Table 10.3
LEARNING STRATEGIES FOR MATHEMATICS

Metacognitive Strategies:	Students plan, monitor, and evaluate their learning of mathematics concepts and skills.
Advance Organization	What's my purpose for solving this problem? What is the question? What will I use the information for?
Selective Attention	What words or ideas cue the operation?
	Where are the data needed to solve the problem?
Organizational Planning	What plan will help solve the problem? Is it a multiple-step plan?
Self-monitoring	Does the plan seem to be working? Am I getting the answer?
Self-Assessment	Did I solve the problem/answer the question? How did I solve it? Is it a good solution? If not, what could I do differently?
Cognitive Strategies:	Students interact with the information to be learned, changing or organizing it either mentally or physically.
Elaborating Prior Knowledge	What do I already know about this topic or type of problem? What experiences have I had that are related to this? How does this information relate to other information?
Taking Notes	What's the best way to write down a plan to solve the problem? Table? Chart? List? Diagram?
Grouping	How can I classify this information? What is the same and what is different?
Making Inferences	Are there words I don't know that I must understand to solve the problem?
Using Images	What can I draw to help me understand and solve the problem? Can I make a mental picture or visualize this problem?
Social/Affective Strategies:	Students interact with others to assist learning, or use attitudes and feelings to help their learning.
Questioning for Clarification	What help do I need? Who can I ask? How should I ask?
Cooperating	How can I work with others to answer the question or solve the problem?
Self-talk	Yes, I can do this task—what strategies do I need?

APPLYING LEARNING STRATEGIES TO MATHEMATICS

Mathematics Problem-Solving Steps

Understand the Question

Find the Needed Information

Choose a Plan

Solve the Problem

Check the Answer