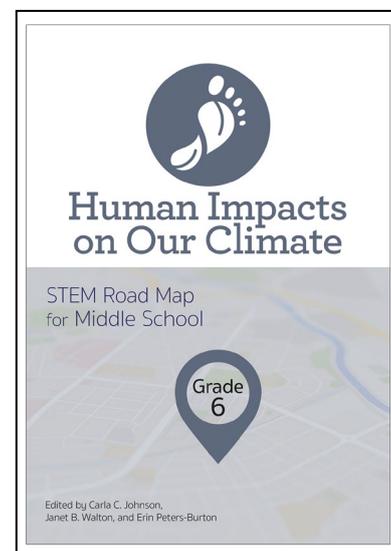


Human impacts on our climate

STEM road map for middle school, grade 6

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Topics	STEM Cross-curricular Teaching practice



Summary

What if you could challenge your sixth graders to come up with a way to help tackle climate change in their own community? With this volume in the *STEM road map curriculum series*, you can!

Human impacts on our climate outlines a journey that will steer your students toward authentic problem-solving while grounding them in integrated STEM disciplines. Like the other volumes in the series, this book is designed to meet the growing need to infuse real-world learning into F–12 classrooms.

This interdisciplinary, three-lesson module uses project- and problem-based learning to help students investigate aspects of climate change that have been driven by the rise in global temperatures over the past century. Working in teams, students will use an engineering design process to identify a local environmental problem, develop a model to help monitor and minimise its impact and create a presentation about their findings. To support this goal, students will do the following:

- explore differences between weather and climate and explore temperature as an indicator of global warming
- examine the role that greenhouse gases play in global warming temperature
- explain the causes and effects of climate change and how humans have influenced it
- use mathematical modelling and numerical data to explore climate change's impact
- analyse and synthesise credible resources to form scientific arguments regarding climate change
- develop a deeper understanding of how climate change influences the economy, our society and people everywhere.

The STEM road map curriculum series is anchored in the Next Generation Science Standards, the Common Core State Standards and the Framework for twenty-first century learning. In-depth and flexible, *Human impacts on our climate* 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

- *The changing earth: STEM road map for middle school, grade 8* (NST2120)
- *Amusement park of the future: STEM road map for the middle years* (NST5923)
- *Construction materials: STEM road map for high school* (NST5938)
- *Harnessing solar energy: STEM road map for primary school* (NST5954)
- *Transportation in the future: STEM road map for primary school* (NST5961)
- *Wind energy: STEM road map for primary school* (NST5978)