Science&Children

Upcoming Theme

Does the following theme not fit your idea? Don't let that stop you from writing! We always make room for good manuscripts on any elementary science topic.

Issue: JULY/AUGUST 2025

Theme: Exploring Real-World Problems in Science

Deadline: October 1, 2024

Whether you are tackling a problem recently in the news, such as responding to natural disasters like hurricanes or fires, or finding solutions to everyday issues like a leaky classroom fish tank or school lunch tray problems, children can be meaningfully engaged in making choices and finding solutions. Solving real-world problems can benefit and empower children as they develop critical thinking and problem-solving skills.

Traditional teaching often involves scripted and sequential learning, but solving real-world problems requires a different approach. The steps and procedures follow their own pathways to the solution, which can be disconcerting for teachers who may be uncomfortable with the uncertainty of where the learning might lead or if they will be able to answer student questions. This shift demands a mindset change. Both teachers and students will actively engage in problem-solving, evaluating alternatives, and considering limitations. Moreover, students will learn firsthand the importance of collaboration and communication, and they must think creatively and push past failures. All these experiences contribute to building resilient, self-directed learners.

In this issue of *Science and Children*, we explore how students can be engaged in solving real-world problems. Article suggestions for this issue include, but are not limited to the following:

- Audience
- PreK-5 teachers
- University faculty
- State and district supervisors and leaders

Schedule

Six times a year

Formats

Print and e-journal

About the Journal

Science and Children is an awardwinning, peer-reviewed, practitioners' journal. Subscribers are members of the National Science Teaching Association who select it as their preferred journal. We hope you will consider writing a manuscript for Science and Children to interest our readers and enhance preschool and elementary science teaching. NSTA offers no remuneration for published articles.

Questions?

Contact managing editor Valynda Mayes at <u>vmayes@nsta.org</u>.

- Share your experiences and strategies for introducing real-world problems to elementary students, particularly those without a clear, straightforward solution. Describe how these activities have captured student interest and set them on a potential path toward increasing STEM interest.
- Discuss methods for teaching skills related to problem-solving that can be applied in various settings. Highlight techniques for demonstrating how students are encouraged to share their thought processes, fostering a culture that acknowledges and celebrates failure and develops a positive mindset in students.
- Provide examples of how you identified issues within the school or local community that resonate with students. Explain how you have grounded projects in student ideas to give them voice and choice, making the learning experience more meaningful for all students.
- Illustrate how you have provided opportunities for students to demonstrate their understanding of science through engineering practices as outlined by the *NGSS* and the *Framework*. Include examples of projects where students developed solutions to problems, specified criteria, and constraints, and optimized their solutions through testing and refinement.
- Share projects that integrate real-world problem-solving across different subject areas, a powerful approach that can inspire and motivate both educators and students. Discuss the impact of these projects on student growth in STEM, critical thinking, and compassionate thinking skills.

Enhance preschool and elementary science teaching with your experience. Submit a Proposal



