Research-Based Questioning Strategies for K–2 Mathematics

These metacognitive questions can help students at each stage of the problem-solving process. As students work with the Problem Solver handout, remind them to ask themselves these questions.

Understand—See

- How can you say the problem using your own words?
- What more do you need to know?
- Could you draw a picture to show the problem?
- Have you solved a problem like this before?

Plan—Think

- Have you solved a problem like this before?
- What do you guess the answer might be?
- What plan will help you find an answer?
- What materials or tools do you need?
- How can you make this simpler?
- What kind of picture would help you?
- What patterns do you see that would help you?

What am I doing?

Why am I doing it?

How is this helping me solve the problem?

Work—Do

- Is your plan working?
- How do you know?
- How could you explain what you did?
- How close to the answer was your guess?

Check

- Does your answer make sense?
- How could you solve this problem another way?
- Could you make another problem like this one?
- How close to the answer was your guess?