Think Aloud
A Problem Solving Strategy for Mathematics

The Think Aloud strategy helps children develop independent thinking during problem solving situations through the use of questioning. Effective questioning will help students to:
- Visualize the situation
- Develop important mathematical concepts
- Clarify vocabulary
- Develop points of entry
- Focus on what is needed for an answer

Setting the Stage – Task Clarification
- Read the problem (whole group, pairs, or independently)
- Visualize the situation
- Restate the problem (not focusing on the answer)
- Connect to real-life situations

Clarification of Concept and Context – Making Connections
- Clarify vocabulary specific to the mathematical content
- Clarify vocabulary related to the context of the problem
- Connect the mathematical ideas to previous work

Working on the Problem
- Discuss various approaches for entry into the problem
- Redefine the question in the problem
- Solve the problem independently or with a partner
- Explain your work or your partner’s work

Thinking about the Solution
- Relate connections between the answer and the problem
- Share student work samples; discuss the mathematics, the approach to the problem and the student reasoning


Developed for the Milwaukee Mathematics Partnership with support by the National Science Foundation under Grant No. EHR-0314898. Opinions expressed are those of the authors and not necessarily those of the Foundation.