	•			•	•					

“The Little Scientists program is to be commended for its alignment to the EYLF and how this enables educators to consider young children as active agents in their learning.”



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