







STEM for us is...

- about skills and practices, rather than content knowledge
- about children learning STEM by doing STEM activities

We don't see STEM as four separate subject areas. We focus on the skills and practices that underpin STEM. Thus, we avoid arguments about STEM vs STE(A)M vs ST(R)EAM vs STEM(M).

We are much more interested in children engaging with STEM in play-based ways, with intentional teaching moments from you.

We want to help you tweak your current activities to make them more STEM focussed.

STEM Practitioners

STEM Practitioners



Horticulturalist



Architect



Builder



Surfboard Designer

Can you think of other examples?



Ideas, Methods, and Values

We think STEM should be about Ideas, Methods, and Values.

If we think of the water play from earlier, there is:

- an Idea proposing a water wall to learn about water and drawing plans
- a Method how we go about it, e.g., using tools, reading others' plans
- a Value we are fostering teamwork and persistence

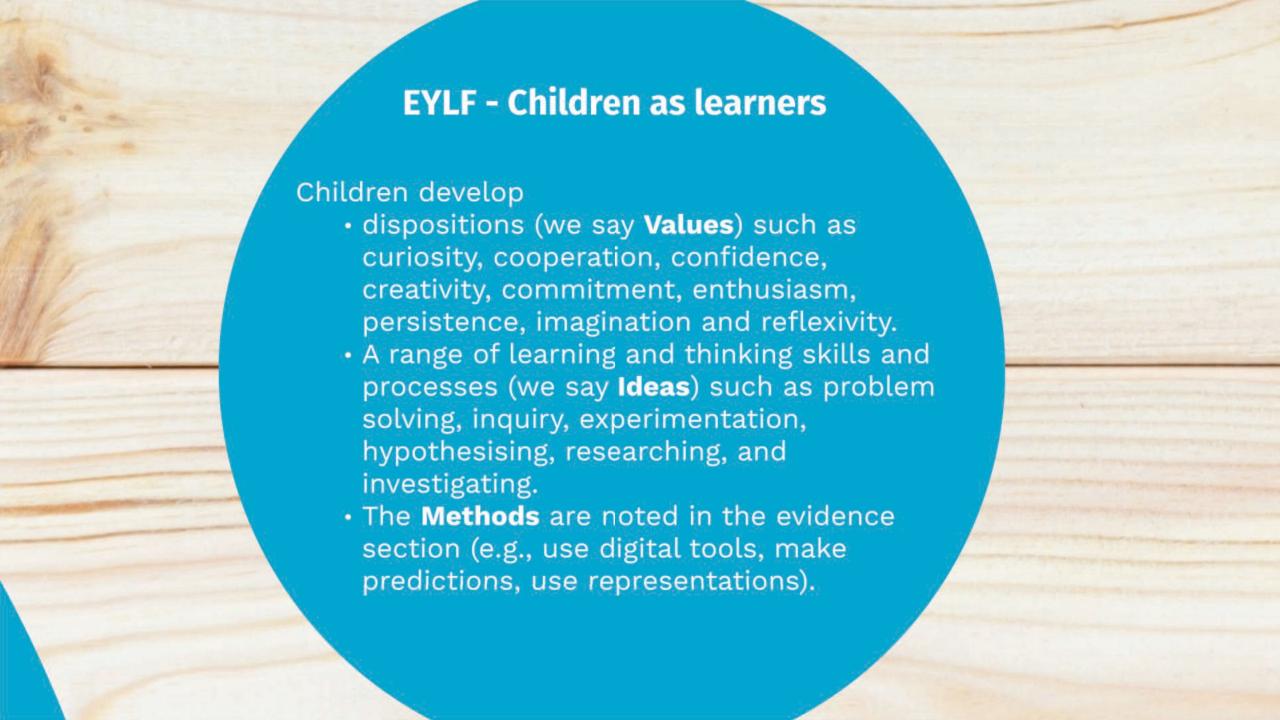
The focus on **Ideas**, **Methods**, and **Values** sits comfortably alongside the Being, Belonging and Becoming focus of the EYLF.

Luke Carroll explains STEM Practices: https://elsaprogram.com.au/videos/

EYLF Practices

Our 18

Your practices?



ELSA's STEM Practices

IDEAS

Problem Finding

Finding and Validating Evidence

Questioning

Proposing

Designing and Building

Exploring and Challenging

METHODS

Generating Ideas

Processing Information

Encoding and Decoding Information

Using Appropriate Language and Vocabulary

Using Tools to Produce Artefacts

Thinking Critically

VALUES

Curiosity

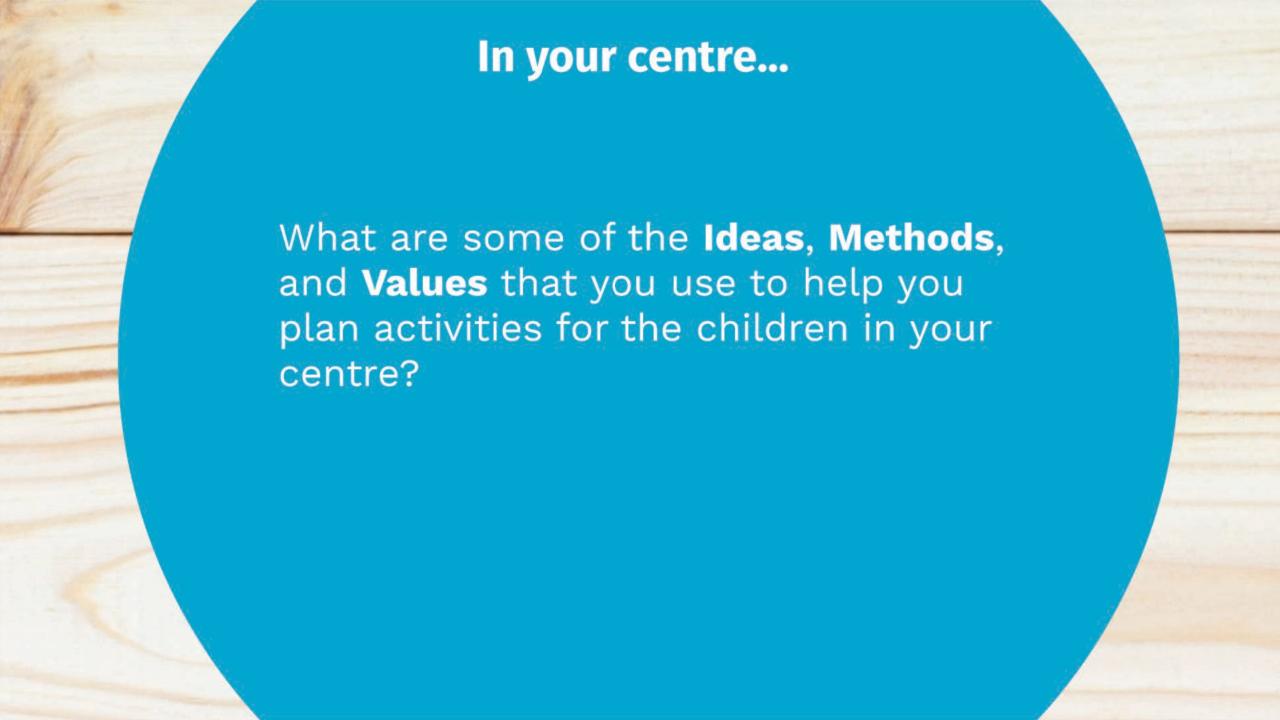
Fairness

Imagination

Creativity

Teamwork

Persistence





STEM Practices - in action

What might these STEM Practices look like in your preschool centre?

Remember, it is often the case that an activity has

- · one main Idea
- one main Method
- · one main Value

But sometimes it could be two of one type.

Am I a robot?

Build like me



Children move around the centre following verbal or symbolic instructions. They might do so on a simple grid drawn with chalk.

STEM **Idea** - Exploring STEM **Method** - Processing Information STEM **Value** - Persistence



Children draw (or take a photo) of their block building. Their friends use the drawing or photo to build the same structure.

- STEM Idea Designing
- STEM Method Encoding and decoding information
- STEM Value Teamwork



What would you like to know more about?

- From this presentation?
- In future presentations?
- About the ELSA team and what we do?



Thank you

Today we have spoken about how you are already doing STEM activities in your classroom.

We hope we've shown you new ways to look at STEM and how to make small adjustments to your existing activities using the **Ideas**, **Methods** and **Values** from our STEM Practices.

We hope to see you online again for future presentations.

Our Contact Details

