

## STEM Road Map Curriculum Series



The bestselling *STEM Road Map Curriculum* series is an in-depth, flexible resource that helps meet the growing need to infuse real-world learning into K–12 classrooms. Each of the 13 titles steers students toward authentic problem solving while grounding them in integrated STEM disciplines with an interdisciplinary module that uses project- and problem-based learning. Students will explore content, develop conceptual understanding of technology innovations, use inquiry activities in science, and apply this knowledge to a challenge working collaboratively.

8-1/2" x 11" | Price: \$24.95 (unless otherwise indicated)



### Amusement Park of the Future, Grade 6

Challenge 6th graders to work in teams to design an amusement park for children of tomorrow to safely enjoy, including creating blueprints and models, building and testing small-scale prototypes, and developing cost-benefit analyses.

ISBN: 9781681404837 | 114 pages | (Nov 2017)

### Car Crashes, Grade 12

Challenge 12th graders to understand car crashes in the context of physical forces, manufacturing challenges, government safety standards, and individual rights. Timely and informative for students just starting to drive.

ISBN: 9781681405469 | 158 pages | (September 2018)

### Construction Materials, Grade 11

Challenge 11th graders to explore feats of engineering required to build high-rise buildings. They will look at the complex technologies, science, and construction materials used in high-rise buildings in high-rise buildings.

ISBN: 9781681404714 | 115 pages | (Nov 2017)

### Harnessing Solar Energy, Grade 4

Challenge 4th graders to examine solar energy's potential and limitations while taking part in an Water Conservation Expo to exhibit their understanding of solar energy, water scarcity, and desalination worldwide.

ISBN: 9781681404028 | 208 pages | (Nov 2017)

### Improving Bridge Design, Grade 8

Challenge 8th graders to explore the state of infrastructure in their communities by constructing scale models of bridges using scale factor, linear equations, and models.

ISBN: 9781681404141 | 234 pages | (July 2018)

### Investigating Environmental Changes, Grade 2

Challenge 2nd graders to design an outdoor STEM classroom with a butterfly garden, birdbath, and sundial to make discoveries about a range of natural and human-created phenomena.

ISBN: 9781681405346 | 166 pages | (Feb 2019) | Price: \$29.95

### Packaging Design, Grade 6

Challenge 6th graders to explore how marketing, packaging, and communications connect. They will examine how to repurpose a product and market it to new customers through innovative containers.

ISBN: 9781681404523 | 180 pages | (July 2018)

### Patterns in the Plant World, Grade 1

Challenge first graders to relate changes in seasonal weather patterns to changes in the plant world using a container garden. They will create an observation notebook to record data about their garden and present it in graphic form.

ISBN: 9781681405070 | 219 pages | (Oct 2018)

### Radioactivity, Grade 11

Challenge 11th graders to figure out the best response to a partial meltdown at a nuclear reactor in a fictional town to help them understand the debate over the safety of using nuclear power.

ISBN: 97816814034745 | 145 pages | (May 2019) | Price: \$29.95

### Rainwater Analysis, Grade 5

Challenge 5th graders to design rainwater recycling and delivery systems to provide water for a community garden as they use your own school building and grounds as a design lab.

ISBN: 9781681404493 | 256 pages | (Aug 2019) | Price: \$29.95

### Swing Set Makeover, Grade 3

Challenge 3rd graders to design a swing set that's safe but still lots of fun with this four-lesson interdisciplinary module that uses project- and problem-based learning.

ISBN: 9781681404622 | 220 pages | (Sept 2018)

### Transportation in the Future, Grade 3

Challenge 3rd graders to design the train of the future by taking the Maglevacation Train Challenge, working collaboratively and using the engineering design process to create a prototype train to safely carry passengers and then present their train's design features.

ISBN: 9781681403991 | 187 pages | (Aug 2017)

### Wind Energy, Grade 5

Challenge 5th graders to develop an economical, eco-friendly wind farm. This volume outlines a journey that uses project- and problem-based learning to investigate the interactions of Earth's systems, including geography, weather, and wind.

ISBN: 9781681404462 | 220 pages | (Dec 2017)