

## **Children's Mathematics: Making Marks, Making Meaning**

Maulfry Worthington and Elizabeth Carruthers  
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The authors begin with the child's early mathematical learning, which, as with reading and writing, is embedded in the socio-cultural practices of their home and community. They illustrate how mathematical 'literacy' is just one of many modes of representation which children use when trying to make sense of the world around them.

Central to their claims is the argument that children come to make sense of abstract symbols though using their own marks and constructing their own meaning. They suggest that in order for children to become 'bi-numerate' their informal mathematical mark-making gradually develops and evolves into standard symbolism and that in moving constantly between these two 'languages' of mathematics, they develop deeper and more lasting understandings of the more abstract written elements of the discipline.

Backed up by twelve years of research, both in the home and the classroom, they chart the mathematical thinking of children between the ages of 3 and 8 years and show how understanding adults support their thought processes and nurture their early mathematical understandings.

The book is full of practical steps early educators can take to extend the children's learning in a meaningful way. If adults' own understandings about mathematical learning are too narrow, based on mere instruction, then children's abilities to flourish and develop as thinkers and problem-solvers will be stifled and yet another generation of maths-fearers will be born.

And finally, if they have not already convinced the reader, the authors show how children's own methods and chosen ways of representing mathematical thinking does actually help their performance in national tests.

*Children's Mathematics: Making Marks, Making Meaning* is essential reading for students of Education and Early Childhood Studies, as well as for those practitioners working in the Foundation and Primary stages of education.

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