Early maths builds future lives

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The problem → educational disadvantage

Children who start behind, stay behind, with the attainment gap widening throughout school, despite interventions and specialist teaching[1]. Currently, children from poorer backgrounds, those with SEN and the summer born are more likely to start school on a mathematical back foot, unlikely to catch up throughout their school careers.

The solution → early maths

Children's early maths understanding is the strongest predictor of later school achievement and success in entering the workforce[2]. Unfortunately, current curriculum and assessment requirements for under-7s are not based on research. These should focus on the foundational concepts that predict later maths attainment include counting and number meanings, and also pattern recognition and spatial thinking[3]. Early educators need support to develop professional knowledge about these, particularly those who feel less confidence with maths.

Early maths development needs to be a national priority, with benefits to children's life chances, national attitudes and the economy.

Investing in early maths makes economic sense: for every £1 spent on a preschool child, £7 has to be spent to have the same impact with an adolescent[4].

What needs to happen?

1. **Rebalance the early years maths curriculum and pedagogy so it is evidence-based and age-appropriate,** focusing on predictive foundational concepts in number, pattern and spatial reasoning - and taught through guided play and problem solving.

2. **Restructure assessment in early years and KS1 to focus on the key foundational concepts shown to lead to future success in maths, removing the flawed Reception Baseline Assessment and revising the maths Early Learning Goals.**

3. **Increase maths professional development for early years staff - and also senior leaders and Ofsted inspectors. Investment in early years saves money in the long term and improves children's success at school and their future lives.**

References:
1. Sutton Trust (2024). *General election policy briefing: Closing the attainment gap,* & Education Policy Institute (2024) *EPI Annual report 2023*.
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3. Rittle-Johnson, B., Zippert, E. L., & Boice, K. L. (2019). The roles of patterning and spatial skills in early mathematics development. *Early Childhood Research Quarterly*, 46, 166–178.
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