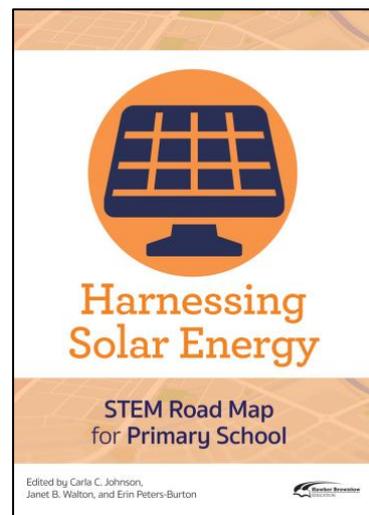


# Harnessing Solar Energy: STEM Road Map for Primary School

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## Summary

What if you could challenge your primary school students to use solar energy to provide the world with clean water? With this volume in the STEM Road Map Curriculum Series, you can!

*Harnessing Solar Energy* outlines a journey that will steer your students toward authentic problem-solving while grounding them in integrated STEM disciplines. The series is designed to meet the growing need to infuse real-world learning into F–12 classrooms.

This book is an interdisciplinary module that uses project- and problem-based learning to investigate energy and energy sources, with a focus on solar energy and water scarcity. Your students will do the following:

- Investigate potential and kinetic energy, solar energy, the greenhouse effect and salinity. Students will examine solar energy's potential and limitations while being introduced to the concepts of scarce resources and potable water.
- Make a social sciences connection by investigating water scarcity around the world. Teams will choose regions facing water scarcity and research the areas' geographies, climates and cultures.
- Use their understanding of solar energy, desalination and the engineering design process to design a passive solar desalination device in the Water for All Challenge. Teams will also create public service announcements about the need for their devices in the water-scarce countries they researched.
- Take part in a Water Conservation Expo to exhibit their understanding of solar energy, water scarcity and desalination worldwide.

The STEM Road Map Curriculum Series is anchored in the Next Generation Science Standards, the Common Core State Standards and the Framework for 21st Century Learning. In-depth and flexible, *Harnessing Solar Energy* can be used as a whole unit or in part to meet the needs of districts, schools and teachers who are charting a course toward an integrated STEM approach.

## Other Resources

- *Wind Energy: STEM Road Map for Primary School* (NST5978)
- *Transportation in the Future: STEM Road Map for Primary School* (NST5961)
- *Amusement Park of the Future: STEM Road Map for The Middle Years* (NST5923)
- *Construction Materials: STEM Road Map for the High School* (NST5938)