# Steps to Problem Solving

As you know, problem solving is the process of identifying a problem or a goal, generating ideas to solve the problem or reach the goal, and testing out those ideas. The following steps are guidelines for helping make this process happen. Even though problem solving does not necessarily follow these exact steps (and not all problems have a specific solution), you can use these guidelines to encourage and assist children as they solve the problems they meet each day

**1. Define the problem**. Young children may not always be able to say exactly what the problem is. Instead, they may feel frustrated or just know that something isn't right. By asking
open-ended questions that encourage children to talk about what they are doing, you can help
them identify the problem they would like to solve
*Remember:* Offer comments and suggestions in the form of questions. You might say, "I see
you're working hard on your puzzle, but that piece doesn't seem to fit in that place. Is there
another place you could try? Or is there another piece you'd like to try?"

**2. Brainstorm solutions**. Reinforce the idea that good problem solvers don't decide on solutions immediately. Instead, they think of options. Encourage children to expand their thinking by asking them questions, such as "What's another way you could do this?" "What
would happen if we tried a different way?
Remember: Let children know that brainstorming is a time to think of-not evaluate-many possible solutions Welcome everyone's ideas even if they seem odd or impossible. (To do this
accept every idea equally, making sure you don't respond enthusiastically to some and with
reservations to others.)
Decide where to start. After you brainstorm, ask children to choose a few ideas to test. For individual projects, cach child can make her own selection. For group projects, children can
make the decisions together
Remember: Problem solving is a fluid process.Children might think of one thing to try, then
reshape, modify, or abandon that idea to try something else. Let the process flow.

**4.** Select or create problem-solving tools. Help children think about what they need to try out their solutions. Make sure they know they can use materials in usual or unconventional
ways. For example, fabrie seraps might be good tools for making a collage, but they also work
well for plugging a hole in a water tube.
Remember: Make sure the materials in your room are accessible so children can find and use
them without having to ask an adult for assistance.

**5.** Test and analyze solutions. Create a climate in your room that promotes hands-on experimentation - even rf it means making a mess or trying an idea that just won't work. The
learning and sense of independence children gain from trying are well worth the effort.
Remember: Help children understand from the beginning that problem solving really is a process. Let everyone know you value their experiments. When solutions don't work, be supportive and encourage children to try other ways