



Topic: Identifying and developing STEM learning opportunities (Birth – Six years)



Both *Aistear* and *Síolta* highlight the importance of children having opportunities to explore and think about the world around them.

In this short CPD session, you will learn about the importance of supporting children’s engagement with Science, Technology, Engineering and Maths (STEM) by recognising and providing them with opportunities to solve problems, to use their imaginations, experiment, to ask questions and to collaborate with others. The suggested resources for viewing, reading and reflecting on will help you to identify opportunities to develop and extend the STEM learning opportunities that happen everyday with babies, toddlers and young children .






Key connections

- *Aistear*’s theme of [Exploring and Thinking](#)
- *Síolta* [Standard 6: Play](#)

Playing, experimenting and exploring with materials such as sand, water, playdough and open-ended materials support STEM learning opportunities.

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	Begin by reading this introduction to What is STEM? which outlines what is understood in each of the four strands of STEM. This also looks at how each strand is relevant and important for babies, toddlers and young children and will explore how adults can support this learning.	
	Read the STEM Glossary to become familiar with some commonly used terms when engaging in STEM learning opportunities with children. A brief definition of each one is given.	



	Watch this 3 minute video showing examples of open-ended materials/loose parts that will support STEM learning opportunities.	
	Read the Using Open-ended Materials Tip Sheet to become familiar with the types and ways in which materials can be used in indoors and outdoors by babies, toddlers and young children. Many of which can be used to support STEM	
	Read the Tip Sheets: STEM: Supporting children’s learning experiences to find out how babies, toddlers and young children are primed to investigate their surroundings and strive to understand the world around them by using all of their senses to explore and engage with their environment. The Tip Sheet will give strategies to promote STEM learning opportunities and how to incorporate it into everyday practice with children. The Tip Sheet relevant to babies and toddlers is available here and for young children aged 3 – 6 is here .	
	Watch this 5 minute video which discusses, supported by images, what STEM education might look like in an early childhood setting.	
	Use part of the self-evaluation tool to reflect on your role in supporting learning and development through play. Think about how you can support STEM learning by providing a playful environment, by following the children’s lead, by talking and listening to children, supporting dispositions like curiosity, perseverance and independence, and providing props and resources to deepen experiences. Access birth – 3 years here and 3 – 6 years here .	



My key reflections having viewed/read the above materials

Prompts for Reflection: What is working well for you in this area? What are the challenges you have experienced in this area? What will you do differently in the future?



An action I can take . . .

Prompts for Reflection: Outline the changes you plan to make to your practice. How will these changes impact positively on children's learning and development? Think about the resources and supports you will need. What aspects of this work would you like to prioritise and focus on in the coming weeks?



Link to the Practice Guide's [Aistear Síolta Action Planning Template](#)

All of the above resources and many more are available on the *Aistear Síolta Practice Guide* website at www.aistearsiolta.ie

Thank you for visiting and using the Practice Guide.