



Quantitative Reasoning in the Context of Energy and Environment: Modeling Problems in the Real World (Paperback)

By Robert Mayes, James Myers

Sense Publishers, 2014. Paperback. Condition: New. Language: English . Brand New Book ***** Print on Demand *****. This book provides professional development leaders and teachers with a framework for integrating authentic real-world performance tasks into science, technology, engineering, and mathematics (STEM) classrooms. We incorporate elements of problem-based learning to engage students around grand challenges in energy and environment, place-based learning to motivate students by relating the problem to their community, and Understanding by Design to ensure that understanding key concepts in STEM is the outcome. Our framework has as a basic tenet interdisciplinary STEM approaches to studying real-world problems. We invited professional learning communities of science and mathematics teachers to bring multiple lenses to the study of these problems, including the sciences of biology, chemistry, earth systems and physics, technology through data collection tools and computational science modeling approaches, engineering design around how to collect data, and mathematics through quantitative reasoning. Our goal was to have teachers create opportunities for their students to engage in real-world problems impacting their place; problems that could be related to STEM grand challenges demonstrating the importance and utility of STEM. We want to broaden the participation of students in STEM, which both increases the...



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Reviews

This ebook is definitely not straightforward to start on looking at but really enjoyable to learn. It usually will not charge excessive. It is extremely difficult to leave it before concluding, once you begin to read the book.

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A brand new e book with a brand new standpoint. I have read through and that i am certain that i am going to gonna go through again once more in the future. Its been developed in an remarkably simple way in fact it is merely right after i finished reading through this book in which basically modified me, modify the way in my opinion.

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