

Journal of STEM Education: Innovations and Research

Volume 25, Issue 1, January-March 2024

Editorial Review Board	2
International Editorial Advisory Board	3
Editorial	4
Features	
Making the Case for Elementary Biomedical Education in Rural Communities Amanda Obery Matt Queen	5
How KEEN Encourages the Adoption of Educational Innovations Focused on Entrepreneurial Mindset into Engineering Classrooms Cayla Ritz Darby Riley Kaitlin Mallouk Cheryl A. Bodnar	13
Exploration of Critical Thinking Attributes in an Innovative Undergraduate STEM Program Kelly Gomez Johnson Nikolaus Stevenson Christine E. Cutucache Pamela Martínez Oquendo Claudia M. Rauter Paul W. Denton	26
Pursuing Retention and Success of Rural and Diverse STEM Students: A Qualitative Investigation of a Program Ecosystem and Undergraduate Participants Rebecca M. Jones Mary Emenike	37
Mathematics as a Common Language in Science: A Scholarship Program for Students in Science, Technology, Engineering and Mathematics at Mississippi State University Maggie E. L. Herring Anastasia D. Elder Seth F. Oppenheimer Donna M. Pierce Deb MIsna	47
Microscopic Technique as a STEM Initiative Promotes Environmental Stewardship at a Community Sailing Program Elena Garza Connor Quigley Anna Lena Leutiger Dana Norton Charles Zechel Gary C. du Moulin	55
Chemistry by Design: A 4-Week In-Person and Virtual Activity to Teach Chemistry Through Human-Centered Design Saadeddine Shehab David Bergandine	61
Instructions for Authors	69
Contribution Form	70



@JournalofSTEMEd



Journal of STEM Education

The Journal of STEM Education: Innovations and Research (ISSN 1557-5284) is published by The Institute for STEM Education and Research, 2240 Mt. Vernon Ln, Auburn, AL 36830. www.jstem.org
The Institute for STEM Education and Research is a non-profit entity. Periodicals postage rate paid at Auburn, AL and additional mailing offices.

CONTRIBUTIONS are greatly appreciated and are tax-exempt.

PERMISSION FOR USE: The copyright owner's consent does not extend to copying for general distribution, for promotion, for creating new works or for resale. Specific written permission must be obtained from the publisher for such copying.

Copyright © 2012 by The Institute for STEM Education and Research. It is a condition of publication that manuscripts submitted to this journal have not been published and will not be simultaneously submitted or published elsewhere. By submitting a manuscript, the authors agree that the copyright for their article is transferred to the publisher if and when the article is accepted for publication. The copyright covers the exclusive rights to reproduce and distribute the article, including reports, photographic reproductions, microfilm or any other reproduction of similar nature and translations. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, electrostatic, magnetic tape, photocopying, recording or otherwise, without permission in writing from the copyright holder.