

Unplugged Tots

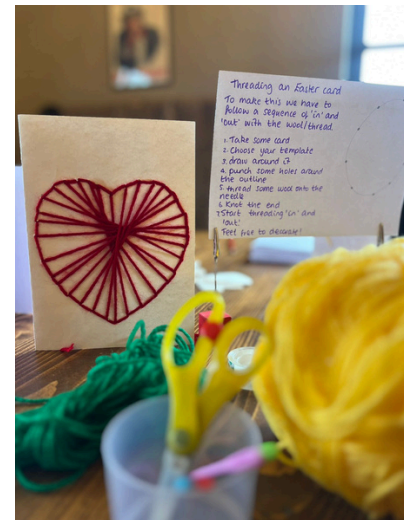
Shortlisted for the Family Learning to Support STEM Award

About Unplugged Tots

Unplugged Tots is an initiative redefining how families with young children engage with STEM - by keeping screens switched off. At its core, Unplugged Tots is about empowering families to explore computational thinking (CT) through accessible, hands-on activities that make learning fun, inclusive and connected to everyday life.

Hannah Hagon, CEO and Founder of Unplugged Tots, explained:

“By combining academic research, playful learning, and inclusive delivery, Unplugged Tots is successfully embedding computational thinking into family life - equipping children with the tools and foundations to thrive in a rapidly changing world.”



Family Learning STEM: Unplugged Tots

By working closely with schools, community groups and national partners, Unplugged Tots has been able to reach underserved families and deliver dynamic learning rooted in computational thinking. Activities are linked to everyday activities including building with blocks, following baking recipes, and creating obstacle courses and maps. These playful, unplugged experiences help families learn about concepts like algorithms, pattern recognition, debugging, and engineering, all without needing previous technical expertise.

Hannah explained:

“Through this framework, Unplugged Tots equips children and families with transferable skills such as resilience, critical thinking, creativity, and confidence to approach new challenges. The problem-solving skills learned through play-based computational thinking lay a solid foundation for future STEM learning and careers.”



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Families are able to learn together by breaking down problems, making decisions based on logic, and celebrating mistakes as part of the learning journey.

One parent shared feedback after a workshop:

"Thank you so much, Hannah! The boys really enjoyed the variety of activities and Mummy liked the thinking behind each activity."

Activities are designed to be low-cost, flexible and inclusive, with downloadable guides and offline activity packs. Workshops are hosted online, at community events, as part of after-school clubs and even local pubs-turned-community-hubs. Through a combination of accessible language, diverse representation, and familiar contexts, Unplugged Tots empowers families from a range of backgrounds to engage with STEM.

Impact and next steps

Unplugged Tots takes an evidence-based approach to measuring impact, combining both qualitative and quantitative methods to assess the effectiveness of activities in supporting children's cognitive development. Verbal and written feedback from families has helped to shaped activity design, introducing modular challenges tailored to different ages and abilities.

One community participant said:

"It's so important to teach concepts without a screen. As a family we enjoyed every aspect."

The organisation also plays an influential role in the wider educational landscape through strategic partnerships. Collaborations with Raspberry Pi, University College London (UCL), and The Open University (OU) inform the design of activities and help scale impact, contributing to research that explores the cognitive benefits of CT-focused play.

Looking ahead, Unplugged Tots plans to expand differentiated resources for SEND learners, launch a subscription model for families, and strengthen collaborations with schools and libraries. The upcoming 'Unplugged Tots' book, published by Raspberry Pi Press will extend this mission globally, offering families a practical, engaging toolkit to help demystify computational thinking and integrate STEM learning into everyday routines.