

1. Record Nr.	UNINA9910835061503321
Autore	Pontius Jennifer
Titolo	Environmental Problem Solving in an Age of Climate Change : Volume One: Basic Tools and Techniques // by Jennifer Pontius, Alan McIntosh
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2024
ISBN	3-031-48762-1
Edizione	[1st ed. 2024.]
Descrizione fisica	1 online resource (188 pages)
Collana	Springer Textbooks in Earth Sciences, Geography and Environment, , 2510-1315
Altri autori (Persone)	McIntoshAlan
Disciplina	333.7
Soggetti	Ecology Sustainability Biodiversity Climatology Biotic communities Environmental Sciences Climate Sciences Ecosystems
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Chapter 1-Foreword -- Chapter 2-Biodiversity -- Chapter 3-Oceans -- Chapter 4-Human population -- Chapter 5-Agriculture / soils -- Chapter 6-Biogeochemical cycles / water quality -- Chapter 7-Air pollution / environmental health -- Chapter 8-Terrestrial ecosystems -- Chapter 9-Waste management / sustainability -- Chapter 10-Energy / environmental policy -- Chapter 11-Urbanization / land use change / resource management -- Chapter 12-Epilogue.
Sommario/riassunto	This textbook provides an opportunity for undergraduate students studying the environment to work on addressing real-world environmental problems and practice the disciplinary and professional skills necessary to tackle complex issues. Each of the 12 units that comprise the heart of this workbook-style text focus on a specific environmental challenge directly or indirectly tied to climate change. Students are guided through activities that require them to review

relevant environmental content knowledge, practice an array of learning outcome-based skills, evaluate potential solutions, and advocate for action. An important feature of the book is its problem-based approach, using climate change as a common lens through which to view an array of current environmental challenges. Showing students how they might apply their core knowledge and disciplinary skills to identify possible solutions demonstrates the utility of science to inform decision making and builds student competency in learning outcomes common across environmental academic programs. Designed to provide problem-area options to match student interests (from sea turtle conservation to climate migrants to urban heat islands), instructors can choose among units to best engage students, or work through units sequentially to scaffold instruction while building student capacity. Each unit contains activities that focus on: (1) Discovery, where students are guided through exploration to build their knowledge of the issue and prepare a formal Problem Statement; (2) Analysis, where students dig into relevant data and begin to evaluate potential solutions; and (3) Solutions, where students practice their problem solving, decision making and environmental communication skills. Environmental Problem Solving in an Age of Climate Change underscores the pervasive nature of climate change as a common factor in all environmental issues. The book demonstrates how sustainable solutions require the efforts of many people working on smaller, more tangible issues to tackle the grand challenge that climate change presents. .
