



**Early Science with Nico and Nor®** is a preschool science program that was **co-designed** by teachers, families, curricula and media developers, and researchers.

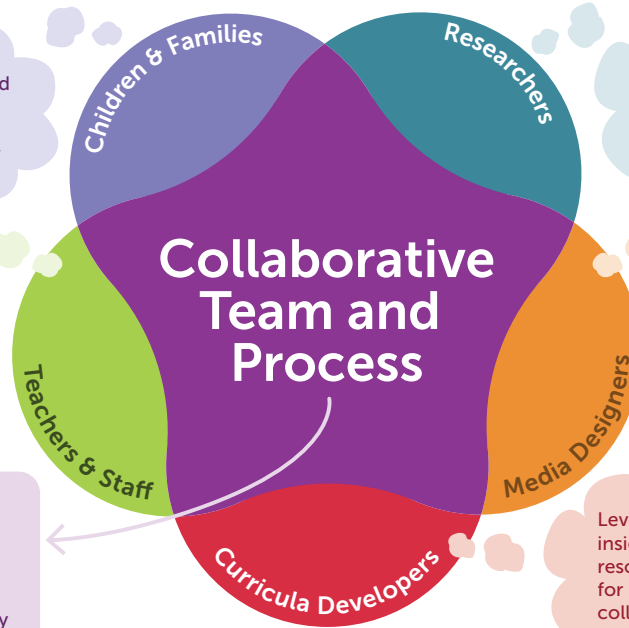
The program:

- ✓ **promotes early science** learning through playful learning experiences inspired by children's and families' interests and every day experiences
- ✓ **includes a Family and Teacher guide** that connect home and school learning
- ✓ **links science with engineering and math**, strengthening children's opportunity to meaningfully learn across domains
- ✓ **leverages digital tools** with unique affordances for STEM learning to strengthen (not replace) hands-on exploration

Co-design activities, helping identify everyday experiences and meaningful contexts in which science, math, and engineering could be promoted authentically

Shared needs and opportunities based on their classroom experience and teaching expertise to inform the design of classroom activities that resonate with families' everyday experiences

- Building collaborative relationships
- Centering children & families (asset-based approach)
- Co-designing, pilot testing and refining
- Evaluating implementation & outcomes
- Disseminating lessons and resources broadly



Documented the team's learning goals and facilitated research activities, ensuring all teams shared insights and input to inform iterations

Leveraged families' and educators' insights to create digital tools with unique affordances to support STEM teaching and learning, in collaboration with the team

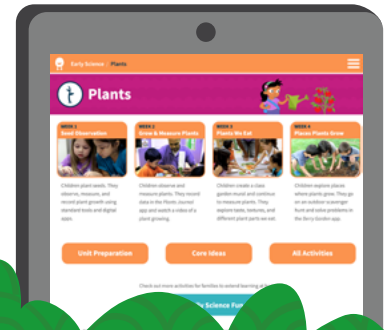
Leveraged families' and educators' insights to create curricular resources with educational supports for STEM teaching and learning, in collaboration with the team

## What we learned when teachers pilot tested the program in their classrooms:

- ✳ Children in classrooms that implemented the program made significantly more improvement in science learning than their peers in comparison classrooms.
- ✳ Teachers successfully integrated science instruction. Children deepened their understanding of science core ideas as they engaged with science practices and made connections to math and engineering.
- ✳ The use of digital tools complemented the hands-on investigations in powerful ways, for instance by providing opportunities not possible in the class and allowing children to easily practice what they learned in hands-on activities.

The **Teacher Guide** includes 3 units (Plants, Ramps and Shadows), each including a series of circle time, small group activity and learning center ideas to promote science, math & engineering in the classroom, as well as support material for teachers and a **Family Guide** to link home and school learning.

Scan the QR code to access the Teacher Guide!



**Digital Games** support and strengthen children's learning accross school and home. The Nico and Nor games provide children opportunities to observe science phenomena and easily test and revise solutions.

**Digital Journals** support engagement in science practices collaboratively. They are designed to support observation, data collection, analysis and reflection during science investigations.

Download these free digital apps for iPad on the App Store!



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