20 Strategies for STEM Instruction

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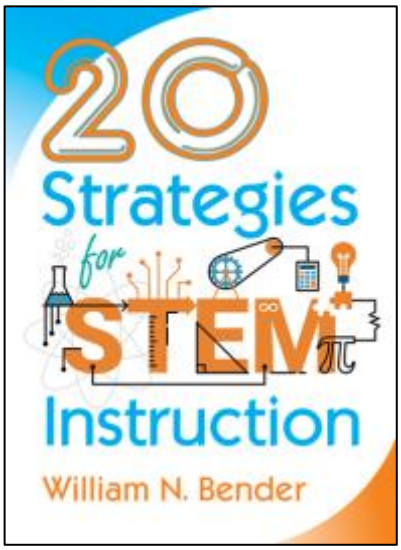

Summary

Teachers of all year levels are increasingly moving into STEM (Science, Technologies, Engineering and Mathematics) instruction, but time constraints and heavy workloads can make the transition difficult. In *20 Strategies for STEM Instruction*, author William N. Bender, PhD, provides customisable, step-by-step guidelines for various teaching strategies that have been shown to strengthen STEM instruction.

Exploring the latest STEM instructional trends and specific teaching techniques, Bender highlights research evidence throughout the book and offers practical advice to help teachers

- facilitate efficiency of study, making the most of instructional time
- integrate project-based learning with STEM instruction
- modify and adapt STEM strategies to meet the needs of each learner
- use engineering design principles to focus on real-world problems
- emphasise teamwork and collaboration around rigorous maths and science content.

Today's students need to be able to solve problems, make decisions and learn from failure. STEM instruction celebrates the fact that there can be more than just one correct answer to a question – and learning should be framed accordingly in any STEM classroom. This book guides teachers as they prepare students for the complex challenges they will undoubtedly face in higher education and the global workplace.

Other Resources

- *Exemplary STEM Programs: Designs for Success* (NST9112)
- *Exemplary Science for Building Interest in STEM Careers* (NST0591)
- *From STEM to STEAM: Using Brain-Compatible Strategies to Integrate the Arts* (CO8320)
- *Everyday Engineering: Putting the E in STEM Teaching and Learning* (NST0577)
- *Models and Approaches to STEM Professional Development* (NST0584)
- *STEM Student Research Handbook* (NST9334)