

# A Look Inside an Investigations Classroom

An emphasis on mathematical thinking should be at the center of a mathematics curriculum. What does this really mean?

- **Children think for themselves about the mathematics they do, rather than simply applying learned procedures and definitions.**

This often means that students work on only one or two problems during a class session – or perhaps are immersed in a single investigation for several sessions.

- **Children develop multiple ways to enter a mathematical problem.**

There is no single approved way to solve a problem. When children have several ways of solving a problem, they can double-check their results by using more than one approach. They can compare approaches with each other and engage in serious discussions about differences in their strategies and their results.

- **Children learn to keep track of their mathematical strategies and communicate them in ways that make sense to themselves and others.**
- **Children's strategies become more and more efficient with practice over time.**

Children learn to...

... interpret solutions,

... determine whether they are reasonable solutions or not,

... and explain why it does or does not make sense

These abilities are integral parts of mathematical problem solving.

*Adapted from Beyond Arithmetic*

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p. 28 (three of the authors of Investigations)