

Preparation of Teachers of Science for Laboratory Safety

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Although numerous articles suggest that it is essential for teachers of science to provide students with opportunities to carry out scientific investigations, the potential for student injury is inherent within laboratory-based activities. Teachers of science often carry out scientific investigations in a laboratory, a classroom, or an outdoor setting and are expected to provide a learning environment that is as safe as possible for students. However, teachers of science may be held liable if they do not make their instructional spaces a safe place to learn. Many science educators that we know have often expressed that they only briefly learned about laboratory safety within their content courses, that they are concerned about having outdated or insufficient laboratory facilities, that students might not follow safety directions and harm themselves or others, or that it is challenging to facilitate scientific investigations especially when students have questions requiring their attention. Additionally, school administrators and supervisors often make the assumption that the science teachers that they hire are properly trained in the specialty they are to teach and possess sufficient knowledge to meet their duty of care. Just take a moment right now to reflect upon when you first started to teach laboratory-based activities and think about the following questions: How were you prepared for ensuring laboratory safety in your instructional spaces? Were you adequately prepared to create and maintain a safe learning environment for your students?



To address concerns regarding laboratory safety, the position statements of organizations such as NSTA ([Liability of Science Educators for Laboratory Safety](#)), NSELA ([Safety Position Statement](#)), and the Council of State Science Supervisors ([Science Safety: Making the Connection](#)) provide teachers of science with recommendations for providing and maintaining a learning and working environment for students and staff that is as safe as possible. These organizations suggest that science educators should adhere to better professional practices and legal safety standards, and be proactive in ensuring that school and district leaders know and are adhering to safety expectations. However, the position statements of these organizations further provide declarations that urge science education leaders to help prepare teachers of science to meet their legal duty of care owed to students.

In light of these declarations, the *Innovations in Science Teacher Education* journal is continuously in need of fresh new perspectives on how we can better prepare teachers of science for laboratory safety. The *Innovations* journal provides a place for science teacher educators to share detailed descriptions of how their laboratory safety preparation programs or professional development programming is conducted. Laboratory safety is essential for science teacher educators and classroom teachers, as both attempt to improve science teaching and student learning through laboratory-based activities. Thus, we encourage science teacher educators, scientists, science coordinators and supervisors, school administrators and superintendents, and informal science educators who prepare and provide professional development for teachers of science at all grade levels, especially at the elementary level, to share their innovative ideas with our international science education community through the *Innovations* journal.



Innovations is the official peer-reviewed online practitioner journal of the ASTE that serves as a forum for disseminating effective instructional practices that are innovative and inspirational. So, take some time right now to reflect back on the innovative aspects of your laboratory safety programs for science educators. Do you have an innovative idea to share with your colleagues? Consider sharing your ideas and lessons learned with colleagues by submitting a manuscript describing your outstanding work with preservice and inservice science teachers!



Also, be sure to check out our website to learn more about publishing in *Innovations in Science Teacher Education* by using the following link: <https://innovations.theaste.org>. Please be sure to review the instructions for authors section prior to submitting to ensure that

your manuscript adheres to format guidelines and addresses each criterion. We look forward to receiving your manuscripts and want to thank everyone who is, and will be, participating in the submission and review of manuscripts. We hope that you have an amazing summer!