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Mathematical conversations that challenge children's thinking.

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Summary: The interactions young children have with adults are of great importance in developing children's mathematical reasoning. The one-to-one mathematical conversations and interactions young children have with their teachers are memorable to children. In their 1st year at school, children can recall their conversations with the teacher, reconstruct their thinking, and reflect on their learning. Children construct mathematical ideas in the course of their interactions with their teacher and classmates. Interactions in whole class settings have been studied. However, not as much has been written about the interactions between teacher and child in one-to-one conversations during the mathematics lessons of young children. This chapter examines the nature of teacher-child mathematical conversations and how they evolve as children move to the generally more formal setting of school. Interactions that challenge children to think mathematically in their transition year to school illustrate the central characteristics of questioning, listening, and thinking. The mathematical pedagogical behaviours that support and facilitate these interactions are noted.

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